

**Online Supporting Information A.** The benchmark dataset contains 5,792 proteins classified into 3 main families according to the quaternary structural types. Both the accession numbers and sequences are given. None of the proteins included has  $\geq 60\%$  pairwise sequence identity to any other in the same subset. See the text of the paper for further explanation.

---

(1) 1,205 monomer

>P04395

MYTLNWQPPYDWSWMLGFLAARAVSSVETVADSYARSLAVGEYRGVVTAIPDIARHTLH  
INLSAGLEPVAAECLAKMSRLFDLQCNPQIVNGALGRLGAARPGLRRLPGCVDAFEQGVRA  
ILGQLVSVAMAAKLTARVAQLYGERLDDFPEYICFPPTPQLAAADPQALKALGMPLKRAE  
ALIHLANAALLEGTLPM TIPGDVEQAMKTLQTFPGIGRWTANYFALRGWQAKDVFLPDDYL  
IKQRFPGMTPAQIRRYAERWKPWRSYALLHIWYTEGWQPDEA

>Q40577

MASAAVANYEEEEIVRPVADFSPSLWGDQFLSFSIDNQVAEKYAKEIEALKEQTRNMLLAT  
GMKLADTLNLI DTIERLGISYHFEKEIDDILDQIYNQNSNCNDLCT SALQFRLLRQHGFN  
ISPEIFSKFQDENGKFKESLASDVLGLLNLYEASHVRTHADDILEDALAFSTIHLESAAP  
HLKSPLREQVTHALEQCLHKGVPRVETRFFISSIYDKEQSKNNVLLRFKLDNFLLQMLH  
KQELAQVSRWKKDLDFVTTLPYARDRVVECYFWALGVYFEPQYSQARVMLVKTI SMISIV  
DDTFDAYGTVKELEAYTDAIQRWDINEIDRLPDYMKISYKAILDLYKDYEKELSSAGRSH  
IVCHAIERMKEVVRNYNVESTWFI EGYTPPVSEYLSNALATTTYYYLATTSYLGMSATE  
QDFEWLSKNPKILEASV IICRVIDDTATYEVEKSRGQIATGIECCMRDYGISTKEAMAKF  
QNMAETAWKDINEGLLRPTPVSTEF LTPILNLARIVEV TYIHNLDGYTHPEKVLKPHI IN  
LLVDSIKI

>Q9H0P0

MRAPSM DRAAVARVGAVASASVCALVAGVVLAQYIFTLKRKTGRKTKI IEMMPEFQKSSV  
RIKNPTRVEEIIICGLIKGGAAKLQIITDFDMT LSRFSYKGRCP TCHNIIDNCKLVTDEC  
RKKLLQLKEKYAIEVDPVLTVEEKYPYMWVWYTKSHGLLVQQALPKAKLKEI VAESDVM  
LKEGYENFFDKLQQHSIPVFI FSAGIGDVLEEVI RQAGVYHPNVKVVSNFMDFDETGVLK  
GFKGELIHFVNKHDGALRNTEYFNQLKDNSNI ILLGDSQGD LRMADGVANVEHILKIGYL  
NDRVDELLEKYMDSYDIVLVQDESLEVANSILQKIL

>P26690

MAAAIEIPTIVFPNSSAQQRMPVVMGMSAPDFTCKKDTKEAIEAVKQGYRHFDTAAAYG  
SEQALGEALKEAIIHLGLVSRQDLFVT SKLWVTENHPHLVLPALRKSLKTLQLEYLDLYLI  
HWPLSSQPGKFSFPIEVEDLLPFDVKGVWESMEECQKLG LTKAIGVSNFSVKKLQNL LSV  
ATIRPVVDQVEMNLAWQQKLRREFCKENGIIVTAFSPLRKGASRGPNEVMENDVLKEIAE  
AHGKSIAQVSLRWLYEQGVTFVPKSYDKERMNQLHIFDWALTEQDHHKISQISQSRLIS  
GPTKPQLADLWDDQI

>P14046

MKKDREAQLCLFSALLAFLPFASLLNGNSKYMVLVPSQLYTETPEKICLHLYHLNETVTV  
TASLISQRGTRKLFDELVDKDLFHCVSFTIPRLPSSEEEESLDINIEGAKHKFSERRVV  
LVKNKESVVFVQTDKPMYKPGQSVKFRVVSMDKNLHPLNELFPLAYIEDPKMNRIMQWQD  
VKTENGLKQLSFSLSAEP IQGPYKIVILKQSGVKEEHSFTVMEFVLPFRFGVDVKVPNAIS  
VYDEIINVTACATYTYGKVPVPHVKISLCHGNPTFSSETKSGCKEEDSRLDNNGCSTQEV  
NITEFQLKENYLMKHQAFHVNATVTEEGTGSEFSGSGRIEVERTRNKFLFLKADSHFRHG  
IPFFVKVRLVDIKGDP IPNEQVLIKARDAGYTNATTTDQHGLAKFSIDTNGISDYSLNLIK

VYHKEESSCIHSSCTAERHAEAHHTAYAVVYSLKSYIYLDTEAGVLPNCQIHTVQAHF I L  
KGQVLGVLQQIVFHYLVMAQGSILQGTGNHHTQVEPGESQVQGNFALEIPVEFSMVPVAKM  
LIYITILPDGEVIADSVKQVEKCLRNVHLSFSPSQSLPASQTHMRVTASQSLCGLRAV  
DQSVLLQKPEAELSPSLIYDLPGMQDSNFIASSNDPFEDEDYCLMYQPIAREKDVYRYVR  
ETGLMAFTNLKIKLPTYCNTDYDMVPLAVPAVALDSSTDRGMYESLPVVAVKSPLPQEP  
RKDPPPDPVIEIRNYFPETWIWDLVTVNSSGVTELEMTVPDITTEWKAGALCLSNDTG  
LGLSSVASFQAFQPPFFVELTMPYSVIRGEAFTLKATVNLNYLPTSLPMAVLLLEASPDFTAV  
PVENNQDSYCLGANGRHTSSWLVTPKSLGNVNFVSAEARQSPGPGSEVATVPETGRKD  
TVVKVLIVEPEGIKKEHTFSSLLCASDAELSETLSLLLPPTVVKDSARAHFSVMGDILSS  
AIKNTQNLIQMPYGCGEQNMVLFAPNIYVLKYLNETQQLTEKIKSKALGYLRAGYQRELN  
YKHKDGSYSAFGDHNGQGQNTWLTAFVLKSFQAQARAFIFIDESHITDAFTWLSKQQKDS  
GCFRSSGSLNNAMKGGVDEITLSAYITMALLESSLPDTDPVVS KALSCLESSWENIEQ  
GGNGSFVYTKALMAYAFALAGNQEKREILKSLDKEAIKEDNSIHWERPQKPTKSEGYLY  
TPQASSAEVEMSAYVVLARLTAQPAPSPEDLALSMGTIKWLTQQNSYGGFSSTQDTVVA  
LDALSKYGAATFSKSQKTPSVTVQSSGSFSQKFQVDKSNRLLLQQVSLPYIPGNYTVSVS  
GEGCVYAQTTLRYNVPLEKQQPAFALKVQTVPLTCNNPKGQNSFQISLEISYMGSRPASN  
MVIADV KMLSGFIPLKPTVKKLERLGHVSRTEVT'TNNVLLYLDQVTNQTLSFSFI IQQDI  
PVKNLQPAIVKVYDYETDEVAFAEYSSPCSSDDQNV

>Q00985

MATFPVVDLSLVNGEERAATLEKINDACENWGFFELVNHGMSTELLDTVEKMTKDHYKKT  
MEQRFKEMVAAKGLDDVQSEIHDLDWESTFFLRHLPSNISEIPDLEEEYRKTMKEFAVE  
LEKLAELKLLDLLCENLGLKGYLKKVYFGSKGPNF'GTKVSNYPPCPKPDLIKGLRAHSDA  
GGIILLFQDDKVSGLQLLKDGEWVDVPPMHHSIVINLGDQIEVITNGKYKSVMHRVIAQS  
DGTRMSIASFYNPNGDSFISPAFAVLEKKTEDAPTYPKFVFDYMKLYSGLKFQAKEPRF  
EAMKAKESTPVATA

>P25516

MSSTLREASKDTLQAKDKTYHYYSPLAAKSLGDI'IRLPKSLKVLLENLLRWQDGNVTE  
EDIHALAGWLKNAHADREIAYRPARVLMQDFTGVPVAVDLAAMREAVKRLGGDTAKVNPL  
SPVDLVIDHSVTVDRFGDDEAFEENVRLMERNHERYVFLKWGKQAFSRFSVPPGTGIC  
HQVNLEYLGKAVWSELQDGEWIAYPDTLVGTD'SHTT'MINGL'GVL'GWVGGIEAEAAMLGQ  
PVSMLIPDVVGFKL'TGKLREGITATDLVLT'VTQMLRKHGVV'GK'FVEFYGDGLDSLPLADR  
ATIANMSPEYGATCGFFPIDAVTLDYMRLSGRSE'QVELVEKYAKAQGMWRNPGDEPI'FT  
STLELDMNDVEASLAGPKRPQDRVALPDVPKAF'AAASNELEVNATHKDRQ'PVDYVMNGHQY  
QLPDGAVVIAAIT'SCTNT'SNPSVLMAAGLLAKKAVT'LGLKRQP'WVKASLAPGSKV'VSDYL  
AKAKLTPYLDELGFNLVGYGCTT'CI'GNSG'PLPDP'IE'TAIKKSDL'TVGAVLSGNRN'FEGRI  
HPLVKTNWLASPPLV'VAYALAGNMNINLASEP'IGHDRK'GDPVYLKDIWPSAQE'IA'RAVEQ  
VSTEMFRKEYAEVFEGTA'EWKGINVTRSDTYGWQEDSTY'IRLS'PFF'DEMQATP'APVEDIH  
GARILAMLGDSVTT'DHISPAGSIKPDSPAGRYLQGRG'VEKDFNSYGSRRGNHEVMMRGT  
FANIRIRNEMVPGVEGGMTRHLPDS'DVVS'IYDAAMRYKQEQT'PLAVIAGKEYGSGSSRDW  
AAKGPRLLGIRVVIAESFERIHR'SNLI'GMGILPLEFPQGVTRKTLGLT'GEEKIDIGDLQ'N  
LQPGATVPVTLTRADGSQEVVPCRCRIDTATELTY'YQNDGILHYVIRNMLK

>P36683

MLEEYRKHVAERAAEGIAPKPLDANQMAALVELLKNPPAGEEEFLLDLLTNRVPPGVDEA  
AYVKAGFLAAIAKGEAKSPLLTPEKAI'ELLGTMQGGYNIHPLIDALDDAKLAP'IAAKALS  
HTLLMFDNFYDVEEKAKAGNEYAKQVMQSWADA'EWFLNRPALAEKLT'VTVFKVTGETNTD  
DLSPAPDAWSRPDIPLHALAMLKNAREGIEPDQPGV'VGP'IKQIEALQQKGF'PLAYVGDVV  
GTGSSRKSATNSVLWFMGDDIPHPV'PNKRGGGLCLGGK'IAPIFFNTMEDAGALPIEVDVSN

LNMGDVIDVYPYKGEVRNHETGELLATFELKTDVLIIDEVRAGGR I PLI IGRGLTTKAREA  
LGLPHSDVFRQAKDVAESDRGFSLAQKMVGRACGVKIRPGAYCEPKMTSVGSQD TTGPM  
TRDELKDLACLGF SADLVMQSFCHTAAYPKPV DVNTHHTLPDFIMNRGGVSLRPGDGV I H  
SWLNRMLLPDTVGTGGDSHTRFP I G I S F P A G S G L V A F A A A T G V M P L D M P E S V L V R F K G K M  
QPGITLRLDLVHAIPLYAIKQGLLTVKKGKKNIFSGRILEIEGLPDLKVEQAFELTDASA  
ERSAAGCTIKLNKEPIIEYLNSNIVLLKWMIAEGYGDRRTLERRIQGMEKWLANPELLEA  
DADAEYAAVIDIDLADIKEPILCAPNDPDDARPLSAVQGEKIDEVFIGSCMTNIGHFRAA  
GKLLDAHKQLPTRLWVAPPTRMDAAQLTEEGYYSVFGKSGARIEIPGCSLCMGNQARVA  
DGATVVSTSTRNFNRLGTGANVFLASAEALAAVAALIGKLP TPEEYQTYVAQVDKTAVDT  
YRYLNFNQLSQYTEKADGVI FQTAV

>P09339

MANEQKTAAKDV FQARKTFTTNGKTYHYYSLKALEDSGIGKVS KLPYSIKVLLESVLRQV  
DGFVIKKEHVENLAKWGTAELKDIDVPFKPSRVILQDFTGVPVAVDLASLRKAMAAVGGD  
PDKINPEIPVDLVIDHSVQVDKAGTEDALAVNMDLEFERNAERYKFLSWAKKAFNNYQAV  
PPATGIVHQVNLEFLASVVHAI EEDGELVTYPDTLVGTD SHTTMINGIGVLGWGVGGIEA  
EAGMLGQPSYFPVPEVIGAKLVGKLPNGTTATDLALKVTQVLRKGVVGFVEFFGPGIA  
ELPLADRATI ANMAPEYGATCGFFPVDEEALNYLR LRTGRDPEHIDVVEAYCRSNGLFYTP  
DAEDPQFTDVVEIDLSQIEANLSGPKRPQDLIPLSAMQETFKKQLVSPAGNQGFGLNAEE  
ENKEIKFKLLNGEETVMKTGAIAIAAITSCTNTSNPYVLI GAGLVAKKAVELGLKVPNYV  
KTS LAPGSKVVTGYLVNSGLLPYMKELGFNLVGYGCTTCIGNSGPLSPEIEEAVAKNDLL  
ITSVLSGNRNFEGRIHPLVKGNYLASPPLVVAYALAGTVNINLK TDP IGVGKDGQNVYFN  
DIWPSMDEINALVKQTVTPELFRKEYETVFDDNKRWNEIETTDEALYKWDNDSTYIQNPP  
FFEEMSVEPGKVEPLKGLRVVGKFGDSVTTDHI SPAGAI GKDT PAKKYLQEKGVSPRDFN  
SYGSRGNHEVMRGT FANIRIKNQIAPGTEGGFTTYWPTGEVTSIYDACMKYKEDKTGL  
VVLAKDYGMGSSRDWAAGTNNLLGIRTVIAESFERIHRSNLVFMGVLP LQFKQGENADT  
LGLTGKEVIEVDVDETVRPRDLVTVRAINEDGNVTTFEAVVRFDSEVEIDYRHHGGILQM  
VLREKMKQS

>P16276

MAPYSLLVTRLQKALGVRQYHVASVLCQRAKVAMSHFEPHEYIRYDLLEKNIDIVRKR LN  
RPLTLSEKIVYGHLLDDPANQEIERGKTYLRLRPDRVAMQDATAQMAMLQF ISSGLPKVAV  
PSTIHCDHLIEAQLGGEKDLRRAKDINQEVYNFLATAGAKYGVGFWRPGSGI IHQI ILEN  
YAYPGVLLIGTDSHTPNGGLGGICIGVGGADAVDMAGIPWELKCPKVIGVKLTGSLSG  
WTSPKDVILKVAGILTVKGGTGAI VEYHGPVDSISCTGMATICNMGAEIGATTSVFPYN  
HRMKKYL SKTGRADIANLADEFKDHLVPDPGCHYDQVIEINLSELKPHINGPFTPDLAHP  
VAEVGSVAEKEGWPLDIRVGLIGSCTNSSYEDMGRSAAVAKQALAHGLKCKSQFTITPGS  
EQIRATIERDGYAQLRVDVGGIVLANACGPCIGQWDRKDIKKGEKNTIVTSYNRNFTGRN  
DANPETHAFVTSPEIVTALAIAGTLKFNPE TDFLTGKDGKFKLEAPDADEL PRAEFDPG  
QDTYQHPPKDSGQRVDVSP TSQRLLLEPFDKWDGKDLEDLQILIKVKGKCTTDHISAA  
GPWLKFRGHLDNISNNLLIGAINIENRKANSVRNAV TQEFGPV PDTARYYKQHGIRWVVI  
GDENYGE GSSREHRALEPRHLGGRAIITKSFAR IHE TNLKKQGLLPLTFADPADYNKIHP  
VDKLTIQGLKDFAPGKPLKCI IKHPNGTQETILLNHTFNETQIEWFRAGSALNRMKELQQ  
K

>Q9QYR9

MVASSFAVLRASRLCQQDWKSWARLFVPPPLSTGGRTTWARTNATLSVEPEGRSCWDEPL  
SIAVRGLAPEQPVTLSALRDEK GALFRAHARYRADAGGELNLARAPALGGSFSGLEPMG  
LLWAMEPERPLWRLIKRDVQTPFLVELEVL DGHDPDGGQRLAHAVHERHFLAPGVRVPV  
REGRVRATLFLPPEPGPFPGIIDLFGVGGGLLE YRASLLAGKGFV MALAYNYDDLPKS

IETMHMEYFEEAVNYLRSHPEVKGPGIGLLGISKGGELGLAMASFLKGITAAVVINGSVA  
AVGNTISYKDETI PPVSLVRNQVKMTKDGLLDVVEALQSPLVDKKSFI PVERSDTTF LFL  
VGQDDHNWKSEFYADEISKRLQAHGKEKPQI ICYPAAGHYIEPPYFPLCSAGMHLLVGAN  
ITFGGEPRAHAVAQVDAWQQLQTFHKLQSGSKS

>Q68CK6

MHWLRKVQGLCTLWGTQMSRRTLYINSRQLVLSLQWGHQEVPAKFN FASDVLDHWADMEKA  
GKRLPSPALWVWNGKGMWNFRELSSENSQQAANVLSGACGLQRGDRVAVMLPRVPEWW  
LVILGCIRAGLI FMPGTIQMKSTDILYRLQMSKAKAIVAGDEVIQEVDTVASECPSLRIK  
LLVSEKSCDGLNFKKLLNEASTTHHCVETGSQEASAIYFTSGTSGLPKMAEHSYSSLGL  
KAKMDAGWTGLQASDIMWTISDTGWILNILGSLLESWTLGACTFVHLLPKFDPLVILKTL  
SSYPIKSMGAPIVYRMLLQQDLSSYKFPHLQONCLAGGESLLPETLENWRAQTGLDIREF  
YGQTETGLTCMVSKTMKIKPGYMGTAASCYDVQV IDDKGNVLPPEGTEGDIGIRVKPIRPI  
GIFSGYVENPDKTAANIRGDFWLLGDRGIKDEEDGYFQFMGRADDI INSSGYRIGPSEVEN  
ALMKHPAVVETAVISSPDPVRGEVVKAFVILASQFLSHDPEQLTKELQQHVKSVTAPYKY  
PRKIEFVLNLPKTVTGTGIQRTKLRDKKWKMSGKARAQ

>Q8ZKF6

MSQTHKHAIPANIADRCLINPEQYETKYKQS INDPDTFWGEGKILDWITPYQVKNTSF  
APGNVSIKQYEDGTLNLAANCLDRHLQENGDRTAI I WEGDDTSQSKHISYRELHRDVCRF  
ANTLLDLGIKKGDVVAIYMPMVPEAAVAMLACARIGAVHSVIFGGFSPEAVAGRI IDSSS  
RLVITADEGVRAGRSIPLKKNVDDALKNPVNTSVEHVIVLKRGTSDIDWQEGRDLWWRDL  
IEKASPEHQPEAMNAEDPLF ILYTSGSTGKPKGVLHHTGGYLVAATTFKYVFDYHPGDI  
YWCTADVGVWVTGHSYLLYGPLACGATTLMFEGVPNWP TPARMCQVVDKHQVNI LYTAPTA  
IRALMAEGDKAIEGTDRSSLRILGSVGEPI NPEAWEWYWKIGKEKCPVVDTWWTETGG  
FMITPLPGAIELKAGSATRPF FGVQPALVDNEGHPQEGATEGNLVIDTSWPGQARTLFGD  
HERFEQTYFSTFKNMYFSGDGARRDEDGYYWITGRVDDVLNVS GHRLGTAEIESALVAHP  
KIAEAAVVGIPHAIKGQAIYAYVTLNHGEEP SPELYAEVRNWRKEIGPLATPDVLHWT  
SLPKTRSGKIMRRI LRKIAAGDTSNLGDTSTLADPGVVEKLLLEEKQAIAMPS

>Q9BEA2

MQRLMKFRVLWGIHMSCPGFHHAPQHLCRSLSGAGTLRWNDYDRPEEFNFASDVLDHWT  
QMEKEGKRSPNPALWVWVNDQGDVWKS FREMTDLTCRTANVLTQT CGLQTGDRLLALILPR  
VPEWWLVCVGCIRTGI IFMPGTTQMKAKDILYRLQVSGAKAIVTDTLAPEVESVAPECP  
SLKTKLLVSDHSREGWLDFRSLVKSASPDHICIKSKTLDPMAIFFTS GTTGFPKMAKHS  
GFALRSYFPACRKLQLKMSDVFWCLSDTGWILAALGSLLEPWTAGSTVFAHHL PQFDPK  
VIIETFFKYPITQCLAAPSVYRMILQQNYTSLRFP TLEHCCTGGEALLPEEQEQWKRQTG  
VLLYQAYGQSETGISCGTLRGMKIKPGSMGKAIPFDI QI IDDKGNIQPPNTEGNIGIRI  
KPTRPIGLFMYENNEPKTAEVECGDFYNTGDRATIDE EGYFWFLGRSDDVINASGYRVG  
PAEVENALAEHPAVAESAVVSSPDPVRGEVVKAFIVLNPEFSSRDPGELTKELQQHVKS  
TAPYKYPRKVEFVSELPKTITGKIKRSELRKKEFGQK

>P24005

MAETKVAPNLTGIEQTKAGQS FTEKLSAEAMEFFCNVAKLPFSQQAVHFLNAYWAEVSKE  
AEFIYSVGWETIKYADMHCKGIQLVFKYDEGNDLDFDIALYFYEQ LCKFCEDPKNKNYAT  
TYPISQPQMLTALKRQELREKVDVNF DGRVSFLEYLLYQYKDFANPADFC TRSMNHDEH  
PEIKKARLALAEVNRIRAYEEEEKARL TEESKIPGVKGLGATNMLAQ IDSGPLKEQLNFA  
LISAEAAVRTASKKYGGAAYSGGAGDAGAGSSAGAIWWMNRDLEEKKKRYGPQKK

>P61914

MSRLIIVFIVVTMICSATALPSKKIIDEDEEDEKRSADVAGAVIDGASLSFDILKTVLEA  
LGNVVKRKIAVGVNDNESGKTWTALNTYFRSGTSDIVLPHKVPHGKALLYNGQKDRGPVATG  
AVGVLAYLMSDGNLTLAVLFSVPYDYNWYSNWNVRIYKGRRADQRMYEELYYNLSPFRG  
DNGWHTRNLGYGLKSRGFMNSSGHAILEIHVSKA

>Q9R160

MVAMSEALVHARITLLQAWLRMLLFSSVWPPTWCAEYKGPPE TVKPLRVIVSSKDMSLAG  
WMSYSLYFGGQRHIIISMKSKNFLES RQLPVFTYNDQGVLFEDRPFVQND CYYLGFVDGDL  
ESMAALTTFCGGFQGILQINDTAYEIKPKSPSSTFEHLLYKLDSEKTQLRPMRCGLTDEE  
IEGQVRLQENKSTRMQSIYGSWWSHGLYIKLALVIDHEQYLYRKKNTSLVIRDVLSIMQ  
GINLFLLSVDINVVLLGLTIWTNGNPIPVDIYALLPAFCTWKGTNLD SQIPYDIAHLFV  
NYTFSNYFGIAYVGTVC DKTFGCGIDSIAEDDFLTIGHIVAHEIGHNLGMSHDGILCTCG  
EESCLMSATMDSSQKLSNCSYEV LWAHMINKSCIHREPRPSDIFQLKVCNGGIVEEGEQC  
DCGSSENCRRNRCCMP SCTLRSKAKCDTGLCCNHKCQIQPSGTLCRARENECDLPEWCNG  
TSHECPEDL FVQDGTSCPGDGYCYEKRCNSHDVHCQRVFGQLAMKASDSCYKELNTRGDR  
FGNCGFINNEYVRCEISDILCGRIQCDKVGTLPI LQNHYTIHWTHFNSVSCWSTDYHLGM  
KITDLGDIKDG TNCGPQHVCIDRKC VNKPSWVNDCTPETCNMKGVCNNKQHCHCDVGWSP  
PNCQETGTGGSIDSGSPGNEVYEDEVVSKKDAPEKPNVI IWLLPIICVAVVLSVLFCLSG  
ATKKSREAAASQPAGETVKPPYE GAEPSYETVKPPDEWANP

>P55263

MAAAEEEPKPKKLVKVEAPQALRENILFGMGNPLLDISAVVDKDFLDKYS LKPNQI LAED  
KHKELFDELVKKFKVEYHAGGSTQNSIKVAQWMIQQPHKAATFFGCIGIDKFGEILKRKA  
AEAHVDAHYYEQNEQPTGTCAACITGDNRS LIANLAAANCYKKEKHL DLEKNWMLVEKAR  
VCYIAGFFLTVSPESVLKVAHASENNRIFTLNL SAPFISQFYKESLMKVMPYVDILFGN  
ETEAAATFAREQGFETDKIKEIAKKTQALPKMNSKRQRIVIFTQGRDDTIMATESEVTAF A  
VLDQDQKEIIDTNGAGDAFVGGFLSQLVSDKPLTECIRAGHYAASIIIRRTGCTFPEKPD  
FH

>Q8VDL4

MALWRGSACAGFLALAVGCVFLLPELPGTALRSLWSSLR LGPAPVPVGP LSPESRLAAA  
WDALIAQPARRWRRVAVGVNACVDVVISGVKLLQALGLSPGSGKDHA I LHSRSDLEEAF L  
YFMGKGAAAERFFSDKETFH DIAQAASEFPGAQH YVGGNAALIGQRFAANTDLK VLLCGP  
IGPKLHELLDDNVFVPPE SLQEDEFHLILEYLAGEEWGPFKAPHANRFIFSHDLSNGAM  
NMLEVFVSSLEEFQPD LVVLSGLHMMEGQSKELQRKR LLEVVT AISDIPTGIPVHLELAS  
MTNRELMSIIVHQVFP AVASLGLNEQELLFLS QSASGPHSSLS SWDGVDPDGMVSDILF  
WILKEHGRSEN RASDLTRIHFH TLVYHILATVDGH WANQLAAVAAGARVAGTQACATETI  
DTNRVSLRAPQEFTTSHLESGRIVLNPDKPVVEWHREGITFHFTPV LVCKDPVRTVGLG  
DAISAEGLFYSEARPD

>P08165

MAPRCWRWWPSSWTRTRLPPSRSIQNFQGHFSTQEQT PQICVVGSGPAGFYTAQHLLKH  
HSRAHVDIYEKQLVPFGLVRFVGVAPDHPEVKNVINTFTQTARSDRCAFYGNVEVGRDVTV  
QELQDAYHAVVLSYGAEDHQALDIPGEELPGVFSARAFV GWYNGLPENRELAPDLSCDTA  
VILGQGNVALDVARILLTPPDHLEKTDITEAALGALRQSRVKTVWIVGRRGPLQVAFTIK  
ELREMIQLPGTRPMLDPADFLGLQDRIKEAARPRKRLMELLLRTATEKPGVEEAARRASA  
SRAWGLRFFRSPQQVLPSPDGRRAAGIRLAVTRLEGIGEATRAVPTGDVEDLPCGLVLSS  
IGYKSRPIDPSVPFDPKLGVPVNM EGRVVDVPGLYCSGWVKRGPTGVITTTMTDSFLTGQ  
ILLQDLKAGHLPSGPRPGSAFIKALLDSRGVWPVVSFSDWEKLDAAEVS RQGASGKPREKL  
LDPQEMLRLLGH

>Q90738

MEELIVELRFLFLELLDHEYLTSTVREKKAVITNILLRIQSSKGF EIKEHVQKPEVANS LP  
APPQMPLPEIPQQWLPPDNGPPPLPTSSSLPEGYYEEAVPVSPGKAPEYITSNYDSDAMSS  
SYESYDEEEEDGKGGKMRHQWPSEEASMDLVKDAKICAFLLRKKRFGQWTKLLCVIKENK  
LLCYKSSKDQQPQMELLLNDCSITYIPKDSKKKKHELKISHQGADALVLAVQSKEQAEQW  
LKVIKDVCSNCTGTVDSDGPLSSSPVHKTELEKKLSSSERPSSDGEGAVENGIITVCNGKE  
QVKRKKSSKTEAKGTVTKVTKGKITKIIGLGKKKPPSTDEQTS SAEEDVPTCGYLNVL SNN  
RWRERWCRVKDNKLIFHKDRDTLKTHTIVSIPLRGCEVIPGLDSKHPLTFRLLRNGQEVAV  
LEASSSEDMGRWIGMLLAETGSSTDPGALHYDYIDVEMTASVIQAAKQTF CFMNR RVIST  
NPYRGSTANGYACPSGMALHYDDVPCINGSFKGKKPPATANGITGKVRTLNSQP KKPESV  
SCVKRTASNAEQYKYGKNRVEAVAKRLQSKEEELLRKEALRNRLAQLRKERKDLRAAIE  
VNAGRKTQVILEDKLLKLEEECKTKEAERNLELELEL TEVKESLKKALAGGITLGLAIEPK  
SGTSSPQSPIFKHRTLENSP ISSCDTSDTECSIPVNSAAALKRPPSSNNSPCRGHVLRKA  
KEWEMKNGT

>O13716

MKLVLFLVLLFSALINLTNADKMVVAHFIVGNTYPYTVSNWEEDIQDAIAVGIDGFALNM  
GSDAWQVERIEDAYDAAASVSSDFKLFISFDM SII SADAD FIEGVVRRFADKPNQLYD G  
KV FVSTFAGETDTFGYSDVSTGWDSAVKEPLASAGYPIYFVPSWTS LGQGALEESVADGF  
LSWNAWPTTDADMNDNDDIGYQNLANS LGKLYVAPVSPWFYTHLSYKNWAYKSDWLIIDR  
WNEMLSVQPD MIEVLTWN DYGESHYIGNIQGALPAGSEGYVDGFDHTAWRYLMSPIYSAY  
KLGLSEPYINFESLFYWRPTPKSATATADSLSPSGGDYMEDEIFVLVYLLQSAEVTVT  
CGSTTQTFSGVPGVNQFTIPMETNASPSFTVARQGGTLASGTGPEIVDSLSIYNFNAYTG  
VLYF

>Q12449

MVVNNPNNWHWVDKNCIGWAKEYFKQKLVGVEAGSVKDKKYAKIKSVSSIEGDCEVNQRK  
GKVISLFDLKITVLIIEGHVDSKDG SALPFEGSINVPEVA F DSEASSYQFDISIFKETSEL  
SEAKPLIRSELLPKLRQIFQQFGKDLLATHGNDIQVPESQVKS NYTRGNQKSSFTEIKDS  
ASKPKKNALPSSTST SAPVSSTNKVPQNGSGNSTSIYLEPTFNVPSS ELYETFLDKQRIL  
AWTRSAQFFNSGPKLETKEKFELFGGNVISELVSCEKDKKLVFHWKLDWSAPFNSTIEM  
TFHESQEFHETKLQVKWTGIPVGEEDRVANFEEYYVRSIKLTFGF GAVL

>P50578

MAASCVLLHTGQKMLIIGLGTWKSEPGQVKAAIKYALTVGYRHIDCAA IYGNELEIGEAL  
TETVGP GKAVPREELFVTSK LWN TKHHPEDVEPALRKT LADLQLEYLDLYLMHWPYAFER  
GDNPF PKNADGTIRYDATHYKDTWKALEALVAKGLVRALGLSNFSSRQID DVLSVASVRP  
AVLQVECHPYLAQNELIAHCQARGLEV TAYSPLGSSDRAW RDPNEPVLLEEPV VQALAEK  
YNRSPAQILLRWVQVRKVICIPKSVTPSRIPQNIQVDFDFTFSPEEMKQLDALNKNLRFIV  
PMLTVDGKRVPRDAGHPLYPFNDPY

>Q04828

MDSKYQCVKLN DGHFMPVLGFGTYAPAEV PKSKALEATKLAIEAGFRHIDSAHLYNNEEQ  
VGLAIRSKIADGSVKREDIFYTSK LWCNSHRPELV RPALERSLKNLQLDYVDLYLIHFVP  
SVKPGEEVIPKDENGKILFDTVDL CATWEAVEKCKDAGLAKSIGVSNFNRRQLEMILNKP  
GLKYKPV CNQVECHPYFNQRKLLDFCKSKDIVLVAYSALGSHREEPWVDPNSPV LLEDPV  
LCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEFQLTSEEMKAIDGLN  
RNVRYLTLDIFAGPPNYPF SDEY

>Q9UUN9

MAKIDNAVLPEGSLVLTGANGFVASHVVEQLLEHGKVRGTARSASKLANLQKRWDKY  
PGRFETAVVEDMLKQGAYDEVIKGAAGVAHIASVVSFSNKYDEVVTPAIGGTLNALRAAA  
ATPSVKRFVLTSSSTVSALIPKPNVEGIYLDEKSWNLESIDKAKTLPESDPQKSLWVYAAS  
KTEAELAAWKFM DENKPHFTLNAVLPNYTIGTIFDPETQSGSTSGWMSL FNGEVSPALA  
LMPPQYVSAVDIGLLHLGLVLPQIERRRVYGTAGTFDWNTVLATFRKLYPSKTFPADF  
PDQGQDL SKFDTAPSLEILKSLGRPGWRSIEESIKDLVGSETA

>P15121

MASRLLLNNGAKM P I L G L G T W K S P P G Q V T E A V K V A I D V G Y R H I D C A H V Y Q N E N E V G V A I Q  
EKLREQVVKREELFIVSKLWCTYHEKGLVKGACQKTLSDLKLDYLDLYLIHWPTGFKPGK  
EFFPLDESGNVVPSDTNILDWAAMEELVDEGLVKAIGISNFNHLQVEMILNKPLKYP  
AVNQIECHPYLTQEKLIQYCQSKGIVVTAYSPLGSPDRPWAKPEDPSLLEDPRIKAIAAK  
HNKTTAQVLIRFPMQRNLVVIPKSVTPERIAENFKVFD FELSSQDMTLLSYNRNWRVCA  
LLSCTSHKDYPFHEEF

>P27800

MVGTTTTLNTGASLELVGYGTWQAAPGEVGGQVKVAIETGYRHLDLAKVYSNQPEVGAAIK  
EAGVKREDLFITSKLWNNSHRPEQVEPALDDTLKELGLELDLYLIHWPVAFPPGEDITQ  
NLFPKANDKEVKLDLEVS LVD TWKAMVKLLDTGKVKAI GVS NFD AKMVD A I I EATGVTPS  
VNQIERHPLLLQPELIAHKKAKNIHITAYSPLGNNTVGAPLLVQHPEIKRIAENKNGCTPA  
QVLIAWAIVGGHSVIPKSVTPSRIGENFKQVSLSQEDVDAVSKLGE GSGRRRYNIPCTYS  
PKWDINVFGEEDKSKNAVKIK

>P26276

MSTAKAPTL PASIFRAYDIRGVVGD TLT AETAYWIGRAIGSESLARGEPCVAVGRDGRLS  
GPELVKQLIQGLVDCGCQVSDVGMVPTPVLYYAANVLEGKSGVMLTGSHNPPDYNGFKIV  
VAGETLANEQIQALRERIEKNDLASGVGSVEQVDILPRYFKQIRDDIAMAKPMKVVDCCG  
NGVAGVIAPQLIEALGCSVIPLYCEVDGNFPNHHDPGKPENLKDLIAKVAENADLGLA  
FDGDGDRVGVVNTGTIIYPDRLLMLFAKDVVSRNPGADIIFDVKCTRRLIALISGYGGR  
PVMWKTGHSLIKKKMKETGALLAGEMSGHVFFKERWFGFDDGIYSAARLLEILSQDQRDS  
EHVFSAFP SDISTPEINITVTEDESKFAIEALQRDAQWGE GNIT TLDGVRVDY PKGWGLV  
RASNTTPVLVLRFEADTEEELERIKTVFRNQLKAVDSSSLPVPF

>P80384

MMKFIALFALVAVASAGKMTFKDCGHGEVTELDITGCSGDTCVIHRGEKMTLEAKFAANQ  
DTAKVTIKVLAKVAGTTIQVPGLETDGCKFIKCPVKKGEALDFIYSGTIPAITPKVKADV  
TAEIIGDHGVMACGTVHGQVE

>P14925

MAGRARSGLLLLLLGLLALQSSCLAFRSPLSVFKRFKETT RSFSNECLGTIGPVTPLDAS  
DFALDIRMPGVTPKESDYFCMSMRLPVDEEAFVIDFKPRASMDTVHHMLLFGCNMPSST  
GSYWFCD EGTCTDKANILYAWARNAPPTRLPKGVGFRVGGETGSKYFVLQVHYGDISAFR  
DNHKDCSGVSVHLTRVPQPLIAGMYLMMSVDTVIPPGEKVVNADISCQYKMPMHVFAYR  
VHTHHLGKVVSGYRVRNGQWTLIGRQNPQLPQAFYFVEHPVDVTFGDILAARCVFTGEGR  
TEATHIGGTSSDEM CNLYIMYYMEAKYALS FMTCTKNVAPDMFR TIPAEANIPIPVKPDM  
VMMHGHHKEAENKEKSALMQQPKQGE EEEVLEQGD FYSLLSKLLGEREDVHVHKYNPTEKT  
ESGSDLVAEIANVVQKDLGRSDAREGAEHEEWGNAILVRDR IHRFHQLESTLRPAESRA  
FSFQQPGEGPWEPEPSGDFHVEEELDWPGVYLLPGQVSGVALDSKNNLVI FHRGDHVWDG  
NSFDSKFFVYQQRGLPIEEDTILVIDPNNAEILQSSGKNLFYLP HGLS IDTDGNYWVTDV

ALHQVFKLDPHSKEGPLLILGRSMQPGSDQNHFCQPTDVAVEPSTGAVFVSDGYCNSRIV  
QFSPSGKFVVTQWGEESGSSPRPGQFSVPHSLALVPHLDQLCVADRENGRIQCFKTDTKE  
FVREIKHASFGRNVFAISYIPGFLFAVNGKPYFGDQEPVQGFVMNFSSEI IDVFKPVRK  
HFDMPHDIVASEDGTVYIGDAHTNTVWKFTLTKEMEHRSVKAGIEVQEIKEAEAVVEPK  
VENKPTSSELQKMQEKQKLPSTPGSGVSVVLIITLLVLPVLLLAIVMFI RWKKSRAFGD  
HDRKLESSSRVLGRFRGKSGGLNLGNFFASRKGYSRKGFDREVSTEGSDQEKDEDDGTE  
SEEEYSAPLPKPAPSS

>Q41258

MVRVVSLLAASTFILLIMI ISSPYANSQNICPRVNRIVTPCVAYGLGRAPIAPCCRALND  
LRFVNTNRNLRAACRCLVGVVNRNPLRRNPRFQNI PRDCRNTFVRPFWRPRIQCGRIN  
LTDKLIYLDAAE

>O09175

MESSGPSSCHSAARRPLHSAQAVDVAASASSFRAFEILHLHLDLRAEFGPPGPGSGRGLN  
GKATLELRCLLPEGASELRDLSHSCLEVMAATLLRGQPGDQQQLTEPVPFHTQPF SHYGQ  
ALCVVFPKPCAAERFRELTYRVGEGPGVCWLAPEQTAGKKKPFVYTQQAVALNRAFFP  
CFDTPAVKCTYSALVEVPDGF TAVMSASTWERRGPNKFFFQMSQPIPSYLIALAIGDLAS  
AEVGPRSRVWAEPCLIEAAKEEYNGVIEEFLATGEKLF GPYVWGRYDLLFMPPSF PFGGM  
ENPCLTFVTPCLLAGDRSLADVI IHEISHSWFGNLVTNANWGEFWLNEGFTMYAQRRI ST  
ILFGAAYTCLAAATGRALLRQHMDVSGEENPLNKL RVKIEPGVDPDDTYNETPYEKGYCF  
VSYLAHLVGDQEQFDKFLKAYVDEFKQFQSILAEDFLEFYLEYFPELKKKGVD SIPGF EFN  
RWLNTPGWPPYLPDLSPGDSLMKPAEELAELWAASEPDMQAI EAVAISTWKTYQLVYFLD  
KILQKSPLPPGNVKKLGETYPKISNAQNAELRLRWGQI I LKNDHQEEFWKVKDFLQSQ GK  
QKYTLPLYHAMMGSE MARTLAKETFSATASQLHSNVVNYVQQILAPKGS

>P00811

MFKTTLCALLITASCSTFAAPQQINDIVHRTITPLIEQQKIPGMAVAVIYQGKPYFTWG  
YADIAKKQPVTQOTL FELGSVSKTFTGVLGGDAIARGEIKLSDPTTKYWP ELTAKQWNGI  
TLLHLATYTAGGLPLQVPDEVKSSD LRLRFYQNWQPAWAPGTQRLYANSSIGLFGALAVK  
PSGLSFEQAMQTRVFQPLKLNHTWINVPPAE EKNYAWGYREGKAVHVSPGALDAEAYGVK  
STIEDMARVWQSNLKLPLDINEKTLQQGIQLAQSRYWQTGDMYQGLGWEMLDWPVNPDSII  
NGSDNKIALAARPVKAITPPTPAVRASWVHKTGATGGFGSYVAFIPEKELGIVMLANKNY  
PNPARVDAAWQILNALQ

>P56218

MDTEKLMKAGEIAKKVREKAIK LARPGMLLLELAESIEKMIMELGGKPAFPVNLSINEIA  
AHYTPYKGDTTVLKEGDY LKIDVGVHIDGFIADTAVTVRVGMEEDELMEAAKEALNAAIS  
VARAGVEIKELGKAIENEIRKRGFKPIVNL SGHKIERYKLHAGISIPNIYRPHDNYVLKE  
GDVFAIEPFATIGAGQVIEVPP TLIYMYVRDVPVRVAQARFLLAKIKREYGTLPFAYRWL  
QNDMPEGQLKLALKTLEKAGAIYGY PVLKEIRNGIVAQFEHTIIVEKDSVIVTTE

>Q48656

MTASVARFIESFIPENYNLFLDINRSEKFTFTGNVAITGEAIDNHISLHQKDLTINSVLLD  
NESLNFQMDDANEAFHIELPETGVLTIFIEFSGRITDNMTGIYPSYYTYNGEKKEIISTQ  
FEISHFAREAFPCVDEPEAKATFDLSLKFDAEEGDTALSNMPEINSHLREETGVWTFETT  
PRMSTYLLAFGFGALHGKTAKTKNGTEVGVFATVAQAENSFDFALDIAVRVIEFYEDYFQ  
VKYPIPLSYHLALPDFSAGAMENWGLVTYREVYLLVDENSSAASRQQVALVVAHELAHQW  
FGNLVTMKWDDLWLNESFANMMEYVSVNAIEPSWNI FEGFPNKLGVPNALQRDATDGVQ  
SVHMEVSHPDEINTLFD SAIVYAKGSRMLMHMLRRWLGD EAFKGLKAYFEKHQYNNTVGR



DLWNALSEASGKDVSSFMDTWLEQPGYPVVS AEVVDLILS QKQFFIGEHEDKGRLEI  
PLNTNWNGLPDTLSGERIEIPNYSQ LATENNGVLR LNTANTAHYITDYQGQLLDNI LEDF  
ANLDTVSKLQILQERRLLAESGRISYASLVGLLDLVEKEESSFFLISQAKSQILAGLKRFI  
DEDTEAEVHYKALVRRQFQNDFERLGFD AKEGESDEDEMVRQTALS YLIEADYQPTV LAA  
ANVFQAHKENIESIPASIRGLVLINQM KQENSLSLVEEYINAYVATNDSNFRRQLTQALS  
YLKNQEGLDYVGLGQLKDKNVVKPQDLYLWYMNFLSKSFAQETVWDWAKENWEWIKAAALGG  
DMSFDSFVNIPAGIFKNQERLDQYIAFF EPQTS DKALERNILMGIKTIARVDLIEKEKA  
AVESALKDY

>A2RI32

MAVKRLIETFVPENYKIFLDIDRKT KKIKGQVAITGEAKDTVVSFHTKGLHFNKVRAF SV  
DTNFIENEED EEEIVVKIGETGRVTVSFEYEAELTDNMMGIYPSYEVN GEKKMLIGTQFE  
SHFARQAFPSIDEPEAKATFDLSVKFDEEEGDIIVSNMPELLNINGIHVFERTVKMSSYL  
LAFVFGELQYKKGKTKSGVEVGAFATKAHSQAALDFPLDIAIRSI E FYEDYYQTPYPLPH  
SWHIALPDFSAGAMENWGCITYREVCMLVDPENATI QSKQYVATVIAHELAHQWFGDLVT  
MQWWDLLWLNESFANNMEYVCM DALEPSWNVWESFSISEANMALNRDATDGVQSVHVEVT  
HPDEIGTLFDP AIVYAKGSRLMVMLRKWLGDEDF AAGLALYFKRHQYGN TVGDNLWDALA  
EVSGKDVA AFMHSWVNQPGYPVVTAEVVDLILS QKQFFVGE GVDKGRLLWNVPLNTNWT  
GLPDLLSSEKVEIPGFAALKTKNNGKALFLNDANMAHYI IDYKGALLTDLLSEVESLE NV  
TKFQILQDRKLLAKAGVISYADV NNILPSFTNEESYL VNTGLSQLISELELFVDE DSETE  
KAFQSLVGKLF AKNYARLGWDKVAGESAGDES LRGI VLSKTLYSENADAKTKASQIFAAH  
KENLASIPADIRPIVLNNEIKTTNSAELVKTYRETYIKTSLQEFKRELEGAVALIKDEKV  
IAELLESFKNADIVKPDIAFSW FYLLRNDFSQDAAWAWEKANWAFLEEKLGGDMSYDKF  
VIYPGNTFKTADKLA EYKAFFEPKLENQGLKRSIEMAIKQITARVALIDSQKAAVDKAIT  
DIAEKL

>Q11010

MPGTNLTR EEARQRATLLTVDSYEIDL DLTGAQEGGTYRSVTTVRFDVAEGGGE SFIDL V  
APTVEHVT LINGDALDTAEV FQDSRIALPGLLPGRN ILRVVADCA YTN TGEG LHRFVDPVD  
DQAYLYTQFEV P DARRVFASF EQPDLKATFQFTVKAPEGWTVISNSPTPEPKDNVWEFEP  
TPRISSYVTALIVG PYHSVHSVYEKDGQSVPLGIYCRPSLA EHL DADAIFEVTRQGFDFW  
QEKFDYAYPFKKYDQLFVPEFNAGAMENAGAVTIRDQYVFRSKVTDAA YEVR AATILHEL  
AHMWFGLVTMEW WNDLWLNESFATYAE AACQAAAPGSKWPHSWTTFANQMKTWAYRQDQ  
LPSTHPIMADISDLDDVLVNF DGITYAKGASVLKQLVAYVGE EAF FKG VQAYFKRHAFGN  
TRLSDLLGALEETSGRDLKTWSKAWLETAGINVL RPEIETDADGVITSFAIRQEAPALPA  
GAKGEPTLRPHRIAIGAYDL DGAGKLVRGDRVELD VDGELTAVPQLVGKARPAVLLLND D  
DLSYAKVRLDEQSLAVVTEHLGDFTESLPRALC WASAWDMTRDAELATRDYLALVLSGIG  
KESDIGVVQSLHRQVKLAIDQYAAPTAREALLTRWTEATLAHLRAAEAGSDHQLAWARAF  
AATARTPEQLDLLDALLDGTQTIEGLAVDTEL RWA FVQRLAAVGRFGGSEIAAEYERDKT  
AAGERHAATARAARPT EAAKAEAWESVVESDKLPNAVQEAVIAGFVQTDQRELLAAYTER  
YFEALKDVWASRSHEMAQQIAVGLYPAVQVSQDTLDR TDAWLASAEPNAALRRLLVSESRS  
GIERALRAQAADAAAAE

>P85072

KPKEDREWEKFKTKHITSQSVADFN CNRTMNDPAYTPDGQCKPVNTFIHSTTG PVKEICR  
RATGRVNKSSTQOFTLTTCKNP IRCKYSQSN TTNFICITCRDNYPVH FVKTKGC

>P13507

MSHILRAAVLAAMLPLPSMADQAGKSPNAVRYHGGDEIILQGFHWNV VREAPNDWYNIL  
RQQAATIAADGFS AIWMPV PWRDFSSWSDGSKSGGGEGYFWHDFNKNGRYGSDAQLRQAA

SALGGAGVKVLYDVVPHMNRGYPDKEINLPAGQGFWRNDCADPGNYPNDCDDGDRFIGG  
DADLNTGHPQVYGMFRDEFNTNLSQYAGGGFRFDVFRGYAPERVNSWMTDSADNSFCVGE  
LWKGPSEYPNWDWRNTASWQQI IKDWSDRAKCPVFDFAALKERMQNGSIADWKHGLNGNDP  
PRWREVAVTFVDNHDGTGYSPPGQNGGQHWWALQDGLIRQAYAYILTSPTGTPVVYWSHMYDW  
GYGDFIRQLIQVRRRAAGVRADSAISFHSYSGSLVATVSGSQQTLVVALNSDLGNPGQVAS  
GSFSEAVNASNGQVRVWRSRGTGSGGGEPGALVSVSFRCDNGATQMGDVYAVGNVSQLGN  
WSPAALRLTDTSGYPTWKGSIALPAGQNEEWKCLIRNEANATQVRQWQGGANNSLTPSE  
GATTVGRL

>P25718

MKLAACFLTLLPGFAVAASWTSPGFPAFSEQGTGTFVSHAQLPKGTRPLTLNFDQQCWQP  
ADAIKLNQMLSLQPCSNTPPQWRLFRDGEYTLQIDTRSGTPTLMISIQNAAEFVASLVRE  
CPKWDGLPLTVDVSAFPEGA AVR DYYSQQIAIVKNGQIMLQPAATSNGLLLLERAE TDT  
SAPFDWHNATVYFVLTDRFENGDP SNDQSYGRHKDGM AEIGTFHGGDLRGLTNKLDYLQQ  
LGVNALWISAPFEQIHGWVGGGTKGDFPHYAYHGYYTQDWTNLDANMGNEADLRTLVD SA  
HQRGIRILFDVVMNHTGYATLADMQEYQFGALYLSGDEVKKS LGERWSDWKPAAGQTWHS  
FNDYINFSDKTGWDKWWGKNWIRTDIGDYDNPGFDDL TMSLAFLPDIKTESTTASGLPVF  
YKNKMDTHAKAIDGYTPRDYLT HWSQWVRDYGIDGFRVDTAKHVELPAWQQLKTEASAA  
LREWKKANPDKALDDKPFWM TGEAWGHGVMQSDYRHRGFDAMINFDYQEQA AKAVDCLAQ  
MDTTWQQMAEKLQGFNVLSYLS SHDTRLFRREGDKAAELLLLAPGAVQIFYGDESSRPF G  
PTGSDPLQGTRSDMNWQDVSGKSAASVAHWQKISQFRARHPAIGAGKQT TLLLKQGYGFV  
REHGDDKVLVWVAGQQ

>P04745

MKLFWLLFTIGFCWAQYSSNTQQGRTSIVHLFEWRWVDIALECERYLAPKGGVQVSP  
NENVAIHNPFRPWWERYQPVSYKLC TRSGNEDEF RNMVTRC NNVGVR IYVDAVINHMCGN  
AVSAGTSSTCGSYFNPGSRDFPAVPYSGWDFNDGKCKTGSGLIENYNDATQVRDCRLSGL  
LDLALGKDYVRSKIAEYMNHLIDIGVAGFRIDASKHMWPGDIKAILDKLHNLNSNWFPEG  
SKPFIYQEVIDLGGEP IKSSDYFGN GRVTEFKYGA KLGTVIRKWNGEKMSYLKNWEGGWG  
FMPSDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGFM LAHPYGFTRVMSSYRWP  
RYFENGKDVNDWVGPPNDNGVTKEVTINPDTTCGNDWVCEHRWRQIRNMVNF RNVDGQP  
FTNWDYDNGSNQVAFGRGNRGFIVFNDDWTFSLTLQTGLPAGTYCDVISGDKINGNCTGI  
KIYVSDDGKAHFSISNSAEDPFI A IHAESKL

>P27932

MKGQMAALCGFLLVALLWLTDPVAHAQTQILFQGFNWDSWKKQGGWYNMLKDQVGD IASA  
GVTHVWLPPPTH SVSPQGYMPGRLYDLNASKYGTKAELKSLIAAFHAKGIKCVADIVVNH  
RCADDKDRGVYCI FKG GGRGCLDWGPSMICDDTQYSDGTGHRDTGADFAAAPDIDHL  
NPLVQRELSDWLRWLRDVGFDGWRLDFAKGYSAAVARTYVQNARPSFVVAE IWNLSLYD  
GDGKPAANQDQGRQELVNWVKVGGPATAFDFTTKGILQSAVQGELWRRDKDGKAPGMI  
GWYPEKAVTFVDNHDGTGSTQRMWFPFSDKVILGYAYILTHPGVPCIFYDHVFDWNLKQEI  
NALAATRKRNGINAGSKLRVLA AESDMYVAMVDERVITKIGPRIDVGNIPSDFHIVA H  
NDYCVWEKSGLRVPEPEGRR

>P06279

MLTFHRIIRKGMFLLAFLLTALLFCPTGQPAKAAAPFNGTMMQYFEWYLPDDGTLWTKV  
ANEANNLSSLGITALWLPPAYKGTSRSDVGYGVYDLYDLGEFNQKGAVRTKYGTKAQYLQ  
AIQAAHAAGMQVYADVDFDHKGGADGTEWVDAVEVNP SDRNQEISGTYQIQAWTKFDFPG  
RGNTYSSFKWRWYHFDGVDWDES RKL SR IYKFRGIGKAWDWEVDTENGN DYLYMYADLDM  
DHPEVVTELKSWGKWYVNTTNIDGFR L DAVKH I KFSFFPDWLSDVRSQTGKPLFTVGEYW

SYDINKLHNYIMKTNGTMSLFDAPLHNKFYTASKSGGTFDMRTLMTNTLMKDQPTLAVTF  
VDNHDTEPGQALQSWVDPWFKPLAYAFILTRQEGYPCVIFYGDYYGIPQYNIPSLKSKIDP  
LLIARRDYAYGTQHHDYLDHSDIIGWTREGEVTEKPGSGLAALITDGPGGSKWMYVKGQHAG  
KVIFYDLTGNRSDTVITNSDGWGEFKVNGGSVSVWVPRKTTVSTIAWSITTRPWTDEFVRW  
TEPRLVAWP

>P00691

MFAKRFKTSLPLFAGFLLLLFHLVLAGPAAASAETANKSNELTAPSIKSGTILHAWNWSF  
NTLKHNMKDIHDAGYTAIQOTSPINQVKEGNQGDKSMNWWYLYQPTSYQIGNRYLGTEQE  
FKEMCAAAEEYGIKVIIVDAVINHTTSDYAAISNEVKSIPNWTGNTQIKNWSDRWDVTQN  
SLLGLYDWNTQNTQVQSYLKRFLDRALNDGADGFRFDAAKHIELPDDGSYGSQFWPNI TN  
TSAEFQYGEILQDSASRDAAYANYMDVTASNYGHSIRSALKNRNLGVSNI SHYASDVSAD  
KLVTWVESHDTYANDDEESTWMSDDD IRLGWAVIASRSGSTPLFFSRPEGGGNGVRFPGK  
SQIGDRGSALFEDQAITAVNRFHNV MAGQPEELSNPNGNNIQIFMNQRGSHGVVLANAGSS  
SVSINTATKLPDGRYDNKAGAGSFQVNDGKLTGTINARSAVLYPDDIAKAPHVFLENYK  
TGVTHSFNDQLTITLRADANTTKAVYQINNGPDDRRLRMEINSQSEKEIQFGKTYTIMLK  
GTNSDGVTRTEKYSFVKRDPASAKTIGYQNPNHWSQVNAYIYKHDGSRVIELTGSWPGKP  
MTKNADGIYTLTLPADTDTTNAKVI FNMNGSAQVPGQNPQGFVDYVLNGLYND SGLSGSLPH

>P29957

MKLNKIITTAGLSLGLLLLPSIATATPTTFVHLFEWNWQDVAQECEQYLGPKGYAAVQVSP  
PNEHITGSQWWTRYQPVSYELQSRGGNRAQFIDMVNRC SAAGVDIYVDTLINHMAAGSGT  
GTAGNSFGNKSFP IYSPQDFHESCTINNSDYGNDRYRVQNC ELVGLADLDTASNYVQNTI  
AAYINDLQAI GVKGFRFDASKHVAASDIQSLMAKVNGSPVVFQEV IDQGGEAVGASEYLS  
TGLVTEFKYSTE LGNTFRNGSLAWLSNFEGEGWGFMPSSSAVVFVDNHDNQRGHGGAGNVI  
TFEDGRLYDLANVFMLAYPYGYPKVMSSYDFHGD TDAGGPNVPVHNNGNLECFASNWKCE  
HRWSYIAGGVDFRNNTADNWA VTNWWDNTNNQISFGRGSSGHMAINKEDSTLTATVQ TDM  
ASGQYCNVKGELSADAKSCS GEVITVNSDGTINLNI GAWDAMA IHKNAKLN TSSASSTE  
SDWQRTVIFINAQTQSGQDMFIRGGIDHAYANANLGRNCQTSNFECAMP IRHNNLKNVTT  
SPWKANDNYLDWYGIENGQSSEAEGSATDWT TNVWPAGWGA EKTVNTDGFVTPLN IWGE  
HYWMLD VDMDCSKAVNGWFELKAFIKNGQGWETAIAQDNAPY TSTNHMAQCGKINKFEFN  
NSGVVIRSF

>P56634

QKDANFASGRNSIVHLFEWKWNDIADECERFLQPQGGVQISPPNEYLVADGRPWWERY  
QPVSYIINTRSGDESAFTDMTRRCNDAGVRIYVDAVINHMTGMNGVGTSGSSADHDGMNY  
PAVPYSGDFHSPCEVNNYQDADNVRNCELVGLRDLNQGSDYVRGVLIDYMNHMIDLGVA  
GFRVDAAKHMSPGDLSVIFSGLKNLNTDYGFADGARPF IYQEV IDLGGEAISKNEYTGFG  
CVLEFQFGVSLGNAFQGGNQLKNLANWGP EWGLLEGLDAVVFVDNHDNQR TGGSQILTYK  
NPKPYKMAIAFMLAHPYGTTRIMSSFDFTDNDQGPQDGS GNLI SPGINDDNTCSNGYVC  
EHRWRQVYGMVGF RNAVEGTQVENWWSNDDNQIAFSRGSQGFVAF TNGGDLNQN LNTGLP  
AGTYCDVISGELSGGSCTGKSVTVGDNGSADISLGS AEDDGVLA IHVNAKL

>P0C1B3

MMVAWWSLFLYGLQVAAPALAAATPADWRSQS IYFLLTDRFARTD GSTTATCNTADQKYCG  
GTWQGIIDKLDYIQGMGFTAIWITPVTAQLPQTTAYGDAYHGYWQQDIYSLNENYGTADD  
LKALSSALHERGMYLMVDVVANHMGYDGAGSSVDYSVFKPFSSQDYFHPFCFIQNYEDQT  
QVEDCWLGDNTVSLPDLDTTKDVVKNEWYDWVGSLSVSNYSIDGLRIDTVKHVQKDFWPGY  
NKAAGVYICIGEVLDGDPAYTCPYQNVMDGVLNYP IYYPLLNAFKSTSGSMDDLYNMINTV  
KSDCPDSTLLGTFVENHDNPRFAS YTNDI ALAKNVAAFIILNDGIP IYAGQE QHYAGGN

DPANREATWLSGYPTDSELYKLIASANAIRNYAISKDTGFVITYKNWPIYKDDTTIAMRKG  
TDGSQIVTILSNKGASGDSYTLSSLGAGYTAGQQLTEVIGCTTVTVGSDGNVPVPMAGGL  
PRVLYPTEKLAGSKICSSS

>P06547

MLHSQKRIWKKIGLCLLSFILGITVFTGFSFGSKAEAAVAGDFQVSVMGPLAKVTDWNSFK  
NQLTTLKNNGVYAITTDVWWGYVESAGDNQFDWSYKYTYADTVKQAGLKWVPIISTHRCG  
GNVGDDCNIPLPSWLWSKGSADQMFKDESGYVNNESLSPFWSGVGKQYDELYASFAQNF  
SAYKDMIPKIYLSGGPSGELRYPSPYPAAGWSYPARGKFQVYETETAKSAFRTAMTTKYGS  
LDKINAAGWNTLTSMSQISPPTDSDGFYTGGGYNITYGKDFLSWYQSVLENHLGVIGAAA  
HKNFDPVFGVRIGAKISGIHWQMNNSMPHSAEHAGGYDYNRLIQKFKDLDLDTFTAL  
EMYDSGTAPNYSPLSTLVDTVSSIANSKGVRLNGENALPTGGSGFQKIEEKITRFGYNGF  
TLLRINNIVNSDGSPTAEMSSFKNYVIKHAHPAGDGGGNPVNSVTIYYKKGFNOPYIHYR  
PAGGTWTDVPGVKMPDSEISGYAKITLDIGSASQLEAAFNQDGNQWDSNNMRNYFFSPGT  
STYIPGTNGTAGSIQAGPPITSSDFQALPAYEMSI

>P16098

MEVNVKGNVYQVYVMLPLDAVSVNNRFEKGDDELRAQLRKLVEAGVDGVMVDVWWGLVEGK  
GPKAYDWSAYKQLFELVQKAGLKLQAIMSFHQCGGNVGDVAVNIPIPQWVRDVGTRDPDIF  
YTDGHGTRNIEYLTLGVDNQPLFHGRSAVQMYADYMTSFRENMKDFLDAGVIVDIEVGLG  
PAGEMRYPSPYQSHGWSFPGIGEFICYDKYLQADFKAAAAAVGHPEWEFPNDVVGQYNDTP  
ERTQFFRDNGTYLSEKGRFFFLAWYSNNLIKHGDRILDEANKVFLGYKVQLAIKISGIHWW  
YKVPASHAAELTAGYYNLHDRDGYRTIARMLKRHRASINFCAEMRDLEQSSQAMSAPEEL  
VQQVLSAGWREGLNVACENALPRYDPTAYNTILRNARPHGINQSGPPEHKLFGFTYLRLS  
NQLVEGQNYVNFKTFVDRMHANLPRDPYVDPMAPLPRSGPEISISEMILQAAQPKLQPPFP  
QEHTDLPVGPPTGGMGGQAEGPTCGMGGQVKGPTGGMGGQAEDPTSGIGGELPATM

>P19584

MIGAFKRLGQKFLTLTASLIFASSIVTANASIAPNFKVFMGPLEKVTDFNAFKDQLI  
TLKNNGVYGITTDIWWGYVENAGENQFDWSYKYTYADTVRAAGLKWVPIIMSTHACGGNVG  
DTVNIPIPSWVWTKDTQDNMOKYKDEAGNWDNEAVSPWYSGLTQLYNEFYSSFASNFSYK  
DIITKIYISGGPSGELRYPSPYNSHGWYTPGRGSLQCYSKAAITSFQNAMKSKYGTIAAV  
NSAWGTSLTDFSQISPPTDGDNFFTNKYKTTYGNDFLTWYQSVLTNELANIASVAHSCFD  
PVFNVPIGAKIAGVHWLYNSPTMPHAAEYCAGYNYSTLLDQFKASNLAMTFTCLEMDDS  
NAYVSPYASAPMTLVHYVANLANNGKIVHNGENALAISNNQAYVNCANELTGYNFSGFT  
LLRLSNIVNSDGSVTSEMAPFVINIVTLTPNGTIPVFTTINNATTYGQNVYIVGSTSDL  
GNWNTTYARGPASCPNYPTWTITLNLPGEQIQFKAVKIDSSGNVTWEGGSNHTYTVPTS  
GTGSVTITWQN

>P19531

MKKKTLSLFVGLMLLIGLLFSGSLPYNPNAEASSASVKGDVIYQIIIDRFYDGD'TTNN  
NPAKSYGLYDPTKSKWKMYWGGDLEGVRQKLPYLKQLGVT'IWLSPLVDNLDTLAGTDNT  
GYHGYWTRDFKQIEEHFGNWTTFDTLVNDAHQNGIKVIVDFVPNHSTPFKANDSTFAEGG  
ALYNNGTYMGNYFDDATKGYFHNGDISNWDDRYEAQWKNFTDPAGFSLADLSQENGTIA  
QYLTDAAVQLVAHGADGLRIDAVKHFNNGSFSKSLADKLYQKDI FLVGEWYGDDPGTANH  
LEKVRYANNSGVNVLDFDLNTVIRNVFGTFTQTMYDLNMMVNQTGNEYKYKENLITFIDN  
HDMSRFLSVNSNKANLHQALAFILTSRGTPSIYYGTEQYMAGGNDPYNRGMMPAFD'TTTT  
AFKEVSTLAGLRNNAAIQYGT'TTQRWINNDVYIYERKFFNDVVLVA INRNTQSSYSISG  
LQTALPNGSYADYLSGLLGGNGISVSNNGSVASFTLAPGAVSVWQYSTSASAPQIGSVAPN  
MGIPGNVVTIDGKGFQTTQGTVTFGGVTATVKSWSNRIEVYVPMMAAGLTDVKV'TAGGV

SSNLYSYNILSGTQTSVVFTVKSAPPTNLGDKIYLTGNIPELGNWSTDTSGAVNNAQGPL  
LAPNYPDWFYVFSVPAGKTIQFKFFIKRADGTIQWENGSNHVATTPGTGATGNITVTWQN

>Q9ZEU2

MLTPTQQVGLILQYLKTRILDIYTPEQRAGIEKSEDWRQFSRRMDTHFPKLMNELDSVYG  
NNEALLPMLEMLLAQAWQSYSQRNSSLKDIDIARENNDWILSNKQVGGVCYVDLDFAGDL  
KGLKDKIPYFQELGLTYLHLMPLFKCPEGKSDGGYAVSSYRDVNPALGTIGDLREVIAAL  
HEAGISAVVDFIFNHTSNEHEWAQRCAAGDPLFDNFYIFPDRRMPDQYDRTLREIFPDQ  
HPGGFSQLEDGRVWWTTFNSFQWDLNYSNPWVFRAMAGEMLFLANLGVDIRMDAVAFIW  
KQMGTSCEENLPQAHALIRAFNAVMRIAAPAVFFKSEAIVHPDQVVQYIGQDECQIGYNPL  
QMALLWNTLATREVNLLHQALTYRHNLPEHTAWVNYVRSHDDIGWTFADEDAAYLGISGY  
DHRQFLNRFFVNRFDGSFARGVPPFQYNPSTGDCRVSGTAAALVGLAQDDPHAVDRIKLLY  
SIALSTGGLPLIYLGDEVGTLNDDWSQDSNKSDSRWAHRPRYNEALYAQRNDPSTAAG  
QIYQGLRHMIAVRQSNPRFDGGRLVTFNTNKHIIIGYIRNNALLAFGNFSEYPQTVTAHT  
LQAMPFKAHDLIGGKTVSLNQDLTLQOPYQVMWLEIA

>P13214

MAAKGGTVKAASGFNAEDAQTLRKAMKGLGTDEDAIINVLAYRSTAQRQEIRTAYKTTI  
GRDLMDDLKSELSGNFEQVILGMMTPTVLYDVQELRKAMKGAGTDEGLIEILASRTPEE  
IRRINQTYQLQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDESNYLDDALMRQDAQDLYE  
AGEKKWGTDEVKFLTVLCSRNRNHLHVFDEYKRIAQKDIEQSIKSETSGSFEDALLAIV  
KCMRNKSAYFAERLYKSMKGLGTDDDTLIRVMVSRAEIDMLDIRANFKRLYGKSLYSFIK  
GDTSGDYRKVLLILCGDD

>P14668

MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFG  
RDLVNDMKSELTKGFEKLIIVALMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEEL  
RAIKQAYEEEEYGSNLEDDVVGDTSGGYQRMLVLLQANRDPDTAIDDAQVELDAQALFQA  
GELKWTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSNLENLLLAVVK  
SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLSYMIKG  
DTSGDYKALLLLCGEDD

>P21397

MENQEKASIAGHMFVVVIGGGISGLSAAKLLTEYGVSVLVLEARDRVGGRTYTIIRNEHV  
DYVDVGGAYVGPQTQNRILRLSKELGIETYKVNVSERLVQYVKGKTYPPFRGAFPPVWNP  
YLDYNNLWRTIDNMGKEIPTDAPWEAQHADKWDKMTMKELIDKICWTKTARRFAYLVNI  
NVTSEPHEVSALWFLWYVKQCGGTTRIFSVTNGGQERKFVGGSGQVSERIMDLLGDQVKL  
NHPVTHVDQSSDNIIEITLNHEHYECKYVINAIPPTLTAKIHFRPELPAERNQLIQRLPM  
GAVIKCMMYYKEAFWKKKDYCGCMIIEDEDAPISITLDDTKPDGSLPAIMGFI LARKADR  
LAKLHKEIRKKKICELYAKVLGSQEALHPVHYEKNWCEEQYSGGCYTAYFPPGIMTYG  
RVIRQPVGRIFFFAGTETATKWSGYMEGAVEAGERAAREVLNGLGKVTEKDIWVQEPESKD  
VPAVEITHTFWERNLPSVSGLLKIIIGFSTSVTALGFVLYKYKLLPRS

>Q9U2M7

MVVKAAGLVIYRKLAKGIEFLLLQASYPPHHWTPPKGHVDPGEDEWQAAIRETKEEANIT  
KEQLTIHEDCHETLFYEAKGKPKSVKYWLAKLNNPDDVQLSHEHQNWKCELEDAIKIAD  
YAEMGSLLRKFS AFLAGF

>O14727

MDAKARNCLLQHREALEKDIKTSYIMDHMISDGFLLTISEEEKVRNEPTQQQRAAMLKMI

LKKDNDYSYVSFYNALLHEGYKDLAALLHDGIPVVSSSSGKDSVSGITSYVRTVLCEGGVP  
QRPVVVFTRKKLVAIQQKLSKLGEPGWVTIHGMAGCGKSVLAAEAVRDHSLEGCFFP  
GVHWVSVGKQDKSGLLMKLNLCRTRLDQDESFSQRLPLNIEEAKDRLRILMLRKHPRSL  
ILDDVWDSWVLKAFDSQCQILLTTRDKSVTDSVMGPKYVVPVLESSLGKEKGLEILSLFVN  
MKKADLPEQAHSIIKECKGSPLVVSLIGALLRDFPNRWEYLLKQLQNKQFKRIRKSSSYD  
YEALDEAMSISVEMLREDIKDYTDLSILQKDVKVPKVLCLWDMETEEVEDILQEFVN  
KSLFLCDRNGKSFYYLHDLQVDFLTEKNCSQLQDLHKKIITQFQRYHQPHLSPDQEDC  
MYWYNFLAYHMASAKMHKELCALMFSLDWIKAKTELVGPAHLIHEFVEYRHILDEKDCAV  
SENFQEFSLNGLHLLGRQFPFNIVQLGLCEPETSEVYQQAQLQAKQEVNDNGMLYLEWINK  
KNITNLSRLVVRPHTDAVYHACFSEDGQRIASCGADKTLQVFKAETGEKLEIKAHEDEV  
LCCAFSTDDRFIATCSVDKVKIWNMTGELVHTYDEHSEQVNCCHFTNSSHLLLLATGS  
SDCFLKLWDLNQKECRNTMFGHTNSVNHCRFSPDDKLLASCSADGTLKLWDATSANERKS  
INVKQFFLNLEDPQEDMEVIVKCCSWSADGARIMVAAKNKIFLFDIHTSGLLGEIHTGHH  
STIQYCDFSPQNHLAVVALSQYCVELWNTDSRSKVADCRGHLSWVHGVMFSPDGSSFLTS  
SDDQTIIRLWETKKVCKNSAVMLKQEVVVFQENEVMVLAVDHIRRLQLINGRTGQIDYLT  
EAQVSCCLSPHLQYIAFGDENGAIIEILELVNRIQSRFQHKKTVWHIQFTADEKTLIS  
SSDDAEIQVWNWQLDKCIFLRGHQETVKDFRLLKNSRLLSWSFDGTVKWNIIITGNKEKD  
FVCHQGTVLSCDISHDATKFSSTSAKDTAKIWSFDLLLPLHELGRHNGCVRCSAFVSDST  
LLATGDDNGEIRIWNVSNGELLHLCAPLSEEGAATHGGWVTDLCFSPDGKMLISAGGYIK  
WNVVVTGESSQTFYTNGTNLKKIHVSPDFKTYVTVDNLGILYILQTL

>P05637

MATYLIGDVHGCYDELIALLHKVEFTPGKDTLWLTGDLVARGPGSLDVLRYVKSGLGDSVR  
LVLGNHDLHLLAVFAGISRNKPKDRLTPLLLEAPDADELNLNWLRRQPLLQIDEEKLVMHA  
AGITPQWDLQTAKECARDVEAVLSSDSYPFFLDAMYGDMPNNSPELRGLRGRFRTNAF  
TRMRFCFPNGQLDMYSKESPEEAPAPLKPWFaipgpvaeEYSIAFGHWASLEGKGTPEGI  
YALDTGCCWGGTLTCLRWEDKQYFVQPSNRHKDLGEEAAS

>P37302

MHFSLKQLAVAAFYATNLGSAYVIPQFFQEAFFQEEPIENYLPQLNDDSSAVAANI PKP  
HIPYFMKPHVESEKLQDKIKVDDLATAWDLYRLANYSTPDYGHPTRVIGSKGHNTMEY  
ILNVFDDMQDYDVSLEFEALSGKIIISFNLSDAETGKSFANTTAFALSPVDFGVGKLV  
EIPNLGCEEKDYASVPPRHNEKQIALIERGKCPFGDKSNLAGKFGFTAVVIYDNEPKSK  
EGLHGTLGEPKHTVATVGVVYKVGKLIANIALNIDYSLYFAMDSYVEFIKTQNI IADT  
KHGDPDNIVALGAHSDSVEEGPGINDDGSGTISLLNVAKQLTHFKINNKRFAWAAEEE  
GLLGSNFYAYNLTKENSKIRVFMDDYMMASPNYEYIYDANNKENPKGSEELKNLYVDY  
YKAHHLNYTLVFPDGRSDYVGF INNGIPAGGIATGAEKNNVNGKVLDRCYHQLCDDVSN  
LSWDAFITNTKLIASVSATYADSFEGFPKRETQKHKEVDILNAQQPQFKYRADFLII

>P27695

MPKRGKKGAVAEDGDELRTPEAKKSKTAAKNDKEAAGEGPALYEDPPDQKTSPSGKPA  
TLKICSWNVLDGLRAWIKKGLDWVKEEAPDILCLQETKCSENKLPaelQELPGLSHQYWS  
APSDKEGYSVGLLSRQCPLKVSYGIGDEEHDQEGRVIVAEFDSFVLVTAYVFNAGRGLV  
RLEYRQRWDEAFRFLKGLASRKPLVLCGDLNVAHEEIDLNRNPKGNKKNAGFTPQERQGF  
GELLQAVPLADSRHLYPNTPYAYTFWYMMNARSKNVWRLDYFLLSHSLLPALCDSKI  
RSKALGSDHCPITLYLAL

>O28523

MPVLLIVVDGLSDRPIDGKTPLSVARKPNLDRLAEMGINGIMDTIAPGIRPGSDTSHLAL  
LGYDPYKYYSGRGPIEAAGVGIEIKPGDVAFRANFATVEGEGSIFDKTVVDRRAGRIEDT

SELIKALREIELPVELLVERGTGHRAAVVFRGEGLSDRVSDTDPKAVGKKVKRCVPLADD  
AKAKKTAEIVNEFMQKAHEVLENHPLNRRERAEGLLKANALLLRGAGEMPHVPSFKDKTG  
LRLCVIAATALIKGVGRVVGADVITPEGATGNKNTNLEAKVKAAINALESYDVVLLHIKA  
TDELGHGDGFEGKKAFFIEKLDEKIAPLLDLDFSKTCLILTADHSTPIKVKDHTADPVPVV  
IVHEDVRRDEVSSSFSEFEAYKGGCLCRIRGMDLLNIALDLLNIAKKFGA

>P10762

MNTLLAVLMLAVAAQARPDAAGHVNI AEAVQQLNHTIVNAAHELHETLGLPTPDEALNLL  
TEQANAFKTKIAEVTTSLKQEAKEKHQGSVAEQLNRFARNLNNSIHDAATSAQPADQLNSL  
QSALTNVGHQWQTSQPRPSVAQEAWAPVQSALQEAAEKTKEAAAANLQNSIQSAVQKPAN

>P13276

MAAKFVVVLAACVALSHSAMVRRDAPAGGNAFEEEMEKHAKFEQKTFSEQFNLSLVNSKNTQ  
DFNKALKDGS SVLQQLSAFSSSLQGAISDANGKAKEALEQARQNVKTAEE LRKAHPDV  
EKEANAFKDKLQAAVQTTVQESQKLAKEVASNMEETNKKLAPKIKQAYDDFVKHAEVQK  
KLHEAATKQ

>P22936

MPSTPSFVRS AVSKYKFGAHMSGAGGISNSVTNAFNTGCNSFAMFLKSPRKWVSPQYTQE  
EIDKFKKNCATYNYNPLTDVLPHGQYFINLANPDREKAESYESFMDDLNRCEQLGIGLY  
NLHPGSTLKGHDQLQLKQLASYLNKAIKETKFVKIVLENMAGTGNLVGSSLVDLKEVIGM  
IEDKSRIGVCIDTCHTFAAGYDISTTETFNFWKEFNVDVIGFKYLSAVHLNDSKAPLGAN  
RDLHERLGQGYLGIDVFRMIAHSEYLGQIPIVLETPYENDEGYGNEIKLMEWLESKSESE  
LLEDKEYKEKNDTLQKLGAKSRKEQLDKFEVKQKKRAGGTRKKKATAEPSDNDILSQMTK  
KRKTKKE

>Q09790

MLENNGSVILMEPDHLRTAVNRSMTSREGRTKNRFPITGARLAAGVVALSADKRKVVLLV  
SSAKKHPSWVVPKGGWEADESVQQAALREGWEEGGLVGHITRSLGSFKDKRPTDTIDRRK  
KYLKQLMSKSSGNDVSTNTELGAEAEKLLLLPPRAECEFFFEVIVERLEDNYPEMRKRRRKKW  
MSYQEAKEALTSRKDILAALEKSSIIKEEN

>P38939

MFKRRTLGFLLSFLLIYTA VFGSMPVQFAKAETDTAPAIANVVGDFQSKIGSDWNINSD  
KTVMTYKGNFYEFYFTTPVALPAGDY EYKVALNHSWEGGGVPSQGNLSLHLDSDSVVTFYY  
NYNTSSVTDSTKYTPIPEEKLPRIVGTIQSAIGAGDDWKPETSTAIMRDYKFN NVYEYTA  
NVPKRYEYEFKVTLGP SWDINYGLNGEQNGPNIPLNVAYDTKITFYYSVSHNIWTDYNPP  
LTGPDNNIYYDDLKHDTHDPFFRFAFGAIKTGDTVTLRIQAKNHDLES AKISYWDDIKKT  
RTEVPMYKIGQSPDQY EYWEVKLSFDYPTRI WYYFILKDGTKTAYYGDND EQLGVGKA  
TDTVNKDFELTVYDKNL DTPDWMKGAVMYQIFPDRFYNGDPLNDR LKEYSRGFDPVEYHD  
DWYDL PDNPNDKDKPGYTGDIWNNDFFGGDLQGINDKLDY LKNLGISVIYLNPIFQSPS  
NHRDYTTDYTKIDELLGDLDTFKTLMKEAHARGIKVILDG VFNHTSDDSIYFDRYKGYLD  
NELGAYQAWKQGDQSKSPYGDWYEIKPDGTYEGWGFDSLPIRQINGSEYNVKS WADFI  
INNPNAISKYWLNPDGKDAGADGWRLDVANEIAHDFWVHFRAAINTVKPNAPMIAELWG  
DASLDDL GDSFNVMNYLFRNAVIDFILDKQFDDGNV VHNPIDAAKLDQRLMSIYERYPL  
PVFYSTMNLLGSHDTMRILTVFGYNSANENQNSQEAKDLAVKRLKLAAILQMGYPGMP SI  
YYGDEAGQSGKDPNRRTF SWGREDDKLDQDFFKKV VNI RNENQVLKTGDLETLYANGDV  
YAFGRRIINGKDVFGNSYPDSVAIVVINKGEAKSVQIDTTKFVRDGVAF TDALSGKTYTV  
RDGQIVVEVVALDGAILISDPGQNL TAPQPITDLKAVSGNGQVDLSWSAVDRAVS YNIYR  
STVKGGLYEKIASNVTQITYIDTDVTNGLKYVYSVTAVDS DGNESALSNEVEAYPAFSIG

WAGNMNQVDTHVIGVNNPVEVYAEIWAEGLTDPKPGQGENMIAQLGYRYIGDGGQDATRNK  
VEGVEINKDWTWVDARYVGDSDGNNDKYMALFVPMVGTWEYIMRFSNQGQDWTYTKGPD  
GKTDEAKQFIVVPSNDVEPPTALGLQQPGIESSRVTLNWSLSTDNVAIYGYEIKSLSET  
GPFVKIATVADTVYNYVDTDVVNGKVYYYKVVAVDTSFNRTASNIVKATPDIPIKVI  
VTVPDYTPDDGANIAGNFHDAFWNPSAHQMTKTGPNTYSITLTLNEGTOLEKYARGSWD  
KVEKGEYEGEEIANRKITVVNQGSNTMNVNDTVQRWRDLPIIYISPKDNTTVDANTNEIEI  
KGNTYKGAQVTINDESFVQQENGVFTKVVPLEYGVNTTKIHVEPSGDKNNELTKDITITV  
IREEPVQEKPTPTPESEPPAMPPEPQPTPTPEPQPSAIMAL

>P15879

MKGLRKSILCLVLSAGVIAPVTSGMIQSPQKCYAYSINQKAYSNTYQEFNTIDQAKAWGN  
AQYKYYGLSKSEKEAIVSYTKSASEINGKLRQNKGVINGFPPSNLIKQVELLDKSFNKMKT  
PENIMLFRGDDPAYLGTEFQNTLLNSNGTINKTAFEKAKAKFLNKDRLEYGYISTSLMNV  
SQFAGRPIITKFKVAKGSKAGYIDPISAFAGQLEMLLPRHSTYHIDDMRLSSDGKQIIIT  
ATMMGTAINPK

>P12421

MSGLAYLDLPAARLARGEVALPGSKSISNRVLLLAALAEGSTIEITGLLSDDDRVMMLAAL  
RQLGVSVEVADGCVTIEGVARFPTEQAELFLGNAGTAFRPLTAALALMGDYRLSGVPR  
MHERPIGDLVDALRQFGAGIEYLGQAGYPPLRIGGGSIRVDGPVVEGSSVSSQFLTALLM  
AAPVLARRSGQDITIEVVGELISKPYIEITLNLMARFGVSVRRDGWRAFTIARDAVYRGP  
GRMAIEGDASTASYFLALGAIIGGGPVRVTGVGEDSIQGDVAFATLAAMGADVRYGPGWI  
ETRGVRVAEGRLKAFDADFNLIPDAAMTAATLALYADGPCRLRNIGSWRVKETDRIHAM  
HTELEKLGAGVQSGADWLEVAPPEPGWRDAHIGTWDDHRMAMCFSLAAFGPAAVRILDP  
GCVSKTFPDYFDVYAGLLAARD

>P0A6D3

MESLTLQPIARVDGTINLPGSKSVSNRALLLAALAHGKTVLTNLLSDDDRHMLNALTAL  
GVSYTLSADRTRCEIIGNGGPLHAEGALELFLGNAGTAMRPLAAALCLGSNDIVLTGEPR  
MKERPIGHLVDALRLGAKITYLEQENYPPRLRQGGFTGGNVDVDSVSSQFLTALLMTA  
PLAPEDTVIRIKGLVSKPYIDITLNLMTKTFGVEIENQHYQQFVVKGGQSYQSPGYLVE  
GDASSASYFLAAAAIKGGTVKVTGIGRNSMQGDIRFADVLEKMGATICWGDDYISCTRGE  
LNAIDMDMNHIPDAAMTIATAALFAKGTTLRNINYNRVKETDRLFAMATELRKVGAEVE  
EGHDYIRITPPEKLNFAEIIATYNDHRMAMCFSLVALSDTPVTILDPKCTAKTFPDYFEQL  
ARISQAA

>P22487

MKTWPAPTPTVVRATVTVPGSKSQTNRALVLAALAAAQGRGASTISGALRSRDTLMLD  
ALQTLGLRVDGVSSELTVSGRIEPPGARVDCGLAGTVLRFVPPLAALGSVPVTFDGDQQ  
ARGRPIAPLLDALRELGAVDGTGLPFRVRNGSLAGGTVAIDASASSQFVSGLLLLSAAS  
FTDGLTVQHTGSSLP SAPHIAMTAAMLRQAGVDIDDSTPNRWQVRPGPVAARRWDIEPDL  
TNAVAFLSAAVVSAGTVRITGWPRVSVQPADHILAILRQLNAVVIHADSSLEVRGPTGYD  
GFDVDLRAVGELTPSVAALALASPGSVSRLSGIAHLRGHETDRLAALSTEINRLGGTCR  
ETPDGLVITATPLRPGIWRAYADHRMAMAGAIIGLRVAGVEVDDIAATTKTLPEFPRLWA  
EMVGPQGQGWYPQPRSGQRARRATGQSGG

>P07639

MERIVVTLGERSYPITIASGLFNEPASFLPLKSGEQVMLVTNETLAPLYLDKVRGVLEQA  
GVNVDSVILPDGEQYKSLAVLDTVFTALLQKPHGRDITLVALGGGVGDLTGFAAASYQR  
GVRFIQVPTLLSQVDSVGGKTAVNHPLGKNMIGAFYQPASVVVDLCLKTLPPRELAS



GLAEVIKYGIILDGAFFNWLEENLDALLRLDGPAMAYCIRRCCCELKAEVVAADERETGLR  
ALLNLGHTFGHAI EAEMGYGNWLHGEAVAAGMVMAARTSERLGFSSAETQRIITLLKRA  
GLPVNGPREMSAQAYLPHMLRDKKVLAGEMLILPLAIGKSEVRSGVSHLVLNAIADCQ  
SA

>P43876

MDLYAVWGNPIAQSKSPLIQNKLAQAQTHQTMHEYIAKLGDLDAFEQQLLAFFFEAGKGCNI  
TSPFKERAYQLADEYSQRAKLAACNTLKKLDDGKLYADNTDGI GLVTDLQRLNWLRPNQ  
HVLILGAGGATKGVLLPLLQAQQNIVLANRTFSKTKELAERFQPYGNIQAVSMDSIPLQT  
YDLVINATSAGLSGGTASVDAEILKLGSAFYDMQYAKGTDTPFIALCKSLGLTNVSDGFG  
MLVAQAHSFHLWRGVMPDFVSVVYEQKLLKAML

>P0A6D7

MAEKRNI FLVGPAGKSTIGRQLAQQLNMEFYDSQEI EKRTGADVGVVFDLEGEEGFR  
DREEKVINELTEKQGIVLATGGGSVKSRERTRNRLSARGVVVYLETTIEKQLARTQRDKKR  
PLLVHETPPREVLEALANERNPLYEEIADVTIRTDDQSAKVVANQI IHMLESN

>P0A4Z2

MAPKAVLVGLPGSGKSTIGRRLAKALGVLLD TDVAIEQRTGRSIADIFATDGEQEFRI  
EEDVVRAALADHDGVL SLGGAVTSPGVRAALAGHTVVYLEISAAEGVRRTGNTVRPLL  
AGPDRAEKYRALMAKRAPLYRRVATMRVDTNRRNPGAVVRHILSRLQVPSPEAAT

>P0A6E1

MTQPLFLIGPRGCGKTTVGMALADSLNRRFVD TDQWLQSQLNMTVAEIVEREEWAGFRAR  
ETAALAEAVTAPSTVIATGGGIILTEFNRFHMQNNGIVVYLCAPVSVLVNRLQAAPEEDLR  
PTLTGKPLSEEVQEVLEERDALYREVAHIIIDATNEPSQVISEIRSALAQ TINC

>P10880

MTEPIFMVGARGCGKTTVGRELARALGYEFVDTDIFMQHTSGMTVADVVAEEGWPGFRRR  
ESEALQAVATPNRVVATGGGMVLLQNRQFMRAHGTVVYLFAPAEELALRLQASPAHQQR  
PTLTGRPIAEEMEAVLRERREALYQDV AHYVVDATQPPAAIVCELMQTMRLPAA

>O49397

MTMEQEI EVLDQFPVGMRVLA VDDDQTCRLILQTLQRCQYHVTTTNQAQTAL ELLRENK  
NKFDLVI SDVDMPDMDGFKLLELVGLEMDLPVIMLSAHSDPKYVMKGVKHGACDYLLKPV  
RIEELKNIWQHVVVRKSKLKKNSNVSNGSGNCDKANRKRKEQYEEEEEEERGNDND DPTA  
QKKPRVLWTHELHNKFLAAVDHLGVERAVPKILDLMNVDKLTRENVASHLQKFRVALKK  
VSDDAIQANRAAIDSHFMQMSQKGLGGFYHHHRGIPVGSQFHHGGTTMMRHYSNRNL  
GRLNSLGAGMFQPVSSFPNRHNDGGNIIQGLPLEELQINNNINRAFP SFTSQQNSPMVA  
PSNLLLLLEGNPQSSSLPSNPGFSPHFEISKRLEHWSNAALSTNIPQSDVHSPDTLEWNA  
FCDSASPLVNPNDTNPASLCRNTGFGSTNAAQTDFFYPLQMNQQPANNSGPVTEAQLFR  
SSNPNEGLLMGQKQLQSGLMASDAGSLDDIVNSLMTQEQSQSDFSEGDWDL DGLAHSEHA  
YEKLFPPFSLSA

>P51691

MSKRPNFLVIVADDLGFSDIGAFGGEIATPNLDALAIAGLRLTDFHTASTCSPTRSM LLT  
GTDHIIAGIGTMAEAL TPELEGKPGYEGHLNERVVALPELLREAGYQTLMAGKWHLGLKP  
EQTPHARGFERSFLLPGAANYHGFEPYDESTPRILKGT PALYVEDERYLDTLPEGFYS  
SDAFGDKLLQYLKERDQSRPFFAYLPFSAPHWPLQAPREIVEKYRGRYDAGPEALRQERL  
ARLKLGLVEADVEAHPVLAL TREWEALEDEERAKSARAMEVYAAMVERMDWNIGRVVDY

LRRQGELDNTFVLFMSDNGAEGALLEAFPKFGPDLGLDRHYDNSLENIGRANSYVWYG  
PRWAQAATAPSRLYKAFTTQGGIRVPALVRYPRLSRQGAISHAFATVMDVTPTLDDLAVG  
RHPGKRWRGREIAEPRGRSWLWLSGETEAAHDENTVTGWELFGMRAIRQGDWKAVYLPA  
PVG PATWQLYDLARDPGEI HDLADSQPGKLAELIEHWKRYVSETGVVEGASPFVLR

>Q66DP5

MSLNVKLHPSGIIFTSDGTSTILDAALDSNIHIEYSCKDGTGCSCKAILISGEVDSAENT  
FLTEEDVAKGAILTCCSKAKSDIELDVNYPELSHIQKKTYPCKLDSIEFVGEDIAILSL  
RLPPTAKIQYLAGQYIDLINGQRSSYSIANAPGGNGNIELHVRKVVNGVFSNIFNELK  
LQQLLRIEGPQGTFFVREDNLPVFLAGGTGFAPVKSMVEALINKNDQRQVHIYWGMPAG  
HNFYSDIANEWAIKHPNIHYVPVVSDDSTWTGATGFVHQAVLEDIPDLSLNFVYACGSL  
AMITAARNDFINHGLAENKFFSDAFVPSK

>P17405

MPRYGASLRQSCPRSGREQQDGTAGAPGLLWMGLVLAALALALALALSDSRVLWAPAEAH  
PLSPQGHPARLHRIVPRLRDVFGWNLTCPICKGLFTA INLGLKKEPNVARVGSVAIKLC  
NLLKIAPPAVCQSI VHLFEDDMVEVWRRSVLSPSEACGLLLGSTCGHWDIFSSWNI SLPT  
VPKPPP KPPSPAPGAPVSRILFLTDLHWDHDYLEGTDPCADPLCCRRGSGLPASRPG  
AGYWGEYSKCDLPLRTLESLLSGLGPAGPFDMVYWTGDI PAHDVWHQTRQDQLRALTTVT  
ALVRKFLGPVPVYPAVGNHES TPVNSFPFPFIEGNHSSRWLYEAMAKAWEPWLP AEALRT  
LRIGGFYALSPYPGLRLISLNMNFC SRENFWLLINSTDPAGQLQWLVGELQAAEDRGDKV  
HIIGHIPPGHCLKSWSWNYRIVARYENTLAAQFFGHTHVDEFEFVYDEETLSRPLAVAF  
LAPSATTYI GLNPGYRVYQIDGNYSRSSHVLDHETYILNLTQANIPGAIPHWQLLYRAR  
ETYGLPNTLPTAWHNLVYRMRGDMQLFQTFWFLYHKGHPPSEPCGTPCRLATLCAQLSAR  
ADSPALCRHLMPDGSLPEAQSLWPRPLFC

>Q28056

MAPRKNAGGGGNSSSSSSGSPTGCTSGGSSSPGARRETKQGGLKNGRKGGLSGSSFFT  
FMVIALLGVWTSVAVVWFDLVDYEEVLAKAKDFRYNLSEVLQGLGIYDADGDGDFD  
AKVLLGLKEKPAPKPTVPPEEADMYPWLEDQVLESPGRQNI EDEVYEQVQSLDETVYSEP  
GENLPQEPEGPAEELQPDHVFVGS DADDRYEPMTGAVHEETEDSYHIEETASPAYSQD  
MEDMMYEQENPDSSEPVVDDAERTYQETDDVTYRDYDEQDHAVDNSNTILEEPHMPAE  
EQQEVPPETNKKADEPGKKGKVKKKKPKLLNKFDKTIKAE LDAAEKLRKRKGI EEAVNAF  
EELVRKYPQSPGARYGKAQCEDDLAEKRRSNEILRRAIETYQEAASLPDAPTDLVKLSLK  
RRSDRQQFLGHMRGSLTLQKLVQLFPDDTALKNDLGVGYLLIGDND SAKKVYEEVLSVT  
PNDGF AKVHYGFI LKAQNKIAESI PYLKEGIESGDPGTDGFRYFHLGDAMQRVGNKEAY  
RWYELGHQRGHFASVWQRSLYNVQGLKAQPWWTPKETGYTELVKSLERNWKLIRDEGLAA  
MDRTHGLFLPEDENLREKGDWSQFTLWQQGRKNENACKGAPKTC SLLDKFPETTGCRRGQ  
IKYSIMHPGTHVWPHTGPTNCR LRMHLGLVIPKEGCKIRCANETR TWEEGKVLIFDD SFE  
HEVWQDAASFRLIFIVDVWHP ELTPHQRRSLPAI

>Q8N6G6

MECCRRATPGTLLLFLAFLLLSSRTARSEEDRDGLWDAWGPWSECSRTCGGGASYSLRRC  
LSSKSCEGRNIRYR TCSNVDCPPEAGDFRAQQCSAHNDVKHHGQFYEWLPVSNPDNPCS  
LKCQAKGTTLVVELAPKVL DGTRCYTESLDMCISGLCQIVGCDHQLGSTVKEDNCGVCNG  
DGSTCRLVRGQYKSQLSATKSDDTVVAIPYGSRHIRLV LKGPDHLYLETKTLQGTKGENS  
LSSTGTFLVDNSSVDFQKFPDKEILRMAGPLTADFIVKIRNSGSADSTVQFIFYQPIIHR  
WRETDFFP CSATCGGGYQLTSAECYDLRSNRVVADQYCHYYPENIKPKPKLQECNLDP  
ASDG YKQIMPYDLYHPLPRWEATPWTACSSSCGGGIQSRAVSCVEEDIQGHVTSVEEWK  
MYTPKMPIAQPCNIFDCPKWLAQEWSPCTVTCGQLRYRVVLCIDHRGMHTGGCSPKTKP

HIKEECIVPTPCYKPKKELPVEAKLPWFKQAQEELEEGAAVSEEPS

>Q04656

MDPMSGVNSVTISVEGMCNCSVWTIEQQIGKVNQVHHIKVSLEEKNATI IYDPKLQTPK  
TLQEAIDDMGFDAVIHNPDPVLTDTLFLTVTASLTLPWDHIQSTLLKTKGVTDIKIYP  
QKRTVAVTI I PSIVNANQIKELVPELSLDTGTLEKKSGACEDHSMAQAGEVVLKMKVEGM  
TCHSCTSTIEGKIGKLGQVQRIVKSLDNQEATIVYQPHLISVEEMKKQIEAMGFPAFVKK  
QPKYLKLGAI DVERLKNTPVKSSSEGSQQRSPSYTNDSTATFIIDGMHCKSCVSNIESTLS  
ALQYVSSIVVSLNRSIVKYNASSVTPESLRKAI EAVSPGLYRVSITSEVESTSNSSPSS  
SSLQKIPLNVVSQPLTQETVINIDGMTCNCSVQSI EGVISKKPGVKSIRVSLANSNGTVE  
YDPLLTSPETLRGAI EDMGFATLSDTNEPLVVIAQPSSEMPLLTSTNEFYTKGMTVPVQD  
KEEGKNSKCYIQVTGMTCA SCVANIERNLRREEGIYSILVALMAGKAEVRYNPAVIQPP  
MIAEFIRELGFGATVIENADEGDGVLELVVRGMTCA SCVHKIESSLTKHRGILYCSVALA  
TNKAHIKYDPEIIGPRDI IHTIESLGFEASLVKKDRSASHLDHKREIRQWRRSFLVSLFF  
CIPVMGLMTYMMVMDHFFATLHHNQNSKEEMINLHSSMFLERQILPGLSVMNLLSFLLC  
VPVQFFGGWYFYIQAYKALKHKTANMDVLI V LATTIAFAYSLI ILLVAMYERAKVNPITF  
FDTPPMLFVFI ALGRWLEHIAK GKTSEALAKLISLQATEATIVTLSDNILLSEEQVDVE  
LVQRGDI IKVVPGGKFPVDGRVIEGHSMVDES LITGEAMPVAKKPGSTVIAGSINQNGSL  
LICATHVGADTTLSQIVKLVEEAQTSKAPIQQFADKLSGYFVFPFIVFVSIATLLVWIVIG  
FLNFEIVETYFPGYNRSISRTETIIRFAFAQASITVLCIACPCSLGLATPTAVMVGTVGA  
QNGILIKGGEPLEMAHKVKKVVVFDKGTGTITHGTPVVNQVKVLTESNRISHHKILAI VGTA  
ESNSEHPLGTAITKYCKQELDTETLGTCLDFQVVP GCGISCKVTNIEGLLHKNNWNIEDN  
NIKNASLVQIDASNEQSSTSSSMI IDAQISNALNAQQHKVLI GNREWMIRNGLVINNDVN  
DFMTEHERKGR TAVLVAVDDEL CGLIAIADTVKPEAELAIHILKSMGLEVVLMTGDN SKT  
ARSIASQVGITKVF AEVLP SHKVAKVKQLQEEGKRVAMVGDGINDSPALAMANVGI AIGT  
GTDVAIEAADVVLIRNDLLDVVASIDL SRKTVKRIRINFVFAL IYNLVGIP IAAGVFMP I  
GLVLQPWMGSAAMAASSVSVVLSLFLKLYRKPTYESYELPARSQIGQKSPSEISVHVGI  
DDTSRNSPKLGLLDRIVNYSRASINSLSDKRSLSNSVVTSEPKHSLLVGDFREDDDTAL

>P35670

MPEQERQITAREGASRKILSKLSLPTRAWEPAMKKSFAFDNVGYEGGLDGLGPSSQVATS  
TVRILGMTQCSCVKSIEDRISNLKGI ISMKVSLEQGSATVKYVPSVVCLQQVCHQIGDMG  
FEASIAEGKAASWPSRSLPAQEA VVKLRVEGMTCQSCVSSIEGKVRKLQGVVRVKVLSLN  
QEAVITYQPYLIQPEDLRDHVNDMGFEAAIKSKVAPLSLGPIDIERLQSTNPKRPLSSAN  
QNFNNSETLGHQGS HVVTLQLRIDGMHCKSCV LNIEENIGQLLGVS IQVSL ENKTAQVK  
YDPSCTSPVALQRAIEALPPGNFKVSLPDGAEGSGTDHRSSSSSHSPGSPPRNQVQGT CST  
TLIAIAGMTCA SCVHSIEGMISQLEGVQQISVSLAEGTATVLYNPSVISPEELRAAIEDM  
GFEASVVSESCSTNPLGNHSAGNSMVQTTDGTPTSVQEVAPHTGRLPANHAPDILAKSPQ  
STRAVAPQKCF LQIKGMTCA SCVSNIERNLQKEAGVLSVLVALMAGKAEIKYDPEVIQPL  
EIAQFIQDLGFEEAVMEDYAGSDGNIELTITGMTCA SCVHNIESKLTRTNGITYASVALA  
TSKALVKFDPEIIGPRDI IKIIEEIGFHASLAQRNPNAHHL DHKMEIKQWKSFLC SLVF  
GIPVMALMIYMLIPSNEPHQSMVLDHNIIPGLSILNLIFFILCTFVQLLGGWYFYVQAYK  
SLRHR SANMDVLI V LATS IAYVYSLVILVVAVAEKAERSPVTFFDTPPMLFVFI ALGRWL  
EHLAKSKTSEALAKLSLQATEATVVTLGEDNLI IREEQVPMELVQRGDIKVVVPGGKFP  
VDGKVL EGN TMADES LITGEAMPVTKKPGSTVIARSINAHGSVLIKATHVGNDTTLAQIV  
KLVEEAQMSKAPIQQ LADRFSGYFVFPFIIIMSTLTLVWVIVIGFIDFGVVQKYFPNPNKH  
ISQTEVIIRFAFQTSITVLCIACPCSLGLATPTAVMVGTVAAQNGILIKGGKPLEMAHK  
IKTVMFDKGTGTITHGVPRVMRVL LLDVATLPLRKVLAVVGTAEASSEHPLGVA VTKYCK  
EELGTETLGYCTDFQAVPGCGIGCKVSNVEGILAHSERPLSAPASHLNEAGSLPAEKDAV  
PQTF SVLIGNREWLRRNGLTISSDVSDAMTDHEMKGQTAILVAIDGVLCGMIAIADAVKQ

EAALAVHTLQSMGVDVVLITGDNRKRTARAIATQVGINKVFAEVLPSHKVAKVQELQNKGK  
KVAMVGDGVNDSPALAQADMVVAIGTGTDVVAIEAADVVLIRNDLLDVVASIHLSKRTVRR  
IRINLVLALIYNLVGIPAAAGVFMPIGIVLQPWMGSAAMAASSVSVLSSLQKCYKPKD  
LERYEAQAHGHMKPLTASQVSVHIGMDDRWRDSPRATPWDQVSYVSQVSLSSLTSDKPSR  
HSAAADDDGDKWLLLLNGRDEEQYI

>O70305

MRSSTAARVQRPAAGDPEPRRPAGWAARRSLPRTARRGGRGGAVAYPSAGPPPRGPGAPPR  
GPRSPPCASDCFGSNGHGASRPGSRRLGLVCGPPRPFVVVLLALAPAATPARACPPGVRA  
SPPRSGVSSSARPAAGCPRPACPEVYGPLTMSLKPQPQPAPATGRKPGGGLLSSPGAAP  
ASAAVTSASVVPAPAAPVASSSAAAGGRPGLGRGRNSSKGLPQPTISFDGIYANVRMVH  
ILTSVVGSKCEVQVKNGGIYEGVFKTYSPKCDLVLDAAHEKSTESSSGPKREEIMESVLF  
KCSDFVVVQFKDTSYARRDAFTDSALSAKVNGEHKEKDLEPWDAGELTASEELELEND  
VSNWDPNDMFRYNEENYGVVSTYDSSLSSYTVPLERDNSEEFKREARANQLAEEIESS  
AQYKARVALENDDRSEEEKYTAVQRNCSDREGHGPNTRDNKYIPPGQRNREVLVSWGSGRQ  
SSPRMGQPGGSMPSRAASHTSDFNPNAGSDQRVVNGGVPWSPCPSHSSRPPSRYQSGP  
NSLPPRAATHTRPPSRPPSRPPSHPSAHGSPAPVSTMPKMSSEGGPPRMSPKAQRHP  
RNHRVSAGRSMSSGLEFVSHNPPSEAAAPPVARTSPAGGTWSSVSVGVPRLSPKTHRPR  
SPRQSSIGNSPSGPVLASQAGIIPAEAVSMPVPAASPTPASPASNRLTPSIEAKDSRL  
QDQRQNSPAGSKENVKASETSPSFSKADNKGMSPPVSEHRKQIDDLKFKNDFRLQPSST  
SESMDQLLSKNREGEKSRDLIKDKTEASAKDSFIDSSSSSSNCTSGSSKTNSPISPSML  
SNAEHKRGPEVTSQGVQTSPPACKQEKDDREKKDTEQVRKSTLNPNAKEFNPRSFQSP  
KPSTTPTSPRPAQPSPSMVGHQQPAPVYTQPVCFAPNMMYPVPVSPGVQPLYPIPMTPM  
PVNQAKTYRAGKVPNMPQQRQDQHHQSTMMHPASAAGPPIVATPPAYSTQYVAYSPQQFP  
NQPLVQHVPHYQSQHPHYSPVIQGNARMMAPPAAHQPLVSSSAAQFGAHEQTHAMYAC  
PKLPYNKETSPSFYFAISTGSLAQQAHPNAALHPHTPHPQPSATPTGQQQSQHGGSHPA  
PSPVQHHQHQAALHLASPQQQSAIYHAGLAPTPPSMTPASNTQSPQSSFPAAQQTVFT  
IHPSHVQPAYTTPPHMAHVPAQHVQSGMVP SHPTAHAPMMLMTTQPPGPKAALAQSAALQP  
IPVSTTAHFPPYMTHPVQAHHQQL

>Q8RMH6

MKITLRMMVLAVLTAMAMVLAACGGGGSSGGSTGGGSGSGPVTIEIGSKGEEELAFDKTEL  
TVSAGQTVTIRFKNNSAVQQHNWILVKGGEEAEEANIANAGLSAGPAANYLPADKSNIIAE  
SPLANGNETVEVTFPTAPAAGTYLYICTVPGHYPLMQGKLVVN

>P31414

MVAPALLPELWTEILVPICAVIGIAFSLFQWYVVSrvKLTSDLGASSSSGGANNGKNGYGD  
YLIEEEEGVNDQSVVAKCAEIQTAISEGATSFLFTEYKYVGVFMIFFAAVIFVFLGSVEG  
FSTDNKPCTYDTRTCKPALATAAFSTIAFVLGAVTSVLSGFLGMKIATYANARTTLEAR  
KGVGKAFIVAFRSGAVMGFLAASGLLVLYITINVKIYYGDDWEGLFEAITGYGLGGSS  
MALFGRVGGGIYTKAADVGADLVGKIERNIPEDDPRNPAVIADNVGDVGDVGIAGMGSDLF  
GSYAEASCAALVVASISSFGINHDF TAMCYPLLISSMGIIVCLITTLFATDFFEIKLVKE  
IEPALKNQLIISTVIMTVGIAIVSWVGLPTSFTIFNFGTQKVVKWQLFLCVCVGLWAGL  
IIGFVTEYYTSNAYSPVQDVADSCRTGAATNVIFGLALGYKSVIIPIFAIAISIFVSFSF  
AAMYGVAVAALGMLSTIATGLAIDAYGPI SDNAGGIAEMAGMSHRIRERTDALDAAGNTT  
AAIGKGF AIGSAAALVSLALFGAFVSRAGIHTVDVLT PKVIIGLLVGLMPLPYWFSAMTMKS  
VGSAAALKMVEEVRRQFNTIPGLMEGTAKPDYATCVKISTDASIKEMIPPGCLVMLTPLIV  
GFFFFGVETLSGVLGSLVSGVQIAISASNTGGAWDNAKKYIEAGVSEHAKSLGPKGSEPH  
KAAVIGDTIGDPLKDTSGPSLNILIKLMAVESLVFAPFFATHGGILFKYF

>Q56ZN6

MMMEDVEQASLMSFNDRPRAFPMNRSKTYSPLIFRIIRKLNVRVLSIILLFCFGAIFYM  
GASTSPIIVFVFTVCIISFLLSIYLTWKVWLAKDEGPPMEMVEISDAIRDGAEGFFRTQYST  
ISKMAILLAFVILCIYLFRLSLTPQQEAAAGLGRAMSAYITVAAFLLGALCSGIAGYVGMWV  
SVRANVRVSSAARRSAREALQIAVRAGGFSALVVVGMVIGIALLYSTFYVWLGVGSPGS  
MNVTDLPLLLLVGYGFGASFVALFAQLGGGIYTKGADVADLVGKVEQGIPEDDPRNPAVI  
ADLVGDNVGDCAARGADLFESIAAEIISAMILGGTMAKKCKIEDPSGFILFPLVVHSHFDL  
IISIGILSIKGRDASVKSPVEDPMAVLQKGYSLTIILAVITFGASTRWLLYTEQAPSA  
WVNFALCGLVGIITAYIFVWISKYYTDYKHEPVRTLALASSTGHGTNIAGVSLGLESTA  
LPVLTISVAIISAYWLGNTSGLVDENGIPTGGLFGTAVATMGMLSTAAVLTMDMFGPIA  
DNAGGIVEMSQQPEVREITDLLDAVGNNTTKATTKGFAIGSAALASFLLFSAYMDEVSAF  
ANVSFKVEDIAIPEVFGVGLLGLAMLIIFLFSAWACAAVGRTAQEVVNEVRRQFIERPGIME  
YKEKPDYSRCVAIVASAALREMIKPGALAIASPIVVGLVFRILGYYTGQPLLGAQVASM  
LMFATVCGILMALFLNTAGGAWDNAKKYIETGALGGKGSEAHKAAVTGDTVGDVDFKDTAG  
PSIHVLIKMLATITLVMAPVFL

>Q99034

MPSVKETLTLLLSQAFLATGSPVDGETVVKRQCPAIVHVFAGARETTVSQGYGSSATVVNLV  
IQAHPGTTSEAIIVYPACGGQASCAGGIISYANSVVNGTNAAAAAINNHNCPDTQLVLVGY  
SQGAQIFDNALCGGGDPGEGITNTAVPLTAGAVSAVKAAIFMGDPRNIHGLPYNVGTCTT  
QGFDPAGFVCPASASKIKSYCDAADPYCCTGNDPNVHQYGYGQYQALAFINSQLSSG  
GSQPPGGGPTSTSRPTSTRTGSSPGPTQTHWGQCGGQWTGPTQCESGTTTCQVISQWYSQ  
CL

>Q14032

MIQLTATPVSALVDEPVHIRATGLIPFQMVSFQASLEDENGDMFYSAHYRANEFGEVDL  
NHASSLGGDYMGVHPMGLFWSLKPEKLLTRLLKRDVMNRPFQVQVKLYDLELIVNNKVAS  
APKASLTLERWYVAPGVTRIKVREGRLRGALFLPPGEGFLFPVIDLFGGLGGLLEFRASL  
LASRGFASLALAYHNYEDLPRKPEVTDLEYFEEAANFLLRHPKVFGSGVGVVSVQCQVQI  
GLSMAIYLKQVTATVLIINGTNFPFGIPQVYHGQIHQPLPHSAQLISTNALGELLELYRTFE  
TTQVGASQYLFPIEEAQGGFLFIVGEGDKTINSKAHAEQAIGQLKRHGKNNWTLSSYPGA  
GHLIEPPYSPLCCASTTHDLRLHWGGGEVIPHAAAQEHAWKEIQRFRLRKHLIPDVTSQL

>P56817

MAQALPWLILLWAGVLPAGHTQHGIPLRSLGGLGAPLGLRLPRETDEEPEEPGRRGSF  
VEMVDNLRGKSGQGYVEMTVGSPQTLNILLVDTGSSNFVGAAPHPFLHRYRQQLSST  
YRDLRKGVYVYPTQGWEGELGTDLVSIPHGNVTVRANIAAITESDKFFINGSNWEGIL  
GLAYAEIARPDDSLEPFDFSLVKQTHVPLFSLQLCGAGFPLNQSEVLASVGGSMIIGGI  
DHSLYTGSLWYTPIRREWYEVIVRVEINGQDLKMDCKEYNYDKSIVDSGTTNLRPLPKK  
VFEEAVKSIKAASSTEKFPDGFVLGELVCWQAGTTPWNIFFPVISLYLMGEVTNQSFRTI  
ILPQQYLRPVEDVATSQDDCYKFAISQSSTGTVMGAVIMEGFYVVFDRARKRIGFAVSAC  
HVHDEFRTAAVEGPFVTLDMEDCGYNIPTQDESTLMTIAYVMAAICALFMLPLCLMVCQW  
RCLRCLRQHQHDDFADDISLLK

>P22035

MSNISTKDIRKSKPKRSGFDLLEVTESLGYQTHRKNRNSWSKDDDNMLRSLVNESAKE  
LGYENGLDVKTIQQSNHLSKCIAWDLATRFKHTVVRTSKDVRKRWTGSLDPNLKKGKWT  
QEEDEQLLKAYEEHGHWSISMDIPGRTEDQCAKRYIEVLGPGSKGRLREWTLLEEDLNL  
ISKVKAYGTKWRKISSEMEFRPSLTCRNRWRKIITMVVRGQASEVITKAIKENKNIDMTD  
GKLRQHPADSDIRSDSTPNKEEQQLSQQNPNPSLIKQDILNVKENESSKLPRLKDNDGP

ILNDSKPQALPPLKEISAPPPIRMTQVGQTHSTSGSIRSKVSLPIEGLSQMNKQSPGGISD  
SPQTSLPPAFNPASLDEHMMNSNSISDSPKHAYSTVKTREPNSSTQWKFTLKDGGQLSI  
SNGTIDSTKLVKELVDQAKKYSLKISIHQHIHNYVTSTDHPVSSNTGLSNIGNINGNPL  
LMSDFPHMGRQLGNGLPGLNSNSDTFNPEYRTSLDNMDSDFLSRTPNYNAFSLEATSHNP  
ADNANELGSQSNRETNSPSVFPQANTLIPTNSTATNNEIIQGNVSANSMSPNFNGTNGK  
APSSTASYTTSGSEMPDVGPNRIAHFNYPPTIRPHLGSSDATRGADLNKLLNPSPNV  
RSNGSKTKKKEKRKSESSQHHSSSSVT'TNKFNHIDQSEISRTT'SRSDT'PLRDEDGLDFWE  
TLRSLATTNPNPPVEKSAENDGAKPQVVHQGIGSHTEDSSLGSHSGGYDFFNELLDKKAD  
TLHNEAKKTSEHDMTSGGSTDNGSVLPLNPS

>P0AE56

MYVCLCNGISDKKIRQAVRQFSPHSFQQLKFFIPVGNQCGKCVRAAREVMEDELMQLPEF  
KESA

>Q9NL89

MYKTCVWVLLFKIVLCYEAPPATLEAIHPKGLRVSVPDEGFSLFAFHGKLNEMEGLAEG  
HWSRDITKPKNGRWIFRDRNAALKIGDKIYFWTFVIKDGLGYRQDNGEWTVEGFVDEAGN  
PVNTEGSEITPGVEFTSTSLNPESPQSIPNQPPDNLPAKPPSEGYPCELSLSTVSVPGFV  
CKGQLLFEDQFNIP IHRGKIWVPEVKFPGEPDFPFNVYLSDNAEVNDGKLI IKPATLESK  
YGEDFVRQSLDLSECTGTGTVAQCLREASGPLILPPIITAKISTRHQFAFKYGRVEIRA  
KMPKGDWLYPEILLEPRDNIYGVARNYASGILKIASVKGNAEFKSKLYAGPIMTGSDPYRS  
FYLKENIGYESWNNDFHNYTLEWRPDGITLLVDGESYGEIKPGEGFYNVANSYKVEAAPQ  
WLKGTIMAPFDELFFVYSIGLNVAGIREFSEDISNKPWKNSATKAMLKFWDARSQWFPTWD  
EDSALQVDYVKVFAI

>Q8MU95

MFVTFICFLACLTC SYGQPRAQQYVVP SAKLEAIYPKGLRVSIPDDGFSLFAFHGKLNEE  
MDGLEAGHWARDITKPKEGRWTFRDRNVKLLGDKIYFWTYVIKDGLGYRQDNGEWTVTE  
FVNEDGTPADTSLEPTTAPTVP RPDPQNPQIP THRPDP PCTVSATMVDGRKSVCQGTLLF  
SEEFKANLKDLANWEAEVKFPEEPDYPFNVMVDGTLELEDGSLVLT PKLLESRFHAGI  
LNDALDLTNRCSGQVDTTECRRQASGAQILPPVMTGKITTKNKFTFKFGRVEVRAKLPAG  
NWLLEPEINLEPKDNVFGSRRYESGLMRVAFKGNVFAKKNLGGPVLADTEPFRSLLMKE  
KIGIDNWNRDYHNYTLIWKQDGDMLVDGEKYGSISPGEGFYALGREHAVPHAAHWLRGS  
VMAPLDQYFFLSLGLRVGGVHDFADSPDKPWKNRSNKAVLNFVNDRDNWFPTWFDANLKV  
DYVRVYAL

>P53004

MNAEPEKFGVVVGVGRAGSVRMRDLRNPHPSSAFLNLI GFVSRRELGSIDGVQQISLE  
DALSSQEEVAYICSESSSHEDYIRQFLNAGKHVLVEYPMTSLSLAAQELWELAEQKGV  
LHEEHVELLMEEFAFLKKEVVGKDLLKGSLLFTAGPLEEERFGFP AFSGISRLTWLVSLF  
GELSLSVSATLEERKEDQYMKMTVCLETEKKSPLSWIEEKGPGLKRNRYLSFHFKSGSLEN  
VPNVGVNKNIFLKDQNI FVQKLLGQFSEKELAAEKKRILHCLGLAE EI QKYCCSRK

>P13001

MNNIWWQTKGQGNVHLVLLHGWLNAEVWRCIDEELSSHFTLHLVDLPGFGRSRGFGALS  
LADMAEAVLQQAPDKAIWLGWSLGGVLVASQIALTHPERVQALVTVASSPCFSARDEWPGI  
KPDVLAGFQQQLSDDFQRTVERFLALQTMGTETARQDARALKKTVLALPMPEVDVINGGL  
EILKTVDLRQPLQNVSMFPFLRLYGYLDGLVPRKVVPMLDKLWPHSESYIFAKAAHAPFIS  
HPAEFCHLLVALKQRV

>Q9K197

MRRQRERKSMPPDAVKKVYLIHGWGANRHMFDLMPRLPATWVPVSAVDLPGHGDAPFVRPF  
DIAAADGIAAQIDAPADILGWSLGGGLVALYLAARHPDKVRSCLTASFARLTADEDEYPE  
GLAAPALGKMGVAFRSDYAKHIKQFLQLQLLHTPDADGIIGRILPDLARCGTPQALQEAL  
DAAERADARHLLDKIDVPVLLVFGGKDAITPPRMGEYLHRRRLKGSRLVVMKAAHAPFLS  
HAEFAALYRDFVEGGLR

>P06709

MKDNTVPLKLIALLANGEFHSGEQLGETLGMSSRAAINKHIQTLRDWGVDFVTVPGKGYSL  
PEPIQLLNAKQILGQLDGGSVAVLPVIDSTNQYLLDRIGELKSGDACIAEYQQAGRGRRG  
RKWFSPFGANLYLSMFWRLEQGPAAAIGLSLVIGIVMAEVLRLKLGADKVRVKWPNDLYLQ  
DRKLAGILVELTGKTGDAAQIVIGAGINMAMRRVEESVVNQWITLQEAGINLDRNTLAA  
MLIRELRAALELFEQEGLAPYLSRWEKLDNFINRPVKLIIGDKEIFGISRGIDKQGALLL  
EQDGI IKPVMGGEISLRSAEK

>P04190

MKKNTLLKVGLCVGLLGTIQFVSTISSVQASQKVEKTVIKNETGTISISQLNKNVWVHTE  
LGSFNGEAVPSNGLVNLNTSKGLVLDSSWDDKLTKELEIEMVEKKFQKRVTDVII THAHAD  
RIGGIKTLKERGIKAHSTALTAELAKKNGYEPLGDLQTVTNLKFNGMKVETFPYPGKGHT  
EDNIVVWLPQYNILVGGCLVKSTSAKDLGNVADAYVNEWSTSIENVLKRYRNINAVVPGH  
GEVGDKGLLLHTLDLLK

>P26918

MMKGMKCGLAGAVVLMASFWGGSVRAAGMSLTQVSGPVYVVEDNYVQENSMVYFGAKG  
VTVVGATWTPDTARELHKLIKRVSRKPVLEVINTNYHTDRAGNAYWKSIGAKVVSTRQT  
RDLMKSDWAEIVAFTRKGLPEYDPLVLPVNVHDGDFTLQEGKVRAFYAGPAHTPDGIF  
VYFPDEQVLYGNCILKEKLGNL SFADVKAYPQTLERLKAMKLP IKTVIGGHDSPLHGPEL  
IDHYEALIKAAPQS

>P25910

MKTVFILISMLFPVAVMAQKSVKISDDISITQLSDKVYTYVSLAEIEGWMVPSNGMIVI  
NNHQALLDTPINDAQTEMLVNWVTDLSLHAKVTTFIPNHWHGDCIGGLGYLQRKGVQSYA  
NQMTIDLAKKGLPVPEHGFTDSLTVSLDGMPLQCYLGGGHATDNIVVWLP TENILFGG  
CMLKDNQATSIGNISDADVTAWPKTLDKVKAKFP SARYVVPGHGDYGGTELEIHTKQIVN  
QYIESTSKP

>Q47066

MMTQSIRRSMLTVMATLPLLFSSATLHAQANSVQQQLEALEKSSGGRLGVALINTADNSQ  
ILYRADERFAMCSTSKVMAAAAVLKQSESDKHLLNQRVEIKKSDLVNYNPIAEKHVNGTM  
TLAELGAAALQYSDNTAMNKLI AHLGGPDKVTAFAFARSLGDETFRDLDRTEPTLNTAIPGDP  
RDTTTP LAMAQTLKNLTLGKALAEQRAQLVTWLKGNTTGSASIRAGLPKSWVVGDKTGS  
GDYGTNDIAVIW PENHAPLVLVTYFTQPEQKAERRRDILAAA AKIVTHGF

>O05391

MKRFSTAYLLLGILCSAAVFLIGAPSRALGAEVEHYEPLQVHVQLEKVYLDGDVSI EHKH  
EKVFSMDDFWAAYAGWTLVEQKKG YVLFKQMDDISPLSKVNGYIGVSDNGVISTFHGRP  
EPASEPIQSFFQIDLERLESHMQKNLLKGI PFRTKAEFEDVIEHMKTYSG

>Q86WA6

MVAVLGGRGVRLRLLLSALKPGI HVPRAGPAAAFGTSVTS AKVAVNGVQLHYQQTGEGD

HAVLLLLPGMLGSGETDFGPKLNKLNKLFVVAWDPRGYGHSRPPDRDFPADFFERDAKD  
AVDLMKALKFKKVSLLGWSGGITALIAAAKYPYSYIHKMVIWGANAYVTDEDSMIYEGIR  
DVSKWSERTRKPLEALYGYDYFARTCEKWDGIRQFKHLPDGNICRHLLPRVQCPALIVH  
GEKDPLVPRFHADF IHHKVKGSRLHLMPEGKHNLHLRFADEFNKLAEDFLQ

>P50747

MEDRLHMDNGLVPQKIVSVHLQDSTLKEVKDQVSNKQAQILEPKPEPSLEIKPEQDGMH  
VGRDDPKALGEEPQRRGSASGSEPAGDSRGGGPVEHYHLHLSSCHECLELENSTIESV  
KFASAENIPDLPHYDYSSSLESVADETSPEPERGRRVNLTKAPNILLVYVGSQSEALGRFH  
EVRSVLADCVDIDSYILYHLLLEDLSALRDPWTDNCLLLVIATRESIPEDLYQKFMAYLSQG  
GKVLGLSSSFTFGGFQVTSKALHKTQNLVFSKADQSEVKLSVLSGCRYQEGPVRLSP  
GRLQGHLENEKDRMIVHVPFGTRGGEAVLCQVHLELPPSSNIVQTPEDFNLLKSSNFRR  
YEVLRREILTTLGLSCDMKQVPALTPLYLLSAAEEIRDPLMQWLGHVVDSEGEIKSGQLSL  
RFVSSYVSEVEITPSCIPVVTNMEAFSSEHFNLEIYRQNLQTKQLGKVIILFAEVTPTTMR  
LLDGLMFQTPQEMGLIVIAARQTEGKGRGGNVWLSVPGCALSTLLISIPLRSQLGQRIPF  
VQHLMSVAVVEAVRSIPEYQDINLRVKWPNDIYYSDLMKIGGVLVNSTLMGETFYILIGC  
GFNVTNSNPTICINDLITEYNKQHKAEKPLRADYLIARVVTVLEKLIKEFQDKGPNSVL  
PLYRYRWVHSGQQVHLGSAEGPKVSIVGLDDSGFLQVHQEGGEVVTVHPDGNSFDMLRNL  
ILPKRR

>P35070

MDRAARCSGASSPLLLALALGLVILHCVVADGNSTRSPETNGLLCGDPEENCAATTTQS  
KRKGHSRCPKQYKHYCIKGRCRFVVAEQTPSCVCEGYIGARCERVDLFYLRGDRGQIL  
VICLIAVMVVFIIILVIGVCTCCHPLRKRKRKRKKKEEMETLGKDIPTINEDIETNIA

>P00141

ADGGTHDARIALMKKIGGATGALGAIKGEKPYDAEIVKASLT'TIAETAKAFPDQFNPKD  
STDAEVNPKIWDNLDDFKAKAALSTDAETALAQLPADQAGVGNLTKTLGGNCGACHQAY  
RIKKD

>P00150

MLRVTIVAGALVLTASAVMAQQDLVDKTQKLMKDNGRNMMVLGAIKGEKPYDQAAVDAA  
LKQFDEKADLPLKLPFDSVKGLKPFDSKYSSSPKIWAERAKFDTEIADFAKAVDGAKGKI  
KDVDTLKAAMQPIGKACGNCHENFRDKEG

>P0ABE7

MRKSLLAAILAVSSLVFSSASFAADLEDNMETLNDNLKVIKADNAAQVKDALTKMRAAAL  
DAQKATPPKLEDKSPDSEPKDFRHGFDILVGQIDDAKLANEGKVKEAQAQAAEQKLTTR  
NAYHQYR

>P59807

MPIFRFTALAMTLGLLSAPYNAMAATSNPAFDPKNLMQSEIYHFAQNNPLADFSSDKNSI  
LTLSDKRSIMGNQSLWKWGGSSFTLHKKLIIVPTDKEASKAWGRSSTPVFSFWLYNEKP  
IDGYLTIDFGEKLISTSEAQAGFKVKLDFTGWRVAVGVSLLNNDLENREMTLNATNTSSDGT  
QDSIGRSLGAKVDSIRFKAPSNVSQGEIYIDRIMFSVDDARYQWSDYQVKTRLSEPEIQF  
HNKVPQLPVTPENLAAIDLIRQLINEFVGGKEETNLALEENISKLSDFDALNIHTLAN  
GGTQGRHLITDKQIIIIYQPENLNSQDKQLFDNYVILGNYTTLMFNISRAYVLEKDPTQKA  
QLKQMYLLMTKHLDDQGFVKGSALVTTHHWGYSRWWYISTLLMSDALKEANLQTQVYDS  
LLWYSREFKSSFDKVSADSSDLDFNTLSRQHLALLLLEPDDQKRINLVNTFSHYITGA  
LTQVPPGGKDGLRPDGTAWRHEGNYPGYSFPAFKNASQLIYLLRDTPPFSVGESGWNNLKK



AMVSAWIYSNPEVGLPLAGRHPFNPSPLKSVAQGYWLMASAKSSPDKTLASIYLAISDK  
TQNESTAI FGETITPASLPQGFYAFNGGAFGIHRWQDKMVTLKAYNTNVWSSEIYNKDNR  
YGRYQSHGVAQIVSNGS QLSQGYQQEGWDWNRMEGATTIHLPLKDLDSPKPHITLMQRGER  
GFSGTSSLEGQYGMMAFNLIYPANLERFDPNFTAKKSVLAADNHLIFIGSNINSSDKNKN  
VETTLFQHAITPTLNTLWINGQKIENMPYQTTLQQGDWLIDSNGNGYLITQAEKVNVSRO  
HQVSAENKNRQPTEGNFSSAWIDHSTRPKDASYEYMFVLDATPEKMGEMAQKFRENNGLY  
QVLRKDKDVHII LDKLSNVTGYAFYQPASIEDKWIKKVNKPAIVMTHRQKDTLIVSAVTP  
DLNMTRQKAATPVTINVTINGKWQ SADKNSEVKYQVSGDNTELTFTSYFGIPQEIKLSPL  
P

>P20160

MTRLTVLALLAGLLASSRAGSSPLLDIVGGRKARPRQFPFLASIQNQRHFCCGALIHAR  
FVMTAASC FQSQNPVSTVVLGAYDLRRRERQSRQTFSSISSMSENGYDPQQNLNDLMLLQ  
LDREANLTSSVTILPLPLQ NATVEAGTRCQVAGWGSQRSGRLSRFPRFVNVTVPEDQC  
RPNNVCTGVLTRRGGICNGDGGTPLVCEGLAHGVASFSLGPCGRGPDFFTRVALFRDWID  
GVLNNPGPGPA

>P28871

MFLKNIFIALAIALLDVATPTTTKRSAGFVALDFSVVKT PKAFPVTNGQEGKTSKRQAVP  
VTLHNEQVTYAADITVGSNNQKLNVI VDTGSSDLWVPD VNVDCQV TYSDQTADFCKQKGT  
YDPSGSSASQDLNTPFKIGYGDGSSSQGTLYKDTVGF GGVS IKNQVLADVDSTS IDQGIL  
GVGYKTNEAGGSYDNVPVTLK KQGVIAKNAYS LYLNSPDAATGQIIFGGVDNAKYSGSLI  
ALPVTSDRELRLISLGSVEVSGKTINTDNVDVLLDSGTTITYLQQDLADQIIKAFNGKLTQ  
DSNGNSFYEVDCNLSGDVVFNFSKNAKISVPASEFAASLQGGDGPYDKCQLLFDVNDAN  
ILGDNFLRSAYIVYDLDDNEISLAQVKYTSASSISALT

>P81214

MKFSLALLATVALATISQAAPVEKQVAGKPFQLVKNPHYQANATRAIFRAEKKYARHTAI  
PEQKGTIVKSAASGTGSVPMTDVDYDVEYYATVSVGTPAQSIKLD FDTGSSDLWFSSTLC  
TSCGSKSFDPKSSSTYKVKGKSWQISYGDGSSASGITATDNVELGGLKITGQTIELATRE  
SSSFSSGAIDGILGLGFDTISTVAGTKTPVDNLISQNLISKPIFGVWLKQSEGGGGGEYV  
FGGYNTDHIDGSLTTVKVDNSQGWYGVTVSGLKVGSKSVASSFDGILDTGTTLLIFDQAT  
GSKVAAAYGAKDNGDGTYTISCDQSKLQPLALTMGGKDFFPADSLIYVKQGSQCIAGFG  
YSSMDFAIIGDTFLKNNYVVFNQGVPEVQIAPSKA

>P02668

MMKSFFLVVTILALTL PFLGAQE QNQEQPIRCEKDERFFSDKIAKYIP IQYVLSRYP SYG  
LNYYQQKPVALINNQFLPYPYAKPAAVRSPAQILQWQVLSNTVPAKSCQAQPTTMARHP  
HPHLSFMAI PPKKNQDKTEIPTINTIASGEPTSTPTTEAVESTVATLEDSPEVIESPPEI  
NTVQVTSTAV

>O76856

MKLLILTLFLATIVLAQALTVPLNFHQASRESRRRVPQKWSNRLSALNAGTTIPISDFED  
AQYYGAITIGTPGQAFKVVFD TGSSNLWIPSKKCPITVVACDLHNKYNSGASSTYVANGT  
DFTIQYGS GAMS GFVSQDSVTVGS LTVKDQLFAEATAEPGIAFDFAKFDGILGLAFQ SIS  
VNSIPPVFYNMLSQGLVSSTLFSFWLSRTPGANGGELSFSGSIDNTKYTG DITYVPLTNET  
YWEFVMD DFAIDQSAGFCGTTCHAICDSGTS LIAGPMADITALNEKLGAVILN GEGVFS  
DCSVINTLPNVTITVAGREFVLT PKEYVLEVTEFGKTECLSGFMGIELNMGNFWILGDVF  
ISAYYTVFDFGNKQVGFATAIQG

>Q24940

MRLFILAVLTVGVLGSNDDLWHQWKRMYNKEYNGADDQHRRNIWEKNVKHIQEHNLRHDL  
GLVTTYTLGLNQFTDMTFEEFKAKYLTMSRASDILSHGVPEANNRAVPDKIDWRESGYV  
TEVKDQGNCGSCWAFSTTGTMEGQYMKNERTSISFSEQQLVDCSGPWGNNGCSGGLMENA  
YQYLKQFGLETESSYPYTAVEGQCRYNKQLGVAKVTGYTIVHSGSEVELKNLVGARRPAA  
VAVDVESDFMMYRSIGIYQSQTCSPLRVNHAVLAVGYGTQGGTDYWIVKNSWGTYWGERGY  
IRMARNRGNMCGIASLASLPMVARFP

>P25326

MNWLWVALLLCSAMAHVHRDPTLDHHDWLWKKTYGKQYKEKNEEVARRLIWEKNLKTVT  
LHNLEHSMGMHSYELGMNHLGDMTSEEVISLMSLLRVP SQWPRNVTYKSDPNQKLPDSMD  
WREKGCVTVEVKYQGACGSCWAFSAVGALEAQVKLKTGKLVSLSAQNLVDCSTAKYGNKGC  
NGGFMTAEAFQYIIDNNGIDSEASYPYKAMDGKCQYDVKNRAATCSRYIELPFGSEELKE  
AVANKGPVSVGIDASHSSFFLYKTVVYDPSCQNVNHGVLVVGYNLDGKDYWLKNSW  
GLHFGDQGYIRMARNSGNHCGIANYPSPYPI

>Q51603

MLHSIALRFEDDVITYFITSSHEHETVADAAAYQHGIRIPLDCRNGVCGTCKGFCEHGEYDGG  
DYIEDALSADAEAREGFVLPQMQARTDCVVRILASSSACQVKKSTMTGQMTIDRGSST  
LQFTLAIDPSSKVDLPGQYALRIPGTTESRAYSYSSMPGSSHVTFIVRDVPNGKMSGY  
LRNQATITETFTFDGPYGAFYLRPVRPILMLAGGTGLAPFLSMLQYMAGLQRNDLPSVR  
LVYGVNRDDDLVGLDKLDELATQLSGFSYITTVVDKDSACLRRGYVTQQITNDDMNGGDV  
DIYVCGPPPMVEAVRSWLA AEKLNPNVNFYFEKFAPTVGN

>P07519

MARCRRRSGCTAGAALLLALALSGGGGAAPQGA EVTGLPGFDGALPSKHYAGYVTVDE  
GHGRNLFYVVESEKDPVVLWLNNGGPCSSFDGFFVYEHGPFNFESGGSVKSLPKLH  
LNPYAWSKVSTMIYLDSPAGVGLSYSKNVSDYETGDLKTATDSHTFLLKWFQLYPEFLSN  
PFYIAGESYAGVYVPTLSHEVVKGIQGGAKPTINFKGYMVGNGVCDTIFDGNALVPFAHG  
MGLISDEIYQQASTSCHGNYWNATDGKCDTAKIESLISGLNIYDILEPCYHSRSI KEV  
NLQNSKLPQSFKDLGTTNKPFVTRMLGRAWPLRAPVKAGRVP SWQEVASGVPCMSDEV  
ATAWLDNAAVRSIAIHAQSVSAIGPWLLCTDKLYFVHDAGSMIAYHKNLTSQGYRAIIFSG  
DHDMCVPTGSEAWTKSLGYGVVDSWRPWIITNGQVSGYTEGYEHGLTFATIKGAGHTVPE  
YKPQEAFAFYSRWLAGSKL

>P08818

MRTTTRRLPPAPAAAVALLAALTCLLLRPAAVAAAGGHAADRIVRLPGQPEVDFDMYSGY  
ITVDEAAGRSLFYLLQEAPEEAQPAPLVLWLNNGGPCSSVAYGASEELGAFRVMPRGAGL  
VLNEYRWKQVANVFLDLPAGVGFSTNTSSDIYTSGDNRTHADSYAFLAAWFERFPHYK  
YREFYVAGESYAGHYVPELSQLVHRSGNPVINLKGFMVGNGLIDDYHDYVGTFFFWNHG  
IVSDDTYRRLKDACLHDSFIHPSACDAATDVATAEQGNIDMYSLYTPVCNIISSSSSSSS  
LSRRRTRGRYPWLTGSYDPTERYSTAYNRRRDVQTALHANVTGAMNYTWTNCSDTINTH  
WHDAPRSMLPIYRELIAAGLRIWVFSGDTDAVVPLTATRYSIGALGLATTTSWYPWYDDL  
QEVGGSQVYKGLTLVSVRGAGHEVPLHRPRQALILFQQFLQGKPMGRITNTVVA

>P21529

MVTTPLVSLLLLLLALCAAAAGALRLPPDASFPGAQAERLIRALNLLPKDSSSSSSGRHGA  
RVGEGNEDVAPGQLLERRVTLPLGPEGVADLGHAGYRPLPNTHDARMFYFFFESRGKKE  
DPVVIWLTGGGPCSSELAVFYENGPFITIANMSLVWNKFGWDKISNIIFVDQPTGTGFSY  
SSDDRDTRHDETGVSNLDYDFLQVFFKXHEPEFIKNDFFITGESYAGHYIPAFASRVHQGN

KKNEGTHINLKGFAIGNGLTDPAIQYKAYTDYALEMNLIQKADYERINKFIPPCEFAIKL  
CGTNGKASCMAAYMVCNTIFNSIMKLVGTKNYDVRKECEGKLCYDFSNLEKFFGDKAVR  
QAIGVGDIEFVSCSTSVYQAMLTDMRNLEVGIPALLEDDGINVLIYAGEYDLICNWLGN  
RWVHSMESGQKDFAKTAESSFLVDDAQAGVLKSHGALSFLKVHNAGHMVPMQPKAALE  
MLRRFTQGKLLKEAVPEEESSTTSFYAAM

>P00730

MQGLLILSVLLGAALGKEDFVGHQVLRITAADAEVQTVKELEDLEHLQLDFWRGPGQPG  
SPIDVRVFPFSLQAVKVFLEAHGIRYRIMIEDVQSLLDDEEQEQMFASQSRARSTNTFN  
TYHTLDEIYDFMDLLVAEHPQLVSKLQIGRSYEGRPYVVKFSTGGSNRPAIWIWDLGIH  
REWITQATGVWFVAKKFTEDYQDPSFTAALDSMDIFLEIVTNPDGFAFTHSQNRLWRK  
SVTSSSLCVGVDANRNWDAGFGKAGASSPCSEYHGYANSEVEVKSIVDFVKDHGNFK  
AFLSIHSYSQLLLLYPYGYTTQSIPDKTELNQVAKSAVEALKSLYGTSYKYGSIITTIY  
QASGGSIDWSYNQGIKYSFTFELRDTGRYGFLLPASQIIPTAQETWLGVLTIMEHTLNNLY

>P29068

MRKKWLSLSLVLVLIACVPALGFSQNIENPSIFDLGKLYKIDGVSTKEQRSAIASTGA  
AIEEVGKDYVKVLATPSEAKQIKQKGFATVDTSLTTQDFPSYDSGYHNYNEMVNKINTV  
ASNYPNIVKKFSIGKSYEGRELWAVKISDNVGTDENEPVLYTALHHAREHLTVEMALYT  
LDLFTQNYNLDNRITNLVNNREIYIVFNINPDGGEYDISSGSYKSWRKNRQPNSSGSSYV  
GTDLNRNYGYKWGCCGGSSGSPSSEYRGRSAFSAPEAAMRDFINSRVVGGKQQIKTLIT  
FHTYSELILYPYGYTYTDVPSDMTQDDFNVFKTMANTMAQTNGYTPQQASDLYITDGMT  
DWAYGQHKIFAFTFEMYPSTSYNPGFYPPDEVIGRETSRNKEAVLYVAEKADCPYSVIGKS  
CSTK

>P06961

MKIYLVGGAVRDALLGLPVKDRDWVVVGSTPQEMLDAGYQQVGRDFPVFLHPQTHEEYAL  
ARTERKSGSGYTGFTCYAAPDVTLLEDDLKRRDLTINALAQDDNGEIDPYNGLGDLQNR  
LRHVSPAFGEDPLRVLRVARFAARYAHLGFRIADETLALMREMTHAGELEHLTPERVWKE  
TESALTTNRNPQVFFQVLRDCCALRVLFPEIDALFGVPAPAKWHPEIDTGIHTLMTLSMA  
AMLSPQVDVRFATLCHDLGKGLTPPELWPRHHGHGPAGVKLVEQLCQRLRVPNEIRDLAR  
LVAEFHDLIHTFPMLNPKTIVKLFDSIDAWRKPQRVEQLALTSEADVGRGTGFESADYPQ  
GRWLREAWAQAQSVPTKAVVEAGFKGVEIREELTRRRIAAVASWKEQRCPKPE

>Q16663

MKVSVAALSCLMLVAVLGSQAQFINDAEETELMMSKLPLENPVVLSNFHFAADCCTSYISQ  
SIPCSLMKSYFETSSECSKPGVIFLTKKGRQVCAKPSGPGVQDCMKKLPYSI

>P22362

MQIITTALVCLLLAGMWPEVDVSKSMQVPSRCCFSFAEQEIPLRAILCYRNTSSICSNE  
GLIFKLRGKEACALDTVGWVQRHRKMLRHCPKSRK

>Q9Y258

MMGLSLASAVLLASLLSLHLGTATRGSDISKTCFQYSHKPLPWTWVRSYEFTSNCSQR  
AVIFTTKRGKKVCTHPRKKWVQKYISLLKTPKQL

>P13500

MKVSAAALLCLLLIAATFIPQGLAQPDAINAPVTCCYNFTNRKISVQRLASYRRITSSKCP  
KEAVIFKTIVAKEICADPKQKWVQDSMDHLDKQTQTPKT

>Q8IZL9

MDQYCILGRIGEGAHGIVFKAKHVETGEIVALKKVALRRLEDFPNQALREIKALQEMED  
NQYVVQLKAVFPFHGGFVLAFAEFMLSDLAEVVRHAQRPLAQAVKSYLQMLLKGVAFCHA  
NNIVHRDLKPANLLISASGQLKIADFGGLARVFSFDGSRLYTHQVATRWYRAPELLYGARQ  
YDQGVLDLSVGCIMGELLNGSPLFPKNDIEQLCYVLRILGTPNPQVWPELTELDPYNKI  
SFKEQVPMPLLEVLDPVSPQALDLLGQFLLYPPHQRIAASKALLHQYFFTAPLPAHPSEL  
PIPQRLGGPAPKAHPGPPHIHDFHVDRPLEESLLNPELIRPF ILEG

>Q42435

METLLKPFPSPLLSIPTPNMYSFKHNSTFPNPTKQKDSRKFHYRNKSSSTHFCSEFLDLAPT  
SKPESLDVNIISWVDTDLGAEFDV I I IGTGPAGLRLAEQVSKYGIKVCVDPSPLSMWP  
NYGVVWDEFEKLGLEDCLDHKWPVSCVHISDHKTKYLDRPYGRVSRKKLKLKLLNSCVEN  
RVKFKYKAVLKVKEEFESSIVCDDGRKISGSLIVDASGYASDFIEYDKPRNHGYQVAHG  
ILAEVDNHPFDLDMMLMDWRDHLGNEPYLRVKNKTEPTFLYAMPFDRNLVFLLEETSLV  
SRPMLSIMEVKKRRMVARLRHLGKVRSVLEEEKCVITMGGPLPRIPQNVMAIGGTSGIVH  
PSSGYMVARSMALAPVLAEAIVESLGSSTRMIRGSQLYHRVWNGLWPSDRRRVRECYCFGM  
ETLLKLDLEGTRRLFDAFFDVPKYWHGFLSSRLSVKELAVLSLYLFGHASNLARLDIVT  
KCTVPLVKLLGNLAIESL

>Q01151

MSRGLQLLLLSCAYSLAPATPEVKVACSEDVDLPCTAPWDPQVPYTVSWVKLLEGGEERM  
ETPQEDHLRGQHYHQKQNGSFDAPNERPYSKIRNTTSCNSGTYRCTLQDPDQQRNLSG  
KVILRVTGCPAQRKEETFKKYRAEIVLLLALVIFYLTLIIFTCKFARLQSIFFPDFSKAGM  
ERAFLPVTSPNKHGLGLVTPHKTEL

>Q08341

MIMLEAVYHRMGQNSYAYNDSTLHIRIRTKRDNVPRIDLHCGEKYDPEKYKETIPMERM  
ASDGLFDYQAAVQPRYRRLVYFALHSDNGDAVYFMEKGFQPPKVMYEGGLDFPYLN  
RQDVHTPPAWVKEAIFYQIFPERFANGDPSNDPEGVQEWGGTPSAGNFFGGDLQGVIDHL  
DYLSDLGVNLYFNPLFAATTNHKYDTADYMKIDPQFGTNEKLLKELVDACHARGMRVLLD  
AVFNHCGHFTFPFVDVLMNGLNSRYADWFHVREWPLRVVDGIPTYDTFAFEPIMPKLNTG  
NEEVKAYLLNVGRYWLEEMGLDGWRLDVANEVDHQFWREFRSEIKRINPSAYILGEMHD  
SMPWLQGDQFDAMNYPFTNILLNFFARRLTNAAEFAQAIGTQLAGYPQQVTEVSFNLLG  
SHDTTRLLTLCSGNVERMKLATLFLTYQGTPCIYYGDEIGMDGEYDPLNRKCMEDKSK  
QNTPELLAFFRSMISLRKAHPALRGSLRFLPVLEHPQLLVYERWDDNERFLIMLNEDAP  
VNVVIPAAPQPGASWRTVNGEPCAVVEESSIQAAALPPYGYAILHAPIAGTAE

>P29964

MIKEAIFHKSDVPYAYPLNENQLKIVLRTAVFDVDRVYVLYKDRYDWLKGFKIKPMLVTH  
TNELFDYYETTLELNKKFVYFFYLVS DGGEKLYYTEAGFYKKRPNHFVGFHYPYIGEK  
DVFFAPEWTSDCMVYQIFPERFNNGDKSNDPENVKPWGEKPTADSFVGGDLQGIIDKIDY  
LKDLGINAIYLTPIFLSHSTHKYDTTDYTTIDPHFGDTQKARELVQKCHDNGIKVIFDAV  
FNHCGYDFFAQDVIKNGKSKYWDWFNIEYWP IKTGKPSYEAFAFADTVWRMPKLMTKNP  
EVQKYLLEVAEYWIKEVDIDGWRLDVANEIDHHFWRKFREVVKAAKPEAIVGEVWHDAS  
PWLRGDQFDSVMNYPFRNAVVDFFAKRKISASRFNTMITEQLMRHMDSVNRVMFNLI GSH  
DTERFLTLANGMVARMKLALVFQFTFVGIPYIYYGDEVGMVGDYDPDCRRCMIWEEEKQN  
KSIFNFYKLLISIRRENEELKYGSFCTLYAIGRVFAFKREYKGSIIVVLNNSKQEVIF  
LNEVEGKEDILKMKELKRSGNLLYLQPN SAYILK

>Q9UXF8

MVSAKDILSDSLRSSVLI IKHKDKLSPDYVPENLPHREEK IKELGFI FKDLLAGDAKDSE  
RVVILGRTGTGKTATVRLFGKNFEDIAEREYGVVKVYVHINCYRHRRTLYLISQEI ANALK  
LPIPSRGLSAQEVFKMIHEYLDRRNIHLIVALDEFGHFLNTANTEE IYFLVRLYDEISAI  
IKRISYIFIVNESHSIYKLDRSIRDHIARRLIEFPPYKSMELYDILKYRVDEAFNDNAVD  
DEVLQFISNTYGYDKGGNGNARIAIETLSLAGEIAEKEGSPVLLDHAKKANSTINPEIQ  
EIIDSLSYLDLHQLILLKALIRALNKTKADEITMGTLEEEYISLSREFNEEPRRHTQVYE  
YLRKLVIGIINTRQSGKGMGRGRTTLVSLSLPLDKRLDDYIMQQIMVRLKSRA

>P30920

MFQMAKRAFLSTTLTLGLLAGSALPFLPASAVYADPDTAVTNKQSFSTVDVIYQVFTDRFL  
DGNPSNNPTGAAYDATCSNLKLYCGGDWQGLINKINDNYFSDLGVTALWISQPVENIFAT  
INYSGVNTTAYHGYWARDFKKTNPYFGTMDAFQNLITTAHAKGIKIVIDFAPNHTSPAME  
TDTSAENGRLYDNGTLVGGYTNDTNGYFHHNGGSDFSSENGIYKNLYDLADFNNHNNAT  
IDKYFKDAIKLWLDMGVDGIRVDAVKHMPGLGWQKSWMSSIYAHKPVFTFGWFLGSAASD  
ADNTDFANKSGMSLLDFRFSNAVRNVFRDNTSNMYALDSMINSTATDYNQVNDQVTFIDN  
HDMDRFKTSAVNNRRLAQALAFTLTSRGVPAIYYGTEQYLTGNGDPDRAKMPSFSKSTT  
AFNVI SKLAPLRKSNPAIAYGSTQQRWINNDVYVYERKFGKSVAVVAVNRNLSTSASITG  
LSTSLPTGSYTDVLGGVLNGMNITSTNGSINNFTLAAGATAVWQYTTAETTPTI GHVGPV  
MGKPGNVVTTIDGRGFGSTKGTVYFGTTAVTGAAITSWEDTQIKVTIPSVAAAGNYAVKVAA  
SGVNSNAYNNFTILTGDQVTVRFVNNASTTLGQNLVLTGNVAELGNWSTGSTAIGPAFN  
QVIHQYPTWYYDVSVPAGKQLEFKFFKKNGSTITWESGSNHTFTTPASGTATVTVNWQ

>P27036

MKNLTVLLKTIPLALLL FILLSLPTAAQADVTKVNYTRDVIYQIVTDRFSDGDP SNNPT  
GAIYSQDCSDLHKYCGGDWQGIIDKINDGYLTDLGITAIWISQPVENVYALHPSGYTSYH  
GYWARDYKRTNPFYGFSDFDRLMDTAHSNGIKVIMDFTPNHSSPALETDP SYAENGAVY  
NDGVLIGNYSNDPNNLFHHNGGTD FSSYEDSIYRNLYDLADYDLNNTVMDQYLKESIKLW  
LDKGIDGIRVDAVKHMSEGWQTSLSMSDIYAHEPVFTFGWFLGSGEVD PQNHFFANESGM  
SLLDFQFGQTI RDVLMDGSSNWYDFNEMIASTEEDYDEVIDQVTFIDNHMSRFSFEQSS  
NRHTDIALAVLLTSRGVPTIYYGTEQYLTGNDPENRKPMSDFDRTTNSYQIISTLASLR  
QNNPALGYGNTSERWINS DVYIYERSFGDSVVLTAVNSGDTSYTINNLNTSLPQGQYTD  
LQQLLDGNEITVNSNGAVDSFQLSANGVSVWQITEEHASPLIGHVGPMMGKHGNTVTITG  
EGFGDNEGSVLFSDSDFSDVLSWSDTKIEVSVDPV TAGHYDISVVNAGDSQSPTYDKFEVL  
TGDQVSIRFAVNNATTSLGTNLYMVG NVNELGNWDPDQAI GPMFNQVMYQYPTWYYDISV  
PAEENLEYKFIKKDSSGNVWVESGNNHTYTT PATGTDTVLVDWQ

>P08704

MKRNRFFNTSAAIAISIALNTFFCSMQTIAAEPEETYLDFRKETIYFLFLDRFSDGDP SN  
NAGFNSATYDPNNLK KYTGGDLRGLINKLPYLKSLGVTSIWITPPIDNVNNTDAAGNTGY  
HGYWGRDYFRIDEHFGNLD DFKELTSLMHSPDYNMKLVLDYAPNHSNANDENEFGALYRD  
GVFITDYPTNVAANTGWYHHNGGV TNWNDFFQVKNHNLFNLSDLNQSNTDVYQYLLDGSK  
FWIDAGVDAIRIDA IKHMDKSF IQKWTSDIYDYSK SIGREGFFFFGEWFGASANTTTGVD  
GNAIDYANTSGSALLDFGRD TLERVLVGRSGNTMKTLNSYL IKRQTVFTSDDWQVVFMD  
NHDMARIGTALRSNATTFGPGNNETGGSQSEAF AQKRIDLGLVATMTVRGIPAIYYGTEH  
YAANFTSNSFGQVGS DPYNREKMPGFDTESEAFSIIKTLGDLRKSSPAIQNGTYTELWVN  
DDILVFERRSGNDI VIVALNRGEANTINVKNIAVPNGVYPSLIGNNSVSVANKRTTLTLM  
QNEAVVIRSQSDDAENPTVQSINF TCNNGYTI SGQSVYIIGNIPQLGGWDLTKAVKISPT  
QYPQWSASLELPSDLNVEWKCVKRNETNPTANVEWQSGANNQFNSNDTQT TNGSF

>P83403

MNFYKIFVFIALILALSVSQSEAGWLKKGKIERVGNTRDATVKGLEVAQQAANVAAT  
VRG

>P42220

MADTPVPIFNLAALREGADQEKFRECVTGMGVFYLTGYGAGDKDHRLATDTAMDDFFANGT  
EAEKAAVTTDVPMTMRRGYSALEAESTAQVTRTGSYTDYSMSFSMGISGNVFPSPPEFERVW  
TEYFDKLYAAAQETARLVLTASGGYDAEIVGSLDELDDADPVLRLRYFPEVPEHRSAEHE  
PRRMAPHYDLSIITFIHQTPCANGFVSLQAEIGGELVSLPVVEDAVVVMCGAMAPLATQG  
ALPAPRHHVRSPPGAMREGSDRTSSVFFLRPTTDFSFVAKARSYGLAVDLDMETATFGD  
WIGTNYVTMHAKNEPQAG

>P41208

MASNFKKANMASSQRKRMSPKPELTEEKQOEIREAFDLFDADGTGTIDVKELKVAMRAL  
GFEPKKEEIKKMISEIDKEGTGKMNFDFLTVMTQKMSEKDTKEEILKAFKLFDDDETGK  
ISFKNLKRVAKELGENLTDEELQEMIDEADRDRGDGEVSEQEFRLIMKKTSLY

>P00751

MGSNLSPQLCLMPFILGLLSGGVTTTPWLSLARPGSCSLEGVEIKGGSFRLLQEGQALEY  
VCPSGFYPYPVQTRTRCRSTGWSWTLKTQDQKTVRKAECRAIHCPRPHDFENGEYWPRSPY  
YNVSDEISFHCYDGYTLRGSANRTCQVNGRWSGQTAICDNGAGYCSNPGIPIGTRKVGSO  
YRLEDSVTYHCSRGLTLRGSQRRTCQEGGSWSGTEPSCQDSFMYDTPQEVAAEFLSSLTE  
TIEGVDAEDGHGPGEQQRKIVLDPGSMNIYLVLDGSDSIGASNFTGAKKCLVNLIKVV  
ASYGVKPRYGLVTYATYPKIWVKVSEADSSNADWVTKQLNEINYEDHKLKSGTNTKKALQ  
AVYSMMSWPDDVPEGWNRTRHVIILMTDGLHNMGGDPITVIDEIRDLLYIGKDRKNPRE  
DYLVDVYVFGVGPLVNQVNINALASKKDNEQHVFVKMDMENLEDVFYQMIDESQSLSLCGM  
VWEHRKGTDYHKQPWQAKISVIRPSKGHESCMGAVVSEYFVLTAAHCFVDDKEHSIKVS  
VGGEKRDLEIEVVLPHPNYNINGKKEAGIPEFYDYDVALIKLKNKLKYGQTIRPICLPCT  
EGTTRALRLPPTTTCQQQKEELLPAQDIKALFVSEEEKLTRKEVYIKNGDKKGS CERDA  
QYAPGYDKVKDISEVVTPRFLCTGGVSPYADPNTCRGDSGGPLIVHKRSRFIQVGVISWG  
VVDVCKNQKRQKQVPAHARDFHINLFQVLPWLKEKQLQDEDLGF

>Q8SPQ0

MGLRASGTGFVVLVLLQSCAAYKLICYYSWSQYREGDGSFCFPDAIDPFLCTHIYYSFAN  
ISNNEIDTWEWNDVTLYDNLTLNLRNPKLKTLLSVGGWNFGPERFSKIASKTQSRRTFI  
KSVPPFLRTHGFDFGLDLAWLYPGRDRKRLTGLVKEMKAEFAREAQAGTERLLLLSAVSA  
GKIAIDRGYDIAQISRHLDFISLLTYDFHGAWRQTVGHHSPLFRGQEDASSDRFSNADYA  
VSYMLRLGAPANKLVMGIPTFGRSFTLASSKTDVGAPISGPGIPGRFTKEKILAYYEIC  
DFLHGATTHRFRDQQVPYATKGNQWVAYDDQESVKNKARYLKNRQLAGAMVWALDLDLDFR  
GTFCGQNLTFPLTSAVKDVLAEV

>Q54468

MNAFKLSALARLTATMGFLGGMGSAMADQQLDVLDQLSQLKLNKMLDNRAGENGVDCAALG  
ADWASCNRVLFVTLSDNGQAIDGKDWWIYFHSRQTLRVDNDQFKIAHLTGDLKLEPTAK  
FSGFPAGKAVEIPVVAEYWQLFRNDFLPRWYATSGDAKPKMLANTDTENLDQFVAPFTGD  
QWKRTKDDKNILMTPASRFVSNADLQTLPAGALRGKIVPTPMQVKVHAQDADLRKGVALL  
LSTLVKPAADVVSQRFALLGVPVQTNQYPIKTDIQPGKFKGAMAVSGAYELKIGKKEAQV  
IGFDQAGVFYGLQSILSLVPSDGSKGIATLDASDAPRFPYRGIPLDVARNFHKKDAVLRLL  
LDQMAAYKLNKFHFLSDDEGWRIEIPGLPELTEVGGQRCHDLSETTCLLPQYGGQPDVY  
GGFFSRQDYIDI IKYAQARQIEVIPEIDMPAHARA AVVSMEARYKKLHAAGKEQEANEFR  
LVDPTDTSNTTSVQFFNRQSYLNPCLDSSQRQFVDKVI GEIAQMHKEAGQP IKTWHFGGDE

AKNIRLGAGYTDKAKPEPGKGIIDQSNEDKPWAKSQVCQTMKEGKVADMEHLPSYFGQE  
VSKLVKAHGIDRMQAWQDGLKDAESSKAFATSRVGVNFWDTLYWGGFDSVNDWANKGYEV  
VVSNDPYVYMDFPYEVNPDERGYWYWGTRFSDERKVF SFAPDNMPQNAETSVD RDGNHFNA  
KSDKPWP GAYGLSAQLWSETQRTDPQMEYMI FPRAL SVAERSWHRAGWEQDYRAGREYKG  
GETHFVDTQALEKDWLRFANILGQRELA KLDKGGVAYRLPVPGARVAAGKLEANIALPGL  
GIEYSTDGGKQWQRYDAKAKPAVSGEVQVRSVSPDGKRY SRAEKV

>P29027

MLTRTFLGMAISAF LASTGVQAAWSSHGPNVMYYWGQNSAGGSNTQASLGTYCESGQVDA  
VLLSFLHVFVNGGIPEINLSSACAGTYFPNTQLLSCP AVGADIKKCQDKGVKVL LSLGGA  
AGVYGFTSDAQGQQAQT IWNLFGGNSDTRPFGDAVIDGVDLDIEGGSSTGYVAFVNAL  
RQKFSNFLIGAAPQCPFPDAILG SVLNSASF DYVNVQFYNNYCSATGSSFNFD TWDNWA  
KTTSPNKNVKIMFTVPGSSTAAGSGYVPMSTLQTIVPSLASKYSSYGGVSVWDASQAWN  
GGFNSQLYSLVHSGGSTPPPPSSSSATKTTT TKTATSTKT TTTTAPTATSTPGSCP VANQ  
PCSTQNQYACTADGKYAVCDHGKWVASSCPSNTVC IPTTDGAS IYCGYATGSGSTCPSVS  
ALEITAASLGSKNGPVPRPYKASKVAAQLAVTSTDKNSFEAVINARRTTLTPFEKSVTIE  
FTTSPNIKFTESDMGPVRQVGNKVR IQAKNDYNE SMTLVVKVKG S INSGV FVAPSTSAWN  
FK

>Q13231

MVRSVAWAGFMVLLMIPWGSAAKLVCYFTNWAQYRQGEARFLPKDLDP SLCTHLIYAFAG  
MTNHQLSTTEWNETLYQEFNGLKKMNP KLTLLAIGGWNFGTQKF TDMVATANNRQTFV  
NSAIRFLRKYSFDGLDL DWEYPGSQGSPA VDKERFTTLVQDLANAFQQAQTSGKERLLL  
SAAVPAGQTYVDAGYEVDKIAQNLD FVNLMAYDFHGSWEKVTGHNSPLYKRQEESGAAAS  
LNVDAAVQQLQKGT PASKLILGMPT YGRSFTLASSSDTRVGAPATGSGTPGPFTKEGGM  
LAYYEVCSWKGATKQRIQDQKVPYIFRDNQWVGFDDVESFKTKVSYLKQKGLGGAMVWAL  
DLDDFAGFSCNQGRYPLIQTLRQELSLPYLPSGTPELEV PKPGQPSEPEHGSPSPGQDTFC  
Q GKADGLYPNPRERSSFYSCAAGRLFQQSCPTGLVFSNSCKCCTWN

>P12676

MTAQOHL SRRRMLGMAAFGAAALAGGTTIAAPRAAAAAKSAADNGGYVPAVVIGTGYGAA  
VSALRLGEAGVQTLMLEMQQLWNQPGPDGNIFCGMLNPDKRSSWFKNRTEAPLGSFLWLD  
VVNRNIDPYAGVLD RVDNYDQMSVYVGRGVGGGSLVNGGMAVEPKRSYFEEILPRVDSSEM  
YDRYFPRANSMLRVNHIDTKWFEDTEWYK FARVSREQAGKAGLGT VFPNVYDFGYMQRE  
AAGEVPKSALATEVIYGNNHGKQSLDKTYLAAALGTGKVTIQTLHQVKTIRQTKDGGYAL  
TVEQKDTDGKLLATKEISCRYLFLGAGSLGSTELLVRARDTGTLPNLNSEVGAGWGPNGN  
IMTARANHMWNPTGAHQSSIPALGIDAWDNSDSSVFAE IAPMPAGLETWVSLYLAI TKNP  
QRGTFVYDAATDRAKLNWTRDQNA PAVNAAKALFDR INKANGT IYRYDLFGTQLKAFADD  
FCYHPLGGCVLGKATDDYGRVAGYKNLYVTDGSLIPGSVGVNPFVTITALAERNVERI IK  
QDVTAS

>Q8NCG5

MLLPKMKMLLLFLVSQMAILALFFHMYSHN ISSLMKQAQPERMHV LVLSSWRSGSSFVGG  
LFGQHPDVFYLM EPAWHVWMTFKQSTAWMLHMAVRDLIRAVFLCDMSVFDAYMEPGPRRQ  
SSLFQWENSRALCSAPACDIIPQDEIIPRAHCRL LCSQQPFVEVEKACRSYSHVVLKEVR  
FFNLQSLYPL LKDP SLNLHIVHLVRDPRAVFRSRERTKGDLMIDSRIVMGQHEQK LKKED  
QPYYVMQVICQSQLEIYKTIQSLPKALQERYLLVRYEDLARAPVAQTSRMYEFVGLFELP  
HLQTVWHNITRGKGMGDHAFHTNARDALNVSQAWRWSLPYEKVSRLQKACGDAMNLLGYR  
HVRSEQEQRNLLDLLSTWTVPEQIH

>P00794

MRCLVLLAVFALSQGAETRIPLYKKGKSLRKALKEHGLLEDFLQKQQYGISSKYSGFGE  
VASVPLTNYLDSQYFGKIYLGTPPQEFTVLFDTGSSDFWVPSIYCKSNACKNHQRFDPK  
SSTFQNLGKPLSIHYGTGSMQGILGYDVTVTVSNIVDIQQTVGLSTQEPGDVFTYAEFDGI  
LGMAYPSLASEYSIPVFDNMNRHLVAQDLFSVYMDRNGQESMLTLGAIDPSYYTGSLSHW  
VPVTVQQYWFQFTVDSVTISGVVVACEGGCQAILDGTGTSKLVGPPSSDILNIQQAIGATQNG  
YGEFDIDCDNLSYMPVVFEINGKMYPLTPSAYTSQDQGFCTSGFQSENHSQKWILGDVF  
IREYYSVFDRANNLVGLAKAI

>Q99828

MGGSGSRLSKELLAHEYQDLTFLTKQEILLAHRRFCCELLPQEQRSVLESSLRAQVPFEQILS  
LPELKANPFKERICRVFSTSPAKDSLSEDFLDLLSVFSDTATPDIKSHYAFRIFDFDDD  
GTLNREDLSRLVNCLTGEGEDTRLSASEMKQLIDNILEESDIDRDGTINLSEFQHVISRS  
PDFASSFKIVL

>O75339

MVGTKAWVFSFLVLEVTSVLGRQTMLTQSVRRVQPGKKNPSIFAKPADTLESPGEWTTLF  
NIDYPPGGKGDYERLDAIRFYGDRCARPLRLEARTTDWTPAGSTGQVVHGSPREGFWCL  
NREQRPQNCNSNYTVRFLCPPGSLRRDTERIWPSPWSPWCSAACGQTVQTRTRICLAE  
MVSLCSEASEEGQHCMQDCTACDLTCEPMGQVNADCDACMCQDFMLHGAVSLPGGAPASG  
AAIYLLTKTPKLLTQTDSDGRFRIPGLCPDGKSIKIKTKVKFAPIVLTMPKTSLKAATIK  
AEFVRAETPYMVMNPETKARRAGQSVSLCCKATGKPRPKYFWYHNDTLLDPSLYKHESK  
LVLRLKQQHQAGEYFCKAQSDAGAVKSKVAQLIVIASDETPCNPVPESYLIRLPHDCFQN  
ATNSFYDVGRCPVKTCAGQQDNGIRCRDAVQNC CGISKTEEREIQCSGYTLPTKVAKEC  
SCQRCTETRSIVRGRVSAADNGEPMRFVGHVYMGNSRVSMGTYKGTFTLHVPQDTERLVLT  
FVDRLQKFVNTTKVLPFNKKGSAVFHEIKMLRRKEPITLEAMETNIIPLGEVVGEDPMAE  
LEIPSRSFYRQNGEPYIGKVKASVTFLDPRNISTATAAQTDLNFINDEGDTFPLRITYGMF  
SVDFRDEVTSEPLNAGKVKVHLDSTQVKMPEHISTVKLWLSLNPDTGLWEEEGDFKFENQR  
RNKREDRTFLVGNLEIRERRLFNLDVPESTRRCFVKVRAYSERFLPSEQIQGVVISVINL  
EPRTGFLSNPRAWGRFDSVITGPNACVPAFCDDQSPDAYSAYVLASLAGEELQAVESSP  
KFNPNIAIGVPQPYLNKLNRYRRTDHEDPRVKKTAFOISMAKPRPNSAEESNGPIYAFENLR  
ACEEAPPSAAHFRFYQIEGDRYDYNTVPFNEDDPMSWTEDYLAWWPKPMEFRACYIKVKI  
VGPLEVNVRSRNMGGTHRRTVGKLYGIRDVRSTRDRDQPNVSAACLEFKCSGMLYDQDRV  
DRTLKVIPOGSCRRASVNPMLHEYLNVNHLPLAVNNDTSEYTMLAPLDPLGHNYGIYTVT  
DQDPRTAKEIALGRCFDGTSDGSSRIMKSNVGVALTFCNVERQVGRQSAFYQLQSTPAQS  
PAAGTVQGRVPSRRQRASRGGQRQSGVVASLRFRVAQQPLIN

>P0A114

MLTEGISIQSYDGHTFGALVGSAPAKAPVIVIAQEIFGVNAFMRETVSWLVDQGYAAVC  
PDLYARQAPGTALDPQDERQREQAYKLWQAFDMEAGVGDLEAAIRYARHQPYSNKGVGLV  
GYCLGGALAFVAAKGYVDRAVGYGVGLEKQLKKVPEVKHPALFHMGGQDHFVPAPSRQ  
LITEGFGANPLLQVHWYEEAGHSFARTSSSGYVASAAALANERRLDLAPLQSKKP

>P0A6H8

MTTVYTLVSWLAILGYWLLIAGVTLRILMKRRVPSAMAWLLIIYILPLVGI IAYLAVGE  
LHLGKRAERARAMWPSTAKWLNLDLACKKHIFAEENSSVAAPLFLKLCERRQGIAGVKGNQ  
LQLMTESDDDVMQALIRDIQLARHNIEMVFYIWQPGMADQVAESLMAAARRGIHCRLMLD  
SAGSVAFFRSPWPELMRNAGIEVVEALKVNLMRVFLRRMDLRQHRKMIMIDNYIAYTGSM  
NMVDPRYFKQDAGVGQWIDLMARMEGPIATAMGIIYSCDWEIETGKRILPPPPDVNIMPF  
EQASGHTIHTIASGPGFPEDLIHQALLTAAYSAREYLIIMTTPYFVPSDDLHAICTAAQR



GVDVSIILPRKNDSMLVGWASRAFFTELLAAGVKIYQFEGLLHHTKSVLVDGELSLVGTV  
NLDMRSLLWLNFEITLAIDDKGFGADLAAVQDDYISRSRLLDARLWLRPLWQRVAERLFY  
FFSPLL

>P43985

MVKDTLSTPIAKLGDFIFDENVAEVFPDMIQRSVPGYSNIITAIIGMLAERFVTADSNVY  
DLGCSRGAATLSARRNINQPNVKIIGIDNSQPMVERCRQHIAAYHSEIPVEILCNDIRHV  
EIKNASMVILNFTLQFLPPEDRIALLTKIYEGLNPNGLVVLSEKFRFEDTKINHLLIDLH  
HQFKRANGYSELEVSQKRTALENVMRDTSIETHKVRLKNVGFSSQVELWFCFNFSGSMIAV  
K

>P54623

MNSNRTSSSHNSRNLKILNASFDVPRPPGGNSPLPSQGRSVRELEEQMSALRKENFNLK  
LRIYFLEEGQPGARADSSSTESLSKQLIDAKIEIATLRKTVDVKMELLKDAARAI SHHEEL  
QRKADIDSQAIIDELQEQIHAYQMAESGGQPVENIAKTRKMLRLESEVQRLEEEELVNIEA  
RNVAARNELEFMLAERLESLTACEGKIQELAIKNSELVERLEKETASAESSNEAIDSLKV  
ELEACRKENQDLVTSIRTLKHDMKRQVRSMKEAANTMDVQRQSILLLEATIKRKEKSCGS  
MQKNVLNYEALIAKLNAELETMRQQNVYFRELSNLLQKEVRQLDRGVAIVQPMRMTADA  
GRFVWQSGTIVAQEPPLERQSAAATSNVSVSAVRLSSGPPPDQTYPVNGHRAKYGLLQ  
LFAAKLDWISAVPLALGHLALKIILLAMRLHSCQLQNVHIIPLRANRDLGAQLADKICELQE  
AQEKLKERERIHEQACRTIQKLMQKLSSQEKEIKKLNQENEQSANKENDCAKTVISPSSS  
GRSMSDNEASSQEMSTNLRVRYELKINEQEEKIKQLQTEVKKKTANLQNLVKNELWEKNR  
EVERLTKLLANQQKTLPQISEESAGEADLQQSFTEAEYMRALERNKLLQRKVDVLFQRLA  
DDQONSAVIGQLRLELQQARTEVETADKWRLECVDVCSVLTRLEELAGFLNSLLKHKDV  
LGVLAADDRNAMRKAVDRLDLSKSLNMTLNI TATSLADQSLAQLCNLSEILYTEGDASH  
KTFNSHEELHAATSMAPTVENLKAENKALKKELEKRRSSEGRKERRSLPLPSQQFDNQS  
ESEAWSEPDRKVSLARIGLDETSNSLAAPEQAI SESESEGRTCATRQDRNRNSERIAQLE  
EQIAQKDERMLNVQCQMVELDNRKQEQQLRCLDITQQLEQLRAINEALTADLHAIGSHEE  
ERMVELQRQLELKNQQIDQLKLAHSTLTADSQITEMELQALQQMQEIEQLHADSVETLQ  
SQLQKLLKLDVAVQLEEHERLHREALERDVALTTTYQEQAQQLELQRLDYHQENEKELK  
QTLVENELATRALKKQLDESTLQASKAVMERTKAYNDKLQLEKRSEELRLQLEALKEEHQ  
KLLQKRSNSSDVSQSGYTTSEEVAVPMGPPSGQATTCKQAAAVALGQRVNTSSPDLGIESD  
AGRISSEVVSNAQRAMLKTVEMKTEGSASPKAKSEESTSPDSKSNVATGAATVHDCAKVD  
LENAELRRKLIRTKRAFEDTYEKLRMANKAKAQVEKDIKNQILKTHNVLRNVRSNMENEL

>P10643

MKVISLFLVGFIFGEFQSFSSASSPVNCQWDFYAPWSECNGCTKTQTRRRSVAVYGYG  
QPCVGNAFETQSCEPTRGCPTEEGCGERFRCSFGQCISKSLVCNGSDCDEDSADEDRCE  
DSERRPSCDIDKPPPIELTGNNGYNELTGQFRNRVINTKSFGGQCRKVFSGDGKDFYRLS  
GNVLSYTFQVKINNDNFNYEFYNSTWSYVKHTSTEHTSSSRKRSFFRSSSSSSRSYTSHTN  
EIHKGKSYQLLVVENTVEVAQFINNNEFLQLAEFFWKELSHLPSLYDYSAYRRLIDQYG  
THYLQSGSLGGEYRVLFFYVDSEKLLQNDFNSVEEKKCKSSGWHFVVKFSSHGCKELENAL  
KAASGTQNNVLRGEPFIRGGGAGFISGLSYLELDNPAGNKRRYSAWAESVTNLPQVIKQK  
LTPLYELVKEVPCASVKKLYLKWALEEYLDEFDPCHCRPCQNGGLATVEGTHCLCHCKPY  
TFGAACEQGVLVGNQAGGVDGGWSCWSSWSPCVQGKTRSRCCNPPPSGGGRSCVGETT  
ESTQCEDEELEHLRLLEPHCFPLSLVPTFCPSPPALKDGFVQDEGTMFPVGNVYTCN  
EGYSLIGNPVARCGEDLRWLVGEMHCQKIACVLPVLMDGIQSHQPQPFYTVGEKVTVSCS  
GGMSLEGPSAFLCGSSLKWSPEMKNARCVQKENPLTQAVPKCQRWEKLQNSRCVCKMPYE  
CGPSLDVCAQDERSKRILPLTVCKMHVLHCQGRNYTLTGRDSCITLPASAEKACGACPLWG  
KCDAAESSKCVCREASECEEEGFSICVEVNGKEQTMSECEAGALRCRGQSISVTSIRPCAA

ETQ

>Q13057

MAVFRSGLLVLTTPPLASLAPRLASILTSAARLVNHTLYVHLQPGMSLEGPAQPQSSPVQA  
TFEVLDFITHLYAGADVHRHLVDVRIILLTNIRTKSTFLPPLPTSVQNLAHPPEVVLTDFTQ  
LDGSQYNPVKQQLVRYATSCYSCCPRLASVLLYSYDYGIGEVVPEPLDVPLPSTIRPASPV  
AGSPKQPVRYGYRGAVGGTFDRLHNAHKVLLSVACILAQEQLVVGVADKDLLKSKLLPEL  
LQPYTERVEHLSEFLVDIKPSLTFDVIPLLDYGPAGSDPSLEFLVVSEETYRGGMAINR  
FRLNDLEELALYQIQLLKDLRHTENEEDKVSSSSFRQRM LGNLLRPPYERPELPTCLYV  
IGLTGISGSGKSSIAQRLKGLGAFVIDSDHLGHRAYAPGGPAYQPVVEAFGTDILHKDGI  
INRKVLGSRVFGNKKQLKILTDIMWPIIAKLAREEMDRAVAEGKRVCVIDAAVLLEAGWQ  
NLVHEVWTAVIPETEAVRRIVERDGLSEAAAQSR LQSQMSGQQLVEQSHVVLSTLWEPHI  
TQRQVEKAWALLQKRIPKTHQALD

>P39701

MRLWLVRHGETEANVAGLYSGHAPTPLTEKGIGQAKTLHTLLRHAPFDRVLCSELERARH  
TARLVLEGRDVPQHILPELNEMYFGDWEMRHHRLDTHEDAESYAAWCTDWQNAVPTNGEG  
FQAFTRRVERFISRLDAFSDCQNL L I VSHQGVLSLLIARLLTMPAASLWHFRVEQGCWSA  
IDICEGFATLKV LNSRAVWRPE

>P05425

MNNGIDPENETNKKGAIGKNPEEKITVEQTNTKNNLQEHGK MENMDQHHTHGHMERHQQM  
DHGHMSGMDHSHMDHEDMSGMNHSHMGHENMSGMDHSMHMGNFKQKFWLSLILAIPILF  
SPMMGMSFPFQVTFPGSNWVVLV L ATILFIYGGQPF LSGAKMELKQKSPAMMTLIAMGIT  
VAYVYSVYSFIANLINPHTHVMDFFWELATLIVIMLLGHWIEMNAVSNASDALQKLAELL  
PESVKRLKKDGTETVSLKEVHEGDRLIVRAGDKMPTDGTIDKGHTIVDESAVTGESKGV  
KKQVGD SVIGGSINGDGTIEITVTGTGENGYLAKVMEMVRKAQGEKSKLEFLSDKVAKWL  
FYVALVVGIIAFIAWLFLANLPDALERMVTFV I IACPHALGLAIPLVVARSTSIAAKNGL  
LLKNRNAMEQANDLDVIMLDKGTGTQGKFTVTGIEILDEAYQEEEILKYIGALEAHANH  
PLAIGIMNYLKEKKITPYQAQEQKNLAGVGLEATVEDKDVKIINEKEAKRLGLKIDPERL  
KNYEAQGNTVSFLVVSDKLVAVIALGDVIKPEAKEFIQAIKEKNIIPVMLTGDNPKAAQA  
VAEYLGINEYYGGLLPDDKEAIVQRYLDQGGKVMVGDGINDAPSLARATIGMAIGAGTD  
IAIDSADVVL TNSDPKDILHFLELAKETR R KMIQNLWWGAGYNI IAIPLAAGILAPIGLI  
LSPAVGAVLMSLSTVVVALNALTLK

>Q8MUF9

MLTTESPTTTTTTTTTTTTTSSPSSDIRDKFIFGNLEVKVKEVKGCQLHFLNVKCE LALKKT  
EIKTKPLANHTFFDVF SFRVSAATSELEIEAWKKNFLFKDKMTGSLTIPINDLLHANGEA  
KWYPLSNKKPRSSRVKKNENITNSNKNKNNTASPSPPDEAQEKGEDEDQHHSADESP AEETS  
PTTGRPRSVSMPAKKVKAAP EICLEIKFVLNEPPKEVLKGI VLDGVWSEN NFGLINNP  
HWIKCTQYLLSIKDEITPITLKL RQPEGTDQRCSFFVINYDPFYNGSKKVILDTTNDIKK  
VSSFNSPIPATSV DCKIDLEPGQYCIIPYAESFAFSGTYKFNLDSEKLDNCFYALPKSQ  
EQAWNEITVDGLWTTATNGGGDINILGWTKNPQYSFTLTKKSRACVLLSQDDNDKSVGFY  
VIKQLDAGKRAIEFREQVGKTESFKFSCSTGCTLTLDEGTYIVIPSTYDHGIEGAFHLTL  
FTDDKNATFQPLTNAFQEVQVKTWVGKSAGGSPNQPTFFNNPQFHLKVPASDKDEVIA  
VQLIQDSTIADEGIGFIVLSRDSHSEPLTAQDFQNMVFTKTSNWEKRNDIVCRLHVKPE  
SPREFTIIPSTFDPSVNR SFKLQVYS DVSI SLDEIEQKDESSDSEQNDD

>P81594

MENNQRQOQSGMSRRSFLKVGAAATTMGVIGAIKAPAKVANAAETLNYVPGSGKIRSKLR

PVHDFAGAKVRFVENNDQWLGTKILTKVKMTSEADAGFMQAVRGLYGPEPQKGGFFQFIA  
KDPFGGSI SWARNLIAPEDVVDGAPEATKTP IPDP EQMSQH IRDCCYFLRADEVGIGKMP  
EYGYTHHVADTVGLMTPVEECVTPVTKIYPNVIVVMIDQGIETMWASTGYDGISGAMS  
MKS YFTSGCIAVILAKY IRTLGYNARAHHAKNYEAIMPVCIMAAGLGELSRTGDSA IHR  
LGFRHKVA AVTTDLPLAPDQPLDFGLLDFCRVCKKCADNCPNEAISFDEDP IEYNGYLRW  
NSDFRKCTEFRTTNEEGSSCGTCMKVCPWNSKEDSWFHKAGVWVGSKGETASTFLKSIDD  
IFGYGTETIEKYKWWLEWPEKYVMK

>Q59831

MTEMTEKATTFLLTSQEAPAFPADRTCPYQLPTAYSRLRDEPDALRPVTLYDGRRAWVVTK  
HEAARLLADPRLSSDRLHADFPATSPRFKAFRQGS PAF IGMDPPEHGTRRRMT ISEFTV  
KRIKMRPDVERIVHGFIDDM LAAGPTADLVSQFALPVP SMVICHMLGVPYADHEFFQDA  
SKRLVQAVDADS AVAARDDFERYLDGLITKLESEPGTGLLGKLVTHQLADGEIDRAELIS  
TALLLLVAGHETTASMTSLSVITLLEHPDQHAALRADPSLVPGAVEELLRVLAIADIAGG  
RIATADIEIDQLIRAGEGVIVTNSIANRDS SVFENPDRLDVHRSARHHL SFGYGVHQCL  
GQNLARLELEVILTVLFDRIPTLRLAVPVEQLTLRPGTTIQGVNELPVTW

>P17927

MGASSPRSPEVPGPPAPGLPFCCGGSL LAVVLLALPVAWGQCNAP EWLPFARPTNLTDE  
FEFPIGTYLNYECRPGYSGRPFSI ICLKNSVWTGAKDRCRKSCRNPDPVNGMVHVIK  
IQFGSQIKYSCTKGYRLIGSSSATCII SGDTVIWDNETP ICDRIPCGLPPTITNGDFIST  
NRENFHYG SVVTYRCNPGSGGRKVFELVGEPSIYCTSNDDQVGIWSGPAPQCIIPNKCTP  
PNVENGILVSDNRSLFSLNEVVEFRCQPGFVMKGPRRVKCQALNKWEPELPSCSRVCQPP  
PDVLHAERTQRDKDNFSPGQEVFYSCEPGYDLRGAASMRCTPQGDWSPAAPTCEVKSCDD  
FMGQLLNGRVLFVNLQLGAKVDFVFCDEGFQLKGSSAS YCVLAGMESLWNSSVPVCEQIF  
CPSPPVIPNGRHTGKPLEVFPFGKAVNYTCDPHPDRGTSFDLIGESTIRCTSDPQNGVW  
SSPAPRCGILGHCQAPDHFLFAKLKTQTNASDFPIGTS LKYECRPEYYGRPFSITCLDNL  
VWSSPKDVCKRK SCKTPPDPVNGMVHVIITDIQVGSRINYSCTTGHR LIGHSSAECILSGN  
AAHWSTKPPICQRI PCGLPPTIANGDFISTNRENFHYG SVVTYRCNPGSGGRKVFELVGE  
PSIYCTSNDDQVGIWSGPAPQCIIPNKCTPPNVEN GILVSDNRSLFSLNEVVEFRCQPGF  
VMKGPRRVKCQALNKWEPELPSCSRVCQPPPDVLHAERTQRDKDNFSPGQEVFYSCEPGY  
DLRGAASMRCTPQGDWSPAAPTCEVKSCDDFMGQLLNGRVLFVNLQLGAKVDFVFCDEGF  
QLKGSSAS YCVLAGMESLWNSSVPVCEQIFCPSPPVIPNGRHTGKPLEVFPFGKAVNYTC  
DPHPDRGTSFDLIGESTIRCTSDPQNGVWSSPAPRCGILGHCQAPDHFLFAKLKTQNA  
SDFPIGTS LKYECRPEYYGRPFSITCLDNLVWSSPKDVCKRK SCKTPPDPVNGMVHVIITD  
IQVGSRINYSCTTGHR LIGHSSAECILSGNTAHWSTKPPICQRI PCGLPPTIANGDFIST  
NRENFHYG SVVTYRCNLGSRGRKVFELVGEPSIYCTSNDDQVGIWSGPAPQCIIPNKCTP  
PNVENGILVSDNRSLFSLNEVVEFRCQPGFVMKGPRRVKCQALNKWEPELPSCSRVCQPP  
PEILHGEHTPSHQDNFSPGQEVFYSCEPGYDLRGAASLHCTPQGDWSPAAPRCAVKSCDD  
FLGQLPHGRVLFPLNLQLGAKVSFVFCDEGFRLKGSSVSHCVLVGM RSLWNSSVPVCEHIF  
CPNPPAILNGRHTGTPSGDIPYGKEISYTC DPHPDRGMTFNLI GESTIRCTSDPHGNGVW  
SSPAPRCELSVRAGHCKTPEQFPFASPTIPI NDFEFPVGTSLNYECRPGYFGKMFSISCL  
ENLVWSSVEDNCRKSCGPPPEPFNGMVHINTDTQFGSTVNYSCNEGFRLIGSPSTTCLV  
SGNNVTWDKKAPICEIISCEPPPTISNGDFYSNNRTSFHNGTVVITYQCHTGPDGEQLFEL  
VGERSIYCTSKDDQVGVWSSPPRCISTNKCTAPEVENAIRVPGNRSFFSLTEIRFRQC  
PGFVMVGSHTVQCQTNGRWGPKLPHCSRVCQPPPEILHGEHTLSHQDNFSPGQEVFYSCE  
PSYDLRGAASLHCTPQGDWSPAAPRCTVKSCDDFLGQLPHGRVLLPLNLQLGAKVSFVCD  
EGFRLKGRSASHCVLAGMKALWNSSVPVCEQIFCPNPPAILNGRHTGTPFGDIPYGKEIS  
YACDTHPDRGMTFNLI GESSIRCTSDPQNGVWSSPAPRCELSVPAACPHPPKI QNGHYI  
GGHVSLYLPGMTISYTCDPGYLLVGKGFIFCTDQGIWSQLDHYCKEVNCSFPLFMNGISK

ELEMKKVYHYGDYVTLKCEDGYTLEGGSPWSQCQADDRWDPPLAKCTSRHADALIVGTLSSG  
TIFFILLIIFLSWIIILKHRKGNNAHENPKEVAIHLHSQGGSSVHPRTLQTNEENSRLVP

>Q06117

MNPNNRSEHDTIKVTPNSELQTNHNQYPLADNPNSTLEELNYKEFLRMTEDSSTEVLDNS  
TVKDAVGTGISVVGQILGVVGVFAGALTSFYQSFLNTIWPSDADPWKAFMAQVEVLIDK  
KIEEYAKSKALAELOGLQNNFEDYVNALNSWKKTPLSLRSKRSQDRIRELFSQAESHFRN  
SMPSFAVSKFEVLFPLTYAQAANTHLLLLKDAQVFGEEWGYSSSEDVAEFYHRQLKLTQQY  
TDHCVNWYVGLNGLRGSTYDAVVKFNFRREMTLTVLDLIVLFPFYDIRLYSKGVKTEL  
TRDIFTDPIFSLNTLQEYGPFTFLSIENSIRKPHLFDYLGIEFHTRLQPGYFGKDSFNYW  
SGNYVETRPSIGSSKITITSPFYGDKSTEPVQKLSFDGQKVYRTIANTDVAAPNGKVYLG  
VTKVDFSQYDDQKNETSTQTYDSKRNNGHVSAQDSIDQLPPEFTTDEPLEKAYSHQLNYAE  
CFLMQDRRGTIPFFTWTHRSVDFNTIDAEEKITQLPVPVKAYALSSGASIEGPGFTGGNL  
LFLKESSNSIAKFKVTLNSAALLQRYRVRIRYASTTNLRLFVQNSNNDFLVIYINKTMNK  
DDDLTYQTFDLATTNSNMGFSGDKNELIIGAESFVSNEKIYIDKIEFIPVQL

>P17264

MTLTKETRVTLNLDGNMMPILGLGTAAADVPKSLAEEAVKTAIDVGYRHIDCAFITGNEM  
HIGNGIRSKIISDGTVKREDIFYTGKLWCTYFSPDMVRKGLERSLRDVGMDYLDLFLMHWP  
VSLKPSGASDPDKDKPFIYDNVLDLWCALEALEARKDAGLVRSLGVSFNFRQLERILNK  
PGLKYKPVCNQVECHVYLNQNKLSYCKSKDIVLVITYSVLGSHRDRNWVDLSLPVLLDDP  
ILNKIAAKYNRTSAEVAMRFILQKGIIVLAKSFTPARIKQNLGVFEFELKPEDMKTLES  
DRNLHYGPFREVQHPPEYPFHDEY

>P04141

MWLQSLLLGLTVACISAPARSPSPSTQPEWHVNAIQEARRLLNLSRDAAEMNETVEVI  
SEMFDLQEPCLQTRLELYKQGLRGLTKLKGPLTMMASHYKQHCPTPETSCATQIITF  
ESFKENLKDFLLVIPFDCWEPVQE

>P01587

MWLQNLFLGLIVVYSLAPTRSPITVTRPWKHVEAIKEALNLLDDMPVTLNEEVEVVSNE  
FSFKKLTVCVQTRLKIFEQGLRGNFTKLKGALNMTASYQTYCPTPETDCETQVTTYADF  
IDSLKTFLTDIPFECKKPGQK

>P09920

MAQLSAQRMLMALQLLLWQSALWSGREAVPLVTVSALPPSLPLPRSFLLKSLEQVRKI  
QASGSVLEQLCATYKLCHEPELVLLGHSLGIPKASLSGCSSQALQQTQCLS QLHSGLC  
YQGLLQALSGISPALAPTLDLLQLDVANFATTIWQQMENLGVAPTQPTQSAMPFTSAF  
QRRAGGVLAISYLQGFLETARLALHHLA

>Q59288

MKKLFVTCIVFFSILSPALLIAQQTGTAELIMKRVMLDLKKPLRNMDKVAEKNLNTLQPD  
GSWKDVYPYKDDAMTNWLPNNHLLQLETIIQAYIEKDSHYGGDDKVFDQISKAFKYWYDSD  
PKSRNWWHNEIATPQALGEMLILMRYGKKPLDEALVHKLTERMKRGEPEKKTGANKTDIA  
LHYFYRALLTSDEALLSFAVKELFYPVQFVHYEEGLQYDYSYLQHGFPQLQISSYGAVFIT  
GVLKLANYVRDTPYALSTEKLAIFSKYYRDSYLKAIIRGSYMDFNVEGRGVS RPDILNKKA  
EKKRLLVAKMIDLKHTTEWADAIARTDSTVAAGYKIEPYHHQFWNGDYVQHLPAYSFNV  
RMVSKRTRRSESGNKENLLGRYLSDGATNIQLRGPEYYNIMPVWEWDKIPGITSRDYLT  
RPLTKLWGEQGSNDFAGGVSDGVYASAYALDYDSLQAKKAWFFDKEIVCLGAGINSNA  
PENITTTLNQSWLNGPVIISTAGKTGRGKITTFKAQGGFWLLHDAIGYYFPEGANLSLSTQ

SQKGNWFHINNSHSHKDEVSGDVFKLWINHGARPENAQYAYIVLPGINKPEEIKKYNGTAP  
KVLANTNQLQAVYHQQLDMVQAIFFYTAGKLSVAGIEIETDKPCAVLIKHINGKQVIWAAD  
PLQKEKTAVLSIRDCLKTGKTNRVKIDFPQQEFAGATVELK

>Q46079

MKMLNKLKAGYLLPIMVLLNVAPCLGQVVASNETLYQVVKEVKPGGLVQIADGTYKDVQLI  
VSNSGKSGLPITIKALNPGKVFFFTGDAKVELRGEHLILEGIWFKDGNRAIQAWKSHGPGL  
VAIYGSYNRITACVFDCEANSAYITTSLETGKVPQHCRIDHCSFTDKITFDQVINLN  
NTARAIKDGSVGGPGMYHRVDHCFSSNPQKPGNAGGGIRIGYYRNDIGRCLVDSNLFMRQ  
DSEAEIITSKSKQENVYYGNTYLNCQGTMMNFRHGDHQVAINNFIYIGNDQRFGYGGMFVWGS  
RHVIACNYFELSETIKSRGNAALYLNPGAMASEHALAFDMLIANNAFINVNGYAIHFNPL  
DERRKEYCAANRLKFETPHQLMLKGNLFFKDKPYVYPPFFKDDYFIAGKNSWTGNVALGVE  
KGIPVNISANRSAYKPKIKDIQPIEGIALDLNALISKGITGKPLSWDEVVRPYWLKEMPG  
TYALTARLSADRAAKFKAVIKRNEH

>P81902

NPDCLLPIKTGPCKGSFPRYAYDSSSEDKCVEFIYGGCQANANNFETIEECEACL

>P42663

MTPEAAQNLLEFQRETAYLGLSALAAWDQRTMIPRKGHGHRRARQMAALARLLHERATD  
PRIGEWLEKVEGSSLVEDPLSDAAVNVRAWRRAYERARAIPELAVELAQARSEGETAWE  
ALRPRDDWQGFPLPYLKRLFALAKEEAEILMAVGPDPDPPYGEYDALLDGYEPGARARD  
LEPLFRELSSGLKGLLDRILGSRRPDVGVLRHYPKEAQRFALELLQACGYDLEAGRL  
DPTAHPFEIAIGPGDVRITTRYEDFFNAGIFGTLHEMHALYEQGLPEAHWGTPRGEAA  
SLGVHESQSRWTENLVGRSLGFWERFFPRAKEVFFSSLADVRLDFHFVAVNAVEPSLIRVE  
ADEVTYNLHILVRLELELALFRGELFLEDLPEAWREKYRAYLGVAPRDYKDGVMQDVHWS  
GGMFGYFPPTYTLGNLYAAQFFAKAQEELGPLEPLFARGEFTPFLLDWTRRKIHAEGSRFRP  
RALVERVTGSPPGAQAFRLRYLEAKYGALYGF

>P29279

MTAASMGPVVRVAFVLLALCSRPAVGNCSGPCRCPEPAPRCPAGVSLVLDGCGCCRVC  
AKQLGELCTERDPCDPHKGLFCHFSPANRKGIVCTAKDGAPCIFGGTVYRSGESFQSSC  
KYQCTCLDGAVGCMPLCSMDVRLPSPDCPFPRRVKLPKGCCEEWCDEPKDQTVVGPALA  
AYRLEDTFGPDPTMIRANCLVQTTSEWSACSKTCGMGISTRVTNDNASCRLEKQSRLCMVR  
PCEADLEENIKKGGKCIIRTPKISKPIKFELSGCTSMKTYRAKFCGVCTDGRCCTPHRTTT  
LPVEFKCPDGEVMKKNMMFIKTCACHYNCPGDNDIFESLYYRKMVGDMA

>Q7M3E1

MLGITVFTTFLAYASSCGAIFQPNLSARVVGEDAIPHSWPWQISLQYLRDNTWRHTCG  
GTLITPNHVLTAACHCISNTLTYRVALGKNNLEVEDEAGSLYVGVDITFVHEKWSNFLVRN  
DIALIKLAETVELSDTIQVACLPEEGSLLPQDYPCFVTGWGRLYTNGPIAAELQQGLQPV  
VDYATCSQRDWWGTTVKETMVCAGGDGVI SACNGDSGGPLNCQAENGNWDVRGIVSFGSG  
LSCNTFFKKPTVFTRVSAYIDWINQKLQL

>P35003

MNALLNILLCTLAATALAEISPNI VGGSNAAAGEFPWQGS LQVRS GTSW FHC GCVLYTT  
SKALTA AHCLSNSASSYRLGFGMLRMNNVDGTEQYSSVTSYTNHPNYNGNAAGYPNDIAV  
LRLTSSMDTSSSAVGPSVWLLVERLCRTNMYDQRMGKTQWRWQHPNNLQKVDMTVLTNSD  
CSSRWSGISGATVNSGHICIFESGRSACSGDSGGPLVCGNTLTGITSWGISSCSGSYPSV  
YTRVSSFYNNWVQTQ

>P60301

MKTLTLLTLVVVTIVCLDLGYTLKCNKLVPLFYKTCFAGKNLCYKMFVATPKVPVKRGCI  
DVCPKSSLLVKYVCCNTDRCN

>P61073

MEGISIYTSNYTEEMSGSDYDSMKEPCFREANANFNKIFLPTIYSIIFLTGIVGNGLVI  
LVMGYQKCLRSMTDKYRLHLSVADLLFVITLFPFAVDVANWYFGNFLCKAVHVIYTVNL  
YSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKVYVGVWIPALLLTIPDFIFANVSEA  
DDRYICDRFYPNLWVVVFQFHIMVGLILPGIVILSCYCIISKLSHSHKGHQKRKALKT  
TVILILAFFACWLPYYIGISIDSFILLEIKQGCEFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALLTSVSRGSSSLKILSKGKRGGHSSVSTESSESSSFHSS

>P95339

MKTAWLGTFAASALLVAGYAQADADLAKKNNCIACHQVETKVVGPALKDIAAKYADKDDA  
ATYLAGKIKGGSSGVWQIPMPNVNVSADAKALADWILTLK

>P40136

MTRNKFIPNKFSSISFSVLLFAISSSQAIENVAMNEHYTESDIKRNHKTEKNKTEKEKFK  
DSINNLVKTEFTNETLTKIQQTQDLLKKIPKDVLEIYSELGGEIYFTDIDLVEHKELQDL  
SEEEKNSMNSRGEKVPFASRFVFEKKRETPKLIINIKDYAINSEQSKEVYYEIGKGISLD  
IISKDKSLDPEFLNLIKSLSDSDSSDLLFSQKFKEKLELNKSIDINFIKENLTFEQHA  
FSLAFSYYFAPDHRITVLELYAPDMFEYMNKLEKGGFEKISESLKKEGVEKDRIDVLKGEK  
ALKASGLVPEHADAFKKIARELNTYILFRPVNKLATNLIKSGVATKGLNVHGKSSDWGPV  
AGYIPFDQDLKSKKHQQQLAVEKGNLENKKSITEHEGEIGKIPLKLDHLRIEELKENGII  
KKGKEIDNGKKYYLLESNNQVYEFRISDENNEVQYKTKEGKITVLEKGFNWRNIEVMAKN  
VEGVLKPLTADYDLFALAPSLTEIKKQIPQKEWDKVVNTPNSLEKQKGVTNLLIKYGIER  
KPDSTKGTLSNWQKQMLDRLNEAVKYTGTYGGDVVNHGTEQDNEEFPEKDNEIFIINPEG  
EFILTKNWEMTGRFIEKNITGKDYLYYFNRSYNKIAPGNKAYIEWTDPITKAKINTIPTS  
AEFIKNLSSIRRSSNVGVYKDSGDKDEFKAKKESVKKIAGYLSDYNSANHIFSQEKKRKI  
SIFRGIQAYNEIENVLKSQKQIAPEYKNYFQYLERITNQVQLLLTHQKSNIIEFKLLYKQL  
NFTENETDNFEVVFQKIIDEK

>P08197

MLQLANRSVRAKAARASQSARSVSCAAAKRGADVAPLTSALAVTASILLTTGAASASAAD  
LALGAQVFNGNCAACHMGRNSVMPEKTLDKAALQYLDGGFKVESIYQVENGKGAMPA  
WADRLSEEEIQAVAEYVFKQATDAWKY

>P00118

GDVAAGASVFSANCAACHMGRNVIVANKTSLKSDLAKYLKGFDDDAVAAVAYQVTNGKN  
AMPGFNGRLSPKQIEDVAAYVVDQAEKGW

>Q9RN68

MRNGTSLLLLLAAIALAGAACLTAMGGTAKAAALEPTDSGAPSAIVMFPVGEKPNPKGAAM  
KPVVFNHLIHEKKIDNCETCHHTGDPVSCSTCHTVEGKAEGNYITLDRAMHATNIAKRAK  
GNTPVSCVSCHEQOTKERRECAGCHAIVTPKRDEAWCATCHNITPSMTPEQMOKGINGTL  
LPGDNEALAAETVLAQKTVEPVSPMLAPYKVVIDALADKYEPSNFTHRRHLTSLMERIKD  
DKLAQAFHNKPEILCATCHRSPLSLTPPKCGSCHTKEIDKANPGRPNLMAAYHLQCMGC  
HKGMDVARPRDCTTCHKAAPKSAD

>Q9RQB9

MKIKTII IAVFGVLFSAHALADVTNAEKL VYKYTNIAHSANPMYEAPSI TDGKIFFNRKFK  
TPSGKEAACASCHTNNPANVGKNI VTKGEIPPLAPRVNTRKRF TDIDKVEDEF TKHCNDIL  
GADCSPSEKANFIAYLLTETKPTK

>P25803

MATKLLWVVL SFSLVLGVANSFDFHDKDLASEESLWDLYERWRSHHTVSRSLGKHKRF  
NVFKANLMHVHNTNKMDKPYKLLKNKFADMTNHEFRSTYAGSKVNHPRMFRGTPHENGAF  
MYEKVVSVPSPVDWRKKGAVTDVKDQGCQSCWAFSTVVAVEGINQIKTNKLVALSEQEL  
VDCDKEENQGCNGGLMESAFEFIKQKGGITTESNYPKAQEGTCDASKVNDLAVSIDGHE  
NVPANDEDALLKAVANQPVSVAIDAGGSDFQFYSEGVTGDCSTDLNHGVAIVGYGTTVD  
GTNYWIVRNSWGWPEWGEHGYIRMQRNISKKEGLCGIAMLPSYP IKNSSDNPTGSFSSPKD  
EL

>O52720

MNNQFTWLHIGLGSFHRAHQAWYLHRLIASGDNRWRIAAGNIRNDAEQVVQALAAQGGRY  
VLETVSPEGEREYEEITSIQKLLPWQAGLQPLINEGANPQTKVIAFTVTEGGYYLNTRHR  
LETSNPDQLQADLQGECKTIYGTLARILEKRMADNAGPLTLLNCDNVRHNGERFHDGMVEF  
LQLTGKQAVIDWMAANTTCPNMTMVDRI TPRPAADLPAKIQAGIDDKAPVMGETFIQWV  
VENNFRDVRPNLEAVGVEMVESVI PYEEAKIRILNASHSCIAWAGTLIGQQYIHESTLTD  
VIYAIADRYVTEDVIPCLGDNIDLPYRVDVVLKRFTNPYIQDTNQRVAADGF SKIPAMI  
APTLQECYQRGVRPEATAML PALFFVFMEQWHKGTLPYQYQDGI LDAQAVHEMF EAQDPV  
AVFARDKALFGDLANNADFLALMREKVA AVYT LIN

>Q9M6E2

MAGSTEFVVRSLERVMVAPSQPSPKAFLQLSTLDNLPGVRENI FNTLLVYNASDRVSVDP  
AKVIRQALSKVLVYYSPFAGRLRKKENGDLVECTGEGALFVEAMADTDL SVLGDLDYDYS  
PSLEQLLFCPPDIEDI HPLVVQVTRFTCGGFVGVVSFCHGICDGLGAGQFLIAMGEM  
ARGEIKPSSEPIWKRELLKPEDPLYRFQYYHFQLICPPSTFGKIVQGS LVTSETINCIK  
QCLREESKEFCSAFEVVSALAWIARTRALQIPHSENVKLI FAMD MRKLFNPPLSKGYGN  
FVGTVCAMDNVKDLLSGSLLRVVRI IKKAKVSLNEHFTSTIVTPRSGSDESINYENIVGF  
GDRRRLGFDEVDVFGWGHADNVSLVQHGLKDVSVVQSYFLFIRPPKNNPDGIKILSFMPPS  
IVKSFKFEMETMTNKYVTKP

>P47243

MSVKQLGYLIFECRADVLEQMVVVYQDIIGAVVERDEGGRALVRLDGRPFIRLDPGPAN  
RLAAIGWNVDPSDLAAIAEQVEKACYSVVTADAELAADRAAAQVRQFADNDGF THELYVE  
SSFPTDPVLESFVCGEEANGIFGLGHLVVIVADRAKTQSFFTDVLGFGLSDRVTWPEAD  
IFFLHCNQRHHTVALSAPALGLKPGMVHHLMLEAKSKEQVDRAFAAVKRLGYDVLMTIGQ  
HSNDKVYSFYMMAPAGFAVELGFGGQVIGDLESWHVGFYDAPSIWGHELQLPAH

>Q0TU55

MNKNLEANRNRTLSEGIHKNIKVRAPKIDKTAISPYDRYCDGYGMPGAYGNGYVSVLKVS  
VGTVKKTD DILLDGI VSYDRAEINDAYVQG INMLTASSFCGVAGQVWGHDLATHDSIAND  
EIKPLYELKQFDGTPLVYDAKPLLEAGIELFGTEKNRRFTTAPGAHVICANKSATAYRP  
KENRPLKEGEAYGVVSFIALSLSNDRDHCADLFI EDAGLWTKNDNPEDLKKFLEDHRKAV  
TWSVVECGRDSHVVFERTYIGFAYVIMKPGEIGNALTCAPYVTLARDAVPSEGFPSLNRI  
SLSQWLDDMNFDSL VNPSKK

>P00862

MSELDAKLNKLGVDRIAISPYPKQWTRGYMEPGNIGNGYVTGLKVDAGVRDKSDDDDVLDGI  
VSYDRAETKNAYIGQINMTTASSFTGVQGRVIGYDILRSPEVDKAKPLFTETQWDGSELP  
IYDAKPLQDALVEYFGTEQDRRHYPAPGSFIVCANKGVTAERPKNADMKPGQGYGVWSA  
IAISFAKDPTKSSMFVEDAGVWETPNEDELLEYLEGRRKAMAKSIAECGQDAHASFESS  
WIGFAYTMMEPGQIGNAITVAPYVSLPIDSIPGGSILTPDKDMEIMENLTMPEWLEKMGY  
KSLSANNALKY

>P56965

MASLGHPTFGRATHVVVRALPESLAQQALRRRTKGDEVDFARAERQHQLYVGVLSKLG  
QVVQLPADESLPDCVFVEDVAVVCEETALITRPGAPSRRKEADMMEALEKLQLNIVEMK  
DENATLDGGDVLFTGREFFVGLSKRTNQRGAEILADTFKDYAVSTVPVVDALHLKSFCSM  
AGPNLIAIGSSESAQKALKIMQQMSDHRYSKLTVPDDTAANCYLNIPSKGHVLLHRTPE  
EYPESAKVYEKLDHMLIPVSNSELEKVDGLLTCSSVLINKKVD

>P80219

MVLLLLLLVALLSPTGEAGKIIIGHEAKPHSRPYMAFLFKTSKGKSHICGGFLVREDFVLT  
AAHCLGSSINVTLGAHNIMERERTQQVIPVRRPIPHPDYNDETLANDIMLLKLRKADIT  
DKVSPINLPRSLAEVKPGMMCSVAGWGRLGVMNPSTDNLQEVLDLEVQSEEKCIARFKNYI  
PFTQICAGDPSKRKNSFSGDSGGPLVCNGVAQGIVSYGRNDGTPDVYTRISSFLSWIHS  
TMRRYKRQGSV

>O95786

MTTEQRRSLQAFQDYIRKTLDPYIILSYMAPWFREEEVQYIQAENKNGPMEAAATLFLKF  
LLELQEEGWFRGFLDALDHAGYSGLYEAIESWDFKKIEKLEEYRLLKRLQPEFKTRIIIP  
TDIISDLSECLINQEEIILQICSTKGMMAGAEKLVCELLRSDKENWPKTLKLALEKERN  
KFSELWIVEKGKIDVETEDLEDKMETSDIQIFYQEDPECQNLSSENSCPPSEVSDTNLYSP  
FKPRNYQLELALPAMKGNITIIICAPTGCCKTFVSLICEHHLKFPQKQKGVVFFANQI  
PVYEQQKSVFSKYFERHGYRVTGISGATAENVPVEQIVENNDIIILTPQILVNNLKKGTI  
PSLSIFTLMIFDECHNTSKQHPYNMIMFNLYDQKLGSSGPLPQVIGLTASVGVGDAKNT  
DEALDYICKLCASLDASVIATVKHNLEELEQVVYKPKQKFFRKFVESRISDKFKYIIAQLMR  
DTESLAKRICKDLENLSQIQNREFGTQKYEQWIVTVQKACMVFPMPDKDEESRICKALFL  
YTSHLRKYNDALIISEHARMKDALDYLDKDFSNVRAAGFDEIEQDLTQRFEEKLQELESV  
SRDPSNENPKLEDLCFILQEEYHLNPETITILFVKTRALVDALKNWIEGNPKLSFLKPGI  
LTGRGKTNQNTGMTLPAQKCILDAFKASGDHNILIATSVADEGIDIAQCNLVILYEYVGN  
VIKMIQTRGRGRARGSKCFLLTSNAGVIEKEQINMYKEKMMNDSILRLQTWDEAVFREKI  
LHIQTHEKFIRDSQEKPKVPDPKENKLLCRKCKALACYTADVRVIEECHYTVLGDFAKE  
CFVSRPHPKPKQFSSFEKRAKIFCARQNCSDHWGIHVKYKTFEIPVIKIESFVVEDIATG  
VQTLYSKWKDFHFEEKIPFDPAEMSK

>Q43413

MAGFSKVVATIFLMMLLVFATDMMAEAKICEALSGNFKGLCLSSRDCGNVCRREGFTDGS  
CIGFRLQCFCTKPCA

>Q7SIG4

MEIPVIEPLFTKVTEDIPGAEGPVFDKNGDFYIVAPEVEVNGKPAGEILRIDLKTGKKT  
ICKPEVNGYGGIPAGCQCDRDANQLFVADMRLGLLVVQTDGTFEEIAKKDSEGRRMQGCN  
DCAFDEYEGNLWITAPAGEVAPADYTRSMQEKFGSIYCF'TTDGQMIQVDTAFQFPNGIAVR  
HMNDGRPYQLIVAETPTKLLWSYDIKGPAKIENKKVWGHIPGTHEGGADGMDFDEDNLL  
VANWGSSEHIEVFGPDGGQPKMRIRCPFEKPSNLHFKPQTKTIFVTEHENNAVWKFQWRN  
GKKQYCETLKFQIF



>P23743

MAKERGLISPSDFAQLQKYMEYSTKKVSDVLKLFEDGEMAKYVQGDAIGYEGFQQFLKIY  
LEVDNVPRHLSLALFQSFETGHCLNETNVTKDVVCLNDVSCYFSLLEGGRPEDKLEFTFK  
LYDTRNGILDSSEVDKIILQMMRVAEYLDWDVSELRPILQEMMKEIDYDGGSGSVSQAEW  
VRAGATTVPLLVLLGLEMTLKDDGQHMWRPKRFRPVPVYCNLCESSIGLGKQGLSCNLCKY  
TVHDQCAMKALPCEVSTYAKSRKDIGVQSHVWVRGGCESGRCDRCQKKIRIYHSLTGLHC  
VWCHLEIHDDCLQAVGHECDCGLLRDHILPPSSIYPSVLASGPDRKNSKTSQKTMDDLNL  
STSEALRIDPVPNTHPLLVFVNPKSGGKQGQRVLWKFQYILNPRQVFNLLKDGPEIGLRL  
FKDVPDSRILVCGGDGTVGWILETIDKANLPVLPVAVLPLGTGNDLARCLRWGGGYEGQ  
NLAKILKDLEMSKVHMDRWSVEVIPPQQTEEKSDPVPFQIINNYFSIGVDASIAHRFHIM  
REKYPEKFNSRMKNKLWYFEFATSESIIFSTCKKLEESLTVETICGKPLDLSNLSLEGI AVL  
NIPSMHGGSNLWGDTRRPHGDIYGINQALGATAKVIITDPDILKTCVPDLSDKRLEVVGLE  
GAIEMGQIYTKLKNAGRRLAKCSEITFHHTTKTLPMQIDVEPVMQTPCTIKITHKNQMPML  
MGPPPRSTNFFGFLS

>P0A3G2

MSEIGTGFPFDPHYVEVLGERMHYVDVGPDRGTPVLFHLHGNTSSYLWRNIIPHVAPSHR  
CIAPDLIGMGKSDKPDLDYFFDDHVRYLDAFIEALGLEEVVLVIHDWGSALGFHWAKRNP  
ERVKGIACMEFIRPIPTWDEWPEFARETTFQAFRTADVGRELIIDQNAFIEGALPKCVVRP  
LTEVEMDHYREPFLKPVDPREPLWRFPNELPIAGEPANIVALVEAYMNWLHQSPVPKLLFW  
GTPGVLIPPAEAARLAESLPNCKTVDIGPGLHYLQEDNPDIGSEIARWL PAL

>P22643

MINAIRTPDQRFNSLDQYPFSPNYLDDLPGYPGLRAHYLDEGNSDAEDVFLCLHGEP TWS  
YLVRKMI PVFAESGARVIAPDFFGFGKSDKPVDEEDYTFEFHRNFLALIERLDRNITL  
VVQDWGGFLGLTLPADPSRFRKRLIIMNACLMTDPVTQPAFSAFVTQPADGFTAWKYDLV  
TPSDLRLDQFMKRWAPTLTEAEASAYAAPPDTSYQAGVRKFPKMVAQRDQACIDISTEA  
ISFWQNDWNGQTFMAIGMKDKLLGPDVMYPMKALINGCPEPLEIADAGHFVQEFGEQVAR  
EALKHFAETE

>P0A394

MAKVAILGAGNVALTLAGDLARRLGQVSSIWAPI SNRNSFN SVRSLGSLELVGPDYGGDF  
QPQLEDDLETAISGAAFIFLTVPTMGQQGILCELANFNLSLSSVLVALPGSATSLACKQTL  
TPAFAPIAVIEATTSPYACRRVNAQVLM SVKRTFEVASTQALSEEVRGGFEILFPNRLQ  
WYQNPASIFFSNTNPVAHPAGILAAKDTIEQGISPKFYRKFPQAITRVTAIDEERLT  
IVNALGLESETDFAYCKKWKYGGHASNAREFYETFEQYADIE TPRNMNHRYLSE DVKHILV  
LWVEIAEVIGVQVPEMKS VVQEASDV LNEDLSHTGRGLSSLNLEGSNANAIVRALNGV

>Q9SQT8

MAASSTNARLTNPPRLLSKPRLSPTSVANLRFPAADFSTRFFADSSSPRLRSVPFPVVS  
DQRRRRSMEPSNVYVASNSTEMEIGSHDIVKNPSLICAPVMADSIDKMVIETSKAHELGA  
DLVEIRLDWLKDFNPLEDLKTI IKKSPLPTLFTYRPKWEGGQYEGDENERRDVLRLAMEL  
GADYIDVELQVASEFIKSIDGKKPGKFKVIVSSHNYQNTPSVEDLDGLVARIQQTGADIV  
KIATTAVDIADVARMFHITSKAQVPTIGLVMGERGLMSRILCSKFGGYLTFGTLDSSKVS  
APGQPTIKDLLDLYNFRIRIGPDTKVYGIIGKPVSHSKSPIVHNQAFKSVDFNGVYVHLLV  
DNLVSFLQAYSSSDFAGFSCTIPHKEAALQCCDEVDPLAKSIGAVNTILRRKSDGKLLGY  
NTDCIGSISAIEDGLRSSGDPSSVPSSSSPLASKTVVVIGAGGAGKALAYGAKEKGAKVV  
IANRTYERALELAEAI GKKALS LTDLDNYHPEDGMVLANTTSMGMQPNVEETPISKDALK  
HYALVFDVAVYTPRITRLLREAEESGAI TVSGSEM FVRQAYEQFEIFTGLPAPKELYWQIM

SKY

>Q3BK14

MIQVLLVIIICLAVFPFQGSSTLKSQNVNDYEVVNPQTVTGLPKGAVEEKHEPKGNTLQ  
KFPLCTTGPCRQCKLKPAGTTCWKTSRSTSHYCTGKSCDCPSYPNG

>P06632

MTVPSIVLNDGNSIPQLGYGVFKVPPADTQRAVEEALVGYRHIDTAAIYGNEEGVGAAI  
AASGIARDDLFIITTKLWNRHDGDEPAAAIAESLAKLALDQVDLYLVHWPTPAADNYVHA  
WEKMIELRAAGLTRSIGVSNHLVPHLERIVAATGVVPAVNQIELHPAYQQREITDWAAA  
DVKIESWGPLGQKGYDLFGAEPVTA AAAAHGKTPAQAVLRWHLQKGFVVPKSVRRERLE  
ENLDVDFDFDLTDTEIAAIDAMPDGDGSGRVS AHPDEV

>Q46857

MANPTVIKLDQGNVMPQLGLGVWQASNEEVITAIQKALEVGYRSIDTAAAYKNEEGVGKA  
LKNASVNREELFIITTKLWNRDHRPREALLDSLKQLDYIDLMLHWPVPAIDHYVEAW  
KGMIELQKEGLIKSIGVCNFQIHHLQRLIDETGVTPVINQIELHPLMQQRQLHAWNATHK  
IQTESWSPLAQGGKGVFDQKQVIRDLADKYGKTPAQIVIRWHLDSGLVVIPKSVTPSR  
IAENFDVWDFRLDKDELGEIAKLDQGKRLGPDQDFGG

>P30863

MAIPAFGLGTFRLKDDVVISSVITALELGYRAIDTAQIYDNEAAVQAI A ESGVPRHELY  
ITTKIWIENLSKDKLIPSLKESLQKLRTDYVDLTLIHWPSPNDEVSVVEEFMQALLEAKKQ  
GLTREIGISNFTIPLMEKAI AAVGAENIATNQIELSPYLQNRKVVAWAKQHGIHITSYMT  
LAYGKALKDEVIARIAAKHNATPAQVILAWAMGEGYSVIPSSTKRKNLESNLKAQNLQLD  
AEDKKAIAALDCNDRLVSPEGLAPEWD

>O42446

MQTYRSRMLVCSLGLFLTLHLNSLLLGAFNIKSFQDTKASNATLMNIITKIVKRYDV  
ILIQEVRDSDL SATQTLMNYNKDS PQYKYIVSEPLGASTYKERYLFLYREALVSVVKS  
YTYDDGPEETGQDTFSREPFVVMFSSKNTAVRDFTLIPQHTSPDLAVRELNALYDVVLDVR  
ARWNTNDIVLLGDFNAGCSYVSGSAWQQIRIFTDKTFHWLITDAADTTVSTVCPYDRIV  
VTTDMMRGVVQNSAKVYNYMTDLNLKQDLALAVSDHFPVEVKLS

>O89107

MSLYPASPYLASLLLFILALHGALSRLCSFNVR SFGESKKNHNAMDIIVKIIKRCDLI  
LLMEIKDSNNNICPMLMEKLNNGNSRRSTTYNYVISSRLGRNTYKEQYAFLYKEKLVSVKA  
KYLHYDQDGD TDVFSREPFVWFQAPFTA AKDFVIVPLHTT PETSVKEIDELADVYTDV  
RRRWKAENFI FMGDFNAGCSYVPPKAWKNIRLRTDPNFVWLI GDQEDTTVKKSTSCAYDR  
IVLRGQEIVNSVVRSSGVDFDFQKAYELSEEEALDVSDHFPVEFKLQSSRAFTNSRKS  
SVSLKKKKGSRS

>P40553

MGEALRRSTRIAI SKRMLEEEEE SKLAPISTPEVPKIKTGPKHNANQAVVQEANRSSDV  
NELEIGDPIPDLSLLNEDNDSISLKKITENNRVVFVYPRASTPGCTRQACGFRDNYQE  
LKKYAAVFGLSADSVTSQKKFQSKQNLPHYLLSDPKREFIGLLGAKKTPLSGSI RSHFIF  
VDGKLFKRVKISPEVSVNDAKKEVLEVAEKFKEE

>O34996

MTERKKLVLDGNSLAYRAFFALPLLSNDKGVHTNAVYGFAMILMKMLEDEKPTHMLVAF

DAGKTTFRHGTFKEYKGGKQKTPPELSEQMPFIRELLDAYQISRYELEQYEADDIIGTLA  
KSAEKDGFVEVKVFSGDKDLTQLATDKTTVAITRKGITDVEFYTPPEHVKEKYGLTPEQIID  
MKGLMGDSSDNIPGVPGVGEKTAIKLLKQFDSVEKLLS IDEVSGKKLKEKLEEFKDQAL  
MSKELATIMTDAPIEVS SVSGLEYQGFNREQVIAIFKDLGFNTLLERLGEDSAEAEQDQSL  
EDINVKTVTDVTS DILVSPSAFVVEQIGDNYHEEPILGFSIVNETGAYFIPKDIAVESEV  
FKEWVENDEQKKWVFD SKRAVVALRWQGI ELKGA EFD TLLAAYI INPGNSYDDVASVAKD  
YGLHIVSSDES VYGGKAKRAVPSEDLSEHLGRKALAIQSLREKLVQELENNQLELFEE  
LEMLLALILGEMESTGVKVDVDR LKRMGEELGAKLKEYEEKIHEIAGEPFNINSPKQLGV  
ILFEKIGL PVVKKTKTGYSTSADVLEKLADKHDIVDYILQYRQIGKLQSTYIEGLLKVTR  
PDSHKVHTRFNQALTQTGRLSSTDPNLQNIPIRLEEGRKIRQAFVPSEKDWLIFAADYSQ  
IELRVLAHISKDENLIEAFTNDMDIHTKTAMDVFHVAKDEVTSAMRRQAKAVNFGIVYGI  
SDYGLSQNLGITRKEAGAFIDRYLESFQGVKAYMEDSVQEAQKQGYVTTLMHRRRYIPEL  
TSRNFNIRSFAERTAMNTPIQGSAADIKKAMIDMAAKLKEKQLKARLLLQVHDELIFEA  
PKEEIEILEKLVPEVMEHALALDVPLKVD FASGPSWYDAK

>O08307

MAYPLLVLVDGHALAYRAFFALRESGLRSSRGEPTYAVFGFAQILLTALAEYRPDYAAVA  
FDVGRTRFRDLYAEYKAGRAETPEEFYPQFERIKQLVQALNIPITYAEGYEADDVIGTLA  
RQATERGVDTIILTGDSDVLQLVNDHVRVALANPYGGKTSVTLYDLEQVRKRYDGLPEPQ  
LADLRGLKGDTS DNIPGVRGIGEKGAIALLKQFRSLDALLEQIDAAPKRYQTLLREQAEA  
ARFSRQLATIVTDVPVQLDLEAARIGVYDRSAVMALFQELEFGVSSNLIKKLPSVVQAPT  
LAELPADLPAAPLTTAPTQLSLFAGESEPAQPTAEPPPVTIVRDATAALADLVSR LRNAPA  
FAFDTECTSLQPVASDLVGISIAIAPD TVCYIPVGHQSETQVPCGEVVTALAPFFANPQQ  
PKFAHNAKFDMEVLAGAGIKVSGLAFDTMIAAAMLGKRQGLKDLAFYELKLPPEPPTTIED  
LIGRGNKQISFAEVPVEQAAPYAAAADALYTLRLTERLQRQLEAE PALHDLYRVELPLIE  
VLTDMELTGIRLDQEYLRRELGRHFAQRIADLVERIYQQAGGPFNINSGQQLNDVLFGR LG  
IDPRAHGLSKLKS GGYSITAEVLEELS QLYPIAADILTYRQLTKLKSTYIDALPDLVNPR  
TGRIHTSYNQLGAATGRLSSNPNLQNI PVRTEEGREIRRAFVAEPGWRVFAADYSQIEL  
RVLAHMSGDENLIAAFQOGLDIHAATASRLFGVEPTAVDKNQRRVAKTVVFGVIYGISAF  
GLAQRLGIERDLARQLIDNLF AQFPGIRRYIDQTFLEFGRQHGYVQTLFGRRRVMEDLRAS  
GARRAAAEREAINAPIQGTAA DLMKAMVNVHRALREQGLRTRLLLQVHDELIAEAP EDE  
VEPAARLLRDVMS SVYRDLVVPLSVNLEVGPNWDEMSP LAMG

>P52027

MVFCGDGGLSCESIDFALCCLRGRSGNYVQSRILPMADASPDPSKPD TLVLIDGHALAFR  
SYFALPPLNNSK GEMTHAIVGFMKLLLR LARQKSNQVIVVFDPPVKTRHEQYEGYKSGR  
AQTPEDLPGQINRIRALVDALGFPRLEEPGYEADDV IASLTRMAEGKGYEVRIVTSDRDA  
YQLLDEHVKVIANDFSLIGPAQVEEKYGVTVRQWVDYRALTG DASDNIPGAKGIGPKTAA  
KLLQEYGTLEKVYEAHAGTLKPDGTRKKLLDSEENVKFS HDLSCMVTDLPLDIEFGVRR  
LPDNPLVTEDLLTELELHSLRPMILGLNGPEQDGHAPDDL LEREHAQTPEEDEAAALPAF  
SAPELAEWQTPAEGAVWGYVLSREDDLTAALLAAATFEDGVARPAPVSEPDEWAQAEAPE  
NLFGELLPSDKPLTKKEQKALEKAQKDAEKARAKLREQFPATVDEAEFVGQR TVTAAAK  
ALAAHLSVRGTVVEPGDDPLLYAYLLDPANTNMPV VAKRYLDREWPADAPTRAAITGHLL  
REL PPLLDDARRKMYDEMEKPLSGVLGRMEV RGVQVDSDFLQTL SIQAGVRLADLESQIH  
EYAGEEFHIRSPKQLETVLYDKLELASSKTKLTGQRSTAVSALEPLRDAHP IIPLVLEF  
RELDKLRGTYLDP IPNLVNPH TGR LH TTF AQTAVATGRLSSLNPNLQNIPIRSELGREIR  
KGFIAEDGFTLIAADYSQIELRLLAHIADDPLMQQAFVEGAD IHRRTAAQVLGLDEATVD  
ANQRRAAKTVNFGVLYGMSAHRLSNDLGI PYAEAAATFIEIYFATYPGIRRYINH TLDFGR  
THGYVETLYGRRRYV PGLSSRN RVQREAEERLAYNMP IQGTAADIMKLAMVQLDPQLDAI  
GARMLLQVHDELLIEAPLDKAEQVAALTKKVMENVVQLKVPLAVEVGTGPNWFDTK

>P43741

MAQIATNPLVLVDGSSYLYRAFHAFFSLTNAAGEPTSAMYGVNLMLKSLISQVQPTHIAV  
VFDAKGGKTFRDEMFEQYKSHRPPMPDDLKQIQPLHDMIRALGIPLLVVEGIEADDVIGT  
LALQASSLGKKVLIISTGDKDMAQLVDDNIMLINTMNNLSLLDRKGVIEKYGIPPELIIDYL  
ALMGDSADNIPGVAGVGEKTALGLLQGGIGSMAE IYANLEKVAELPIRGAKKLGEKLLAEK  
NNADLSYTLATIKTDVELNVTTDQLLLGESQKDQLIEYFARYEFKRWLNEVMNGADSIQ  
TTEQPVKMNQYKATSQDQSAVENTPKIQIDRTKYETLLTQADLTRWIEKLNAAKLIAVDT  
ETDSL D YMSANLVGISFALENGEAAAYLPLQLDYLDAPKTLEKSTALAAIKPILENPNIHK  
IGQNIKFDESIFARHGIELQGVFEDTMLS YTLNSTGRHNMDLAKRYLGHETIAFESLA  
GKGKSQLTFNQI PLEQATEYAAEDADVMTMKLQQALWLKLQEEPTLVELYKTMELPLLHVL  
SRMERTGVLDISDALFMQSNEIASRLTALEKQAYALAGQPFNLASTKQLQEILFDKLELP  
VLQKTPKGAPSTNEEVLEELSYSHELPKILVKHRGLSKLKSTYTDKLPQMVNSQTGRVHT  
SYHQAVTATGRLSSSDPNLQNIPIRNEEGRHIRQAFIAREGYSIVAADYSQIELRIM AHL  
SGDQGLINAFS QGKDIHRSTAAEIFGVSLDEV TSEQRRNAKAINFGLIYGMSAFGLSRQL  
GISRADAQKYMDLYFQRYPSVQQFMTDIREKAKAQGYVETLFGRRLYLPDINSSNAMRRK  
GAERVAINAPMQGTAADI IKRAMIKLDEVIRHDPDIEMIMQVHDEL VFEVRSEKVAFFRE  
QIKQHMEAAAELVVPLIVEVGVGNWDEAH

>Q9ZJE9

MEQPVIKEGTLALIDTFAYLFRSYYMSAKNKPLTNDKGFPTGLLTGLVGMVKKFYKDRKN  
MPFIVFALESQTKTKRAEKLGEYKQNRKDAPKEMLLQIP IALEWLQKMGFTCVEVGGFEA  
DDVIASLATLSPYKTRIYSKDKDFNQLLSDKIALFDGKTEFLAKDCVEKYGILPSQFTDY  
QGIVGDSSDNYKGVKIGSKNAKELLQRLGSLEKIYENLDLAKNLLSPKMYQALIQDKGS  
AFLSKELATLERGCIFEFDLSCAFPSENPLLIKDELKEYGFISTLRDLENSPFIVENV  
PILNSTPILDNTPALDNAPKSRMIVLES AEPLSMFLEKLENPNARVFMRLVLDKDKKIL  
ALAFLLQDQGYFLPLEEALFSPFSLEFLQNAFSQMLQHACIIGHDLKPLLSFLKAKYQVP  
LENIRIQDTQILAFLNPEKVGFDDEV LKEYLKEDLIPHEKIKDFKTKSKAEKSELLSMEL  
NALKRLCEYFEKGGLEEDLLTLARDIETPFVKVLMGMEFQGFKIDAPYFKRLEQEFKNEL  
NVLERQILDIGVDFNLNSPKQLGEVLYDKLGLPKNKSHSTDEKNLLKILDKHPSIPLIIL  
EYRELNKLFNTYTTPLRLKDKDDKIHTTFIQGTATGRLSSHSPNLQNI PVRSPKGLLI  
RKGFIASSKEYCLLGV DYSQIELRLLAHFSQDKDLMEAF LKGRDIHLETSKALFGEDLAK  
EKRSIAKSINFLVYGMGSKKLSETLSIPLSEAKSYIEAYFKRFP SIKDYLNGMREEILK  
TSKAFTLLGRYRVDFDTGVNDYVKGNYLREGVNAIFQGSASDLLKLGMLKVSERFKNNPS  
VRLLLQVHDELIFEIIEEKNAPELQQEIQORILNDEVYPLRVPLETSAFIAKRWNELKG

>Q9CDS1

MENKDRLLLIDGSSVAFRAFFALYNQIDRFKAPNGLHTNAIFAFHTMLSSLMERIEPTHV  
LIAFDAGKTTFRTEMFADYKGGRSKTPDEFREQLPF IKEMIEKLGIRHYELANYEADDII  
GTLDKMAEAPNVNFVTVITVGDKMIQLVDGNTRVEISKKGVAEFEEFTPDYLLEKMGLT  
PAQFIDLKALMGDSSDNYPGVTKVGEKTGLKLLQEFGSLENLYENVDSLKASKMKENLIA  
DKEMAFLSQQLATINTKAPIEIEIGLDDTLKGGKVDELSQFYDEMGAQFKSKLLAEAGGE  
VTDEKVVDEIDFEIVTDGSISEKVNADDDFFYLETLGENYHREQIVAFAWGNAEKIYVSKN  
IDLTKMKFPENTYDFKKNRVLLSHLDIELPLVKFDAMLAKYLISTTEDNKISTIARLFN  
SGHLATDEEIEFGKGTKIALPDDAVLFEHLARKIKVLALAKEKMAELLENEQEHLSDME  
LPLAEVLAKMEITGIAVSQNTLEEIGAENEKSLASLTREIYDLAGEEFNINSPKQLGVIL  
FEKLQLPVGKKTGTGYSTAVDVL EDLAALSPVVAKILEYRQINKVQSTYVKGLIPQIADD  
GKIHTRYVQDLTQTGRLSSVDPNLQNI PVRLEEGRKIRKAFVPSKDSLLLSSDYSQIELR  
VLAHISGDEHLIDAFKHGADIHTSTAMRVFGIEKAEDVTANDRRNAKAVNFGVVYGISDF  
GLARNLGITRKDAKNYIETYFERYPGIKTYMENIVREARDKGFVETMSHRRRKIPDINAR

NFNVRGFAERTAINSPIQGSAAIDILKIAMINLDKALSARDFKSKLLLQVHDEI I LDVPLE  
ELDEIKVLVKQTMEEAIELAVPLKVDENTGKTWYEAK

>P46835

MSAAMTAEVCEADHTKPMMLLDGNSLAFRAFYALPTENFKTRGGLTTNAVYGFAMLINL  
LREEAPTHIAAAFDVSRKTFRSECYAGYKANRSSIPAEFHGQIDITKEVLGALGITVFAE  
AGFEADDLIATLATQAENEGYRVLVVTGDRDALQLVSNVTVLYPRKGVSELTRFTPEAV  
IEKYGVTPAQYPLAALRGDPSDNLPGIPGVGEKTAAKWIVDYGSLQGLVDNVE SVRGKV  
GEALRTHLASVVRNRELTELVKDVPLVQTSDTLRLQPWDRDR IHRLEFDNLEFRVLRDRLE  
EALAAAGERVPEVDEGFDVRGGLLESSTVGRWLAKHADDGRRSGLAIVGTHLPHGGDATA  
LAVAAADGNGGYIDTAMLT PDDDDALA AWLADPDNPKALHEAKLAMHDLAGRGTGGIT  
SDTALAAYLVRPQRSFTLDDLRLYLRLRELRAETPEQE QFSLLDNVDEVDKQAIQTLIL  
RARAVVDLAAALDAELDLIDSTSLLGEMELPVQQLADMEKAGIAADLRLLTELQSQFGD  
QIRDAAEAAYAVIGKQINLSSPKQLQVVLFEELGMPKTKRKTGYTTDADALQSLFCKTE  
HPFLQHLLTHRDVTRLKVTVDGLLNAVAADGRIHTTFNQTIATTGRLSSTEPNLQNIPIR  
TNAGRQIRDAFVVGSENNGYTELMTADYSQIEMRIMAHLSRDEGLIEAFHTGEDLHSFVA  
SRAFGIPIEDITPELRRRVKAMSAYGLAYGLSAYGLATQLKISTEEAKLQMEQYFARFGGV  
RDYLMVDVVEQARKDGYTSTVLGRRRYLPELDSSNRQIREAAERAALNAPIQGSAAIDIKV  
AMIAVDKSLKQAKLASRMLLQVHDELLFEVAIGEREQIEAMVREQMGSAYPLDVPLEVSV  
GFGRSWGAAA

>Q9S1G2

MPNSIWTSSDARAIHARMKKGDHLFLVDGSGFIFRAFHALPPLTRKTDGLPIGAVSGFCN  
MLWKLRLDARNTDVGVTPTHLAVIFDYSAKTFRKDLYDAYKANRSAPPEELIPQFGLIRE  
ATRAFNLPCIETEGFEADDI IATYARQAEATGADVTIVSSDKDLMQLVSPNVHMYDSMKD  
KQIGIPDVIEKVGVPPEK MIDLQAMTGDSVDNVPGIPGIGPKTAAQLLEEYGDLDLTLER  
ATEIKQVKRRETILANIDMARLSRDLVRLRTDVPLDLDLDALVLEPQNGPKLIGFLKTME  
FTTLTRRVAEACDCDASAI EPAIVRIEWGETARGPDL DAAEPEPVAGGIPEVSGESVPM  
PRAKAKSAVEGAFSPADLAKARAEAFATLPFDHSAAYVTIRDLVTLDRWIADARATGLVAF  
DTETSLDAMQAELVGFSLAIADNTADPTGTKIRAAVPLVHKNVGDLLGGGLADNQIP  
MRDALPRLKALLEDESVLKVAQNLKYDYLLLKRYGIETRSFDDTMLISYVLDA GTGAHGM  
DPLSEKFLGHTPIPYKDVAGSGKANVTFDLVDIDRATHYAAEDADVTLRLWLVLKPRLAA  
AGLTSVYERLERPLLPVLARMEARGITVDRQILSRLSGELAQGAARLEDEIYVLAGERFN  
IGSPKQLGDILFGKMGLSGGSKTKTGQWSTSAQVLEDLAAAGFELPRKIVDWRQVTKLKS  
TYTDALPGYVHPETKRVTYSLSASTTTGRLSSSEP NLQNI PVRTAEGRKIRTAFI STPG  
HKLISADYSQIELRVL AHVAEIPQLTKAFEDGVDIHAMTASEMFGVPVEGMPGEVRRRAK  
AINFGIIYGISAFGLANQLS IERSEAGDYIKKYFERFPGIRDYME SRKAMARDKGYVETI  
FGRRINYPEIRSSNSPVRAFNERAAINAPIQGSAAVIRRAMIKIEPALVEVGLADRVRM  
LLQVHDELIFEVEDQDVEKAMPVIVSVMENATMPALEMRVPLRVDARAATNWDEAH

>P96022

MIVIFVDFDYFFAQVEEVLNPQYK GKPLVVCVYSGRKTSGAVATANYEARKLGVKAGMP  
I IKAMQIAPSAIYVPMRKP IYEAFSNRIMNLLNKHADKIEVASIDEAYLDVTNKVEGNFE  
NGIELARKIKQEILEKEKITVTVGVAPNKILAKI IADKSKPNGLGVI RPTEVQDFLNELD  
IDEIPGIGSVLARLRLNELGIQKLRDILSKNYNELEKITGKAKALYLLKLAQNKYSEPVEN  
KSKIPHGRYLTPYNTRDVKVILPYLKKAIN EAYNKVNGIPMRITVIAIMEDLDILSKGK  
KFKHGISIDNAYKVAEDLLRELLVRDKRRNVRRIGVKLDNII INKTNLSDFFDI

>Q97W02

MIVLFDVDFDYFYAQVEEVLNPSLKGKPVVVCVFSGRFEDSGAVATANYEARKFGVKAGIP

IVEAKKILPNAVYLPMPRKEVYQQVSSRIMNLLREYSEKIEIASIDEAYLDISDKVRDYRE  
AYNLGLEIKNKILEKEKITVTVGISKNKVFAKIAADMAKPNGIKVIDDEEVKRLIRELDI  
ADVPGIGNITAEKLLKLGINKLVDTLSIEFDKLGKMGIEAKAKYLISLARDEYNEPIRTR  
VRKSIGRIVTMKRNSRNLEEIKPYLFRAIEESYYKLDKRIPKAIHVAVTEDLDIVSRGR  
TFPHGISKETAYSESVKLLQKILEEDERKIRRIGVRFKSKFIEAIGLDFKFFDT

>P19822

MYSICVTRSCPVVCSKKHITIGTPENPFDPNDYDFVILVGAEPFLYFAGKKGIGDYTGKR  
VEYNGYANWIASISPAQLHFKEPKVPVDFATVENIHDIINGREKIAKAGDYRPI TDPDEA  
EEYIKMVYNMVIGPVAFDSETSALYCRDGYLLGVSISHQEYQGVYIDSDCLTEVAVYYLQ  
KILDSENHTIVFHNLKFDMMHFYKYHLGLTFDKAHKERRLHDTMLQHVVLDERRGTHGLKS  
LAMKYTDMGDYDFELDKFKDDYCKAHKIKKEDFTYDLIPFDIMWPYAAKDTDATIRLHNF  
FLPKIEKNEKLSLYYDVLMPGCVFLQRVEDRGVPI SIDRLKEAQYQLTHNLNKAREKLY  
TYPEVKQLEQDQNEAFNPNSVKQLRVLLFDYVGLTPTGKLTDTGADSTDAEALNELATQH  
PIAKTLLEIRKLTCLIISTYVEKILLSIDADGCIRTGFHEHMTTSGRLSSSGKLNLLQQLPR  
DESIKGCVVAPPGYRVI AWDLTAEVYAAVLSGDRNMQQVF INMRNEPDKYPDFHSNI  
AHMVFKLQCEPRDVKKLFPALRQAAKAITFGILYSGPAKVAHSVNEALLEQAAKTGPEF  
VECTVADAKEYIETYFGQFPQLKRWIDKCHDQIKNHGF IYSHFGRKRRRLHNIHSEDRGVQ  
GEEIRSGFNAI IQSASSDLLLLGAVDADNEI ISLGLEQEMKIVMLVHDSVVAIVREDLID  
QYNEILIRNIQKDRGISIPGCPIGIDSDSEAGGSRDYSCGKMKKQHPSIACIDDDEYTRY  
VKGVLLDAEFYKLAAMDKEHPDHSKYKDDKF IAVCKDLDNVKRILGA

>P06746

MSKRKAPQETLNGGITDMLTELANFEKNVSQAIHKYNAYRKAASVIAKYPHKIKSGAEAK  
KLPGVGTKIAEKIDEFLATGKLRKLEKIRQDDTSSSINFLTRVSGIGPSAARKFVDEGIK  
TLEDLRKNEDKLNHHQRIGLKYFGDFEKRIPREEMLQMQDIVLNEVKKVDSEYIATVCGS  
FRRGAESSGDMVLLTHPSFTSESTKQPKLLHQVVEQLQKVHFITDTLSKGETKFMGVCQ  
LPSKNDEKEYPHRRIDIRLIPKDQYYCGVLYFTGSDIFNKNMRAHALEKGFINEYTI RP  
LGVTGVAGEPLPVDSEKIDFYIQWKYREPKDRSE

>P32528

MTVSSDTTAEISLGSIQDWIDFHKSSSSQASLRLLLESLLDSQNVAPVDNAWISLISKEN  
LLHQFQILKSRENKETLPLYGVPIAVKDNIDVRGLPTTAACPSFAYEPSKDSKVVELLRN  
AGAIIVGKTNLDQFATGLVGTRSPYGKTPCAFKEHVSGGSSAGSASVVARGIVPIALGT  
DTAGSGRVPAALNNLIGLKPTKGVFSCQGVVPACKSLDCVSI FALNLSDAERCFRIMCQP  
DPDNDEYSRPVYSNPLKFFSSNVTIAIPKNIPWYGETKNPVLFSNAVENLSRTGANVIEI  
DFEPLLELARCLYEGTWAERYQAIQSFLDSKPPKESLDPTVISIEGAKKYSAVDCFSF  
EYKRQGILQKVRRLLESVDVLCVPTCPLNPTMQQVADEPVLVNSRQGTWTFVNLADLAA  
LAVPAGFRDDGLPNGITLIGKKFTDYALLELANRYFQNI FPNRSRTYGTFTSSSVKPAND  
QLVGPDYDPSTSIKLA VVGAHLKGLPLHWQLEKVNATYLCCTTKTSKAYQLFALPKNGPVL  
KPLRRVQDSNGSQIELEVYSVPKELFGAFISMVPEPLGIGSVELESGEWIKSFICEESG  
YKAKGTVDITKYGGFRAYFEMLKKKESQKKKLFDTVLIANRGEIAVRI IKTLKKGIRSV  
AVYSDPKYSQHVTADAVSVPLHGTTAAQTYLDMNKI IDAAKQTNAQAIIPGYGFLSENA  
DFSDACTSAGITFVGPSGDIIRGLGLKHSARQIAQKAGVPLVPGSL LITSVEEAKKVAE  
LEYPVMVKSTAGGGIGLQKVDSEEDIEHIFETVKHQGETFFFGDAGVFLERFIENARHVE  
VQLMGDGFKAIALGERDCSLQRRNQKVI EETPAPNLPEKTR LALRKA AESLGSLLNYKC  
AGTVEFIYDEKKDEFYFLEVNTRLQVEHPITEMVTGLDLVEWMIRIAANDAPDFDSTKVE  
VNGVSMEARLYAENPLKNFRPSPG LLDVVKFPDWARVDTWVKKGTNISP EYDPTLAKIIV  
HGKDRDDAI SKLNQALEETKVYGCITNIDYLSIITSDFFAKAKVSTNINLSYQYEPTAI  
EITLPGAHTSIQDY PGRVGYWRIGVPPSGPMDAYSFRLANRIVGNDYRTPAIEVTLTGPS

IVFHCETVIAITGGTALCTLDGQEIPQHKEVVKRGSTLSIGKLTSGCRAYLGIRGGIDV  
PKYLGSYSTFTLGNVGGYNGRVLKLGDVLFPSNEENKSVECLPQNIPQSLIPQISETKE  
WRIGVTCGPHGSPDFFKPESIEEFFSEKWKVHYNSNRFVRLIGPKPKWARSNGGEGGMH  
PSNTHDYVYSLGAINFTGDEPVIITCDGPSLGGFVCQAVVPEAELWKVGVKPGDSIQFV  
PLSYESSRSLKESQDVAIKSLDGTCLRRLDSVSVILPSFETPILAQMEKVNELSPKVYRQ  
AGDRYVLVEYGDNEMFNISYRIECLISLVKKNKTIGIVEMSQGVRVSVLIEFDGYKVTQK  
ELLKVLVAYETEIQFDENWKITSNIIRLPMAFEDSKTLACVQRYQETIRSSAPWLPNNVD  
FIANVNGISRNEVYDMLYSARFVVLGLGDVFLGSPCAVPLDPRHRFLGSKYNPSRPTYTER  
GAVGIGGMYMCIYAANSPGGYQLVGRTPIDWDLCLAASSEVPWLMNPFQVEFYVSEE  
DLDKMTEDCDNGVYKVNIEKSVFDHQEYLRWINANKDSITAFQEGQLGERAEFAKLIQN  
ANSELKESVTVKPEDEEDFPEGAEIVYSEYSGRFWKSIVSGDVI EAGQGLLIEAMKAE  
MIISAPKSGKIIKICHGNGDMVDSGDIVAVIETLA

>P53759

MTEPALSSANNALMQKLTGRQLFDKIGRPTRIVAPMVDQSELAWRILSRRYGATLAYTPM  
LHAKLFATSKKYREDNWSLGDSSVDRPLVVQFCANDPEYLLAAAKLVEDKCDVLDNLG  
CPQGIAKKGHYGSFLMEEWDLIHNLINTLHKNLKVPTAKIRIFDDCEKSLNYAKMVLDA  
GAQFLTIVHGRVREQKQKTGLANWETIKYLRDNLPKETVFFANGNILYPEDISRCMEHIG  
ADAVMSAEGNLYNPGVFNVGQTKNKEKIFPRVDKIIREYFQIVKECQESKASKTAMKSHF  
FKILRPFLPHHTDIRSTLATMNAKATWEEWEEQVVKPVEKVVQEIFEQPDIAIKDEITIG  
EKQSWGGSYRTVPYWRCPYFRPVNGITGDKRVMQGLIDESVNKKRKADVPLESADKKKD  
VKA

>P53720

MVTYAGKLVLAPMVRAGELPTRLMALAHGADLVWSPEIIDKKLIQCVRKENTALQTVDYV  
VPSKVQTRPETLVFRTPYKLESSKLIHQIGSASPALATQAALKVINDVSGIDINAGCPKH  
FSIHSGMGSALLRTPDTLCLILKELVKNVGNPHSKPISVKIRLLDTKQDTLQLVKRLCAT  
GITNLTVHCRKTEMRNREQPITDYIAEIEICQANNVSLIVNGAIRDRSHFHDLQANHWK  
NTNIGGMIAECAERDPTVFDHTSKPSEDGSPSWVACREFIQWATKFDNHIGNTKYMLSRI  
VPGKSVFFQYFARCKSPPEEVSFVLKQLNDDGSAQTDPSEYLENCRAQEKALKNANAIKQ  
KRKQTDHIGSDTKKQKVPLPTDI

>Q9UBX2

MALPTPSDSTLPAEARGRRRRRLVWTPSQSEALRACFERNPYPGIATRERLAQAIGIPE  
PRVQIWFQNERSRQLRQHRRESRPWPGRGPPGRRKRRTAVTGSQTALLLRAFEKDRFPG  
IAAREELARETGLPESRIQIWFQNRARRHPGQGRAPAQAGGLCSAAPGGGHPAPSWVAF  
AHTGAWGTGLPAPHVPCAPGALPQGAFVSQAARAAPALQPSQAAPAEGISQPAPARGDFA  
YAAPAPPDGalSHQPAPRWPPHPGKSREDRDPQRDGLPGPCAVAQPGPAQAGPQGQVLA  
PPTSQGSPPWGWGRGPQVAGAAWEPQAGAAPPQPAPPDASASARQGMQGI PAPSQALQ  
EPAPWSALPCGLLLDELLASPEFLQQAQPLLETEAPGELEASEEAAASLEAPLSEEFYRAL  
LEEL

>O04847

MPKSWPIVIVSSHSFCFLPNSEQERKMKDLNFHAATLSEEESSLRELKAFDETKAGVKGIVD  
TGITKIPRIFIDQPKNLDRI SVCRGKSDIKIPVINLNLSSNSEIRREIVEKIGEASEKY  
GFFQIVNHGIPQDVMDKMDVGVKRFHEQDDQIKRQYYSRDRFNKNFLYSSNYVLIPGIAC  
NWRDTMECIMNSNQDPDQEFDPVCRDILMKYSNYVRNLGLILFELLSEALGLKPNHLEEM  
DCAEGLILLGHYYPACQPPELTFGTSKHSDSGFLTILMQDQIGGLQILLENQWIDVPFIP  
GALVINIADLLQLITNDKFKSVEHRVLANKVGPRISVAVAFGIKTQTQEGVSPRLYGPIK  
ELISEENPPIYKEVTVKDFITIRFAKRFDDSSSLSPFRLNN

>Q07801

MQTTAKSSTPSITAVVAATAENGI GLNGLPWRLPGEMKYFARVTTGETPSSDPSEQNVV  
IMGRKTWESIPSRFRPLKNRRNVVISGKGVLDLGTAE NSTVYTDIPSALSALRSTTESGHS  
PRIFLIGGATLYTSSLLPSSVPSLNSSTSTSPLPFSRPLIDRILLTRILSPFECDAYLED  
FAAHTKPDGSKVWKKASIKEFREWIGWDIEEQVEEKGVKYIFEMWVLNQ

>P17719

MLRFNLIVAVCENFGIGIRGDLPWRIKSELKYFSRTTKRTSDPTKQNAVVMGRKTYFGVP  
ESKRPLPDRLNIVLSTTLQESDLPKGVLLCPNLETAMKILEEQNEVENIWIIVGGSGVYEE  
AMASPRCHRLYITKIMQKFDCTFFPAIPDSFREVAPDSMPLGVQEENGIKFEYKILEK  
HS

>P00381

MTAFLWAQDRDGLIGKDGHLPWHLPDDLHYFRAQTVGKIMVVGRRTYESFPKRPLPERTN  
VVLTHQEDYQAQGAVVVHDVAAVFAYAKQHPDQELVIAGGAQIFTAFKDDVDTLVTRLA  
GSFEGDTKMIPLNWDDFTKVSSRTVEDTNPALHTHYEVWQKKA

>P34742

TIGVCYGVVANNLPPANEVVQLYRSNGLTGMRIYFADAKALSALRGSGIGLILDVGGNDV  
LASLAANASNAANWVRDNVRPYPAVNIKYIAAGNEVWGGDTQNI VPAMRNLGAALKAPG  
LGTIKVSTSIRFDAVTNTFFPPSNGVFAQAYMTDVARLLASTGAPLLTNVYPYFAYKDNPR  
DIQLNYATFRPGTTTTRDPNTGLTSQCLFDAMVDAVVAALERSGAPGVRVVVSESGWPSA  
SGFAATADNARAYNQGLIDHVGGGTPKRPGALETYIFAMFNENFKTGELTEKHFGLFNP  
KSPAYPIRFQ

>P52407

MAISSSTSGTSSSFPSRTTVMLLLLFFFAASVGITDAQVGV CYGMQGNLPPVSEVIALYK  
KSNITRMRIYDPNRAVLEALRGSNIELILGVPNSDLQSLTNP SNAKSWVQKNVRGFWSSV  
LFRYIAVGNEISPVNRGTAWLAQFVLPAMRNIHDAIRSAGLQDQIKVSTAIIDLTLVGN SY  
PPSAGAFRDDVRSYLDPIIGFLSSIRSPLLANIYPYFTYAYNPRDISLPYALFTSPSVVV  
WDGQRGYKNLFDATLDALYSALERASGGSLEVVVSESGWPSAGAF AATFDNGR TYLSNLI  
QHVKGGTPKRPNRAIETYL FAMFDENKKQPEVEKHFGLFFPNKWQKYNLNFSAEKNWDIS  
TEHNATILFLKSDM

>P36911

MKKFINQFSASLKNNILVFLAFPVWVWTS CARDNPLSSENSNISPNAAAARA AVTGTTKANI  
KLFSTFEVNDTNPLNLNFTLKN SGKPLVDMVVLFSANIN YDAANDKV FVSNNPNVQHLL  
TNRAYLKLPLQDKGIK VILSILGNHDRSGIANLSTARAKAFAQELKNTCDLYNLDGVFFD  
DEYSAYQTPPPSGFVTPSNAAAARLAYETKQAMPNKLVTVYVYSRTSSFP TAVDGVNAGS  
YVDYAIHDYGGSYDLATNYPGLAKSGMVMSSQEFNQGRYATAQALRNIVTKGYGGHMIFA  
MDPNRSNFTSGQLPALKLIAKELYGDELVYSNTPYSKDW

>P36912

MKTANFSFALCLSVVIMLFIKCTRSEQDLSVTKDAIAQKSGVTVSAVNLSNLIAYKNSDH  
QISAGYYRTWRDSATASGNLPSMRWLPDSLDMVMVFPDYTPPENAYWNTLKTNYVPYLHK  
RGTKVIITLGDLSATTTGGQDSIGYSSWAKGIYDKWVGEYNLDGIDIDIESSPSGATLT  
KFVAATKALSKYFGPKSGTGKTFVYDTNQNPTNFFIQ TAPRYNYVFLQAYGRSTTNLTTV  
SGLYAPYISMKQFLPGFSFYEEENGYPGNYWNVDRYPQNGTGRAYDYARWQPATGKKGGVF  
SYAIERDAPLTSSNDNTLRAPNFRVTKDLIKIMNP



>P36913

MKKIFFFAQCSILLMLGSCSKMTEDMTPESVNKEASVKSATALAGSNGVCIAYYITDGRN  
PTFKLKDIPDKVDMVILFGLKYWSLQDTTKLPGGTGMMGSFKSYKDLDTQIRSLQSRGIK  
VLQNIDDDVSWQSSKPGGFASAAAYGDAIKSIVIDKWKLDGISLDIEHSGAKPNPIPTFP  
GYAATGYNGWYSGSMAATPAFLNVI SELTKYFGTTAPNNKQLQIASGIDVYAWNKIMENF  
RNNFNYYIQLQSYGANVSRQTQLMMNYATGTNKIPASKMVF GAYAEGGTNQANDVEVAKWTP  
TQGAKGMMIYTYNSNVSYANAVRDAVKN

>P80036

MQFGIVAAIADGGRTARAGGSVRPPRRPPASHTAWGLPRGRPTGQP HATPTKSGPTSIA Y  
VEVNNDQLANVGRYQLANGANAFDVAII FAANINWNGSKAVLYNNENVQATLDDAATQIR  
PLQAKGIKVSLSILGNHQGAGIANFPTQAAAEDFAAQVSATVSKYGLDGVLDLDEYSDYG  
TNGTPQPNQOSIGWLISALRADVPGKLISFYDIGPASSALSSSSSTIGSKLDYAWNPPYYG  
TYSAPSI PGLDKSRLSAAAVDVQNTQPQSTAVSLAQR TKADGYGVFMTYNLPDGDVSPYVS  
SMTKVLYGQAATYH

>P62631

MGKEKTHINIVVIGHVDSGKSTTTGHLIYKCGGIDKRTIEKFEKEAAEMGKGSFKYAWVL  
DKLKAERERGITIDISLWKFFETTKYYITI IDAPGHRDFIKNMITGTSQADCAVLIVAAGV  
GEFEAGISKNGQTREHALLAYTLGVKQLIVGVNKMDSTEPAYSEKRYDEIVKEVSAYIKK  
IGYNPATVPFVPI SGWHGDNMLEPSPNMPWFKGWKVERKEGNASGVSLLEALDITLPPTR  
PTDKPLRLPLQDVYKIGGIGTVPVGRVETGILRPGMVVTFAPVNITTEVKSVEMHHEALS  
EALPGDNVGFNVKNVSVKDIRRGNVCGDSKADPPQEA AQFTSQV IILNHPGQISAGYSPV  
IDCHTAHIACKFAELKEKIDRRSGKKLEDNPKSLKSGDAAIVEMVPGKPMCVESFSQYPP  
LGRFAVRDMRQTVAVGV IKNVEKKSGGAGKVTKSAQKAQKAGK

>P25997

MSAASESKYSTEVLSELLSKLQVADNKDEAASNI STFLNSSIVEHDVPVEFFEDLKKQIQ  
SKDAKVSLAALDAYKHIASTNGLSPSVEPYVVDLVSEVAVKAGDKNKDVQTAASDALLAI  
ASAITPTAVKAILPKLIDNLTNTNKWTEKVA IILRAVSQLVDTAKAQIALRMPELIPVLSE  
SMWDTKKEVKEAATATMTKSTETIDNKDIEKFI PQLISCIAPTEVPETVHLLGATTFVS  
EVTMATLSIMAPLLSRGLAERDTAIKRKA AVIVDNMCKLVEDPQIVAPFMDKLLPGLKNF  
ANMADPEAREVTQRALNTLRRVGAVGENDTIPEVSTAGDIDVTLNEFNKLVADKKIAKRF  
DVALNYIAAIAGDLVDEREIQPEAWLQNVLPFATIFLHEKEAKEIEEFKRKRAIDNIPQP  
PSFEDEEDEDGEDLCNCEFSLAYGAKILLNKTFRLKRNRRYGLCGPNGAGKSTLMRAIAN  
GQVEGFPTQDECKTVYVEHDIDGTHADTTVVEFVIEDGEVGLTKDVVVDKLVREFNFSDEM  
INMPIQSLSGGWKMLALARAVLKNADILLLDEPTNHLDTVNVAVLVNLTGCGITSIIIV  
SHDSGFLDNVTQYIIHYEGFKLRKYKGNLSEFVKKCP SAQSYELGASDLEFRFPEPGFL  
EGVKTQKAIKVSNSMFQYPGTSKPQIQDINFQCSLSSRIAVIGPNGAGKSTLINVLTG  
ELLPTTGEFYVHENCRIAYIKQHAFAHIDNHLDKTPSEYIQWRFQTGEDRETMDRASRQI  
NEEDEQNMNKIFKIEGTPRRIAGIHARRKFKNSY EYEISWMLGENIGMKNERWVPMMSVD  
NTWLPRGELMETHAKLVAEVDMKEALASGQFRPLTRKEIEEH CAMLGLDAELVSHSRIRG  
LSGGQKVKLVLAACTWQRPHLIVLDEPTNYLDRDSL GALSKALKAFEGGIVII THSAEFT  
KDLTEEVWAVLDGRMTPSGHNWVQGGSGPRI EKKDDEEEDKFDAMGNKIAAAKKKKKLS  
SAELRKKKKERMKKKKELGDAYVSSDEEF

>P29551

MPGNVVSPKVLMDLIPKLIKISMQETDKNEVIKNSEQHSSVSWDPDTCENLYITLEEQIES  
KDTLAREQALKALLLTL DATNKRVEPYLVRLLPRLKQVGLEKVA AVRTQASTVAEDI IK

TMNPYAVKTIILSHVTNSIKTSGKWMKCAFRLLDMLVEKAPCQMSYRLPELIPILSESM  
WDTRTDIKNQARKTMTSVCTLISNPDIDKFI PVLIDCIAQPEKVPETIHTLGATTFVQEV  
HASTLSIMVPLLYRGLNERETTIKRKS AVI IDNMCKLVEDPYI IAPFLPKLIPTLEHIKE  
TIGDPECRSVVNRSLATLIRVGNVKEGKIPEVLNIAKPENCMETLLSILKGQELVPVSDV  
YLNYSIASQLIDEKNNEVVDWDVNI SPYLQPI IILKADINCI IDQFRKRSISGFHSSSA  
ESEEEEEGEDLCNCEFSLAYGAKILLNRTSLNLKRGYRYGLCGPNGSGKSTLLRSIFNGQL  
EGFPTELKTAYVEHDIDDTESKTSVDFDIANDPSVVVKNKQEVISSLLEHSFTEDMLSIP  
ISNLSGGWKMKLALVRAML RQVDILLLDEPTNHL DVKNVAWLENFLTSQTHITS IIVSHD  
SKFLDNVVQAI IHYEHFKLKKYMGNM SKFITLVPSARSYQDISMSEIEFSFPEPGYLEGV  
KTKQRAICRMRDIEFQYEGTSEPQIKNVSLQVSLSSRIAVIGPNGAGKSTLIKVLGELI  
PQKGEVWCHPNLRIAYVAQAAFVHLGSHENKTPSEYIQWRYRTAEDSETIDRASRQLTEN  
DEHLMNKIFKINGTSRKIQGIHSRRKLNKSYEYEC SFLVGENVGEKNERWVPLPSMNNNEW  
LPRGELIESHMKMVAEVD MKEALKSGSFRPLVRKEIEKHCE SFGLD AEIVTHSR IKGLSG  
GQKVKLVLAAGSWLKPHVIVLDEPTNYLDRDSL GALSKALKSFEGGVVI ITHSVEFTKNL  
TEEVWSVQNGQMTPSGHNWVQOGQTGPRLQEQEEEDTFDALGNKIEAKKKAKKLTSSSELR  
KKKKERMARRKKGEEVFSDEDD

>P32021

MTNLQTFELPTEVTGCAADISLGRALIQA WQKDGIFQIKTDSEQDRKTQEAMAASKQFCK  
EPLTFKSSCVSDLTYSYGVASGEEVTAGKPDFPEIFTVCKDL SVGDQRVKAGWPCHGPVP  
WPNNTYQKSMKTFMEELGLAGERLLKLTALGFELPINTFTDLTRDGHMVRVLRFPQPQTS  
TLSRGIGAHTDYGLLVIAAQDDVGGLYIRPPVEGEKRN RNWLPGESSAGMFEHDEPWTFV  
TPTPGVWTVFPGDILQFM TGGQLLSTPHKVKLNTRERFACAYFHEPNFEASAYPLFEPSA  
NERIHYGEHFTNMFMRCYPDRIT TQRINKENRLAHLLEDLKKYS DTRATGS

>P0AB83

MNKAKRLEILTRLRENNPHPTTELNFSSPFELLI AVLLSAQATDVSVNKATAKLYPVANT  
PAAMLELGVGKTYIKTIGLYNSKAENI IKTCRILLEQHNGEVPEDRAALEALPGVGRK  
TANVVLNTAFGWPTIAVDTHIFRVCNRTQFAPGKNVEQVEEKLKVVPAEFKVDCHHWLI  
LHGRYTCIARKPRCGSCIIEDLCEYKEKVDI

>P0A6C1

MKYIGAHVSAAGGLANAAIRAAEIDATAFALFTKNQRQWRAAPLTTQTIDEFKAAACEKYH  
Y TSAQILPHDSYLINLGHVTEALEKSRDAFIDEMQRCEQLGLSLLNFHPGSHLMQISEE  
DCLARIAESINIALDKTQGVTA VIENTAGQGSNLGFKFEHLAAIIDGVEDKSRVGVCI DT  
CHAFAAGYDLRTPAECEKTFADFARTVGF KYLRGMHLNDAKSTFGSRVDRHHS LGEGNIG  
HDAFRWIMQDDRFDGIPLILETINPDIWAE EIAWLKAQQTEKAVA

>Q9UHY7

MVVLSPAEVTVILLDIEGTTTPIAFVKDILFPYIEENVKEYLQTHWEEEEECQQDVSLLR  
KQAEEDAHLDGAVPI PAASNGVDDLQQMIQAVVDNVCWQMSLDRKTTALKQLQGHM WRA  
AFTAGRMKAEFFADVVP AVRKWREAGMKVYIYSSGSVEAQKLLFGHSTEGDILELVDGHF  
DTKIGHKVESESYRKIADSIGCSTNNILFLTDV TREASAAEEADVHVAVVVRPGNAGLTD  
DEKTYYSLITSFSELYLPSST

>P0AEJ2

MDTSLAEVQQTMATLAPNRF FFMSPYRSFTTSGCFARFDEPAVNGDSPSPFQQKLAAL  
FADAKAQGIKNPVMVGAIPFDPRQPSSLYIPESWQSFSRQEKQASARRFTRSQSLNVVER  
QAIPEQTTFEQMVARAAAL TATPQVDKVVLSRLIDITTDAAIDSGVLLERLIAQNPVSYN  
FHVPLADGGVLLGASPELLLRKDGERS SIIPLAGSARRQPDEVLDREAGNRLLASEKDRH

EHELVTQAMKEVLRERSSELHVPSSPQLITTPTLWHLATPFEGKANSQENALTLACLLHP  
TPALSGFPHQAATQVIAELEPFDFRELFGGIVGWCDSEGNGEWVVTIRCAKLRENQVRLFA  
GAGIVPASSPLGEWRETGVKLSSTMLNVFGLH

>P11454

MSQHLPLVAAQPGIWMAEKLSSELPASWSVAHYVELTGEVDSPLLARAVVAGLAQADTLRM  
RFTEDNGEVWQWVDDALTFELPEIIDLRTNIDPHGTAQALMQADLQQDLRVDSGKPLVFH  
QLIQVADNRWYQRYHHLLVDGFSFPAITRQIANIYCTWLRGEPTPASFPFADVVEE  
YQQYRESEAWQRDAAFWAEQRRQLPPPASLSPAPLPGRSASADILRLKLEFTDGEFRQLA  
TQLSGVQRTDLALALALWLGRLCNRM DY AAGFIFMRRLLGSAALTATG PVLNVLP LGIHI  
AAQETLPELATRLAAQLKKMRRHQRYDAEQIVRDSGRAAGDEPLFGPVLNIKVFQYQLDI  
PDVQAQTHTLATG P V N D L E L A L F P D V H G D L S I E I L A N K Q R Y D E P T L I Q H A E R L K M L I A Q F  
AADPALLCGDVIDMLPGEYAQLAQLNATQVEIPETTL SALVAEQAAKTPDAPALADARYL  
FSYREMREQVVALANLLRERGVKPGDSVAVALPRSVFLLALHAIVEAGAAWLP LDTGYP  
DDRLKMMLEDARPSLLITTDQQLPRFSDVPNLTS LCYNAPLTPQGSAPLQLSQPHHTAYI  
IFTSGSTGRPKGVMVGTQTAIVNRL L W M Q N H Y P L T G E D V V A Q K T P C S F D V S V W E F F W P F I A  
GAKLVMAEPEAHRDPLAMQQFFAEYGVTTTHFVPSMLAAFVASLTPQTARQSCATLKQVF  
CSGEALPADLCREWQQLTGAPLHNLGYPTAAVDVSWYPAFGEELAQVRGSSVPIGYPVW  
NTGLRILDAMHPVPPGVAGDLYLTGIQLAQGYLGRPDLTASRFIADPFAPGERMYRTGD  
VARWLDNGAVEYLRSDQLKIRGQRIELGEIDRVMQALPDVEQAVTHACVINQAAATGG  
DARQLVGYLVQSGLPLDTSALQAQLRETLPPHMVPVLLQLPQLPLSANGKLDKALPL  
PELKAQAPGRAPKAGSETIIAAAFSSLLGCDVQDADADFFALGGHSL LAMKLA AQLSRQV  
ARQVTPGQVMVASTVAKLATIIDAEEDSTRRMGFETILPLREGNGPTLFCFHPASGFAWQ  
FSVLSRYLDPQWSIIIGIQSPRPNGPMQTAANLDEVCEAHLATLLEQQPHGPYYLLGYSLG  
GTLAQGIAARLRARGEQVAFGLLDTWPPETQNWQEKEANGLDPEVLAEINREREAF LAA  
QQGSTSTELFTTIEGNYADAVRLLTTAHSVPFDGKATL FVAERTLQEGMSPERAWSPWIA  
ELDIYRQDCAHVDIISPGETFEKIGPIIRATLNR

>Q96HE7

MGRGWGFLFGLLGA V W L L S S G H G E E Q P P E T A A Q R C F C Q V S G Y L D D C T C D V E T I D R F N N Y R  
LFPRLQKLLS DYFRYYKVNLRKPCPFWNDISQCGRRDCAVKPCQSDEVPDGIKSASYYK  
SEEANNLIEECEQAERLGAVDESLSEETQKAVLQWTKHDDSSDNFCEADDIQSPEAEYVD  
LLL N P E R Y T G Y K G P D A W K I W N V I Y E E N C F K P Q T I K R P L N P L A S G Q G T S E E N T F Y S W L E G L  
CVEKRAFYRLISGLHASINVHLSARYLLQETWLEKKWGHNITFEQQRFDGILTEGEGPRR  
LKNLYFLYLIELRALS K V L P F F E R P D F Q L F T G N K I Q D E E N K M L L L E I L H E I K S F P L H F D E  
NSFFAGDKKEAHKLKEDFRLHFRNISRIMDCVGCFCRLWGKLQTQGLGTALKILFSEKL  
IANMPESGPSYEFHLTRQEIVSLFNAFGRISTSVKELENFRNLLQNIH

>Q9NQ30

MKSVLLLTLLVPAHLVAAWSNNYAVDCPQHCDSSSECKSSPRCKRTVLDDCGCCRVCAAG  
RGETCYRTVSGMDGMKCGPGLRCQPSNGEDPFGEFGICKDCPYGTFGMDCRETCNCQSG  
ICDRGTGKCLKFPFFQYSVTKSSNRVSLTEHDMASGDGNIVREEVVKENAAGSPVMRKW  
LNPR

>P12337

MWLCALALASLA ACTAWGHPSAPPVVDTVHGKVLGKFVSLEGFAPVAVFLGVPFAKPPL  
GSLRFAPPQPAESWSHVKNNTTSYPPMCSQDAVSGHMLSELFTNRKENIPLKFS EDCLYLN  
IYTPADLTKRGLPVMVWIHGGGLMVGASTYDGLALS AHENVVVVTIQYRLGIWGFST  
GDEHSRGNWGHLDQVAALRWVQDNIANFGGDPGSVTIFGESAGGQSVSILLLSPLTKNLF  
HRAISESGVALLSLFRKNTKSLAEKIAIEAGCKTTTSAVMVHCLRQKTEEELMEVTLKM

KFMALDLVGDPKENTAFLLTTVIDGVLLPKAPAEILAEKKYNMLPYMVGINQQEFGWIIPM  
QMLGYPLSEGKLDQKTATELLWKSYP IVNVSKELTPVATEKYLGGTDDPVKKKDLFLDML  
ADLLFGVPSVNVARHHRDAGAPTYMYEYRYPSPSSDMRPKTVIGDHGDEIFSVLGAFL  
KEGATEEEIKLSKMMKYWANFARNGNPNGEGLPQWPAYDYKEGYLQIGATTQAAQKLD  
KEVAFWTELWAKEAARPRETEHIEL

>O00748

MRLHRLRLRLSAVACGLLLLLLVRGQGDSP IRTTHTGQVLGSLVHVKGANAGVQTFGLG  
IPFAKPPLGLRFAPEPPESWSGVRDGTTHPAMCLQDLTAVESEFLSQFNMTFSDSMS  
EDCLYLSIYTPAHSHEGSNLPVMVWIHGGALVFGMASLYDGSMLAALENVVVVI IQYRLG  
VLGFFSTGDKHATGNWGYLDQVAALRWVQQNIAHFGGNPDRVTIFGESAGGTSVSSLVVS  
PISQGLFHGAIMESGVALLPGLIASSADVISTVVANLSACDQVDSEALVGCLRKGSKEEI  
LAINKPFKMPGVDGVFLPRHPQELLASADFQVPVPSIVGVNNEFGWLI PKVMRIYDTQ  
KEMDREASQAALQKMLTLLMLPPTFGDLLREEYIGDNGDPQTLQAQFQEMMADSMFVIPA  
LQVAHFQCSRAPVYFYEFQHQP SWLKNIRPPHMKADHGDEL PFVFRSFFGGNYIKFTEEE  
EQLSRKMMKYWANFARNGNPNGEGLPHWPLFDQEEQYLQLNLQPAVGRALKAHRLQFWKK  
ALPQKIQELEEPEERHTEL

>P08171

MNYVGLGLIIVLSCLWLGSNASDTPDLLVQLPQGKLRGRDNGSYYSYESIPYAEPP TGD  
LRFEAPEPYKQKWSDFDATKTPVACLQWDQF TP GANKLVGEEDCLTVSVYKPKNSKRNS  
FPVVAHIHGGAFMFGAAWQNGHENVMREGKFI LVKISYRLGPLGFVSTGDRDLPGNYGLK  
DQRLALKWIKQNIASFGEQPQNVLLVGHSAAGASVHLQMLREDFGQLARAAFSFSGNALD  
PWVIQKGARGRAFELGRNVGCE SAEDSTSLKKCLKSKPASELVTAVRKFLIFSYVPFAPF  
SPVLEPSDAPDAIITQDPRDVIKSGKFGQVPWAVSYVTEDGGYNAALLLKERKSGIIDD  
LNERWLELAPYLLFYRDTKTKKMDDDYSRKIKQEYIGNQRFDIESYSELQRLFTDILFKN  
STQESLDLHRKYGKSPAYAYVDNPAEKGIAQVLANRTDYDFGTVHGDDYFLIFENFVRD  
VEMRPDEQIISRNF INMLADFASDNGSLKYGECDFKDNVGESEKQLLAIYIDGCQNRQH  
VEFP

>Q05487

MTQILLPIALLCLFAASTLSNPLLVLELPNGELRGRDNGFYYSYESIPYAEPP IDDLCL EE  
PRPYTERWENTFDATRPPVDCLQWSQLISQPNKLTGSEDCLTVSIYKPKNLTRISFPVVA  
HIFGGGWSFGAAIDGVRPFSSSGNVIVVKTTEWERLGF MSTGDSVIPGNFGLKDQRLA  
IKWIRNNIARFGGDPHNIILLGFSTGGSSVHLQMLMKEYGQLVKGAISISGTATVPWAVQ  
ANARDLAFRYGKLLGCNNPKNSRELKDKLKTDAEEFVSTLRHLQVFDYVPPGFPVVE  
SPEVESPFTELPLD TIRSGNFAQVPWLASYTPENGIYNAALLLAKDANGKERIEELNTR  
WNELAPYFLAYPYTLKRSEMNAHSQKLKYQYLGYNF SVVNYFDVQRLFTNELYKKGIEL  
SLDSHRKHGASPVYAYVDN PADKSLAQFLAKRSDISLGTGMGDDYLLMNNPLREPLRA  
DEKIVSWKLVKMVEDFAAHETLVYDDCVFPNNLGKKKFQLVVIGRNYCKQLEVESFARHG  
VQ

>Q16134

MLVPLAKLSCLAYQCFHALKIKKNYLPLCAIRWSSTSTVPRITHTYTIYPRDKDKRWEV  
NMERFAEEADVIVGAGPAGLSAAVRLKQLAVAHEKDIRVCLVEKAAQIGAHTLSGACLD  
PGAFKELFPDWEKKGAPLNTPVTEDRFGILTEKYRIPVPILPGLPMNHNHNYIVRLGHLV  
SWMGEQAEALGVEVYPGYAAA EVLFHDDGSVKGIATNDVGIQKDGAPKATFERGLELHAK  
VTIFAEGCHGLAKQLYKKF DL RANCEPQTYGIGL KELWVIDEKNWKPGRVDHTVGVPLD  
RHTYGGSFYHLNEGEPLVALGLVVGLDYQNPYLSPFREFQRWKHHP SIRPTLEGGKRIA  
YGARALNEGGFQSIPKLTFFPGLLIGCSPGF MNVPKIKGTH TAMKSGILAAESIFNQLTS

ENLQSKTIGLHVTEYEDNLKNSWVWKELYSVRNIRPSCHGVLGVYGGMIYTGIFYWILRG  
MEPWTLKHKGSDFERLKPDKCTPIEYPKPDGQISFDLLSSVALSGTNHEHDQPAHLTLR  
DDSIPVNRNLSIYDQPEQRFCPAGVYEFVPEQGDGFRQLINAQNCVHCKTCDIKDPSQN  
INWVVPEGGGGPAYNGM

>P09030

MKFVFSFNINGLRARPHQLEAIVEKHQPDVIGLQETKVHDDMFPLEEVAKLGYNVFYHGQK  
GHYGVALLTKETPIAVRRGFPGDDEEAQRRIMAEIPSLLGNTVINGYFPQGESRDHPI  
KFPKAKAQFYQNLQNYLETELKRDNVPLIMGDMNISPTDLDIGIGEENRKRWLRTGKCSFL  
PEEREWMDRLMSWGLVDTFRHANPQTADRFSWFDYRSKGFDDNRGLRIDLLLASQPLAEC  
CVETGIDYEIRSMEKPSDHAPVWATFRR

>P21760

MRTLALSLALALLCLLHTEAAATVPDRSEVAGKWIIVALASNTDFFLREKGMKMMVARI  
SFLGEDELEVSYAAPSPKGCRCRWETTFKKTSDDGELYYSEEAEKTVEVLDTDYKSYAVIF  
ATRVKDGRTLHMMRLYSRSREVSPTAMAI FRKRLARERNYTDENVAVLPSQECSVDEV

>Q7Z9L3

MLPLLLCIVPYCWSSRLDPRASSFDYNGEKVRGBVNLGGWLVLEPWITPSIFDAAGAEAVD  
EWSLTKILGKEEAEARLSAHWKSFVSAGDFORMADAGLNHVRIPIGYWALGPLEGDPYVD  
GQLEYLDKAVEWAGAAGLKVLI DLHGAPGSQNGFDNSGRRGAIQWQQGDTVEQTLDAFDL  
LAERYLGSDTVAAIEAINEPNIPGGVDQGKLEYYGSVYGI VNKYNAGTSVVYGDGFLPV  
ESWNGFKTEGSKVMDTHHYHMFNDGLIAMDIDSHIDAVCQFAHQHLEASDKPVIVGEWT  
GAVTDCAKYLNKGNGARYDGSYAADKAI GDCSSLATGFVSKLSDEERSDMRRFIEAQLD  
AFELKSGWVFWTWKTEGAPGWDMSDLLEAGVFPTSPDDREFPKQC

>P29717

MQLSFILTSVVFILLLEFVKASVISNPFKPNGNLKFKRGGGHNVAVDYDNNVIRGVNLGG  
WVLEPYMTPSLFEPFQNGNDQSGVPVDEYHWTQTLGKEAALRILQKHSTWITEQDFKQ  
ISNLGLNFVRIPIGYWAFQLLDNDPYVQGVQVQYLEKALGWARKNNIRVWIDLHGAPGSQN  
GFDNSGLRDSYNSQNGDNTQVTLNVLNTIFKKYGGNEYSVIVIGIELLNEPLGPVLNMDK  
LKQFFLDGYNLSLRQTGSVTPVIIHDAFQVFGYWNFLTVAEQWNVVVDHHHYQVFSGGE  
LSRNINDHISVACNWGDADKESHWNVAGEWSAALTDCAKWLNGVNRGARYEGAYDNAPY  
IGSCQPMLDISQWSDEHKTDTRRYIEAQLDAFEYTGWVFWVSWKTENAPEWSFQTLTYNG  
LFPQPVTDRQFPNQCGFH

>P31416

MAYLGKVYKFDREENFDGFLKSIGLSEEQVQKYLQYKPSQLVKEGDKYKYISVSSDGTK  
ETVFEESGNETDDVVQGLPIKTTYTVDGNTVTQVNSAQGSATFKREYNGDELKVTITSS  
EWDGVAYRYKA

>P31417

MSYLGKVYSLVKQENFDGFLKSAGLSDDKIQALVSDKPTQKMEANGDSYSITSTGIGGER  
TVSFKSGVEFDDVIGAGESVKSMYTVDGNVTVHVVKG DAGVATFKKEYNGDDLVTITSS  
NWDGVARRYKA

>Q09139

MVEAFCATWKLTESQNFDEYMKALGVGFATRQVGNVTKPTVIIISQEGDRVVIRTQSTFKN  
TEISFHLGEEFDETTADDRNCKSVVSLDGDKLVHVQKWDGKETNFVREIKDKMIMTLTF  
GDVVAVRHYEKA

>P80425

MNFSGKYQVQTQENYEAFMKAVGMPDDIIQK GKDIKGVSEIVQNGKHFKFIITAGSKVIQ  
NEFTLGECECEMEFMTGEKIKAVVQQEGDNKLVTTFKGIKSVTEFNGDVTSTMTKGDVVF  
KRVSKRI

>P83409

MAFNGTWNVYAQENYENFLRTVGLPEDIIKVAKDVNPVIEIEQNGNEFVVTSTPKQTHS  
NSFTVKGKESITSMGKKIKVTVQLEGGKLIICKSDKFSHIQEVNGDEMVEKITIGSSTLT  
RKSKRV

>P42593

MSYPSLFAPLDLGFTTLKNRVLMGSMHTGLEEYPDGAERLAAFYAERARHGVALIVSGGI  
APDLTGVMGEGGAMLNDASQIPHHRTITEAVHQEGGKIALQILHTGRYSYQPHLVAPSAL  
QAPINRFVPHELSHEEILQLIDNFARCAQLAREAGYDGVVEVMGSEGYLINEFLTLRTNQR  
SDQWGGDYRNRMRFAVEVVRAVRERVGNDFIIIRLSMLDLVEDGGTFAETVELAQAI EA  
AGATIINTGIGWHEARIPTIATPVPRGAFSWVTRKLGHVSLPLVTTNRINDPQVADDIL  
SRGDADMVSMARPFLLADAELLSKAQSGRADEINTCIGCNQACLDQIFVKGVTSLVNPRA  
CHETKMPILPAVQKKNLAVVGAGPAGLAFAINAAARGHQVTLFDAHSEIGGQFNIAKQIP  
GKEEFYETLRYRMI ETVGVTLKLNHTVTADQLQAFDETI LASGIVPRTPPIDGIDHPK  
VLSYLDVLRDKAPVGNKVAIIGCGGIGFDTAMYLSQPGESTSQNIAGFCNEWGIDSSLQQ  
AGGLSPQGMQIPRSPRQIVMLQRKASKPGQGLGKTTGWIHRTLLSRGVKMI PGVSYQKI  
DDDGLHVVINGETQVLAVDNVVICAGQEPNRALAQPLIDSGKTVHLIGGCDVAMELDARR  
AIAQGTRLALEI

>Q8SV03

MGGCNHPIRLGTLCGVCGMEIQEESHLCALYNTDNVKITHEEAVAIHKEKMEALEMQMK  
LILVLDLDQTVLHHTTYGTSSLEGTVKFVIDRCRYCVKLRPNLDYMLRRISKLYEIHVYTM  
GTRAYAERIVEIIDPSGKYFDDRIITRDENQGVLVKRLSRLFPHDHRNIVILDDRDPDWD  
YCENLVLRPFWFYFNVDINDPLRLRKRKIEKEAGENKALEEFVSKRKKIEDIRNPEIASR  
LDDMVLESSCGSEGVEDDSRSTEEKEVSEVQSVASGDSELLKVAGFLRKVHRKYFASKQR  
NVKRILRKIRRRVFGGDRFFVAEIANRAWLVKTIEMYGGIVGIPESGVDFVSSCEREAE  
YLAQKFECLAVSPKWIADCVYSLKRVEYGYVVC DHRTKDEYEEELERLFT

>Q9P376

MSKRLTPIHLPNSLNYP I EIASCLVPGQSYVKKGTPLLLYRFFTKVKEDQEDGSEVYVDR  
EFVEQFECPVEGELVEWAVKKEESIENFSKIVAKLHEPCTHEVNYGGLCAICGKNITSQD  
YMGYSDMARANISMTHNTGDLTVSLEEASRLESENVKRLRQEKRLSLIVDLDQTI IHATV  
DPTVGEWMSDPGNVNYDVLDRDVSFNLQEGPSGYTSCYYIKFRPGLAQFLQKISELYELH  
IYTMGTKAYAKEVAKIIDPTGKLFQDRVLSRDDSGSLAQKSLRRLFP CDTSMVVVDDR  
DVWDWNPNIKVVVPEFFVGIGDINSNFLAKSTPLPEQEQLIPLEIPKDEPDSVDEINEE  
NEETPEYDSSNSSYAQDSSTIPEKTLKDTFLQNREALEEQNKERVTALELQKSERPLAK  
QQNALLEDEGKPTPSHTLLHNRDHELERLEKVLKDIHAVYEEENDISSRSGNHKHANVG  
LIIPKMKQKVLKGCRLLFSGVIPLGVDVLSDDIAKWAMSF GAEVVLDVSVPPHTLIAAKI  
RTEKVKKAVSMGNIKVVKLNWLTESLSQWKRLPESDYLLYPSYDL PDRNLSEHSYSSSSD  
DEQRISELNDRELDEIDWQAADQDVENALKDLSDDNDFDTGSI SASQSQPEALEVNTPIK  
RKADLIQPSYNYDGEKRRKENDNHEGYDLLPNSSTKGEE SAENENELDDLADIMEAELSK  
DTA

>P28861

MADWVTGKVTKVQNWTDALFSLTVHAPVLPFTAGQFTKLGLEIDGERVQRAYSYVNSPDN  
PDLEFYLVTVPDGKLSPLAALKPGDEVQVVSEAAGFFVLDEVPHCETLWMLATGTAIGP  
YLSILQLGKDLDRFKNLVLVHAARYAADLSYLPLMQELEKRYEGKLRIQTVVSRETAAGS  
LTGRIPALIESGELESTIGLPMNKETSHVMLCGNPQMVRDTQQLLKETRQMTKHLRRRPG  
HMTAEHYW

>P81901

MAELAKYERVVIDQDICIISCGACVAACPYQALELDENGKSRLIWEKCKDDFSCVAVCPVK  
AISKASEATPEAKAKKGWYRFGKSLTPEEQKAFFEWKTKYGITAPPV

>P46797

MKVRVDADACIGCGVCENLCPDVFQLGDDGKAKVLQPETDLPKAKDAADSCPTGAISVEE

>P19596

MAEGEITTTALTALTERFGLPLGNKYKPKLLYCSNGGHFLRILPDGKVDGTRDRSDQHIQLQ  
LSAEDVGEVYIKSTASQYLAMDTNGLLYGSQLPGEELFLERLEENHYNTYISKKHADK  
NWFVGLKKNNGSKLGPRTHYGQKAILFLPLPVSAD

>P48800

MAAGAAGSITTLPALPDDGGGAFPPGHFKDKPKRLYCKNGGFFLRINPDGRVDGVREKSD  
PHIKLQLQAEERGVVSIKGVSANRFLAMKEDGRLALKLCATEECFFFERLESNNYNTYRS  
RKYSWDVYVALKRTGQYKPGPKTGPQKAILFLPMSAKS

>P31371

MAPLGEVGNFYGVQDAVPFGNVPVLPVDSPVLLSDHLGQSEAGGLPRGPAVTDLDHLKGI  
LRRRQLYCRTGFHLEIFPNGTIQGTRKDHSRFGILEFISIAVGLVSIIRGVDSGLYLG MNE  
KGELYGSEKLTQECVFREQFEENWYNTYSSNLYKHVDTGRRYYVALNKDGTTPREGTRTKR  
HQKFTHFLPRPVDPKVPELYKDILSQS

>P06971

MARSKTAQPKHSLRKIAVVVATAVSGMSVYAQAAVEPKEDTITVTAAPAPQESAWGPAAT  
IAARQSATGKTDTPIQKVPQSI SVVTAEMALHQPKSVKEALSYPGVS VGTREGASNTY  
DHLIIRGFAAEGQSQNNYLNGLKLQGNFYNDVIDPYMLERAEMRGPVSVLYGKSSPGG  
LLNMVSKRPTTEPLKEVQFKAGTDSLFTQTFDFSDSLDDDGVYSYRLTGLARSANAQQKG  
SEEQRYAIAPAFTWRPDDKTNFTFLSYFQNEPETGYGWLPEKGTVEPLPNGKRLPTDFN  
EGAKNNTYSRNEKMGYSFDHEFNDFTVRQNLRFENKTSQNSVYGYGVCSDPANAYSK  
QCAALAPADKGHYLARKYVVDEKLNQNFVSDTQLQSKFATGIDHTLLTGVD FMRMRNDI  
NAWFGYDSDVPLLNLYNPVNTDFDFNAKDPANSGPYRILNKQKQTGVYVQDQAQWDKVLV  
TLGGRYDWADQESLNRVAGTTDKRDDKQFTWRGGVNYLFDNGVTPYFYSSESFEPSQVG  
KDNIFAPSKGKYEVGVKYPEDRPIVVTGAVYNLTKTNLMADPEGSFFSVEGGEIRA  
RGVEIEAKAALSASVNVVGSYTYTDAEYTTDTTYKGNTPAQVPKHMASLWADYTFDGPL  
SGLTLGTGGRYTGSSYGD PAN SFKVGSYTVVDALVRYDLARVGMAGSNVALHVNNLFDRE  
YVASCNTYGCFWGAERQVVATATFRF

>Q8GVE3

MDTKHQDKPSILMLPWL AHGHIAPHLELAKKLSQKNFHIYFCSTPNNLQSFGRNVEKNFS  
SSIQLIELQLPNTFPPELPSQNQTTKNLPPHLIYTLVGAFEDAKPAFCNILETLKPTLV MY  
DLFQPMAAEAAYQYDIAAILFLPLSAVACSFLHNI VNP SLKYPFFESDYQDRESKNINY  
FLHLTANGTLNKDRFLKAFELSCKFVFIKTSREIESKYLDYFPSLMGNEIIPVGPLIQEP  
TFKVDDTKIMDWLSQKEPRSVVYASFGSEYFPSTDEIHDIAIGLLLLTEVNF IWAFLRHPD

EKMTIEEALPQGFAEEIERNNKGMIVQGWPQAKILRHGSIGGFLSHCGWGSVVEGMVFG  
VPIIGVPMAYEQPSNAKVVVDNGMGMVVPDRKINQRLGGEEVARVIKHVVQLQEEAKQIRR  
KANEISESMKKIGDAQMSVVVEKLLQLVKKSE

>P23882

MSESLRIIFAGTPDFAARHLDALSSGHNVGVFTQPDRPAGRGKKLMPSPVKVLAEKKG  
LPVFQPVSLRPQENQQLVAELQADVMVVVAYGLILPKAVLEMPRLGCINVHGSLLPRWRG  
AAPIQRSLWAGDAETGVTIMQMDVGLDTGDMLYKLSCPITAEDTSGTLYDKLAEELGPQGL  
ITTLKQLADGTAKPEVQDETLVITYAEKLSKEEARIDWSLSAAQLERCIRAFNPWPMWLE  
IEGQPVKVKASVIDTATNAAPGTILEANKQGIQVATGDGILNLLSLQPAGKKAMSAQDL  
LNSRREWFVPGNRLV

>P08192

MI IKRTPQAASPLASWLSYLENLHSKTIDLGLERVSIVAARLGVLPAPFVFTVAGTNGK  
GTTTCRTLESILMAAGYKVGVISSPHLVRYTERVRVQGELEPESAHTASFAEIESARGDIS  
LTYFEYGTLSALWLFKQAQLDVVILEVGLGGRLDATNIVDADVAVVTSIALDHTDWLGPD  
RESIGREKAGIFRSEKPAIVGEPPEMSTIADVAQEKGALLQRRGVEWNYSVTDHDFWAFSD  
AHGTLENLPLPLVPQNAATALAALRASGLEVSENAIRDGIASAILPGRFQIVSESPRVI  
FDVAHNPHAAEYLTGRMKALPKNGRVLAIVIGMLHDKDIAGTLAWLKSVDWYCAPLEGP  
RGATAEQLEHLGNGKSFDSVAQAWDAAMADAKAEDTVLVCGSFHTVAHVMEVIDARRSG  
GK

>Q05932

MSRARSHLRAALFLAAASARGITTTQVAARRGLSAWPVQEPSMEYQDAVRMLNLTQTNAG  
YLEQVKRQRGDPQTQLEAMELYLARSGLQVEDLDRLNI IHVTGTKGKGSTCAFTECILRS  
YGLKTGFFSSPHLVQVRERIRINGQPI SPELFTKYFWRLYHRLEETKDGSCVSMPPYFRF  
LTLMAFHVFLQEKVDLAVVEVGIGGAYDCTNI IRKPVVCGVSSLGIDHTSLLGDTVEKIA  
WQKGGIFKQGVPAFTVLQPEGPLAVLRDRAQQI SCPLYLCPMLEALEEGPPLTLGLEGE  
HQRSNAALALQLAHCWLQRQDRHGAGEPKASRPGLLWQLPLAPVFQPTSHMRLGLRNTEW  
PGRTQVLRRGPLTWYLDGAHTASSAQACVRWFRQALQGRERPSGGPEVRVLLFNATGDRD  
PAALLKLLQPCQFDYAVFCPNLTEVSSTGNADQQNFTVTLQVLLRCLHQQHWNHLDEE  
QASPDLSAPSPEPGGSASLLLAPHPHPTCSASSLVFSCI SHALQWISQGRDPIFQPPSP  
PKGLLTHPVAHSGASILREAAA IHVLVTGSLHLVGGVCLKLLEPALSQ

>P15925

MNYTETVAYIHSFPRLAKTGDHRRILTLHLALGNPQQQGRY IHVTGTNGKGSAAANIAHV  
LEASGLTVGLYTSPIIMRFNERIMIDHEPI PDAALVNAVAFVRAALERLQQQQADFNVTE  
FEFITALGYWYFRQRQVDVAIEVIGGGDTSTNVITPVVSVLTEVALDHQKLLGHTITA  
IAKHKAGI IKRGI PVVTGNLVPDAAAVVAKVATTGSQWLRFRDRDFSVPKAKLHGWRQRF  
TYEDQDGRISDLEVPVLDYQQRNMAIAIQ TAKVYAKQTEWPLTPQNIRQGLAASHWPAR  
LEKISDTPLIVIDGAHNPDGINGLITALKQLFSQPI TVIAGILADKDYAAMADRLTAAFS  
TVYLVVPVPGTPRALPEAGYEALHEGRLKDSWQEALAAASLNDVPDQPIVITGSLYLASAVR  
QTLGGKS

>Q8GJP2

MNEDLISQIKEVVTAENQEKLIIQLLESSNYELRGKINPDLQLSASALVFKEDKLFPI  
EHPYQKELLPLPAGHVELKESPLDTAIREFHEETGFFAKKMGKLVVNLIDIPFNETKNEK  
KHQHIDFRYLLELEEQAELAELPFFLLELEEPEEFKYYRYKNI

>P22414



MSPVDFKDKVVIITGAGGGLGKYYSLEFAKLGAKVVVNDLGGALNGQGNSKAADVVD  
IVKNGGVAADYNNVLDGDKIVETAVKNFGTVHVIINNAGILRDASMKKMTEKDYKLVID  
VHLNGAFAVTKAAWPFYQKQKYGRIVNTSSPAGLYGNFGQANYASAKSALLGFAETLAKE  
GAKYNIKANAIAPLARSRMTESILPPPMLEKLGPEKVAPLVLYLSSAENELTGQFFEVA  
GFYAQIRWERSGGVLFKPDQSFTAEEVAKRFSEILDYDDSRKPEYLKNQYPFMLNDYATL  
TNEARKLPANDASGAPTIVSLKDKVVLITGAGAGLGKEYAKWFAKYGAKVVVNDFKDATKT  
VDEIKAAGGEAWPDQHDVAKDSEAIKKNVIDKYGTIDILVNNAGILRDRSFAKMSKQEW  
SVQQVHLIGTFNLSRLAWPYFVEKQFGRINITSTSGIYGNFGQANYSSSKAGILGLSKT  
MAIEGAKNNIKVNIIVAPHAETAMTLTIFREQDNLYHADQVAPLLVYLGTDVDPVTGETF  
EIGGGWIGNTRWQRAKAVSHDEHTTVEFIKEHLNEITDFTTDTENPKSTTESSMAILSA  
VGGDDDDDEDEEEDGDEEEDDEEEDDPVWRFDLILYNIALGATTKQLKYVYEN  
DSDQVPIPTFGHLITFNSGKSQNSFAKLLRNFNPMLLLHGEHYLKVHSWPPPTEGEIKTT  
FEPIATTPKGTNVVIVHGSKSVDNKSGLIYSNEATYFIRNCQADNKVYADRPAFATNQF  
LAPKRAPDYQVDVPSDLAALYRLSGDRNPLHIDPNFAKGAFFPKPILHGMCTYGLSAK  
ALIDKFGMFNEIKARFTGIVFPGETLRVLAWKESDDTIVFQTHVDRGTIAINNAIKLV  
GDKAKI

>Q12948

MQARYSVSSPNSLGVVYPYLGGEQSYRAAAAAAGGGYTAMPAPMSVYSHPAHAEQYPGGM  
ARAYGPYTPQPQPKDMVKPPYSYIALITMAIQNAPDKKITLNGIYQFIMDRFPFYRDNKQ  
GWQNSIRHNLISLNECFVKVPRDDKKPGKGSYWTLPDSYNMFENGSLRRRRRFFKKKDAV  
KDKEEKDRLLHLKEPPPPGRQPPAPPEQADGNAPGPQPPPVRIQDIKTENGTCPSPQP  
SPAAALGSGSAAAVPKIESPDSSSSSLSSGSSPPGSLPSARPLSLDGADSAPPPAPSAP  
PPHHSQGFSDNIMTSLRGSPQSAAAELSSGLLASAAAASSRAGIAPPLALGAYSPGQSSL  
YSSPCSQTSSAGSSGGGGGAGAAGGAGGAGTYHCNLQAMSLYAAGERGGHLQGAPGGAG  
GSAVDDPLPDYSLPPVTSSSSSSLSHGGGGGGGGQFAGHHPAAHQRLTSWYLNQAGG  
DLGHLASAAAAAAGYPGQQNFHVSREMFEQRIGLNNSPVNGNSSCQMAFPSSQSLY  
RTSGAFVYDCSKF

>P05523

MPPELPEVETSRRGIEPHLVGATILHAVVRNGLRWPVSEIYRLSDQPVLVSVQRRAKYLL  
LELPEGWII IHLGMSGSLRILPEELPPEKHDHVDLVMNSGKVLRYTDPFRFGAWLWTKEL  
EGHNVLTHLGPEPLSDDFNGEYLHQKCAKKKTAIKPWLMNDKLVVGVGNIIYASESLFAAG  
IHPDRLASSLSLAECELLARVIKAVLLRSIEQGGTTLKDFLQSDGKPGYFAQELQVYGRK  
GEPGRVCGTPIVATKHAQRATFYCRQCQK

>P42371

MPPELPEVETVRRELEKRIVGQKIIISIEATYPRMVLTFGEQLKKELTGKTIQGISRRGKYL  
IFEIGDDFRLISHLRMEGKYRLATLDAPREKHDHLMKFAADGQLIYADVRKFGTWELIST  
DQVLPYFLKKGIGPEPTYDEDFDEKLFREKLRKSTKKIKPYLLEQTLVAGLGNIIYVDEV  
WLAKIHPEKETNQLIESSIHLLHDSIIIEILQKAIKLGSSIRTYSALGSTGKMQLNELQVY  
GKTGEKCSRCGAEIQKIKVAGRTHFCPVCQK

>O50606

MPPELPEVETTRRRRLRPLVLGQTLRQVVRDPARYRNTALAEGRRILEVDRRGKFLFFALE  
GGVELVAHLGMTGGFRLEPTPHTRAALVLEGRTYLHDPFRFGRLFGVRRGDYREIPLLL  
RLGPEPLSEAFAPGFFRGLKESARPLKALLLDQRLAAGVGNIIYADEALFRARLSPFRPA  
RSLTEEEARRLYRALREVLAEAVELGGSTLSDQSYRQPDGLPGGFQTRHAVYGREGLPCP  
ACGRPVERRVVAGRTHFCPTCQEGP

>Q16595

MWTLGRRVAVAGLLASPSPAQAQTLTRVPRPAELAPLCGRRGLRTDIDATCTPRRASSNQR  
GLNQIWNVKKQSVYLMNLRKSGTLGHPGSLDETTYERLAEETLDSLAEFFEDLADKPYTF  
EDYDVSFGSGVLTVKLGGDLGTYVINKQTPNKQIWLSSPSSGPKRYDWTGKNWVYSHDGV  
SLHELLAAELTKALKTKLDLSSLAYSGKDA

>P83223

MFTRKIQTALAMLI SGAMAGTAYAAPEVLADDFHGEMGGCDSCHVSDKGGVTNDNLTHEN  
GQCVSCHGDLKELAAAAPKDKVSPHKSHLIGE IACTSCHKGHEKSVAYCDACHSFGFDMP  
FGGKWERKFVVPVDADKAAQDKAIAAGVKETTDVVIIGSGGAGLAAAVSARDAGAKVILLE  
KEPIPGGNTKLAAGGMNAAETKPQAKLGI EDKKQIMIDDTMKGGRNINDPELVKVLANN  
SDSIDWLTSMGADMTDVGRMGASVNRSHRPTGGAGVGAHVAVQLWLDNAVKRGTDIRLNS  
RVVRILEDASGKVTGVLVKGEYTYGYVVIKADAVVIAAGGFVAKNNERVSKYDPKLGKFKAT  
NHPGATGDGLDVALQAGAATRDLEYIQAHPTYSPAGGVMITEAVRGNNGAIVVNREGNRFM  
NEITTRDKASAAAILQQKGESAYLVFDDSIKSLKAI EGYVHLNIVKEGKTI EELAKQIDV  
PAAELAKTVTAYNGFVKSGKDAQFERPDLPRELVVAPFYALEIAPAVHHTMGGLVIDTKA  
EVKSEKTGKPI TGLYAAGEVTGGVHGANRLGGNAISDIVTYGRIAGASAAKFAKDN

>P0AEN1

MTTSLCKVTSVEAITDTVYRVRIVPDAAFSFRAGQYLMVMDERDKRPFMASTPDEKGF  
IELHIGASEINLYAKAVMDRILKDHQIVVDIPHGEAWLRDDEERPMIL IAGGTGFSYARS  
ILLTALARNPNRDI TIYWGGREEQHLYDLCELEALS LKHPGLQVVPVVEQPEAGWRGRTG  
TVLTAVLQDHGTLAEHDIYIAGR FEMAKIARDLFCSEARNAREDR LFGDAFAFI

>P45543

MKTLATIGDNCVDIYPQLNKAFSGGNAVNAVYCTRYGIQPGCITWVGDDDYGTKLKQDL  
ARMGVDISHVHTKHGVT AQTQVELHDNDRVFGDYTEGVMADFALSEEDYAWLAQYDIVHA  
AIWGHAEADAFPQLHAAGKLTAFDFSDKWDSPLWQTLVPHLDFAFASAPQEDELRLKMKKA  
IVARGAGTVIVTLGENGSI AWDGAQFWRQAPEFVTVIDTMGAGDSFIAGFLCGWSAGMTL  
PQAIAQGTACA AKTIQYHGAW

>Q10725

MTQLDTTTTLPDL SAIAGLRARLKQWVRTTPVFDKTD FEPVPGTAVNFKLELLQASGTFKA  
RGAFSNLLALDDDQRAAGVTCVSAGNHAVGVAYAAMRLGIPAKVVMIKTASPARVALCRQ  
YGAEVVLAENGQTAFD TVHRIESEEGRFFVHPFNGYRTVLGTATLGHEWLEQAGALDAVI  
VPIGGGGLMAGVSTAVKLLAPQCQVIGVEPEGADAMHRSFETGGPVKM GSMQSIADSLMA  
PHTEQYSYELCRRNVDR LKVSDDDELRAAMRLLFDQLKLATEPACATATAALVGGLKAEL  
AGKRVGVLLCGTNTDAATFARHLGLG

>P33244

MDTFNVPM LAESSNTNYATEATSNHHHLQHQQHSHQQQQQQQLLMPHHHKDQMLAAG  
SSPMLPFYSHLQLQKQDATATIGPAAAAAAVEAATTSANADNFSSLQTIDASQLDGGISL  
SGLCDRFFVASPNPHSNSNM TLMGTATAATTTTTNMMNNNNNTNMMNNNNVEAKTVRPSNG  
NSVIEESVTMP SFANILFP THRSANECIDPALLQKNPQNPNGNNSIIVPPVEYHQLKPL  
EVNSSTSVSTSNFLSSTTAQLLDFEVQVGKDDGHI STTTTTGPGSGSASGSGSGSGSGS  
SIARTIGTATPTTTTTSMSNTANPTRSSLHSIEELAASSCAPRAASPNSNHTSSASTTPQQ  
QQQQQHMQSGNHSGSNLSSDDESMSEDEFGL EIDDNGGYQDTTSSHSQQSGGGGGGGGG  
NLLNGSSGGSSAGGGYMLLPQAASSSGMNGNP NAGHMSSGSGVNGSGGAGNGGAGGNSGP  
GNPMGGTSATPGHGGVIDFKHLFEELCPVCGDKVSGYHYGLLTCESCKGFFKRTVQNKK  
VYTCVAERSCHIDKTQRKRCYPYCRFQKCLEVGMKLEAVRADRMGRGRNKFGPMYKRDRAR

KLQVMRQRQLALQALRNSMGPDIKPTPISPGYQQAYPNMNIKQEIQIPQVSSLTQSPDSS  
PSPIAIALGQVNASTGGVIATPMNAGTGGSGGGGLNGPSSVGNNGNSSNGSSNGNNNSSTG  
NGTSGGGGGNAGGGGGGTNSNDGLHRNGGNGNSSCHEAGIGSLQNTADSKLCFDSGTHP  
SSTADALIEPLRVSPMIREFVQSIDDREWQTQLFALLQKQTYNQVEVDLDFELMCKVLDQN  
LFSQVDWARNTVFFKDLKVDDQMKLLQHSWSDMLVLDHLHHR IHNGLPDETQLNNGQVFN  
LMSLGLLGVPQLGDYFNELQNKLQDLKFDMDYVCMKFLILLNPSVRGIVNRKTVSEGH  
NVQAALLDYTLTCYPSVNDKFRGLVNIILPEIHAMAVRGEHDHLYTKHCAGSAPTQTLLMEM  
LHAKRKG

>P04387

MDYNKRSSVSTVPNAAP IRVGFVGLNAAKGWAIKTHYPAILQLSSQFQITALYSPKETS  
IATIQRLLKLSNATAFPTLESFASSTIDMIVIAIQVASHYEVVMPLEFSKNNPNLKYLE  
VEWALACSLDQAESYKAAAERGVQTIISLQGRKSPYILRAKELISQGYIGDINSIEIAG  
NGGWYGYERPVKSPKYIYEIGNGVDLVTTTTFGHTIDILQYMTSSYFSRINAMVFNNIPEQ  
ELIDERGNRLGQRPKTVDPHLLFQGTLLNGNVPVSCSFKGGKPTKKFTKNLVIDIHGTK  
GDLKLEGDAGFAEISNLVLYYSGTRANDFPLANGQQAPLDPGYDAGKEIMEVYHLRNYNA  
IVGNIHRLYQSSISDFHFNTKKIPELPSQFVMQGFDFEGFPTLMDALILHRLIESVYKSNM  
MGSTLNVSNI SHYSL

>Q01745

MKHLTLALCFSSINAVAVTVPHKAVGTGIPEGSLQFLSLRASAPIGSAISRNNWAVTCD  
SAQSGNECNKAIDGNKDTFWHTFYGANGDPKPPHTYTIMKTTQNVNGLSMLPRQDGNQN  
GWIGRHEVYLLSSDGTNWGSPVASGSWFADSTTKYSNFETRPARYVRLVAITEANGQPWTS  
IAEINVQASSYTAPQPLGRWGPTIDLPIVPAAAAIEPTSGRVLWSSYRNDAFGGSPG  
GITLTSSWDPSTGIVSDRTVTVTKHDMFCPGISMDGNGQIVVTGGNDAKKTSLYDSSSDS  
WIPGPDQMVARGYQSSATMSDGRVFTIGGSWSGGVFEKNGEVYSPSSKTWTSLPNAKVNP  
MLTADKQGLYRSDNHAWLFGWKKGSVVFQAGPSTAMNWWYTSGSGDVKSAGKRQSNRGVAP  
DAMCGNAVMYDAVKGKILTFGGSPDYQDSDATNAHIITLGEPTSPNTVFASNGLYFAR  
TFHTSVVLPDGSTFITGGQRRGIPFEDSTPVFTPEIYVPEQDTFYKQNPNSIVRVYHSIS  
LLLPDGRVFNNGGGLCGDCTTNHFDAQIFTPNYLYNSGNLATTRPKITRTSTQSVKVGGR  
ITISTDSSISKASLIRYGTATHTVNTDQRRIPLTLTNNGGNSYSFQVPSDSGVALPGYWM  
LFVMNSAGVPSVASTIRVTQ

>P80398

MFTMKKSLLLFFLGTISLSLCEEERSADEDGEMTEEEVVKRGILDTLQFAKGVGKDL  
VKGAAQGVSTVSKLAKTC

>P80399

MFTLKKSLLLLFFLGTISLSLCEEERNADEEEKRDVEVEKRFLGALFKVASKVLPVFC  
ITKKC

>P02221

MKFLILALCVAAAMAGPSGDQIAAAKASWNTVKNQVDILYAVFKANPDIQTAFSQFAGK  
DLDSIKGTPDFSKHAGRVVGLFSEVMDLLGNDANTPTILAKAKDFGKSHKSRASPAQLDN  
FRKSLVVYLKCATKWD SAVESSWAPVLDVVFSTLKNEL

>Q7M416

GISADQAKALKDDIAVVAQNPNCGKALFIKMFEMNPGWVEKFPWVKGKSLDEIKASDKI  
TNHGKVINELANWINNINSASGILKSQGTAKGRSIGIEYFENVLPVIDATFAQQMGGA  
YTAAMKDALKAAWTGVIVPGMKAGY

>P41260

MSLSAAQKDNVKSWSAKASAAWGTTAGPEFFMALFDAHDDVFAKFSGLFKGAAKGTVKNTPE  
EMAAQAQSFKGLVSNWVDNLDNAGALEGQCKTFAANHKARGISAGQLEAAFKVLAGFMKS  
YGGDEGAWTAVAGALMGMIRPNM

>P21197

MPIVDSGSVSPLSDAEKNKIRAAWDLVYKDYKGTGVDILVKFFTGTTPAAQAFFPKFKGLT  
TADDLKQSSDVRWHAERI INAVNDAVKSMDDTEKMSMKLKELSIKHAQSFYVDRQYFKVL  
AGIIADTTAPGDAGFEKLMSMICILLSSAY

>P02229

MKFLILALCFAAASALSADQISTVQASFDKVKGDPVGIYAVFKADPSIMAKFTQFAGKD  
LESIKGTAPFEIHANRIVGFFSKIIGELPNIEADVNTFVASHKPRGVTHDQLNNFRAGFV  
SYMKAHTDFAGAEAAWGATLDTFFGMIFSKM

>P02209

MPITDHGQPPTLSEGDKKAIRESWPQIYKNFEQNSLAVLLEFLKKFPAQDSFPKFSAKK  
SHLEQDPAVKLQAEVI INAVNHTIGLMDKEAAMKKYLKDLSTKHSTEFQVNPDMFKELSA  
VVFVSTMGGKAAYEKLFSIIATLLRSTYDA

>P15447

MGLSAAQRQVVASTWKDIAGSDNGAGVGKECFTKFLSAHHDIAAVFGFSGASDPGVADLG  
AKVLAQIGVAVSHLGDEGKMVAEMKAVGVRHKGYGKHIKAEYFEPLGASLLSAMEHRIG  
GKMTAAAKDAWAAAYADISGALISGLQS

>P02210

MSLSAAEADLAGKSWAPVFANKDANGDAFLVALFEKFPDSANFFADFKGKSVADIKASPK  
LRDVSSRIIFTRLNEFVNNAADAGKMSAMLSQFAKEHVGFVGSQAQFENVRSMFPGFVASV  
AAPPAGADAAWTKLFLGLIIDALKAAGK

>P80722

MVLTKDEFDSLHHELDPKIDTEEHRMELGLGAYTELFAAHPEYIKKFSRLQEATPANVMA  
QDGAKYYAKTLINDLVELLKASTDEATLNTAIARTATKDHKPRNVSGAEFQTGEPIFIKY  
FSHVLTPANQAFMEKLLTKIFTGVAGQL

>P0C227

GDVDVLKSLSDAQKAAIKSSWAAFAADITGNGSNVLVQFFKDYPGDQSYFKKFDGKKPDE  
LKGDAQLATHASQVFGSLNNMIDSMDDPDKMVGLLCKNASDHI PRGVRRQQYKELFSTLM  
NYMQSLPGANVAGDTKAAWDKALNAMANI IDAEQKRL

>P15160

MSLFEQLGGQAAVQAVTAQFYANI QADATVATFFNGIDMPNQTNKTA AFLCAALGGPNAW  
TGRNLKEVHANMGVSNAQFTTVIGHLRSALTGAGVAAALVEQTVAVAETVRGDVVTV

>P80721

MTLTKHEQDILLKELGPHVDTPAHIVETGLGAYHALFTAHPQYIIHFSRLEGHTIENVMQ  
SEGIKHYARTLTEAIVHMLKEISNDAEVKKIAAQYKGDHTSRKVTKDEFMSGEPIFTKYF  
QNLVKDAEGKAAVEKFLKHVFPMMAAEI

>P17724

MNKPQTIYEKLGGENAMKAAVPLFYKKVLADERVKHFFKNTDMDHQTKQQTDFLTMLLGG  
PNHYKGNMTEAHKGMNLQNLHFDAI IENLAATLKELGVTDAVINEAAKVIEHTRKDMLG  
K

>P80018

MGGTLAIQAQGD LTLAQKKIVRKTWHQLMRNKTSFVTDVFI RIFAYDPSAQNKFPQMAGM  
SASQLRSSRQMQAHAIRVSSIMSEYVEELSDILPELLATLAR THDLNKVGADHYNLFAK  
VLMEALQAELGSDFNKTRDAWAKAFSVVQAVLLVKHGN

>Q00812

MSTLYDNIGGQPAIEQVVDELHKRIATD SLLAPVFAGTDMVKQRNHLVAF LAQIFEGPKQ  
YGGRPMDKTHAGLNLQQPHFDAIAKHLGERMAVRGVSAENTKAALDRVTNMKGAILNK

>P73925

MSTLYEKLGGTTAVDLAVDKFYERVLQDDR IKHFFADVDMAKQRAHQKAF LTYAFGGTDK  
YDGRYMREAHKELVENHGLNGEHF DAVAEDLLATLKEMGVPEDLIAEVAAVAGAPAHKRD  
VLNQ

>P02231

VATPAMP SMTDAQVA AVKGDWEKIKGSGVE ILYFFLNKFPGNFPMFKKLGNDLAAA KGT  
EFKDQADKIIAFLQGVIEKLGSDMGGAKALLNQLGTSHKAMGITKQDFDQFRQALTELLG  
NLGFGGNIGAWNATVDLMFHVIFNALDGPV

>P07762

MSDRIDRDVINALIAGHFADPF SVLGMHKTTAGLEVRALLPDATDVWVIEPKTGRKLAKL  
ECLDSRGFFSGVIPRRKNFFRYQLAVVWHGQQNLIDDPYRFGPLIQEMDAWLLSEGTHLR  
PYETLGAHADTMDGVTGTRFSVWAPNARRVSVVGQFNWDGRRHPMRLRKE SGIWELFIP  
GAHNGQLYKYEMIDANGNLRKSDPYAFEAQMRPETASLICGLPEKV VQTEERKKANQFD  
APISIEYVHLGSRRHRTDNNFWLSYRELADQLVPYAKWMGFTHLELLPINEHPFDGSGWY  
QPTGLYAPTRRFGTRDDFRYFIDAAHAAGLNVILDWVPGHFPTDDFALAEFDGTNLYEHS  
DPREGYHQDWNTLIYNYGRREVSNFLVGNALYWIERFGIDALRVD AVASMIYRDYSRKEG  
EWIPNEFGRENLEAIEFLRNTNRILGEQVSGAVTMAEESTDFPGVSRPQDMGGLGFWYK  
WNLGWMHDTLDYMKLDPVYRQYHHDKLTFGILYNYTENFVLP LSHDEVVHGKKSILDRMP  
GDAWQKFANL RAYYGWMAFPGKLLFMGNEFAQGREWNHDASLDWHLLEGGDNWHHG VQ  
RLVRDLNLTYRHHKAMHELDFDPYGFEWLVDDKERSVLI FVRRDKEGNEIIVASNFTPV  
PRHDYRFGINQPGKWREILNTDSMHYHGSNAGNGGTVHSDEIASHGRQHSLSLTLPLPLAT  
IWLVREAE

>Q04446

MAAPMTPAARPEDEYEAALNAALADVPELARLLEIDPYLKP YA VDFQRRYKQFSQILKNIG  
ENEGGIDKFSRGYESFVHRCADGGLYCKEWAPGAEGVFLTGDFNGWNPFSYPYKLDY G  
KWELYIPPKQNKSVLVPHGSKLKVVITSKSGEILYRISPWAKYVVREGDNVNYDWIHWDP  
EHSYEFKHSRPPKPRSLRIYESHVGISSHEGKVASYKHFTCNVLPRIKGLGYNCIQLMAI  
MEHAYYASFGYQITSFFAASSRYGTPEELQELVDTAHS MGIIVLLDVVHSHASKNSADGL  
NMF DGTDCYFHSGPRGTHDLWDSRLFAYS SWEVLRFLLSNIRWWLEEYRFDGFRFDGVT  
SMLYHHHG VQGQFSGDYSEYFGLQVDE DALTYLMLANHLVHTLCPDSITIAEDVSGMPAL  
CSPISQGGGGFDYRLAMAI PDKWIQLLKEFKDEDWNMGDIVYTLTNR RYLEKCIAYAESH  
DQALVGDKSLAFWLMDAEMYTNMSVLT PFTPVIDRGIQLHKMIRLITHGLGGEGYLNFMG  
NEFGHPEWLD FPRKGNNESYHYARRQFHLTDDDLLRYKFLNNFDRDMNRLEERYGWLAAP

QAYVSEKHEGNKIIAIFERAGLLFIFNFHPSKSYTDYRVGTALPGKFKIVLDSDAAEYGGH  
QRLDHSTDFEFAFEHNGRPYSLLVYIPSRVALILQNVDLPN

>P30924

MEINFKVLSKPIRGSFSPSPKVSSGASRNKICFP SQHSTGLKFGSQERSWDISSTPKSR  
VRKDERMKHSSAISAVLTDDNSTMAPLEEDVKTENIGLLNLDPTLEPYLDHFRHRMKRYV  
DQKMLIEKYEGPLEEFAQGYLKFGFNREDGCIVYREWAPAAQEDEVIGDFNGWNGSNHMM  
EKDQFGVWSIRIPDVS SKPVI PHNSRVKFRFKHNGVWVDRIPAWIKYATADATKFAAPY  
DGVYWDPPP SERYHF KYPRPPKPRAPRIYEAHVGMSSEPRVNSYREFADDVLPRIKANN  
YNTVQLMAIMEHSYYGSFGYHVTFNF FAVSSRYGNPEDLKYLIDKAHSLGLQVLVDVVHSH  
ASNNTVDGLNGFDIGQGSQESYFHAGERGYHKLWDSRLFNANWEVLRFLLSNLRWWLEE  
YNFDGFRFDGITSMLYVHHGINMGFTGNYN EYFSEATD VDAVVYMLANL IHKIFPDAT  
VIAEDVSGMPGLGRPVSEGGIGFDYRLAMAIPDKWIDYLNKNDEDWSMKEVTS SLTNR  
YTEKCIAYAESH DQSI VGDKTIAFL LMDKEMYSGMSCLTDASPVVDRGIALHKMIHFFTM  
ALGGEGYLNFMGNEFGHP EWIDFPREGNNWSYDKCRRQWNLADSEHLRYKFMNAFDRAMN  
SLDEKFSFLASGQIVSSMDDD NKVVVFERGDLVVFVNFHPKNTYEGYKVGCDLPGKYRV  
ALDSDAWEFGGHGRTGHDVDHFTSPEGIPGVPE TNFNGRQIPSKCCLLREHVWLI TELMN  
ACQKLIKITRQTFVVSYYQQPISR RVTRNLKIRYLQISVTLTNACQKLFTRQTFVLSYYQ  
QPILRRVTRK LKDSLSTNIST

>P16954

MTGTTPLPSSSLSVEQVNRIASNQEQNPF DILGPHPYEHEGQAGWVIRAYLPEAQEAAVI  
CPALRREFAMHPVHHHPHFETWVPEETLEIYQLRIT EGERERIIYDPYAFRSPLLTDYDI  
HLFAEGNHHR IYEKLG AHPCELE NVAGVNF AVWAPSARNVSI LGDFNSWDGRKHQMARRS  
NGIWELFIP ELTVGAAYKYEIKNYDGH IYEKSDPYGFGQQEVRPKTASIVADLDRYTWGDA  
DWLERRRHQEPLRQPI SVYEVHLG SWMHASSDAIATDAQKPLPPVPVADLKP GARFLTY  
RELADRLIPYVLDLGYSHIELLP IAEHPFDG SWGYQVTGYAATSRYGSPEDFMYFVDR  
HQNGIGVILDWVPGHFPKDGHLA FFDGTHLYEHADSRQGEHREWGTLVFN YGRHEVRNF  
LAANALFWFDKYHIDGIRVDAVASMLYLDYNRKEGEWIPNEYGGRENI EAADFLRQVNH  
LIFSYPGALSIAEESTSWPMVSWPTYVGG LGFNLKNMGMWHDMLDYFSMDPWF RQFHQN  
NVTFSIWYAFSENFMLALSHDEVVHGKSNLIGKMPGDEWQKFANLRCLLGYMFTHPGKKT  
LFMGMEFGQWAEWNVWGDLEWHLLQYEPHQGLKQFVKDLNHL YRNAPALYSEDCNQAGFE  
WIDCSDNRHSIVSFIRRAHESDRFLVVVCNFTPQPHAHYRIGVPVAGFYREIFNSDARSY  
GGSNMGNLGGKWTDEWSCHNRPYSLDLCLPPLTTLVLEL ASGPESLSEAANSPL

>O58328

MITMTNWESLYEKALDKVEASIRKVRGVLLAYNTNIDA IKYLKREDLEKRIEKVGKEEVL  
RYSEELPK EIETIPQLLSILWSIKRGKAAELLVVSREVREYMRKWGWDEL RMGGQV GIM  
ANLLGGVYGIPIVIAHVPQLSELQASFLDGP IYVPTFERGELRLIHPREFRKG EEDCIHY  
IYEFPRNFKVLDFEAPRENRFIGAADDYNP ILYVREEWIERFEEIAKRSELAIISGLHPL  
TQENHGKPIKLVREHLKILNDL GIRAHL EFAFTPDEVVRLEIVKLLKHFYSVGLNEVELA  
SVVSVMGEKELAERIISKDPADPIAVIEGLLKL IKETGVKRIHFHTYGYLLAL TREKGEH  
VRDALLFSALAAATKAMKGNIEKLS DIREGLAVPIGEQGLEVEKILEKEFSLRDGIGSIE  
DYQLTFIPTKVVKKPKSTVGIGDTISSSAFVSEFSLH

>Q7M537

MKESLKDRIRLWKRLYVNAFENALNAIPNVKGVLLAYNTNIDA IKYLDKDDLEKRVTEIG  
KEKVFEI IENPPEKISSIEELLGGILRSIKL GKAMEWFVESEEVRRYLREWGWDEL RIGG  
QAGIMANLLGGVYRIPTIVHVPQNPKLQAE L FVDGPIYVVPVFE GNLKLVHPKDAIAEEE  
ELIHYIYEFPRGFQVFDVQAPRENRFIANADDYNARVYMRREFREGFEEITRNVELAIIS

GLQVLKEYYPDGTTRYDRVLDREVESHNLNINRYNVKSHFEFAYTANRRVREALVELLPKFT  
SVGLNEVELASIMEIIGDEELAKEVLEGHIFSVIDAMNVLMDETGIERIHFHTYGYLAL  
TQYRGEVVRDALLFASLAAAAKAMKGNLERIEQIRDALSVPTNERAIVLEEELEKEFTEF  
ENGLIDMVDRQLAFVPTKIVASPKSTVIGIGDTISSSAFVSEFGMRKR

>Q16775

MKVEVLPALTDNYMYLVIDDETKEAAIVDPVQPQKVVDAAARKHGVKLT'TVLT'THHHDHA  
GGNEKLVKLESLKVYGGDRIGALTHKITHLSTLQVGSINVKCLATPCHTSGHICYFVS  
KPGGSEPPAVFTGDTLFFVAGCGKFYEGTADEMCKALLEVLGRLPPDTRVYCGHEYTINNL  
KFARHVEPGNAAIREKLAWAKEKYSIGEPTVPSTLAEFEFTYNPFMRVREKTVQQHAGETD  
PVTTMRAVRREKDKQFKMPRD

>P68688

MQTVIFGRSGCPYCVRAKDLAEKLSNERDDFQYQYVDIRAEGITKEDLQQKAGKPVETVP  
QIFVDQQHIGGYTDFAAWVKENLDA

>Q06434

MQVSKYFTHQLSQFSGYPSIVSERDACGVGFIANLNSKPSNKIVTEALNALSCMEHRGGC  
GADNISGDGAGVTIQIPWDFIFISEGINFLPKLQSNQSILNYGVRMILRSSDDLKIKKIF  
SWALDEYQLDLISWRNVPVDKSIILGEESEKFNQPLVVQCIVRSNNLIDYKLDKHLYLVRKK  
IEKLVSKLDINTNKQFYICSFSSKTIIVYKGLRSEFLVKYNDLSNSLYVSNFAMYHRRF  
STNTMPKWSLAQPMRFMAHNGEINTLLGNLNWNKSKESSLKSSIWSDYDILSPITNLEN  
SDSANLDSVLELFIHSGRTPQEALMILIPAYKNQPALSFLPEITDFYEEYSILQEPWDG  
PALVVFTDGKFGVATLDRNGLRPARYTITDDGFIISLSSETGVSININSQNVVTKGRLGPGQ  
MLCVDLSKNLVLNDNMIKQQISQKFPYKEWVNKYQSNLNLLEYLNDFTFDKVMNRWHTA  
FGYTNEDELVEIEMASSAKEPTFSMGDDTPLPILSEKPHLIYDYFKQRFQVTPNPAIDP  
LRESLVMSLITYLGPKNILEPTAIMAKSIKLESPINENELAQLNSFNLSVTVPTFID  
KHLSTQTFVDKILEICSQCDYSISQGEIILVLSDRIEILPVDKIFVSPLLIVGAVHHYLI  
KKQLRHKVSLVIDTGQCWTTTHHFAALLIGYGASAIOPYLAFLTVRQWWHNSRTQKLMSTGK  
LSRLTIQESQDNYSIAIEKGLLKILSKMGISLLSSYHGAQIFEILGLGQDVVDLAFSGTV  
SRLNGMTLNELYEDSLKSYNLAFITEIPKKLPNLGYVQYRPSAEYHVNNPEMSKTLHKAV  
RNNDNILYSKYKSLNDRRPTNLRDLLELKTDRQPI SIDQVEDVNSVLMRFACTGMSLGA  
LSRETHETLAIRMNRIGGKSNSGEGGEDSTRFKSIQDLDTSGVSRTFSHLKGLKINDLAS  
SAIKQIASGRFGVTPEYLVNAKQLEIKIAQGAKPGEQQLPKGVSPYIAELRNCKPGVT  
LISPPPHHDIYSIEDLAQLIFDLHQINPDAQVSVKLVASLIGITIAAGVAKGNADIIQIS  
GHDGGTGASPLSSIKHAGAPWDVGLAEVHTTLVENSLEKVIILRVDGGLRTGKDI IIAAL  
MGAEFGFGTVAMIATGCVMARVCHTNNCPVGVATQRQDLRNRFPGIPSDVNNFFIFVAE  
EVREILAELGYKSLEELIGLNDLFKVKDIELSKTKNLNLNLFNSINMNRNLIPKPKHKT  
VHTNGNVLDDILLKSNINAINLQSNIVQDIEILNTDRCVGARISGLITKMYGRDNFNG  
NLQLNFVGSAGQSFGAFISKGIHLYLKGEANDYVKGGMNGGEI IICPPIEQKTSASNQVI  
LGNTCLYGATGGYLFANGQAGERFAVRNSNGYSVVEGVGDHACEYMTGGLIVVLGTFGRN  
IGAGMTGGIAYFLDEDNTLKNKLNTEIVKAQRLLTKESSEQLKNIMELYEIKTKSEKAKL  
ILDNWSQYLAKFYQIVPPSEQIQHLLMLIFFFSKYC

>P23225

MATLPRAAPPTPAALLPLPRAAPPLLLAGRAAAAARRSRLRARGPSAAAARRSWVVASAASS  
SSRAVVGGVARREAPPAPQKPTQQAADLNHILSERGACGVGFVANLKNMSSFDIVRDALM  
ALGCMEHRRGGGADSDSGDAGLMSAVPWLDFDDWASKQGLALFDRRNTGVGMVFLPQDE  
KSMEEAKAATEKVFVDEGLEVLGWRPVFPFNVSVVGRNAKETMPNIQQIFVKVAKEDNADD  
IERELYISRKLI ERAAKSFSWADELYFCSLSSRTIVYKGLRSEVLGQFYLDLQNELYKS

PF AIYHRRFSTNTSPRWPLAQPMRL LGHNGEINTIQGNLNMRSRETTLKSPVWRGREHE  
ICPF G DPKASDSANLDSTAELLRSRGRSPA EALMILVPEAYKNHPTLSIKYPEVTDYDY  
YKQMEAWDGPALLLFS DGR TVGATLDRNGLRPARYWRTSDDFVYVASEVGVIPMDESKV  
VMKGRLGPGMMITVDLQ TGQVLENTEVKKTVASASPYGTWLQECTRLIKPVNFLSSTIMD  
NETVLRHQQA FGYSS EDVQMVIE SMASQ GKEPTFCMGDDIPLAVLSQRPHLLYDYFKQRF  
AQVTNPAIDPLREGLVMSLEVNIGKRGNI LEVGPENADQVALSSPVLNEGELETL LNDSK  
LKP KVLSTYFDIRKGLDGS LDKTIQALCEEADA AVRSQS LLLVLSDRSEAPEPTRPAIPI  
LLAVGAIHQHLIQNGLRMSASIVADTAQCFSTHHFACLIYGASAVCPYLALET CRQWRL  
SNKTLNLMRNGKMP TVTIEQAQRNF IKA VKSGLLKI LSKMGISLLSSYCGAQIFEIYGLG  
QEVVDLAF CGSVSKI GGLTLD ELGRETLSFVWKAFSEDTAKRLENFGFIQSRPGGEYHAN  
NP EMSKLLHKAIREKRDNAYTVYQQHLASRPVNVLRDLLELKS DRAP IPIGKVESATSIV  
ERFCTGGM SLGAI SRETHEAIAIAMNRIGGKSNSGEGGEDP IRWNPLTDVVDGYSPTLPH  
LKGLQNGDTATS AIKQV ASGRFGVTPTFLVNADQIEIKIAQGA KPGEQQLP GK KVSAYI  
ARLRNSKPGVPLISPPPHDIYSIEDLAQLIYDLHQINPKAKVSVKLVSEAGIGTVASGV  
SKANADIIQISGHDGGTGASPISSIKHAGGPWELGLTETNQTLIQNGLRERVVLRVDGGF  
RSGQDVLI AAAMGADEYGF GSVAMIATGCVMARICHTN NCPVGVASQREELRARFP GVP  
DLVNYFLFVAEEVRAAL AQLYEKLDDIIGRTDLLKPKHISLVKTQHIDLGYLLSNAGLP  
EWSSSQIRSDVHTNGPVLD ETILADPEIADAIENEKEVSKAFQIYNVDRAVCGRVAGVI  
AKKYGDTGFAGQLNITFNGSAGQSF GCF LTPGMNIRLVGEANDYVGKGMAGGELVVVPVD  
KTGFVPEDATIVGNTCLY GATGGQV FVRGKAGERFAVRNSLCQAVVEGTGDHCCEYMTGG  
CVVVLGKAGRNVAAGMTGGLAYILDEDDTLVPKNKEIVKMQRVNAPAGQMQLKGLIEAY  
VEKTGSEKGIAILREWEAYLPLFWQLVPPSEEDSPEACA EFERVLAKQATTQLSAK

>Q07006

VLGGGAIYGGSRCSAAFNVT KGGARYFVTAGHCTNISANWSASSGGSVGVREGTSFPT  
NDYGI VRYTDGSSPAGTV DLYNGSTQDISSAANAVVQA I KKS GSTTKVTS GTVAVNVT  
VNYGDGPVYNMGR TTACSAGGDSGGAHFAGSVALGIHSGSSGCSGTAGSAIHQPVTKALS  
AYGVTVYL

>P32662

MNKFEDIRGVAFDL DGTLVDSAPGLAAAVDMALYALELPVAGEERVITWIGNGADVLMER  
ALTWARQERATQRKTMGKPPVDDDI PAEEQVRI LRKLFDRYYGEVAEEGTF LFP HVADTL  
GALQAKGLPLGLVTNKPTPFVAPLLEALDI AKYFSVVI GGDDVQNKKPHDP LLLVAERM  
GIAPQQMLFVGD SRNDIQA AKAAGCP SVGLTYGNYGEAIDL SQPDVIYQSINDLLPALG  
LPHSENQESKND

>Q9X519

MSKKPVALIILDGFALRDETYGNAVAQANKPNFDRYWNEYPHTTLKACGEAVGLPEGQMG  
NSEVGHNLNIGAGRIVYQSLTRINIAIREGEFDRNETFLAAMNHVKQHGTSLHLFGLLSDG  
GVHSHIHHLIYALLRLAAKEGVKRVYIHGF LDGRDVG PQTAPQYIKELQEKIKEYGVGEIA  
TLSGRYYSMDRDKRWRVEKAYRAMVYGE GPTYRDPLECIEDSYKHGIYDEFVLP SVIVR  
EDGRPVATI QDNDAIIFYNFRPDRAIQISNTFTNEDFRE FDRGPKHPKHLFFVCLTHFSE  
TVKGYVAFKPTNLDNTIGEVLSQHGLRQLRIAETEKYPHVTF FMSGGREEKFPGEDRILI  
NSPKVPTYDLKPEMSAYEVT DALLKEIEADKYDAIILNYANPDMVGHSGKLEPTIKAVEA  
VDECLGKVVDAILAKGGIAIITADHGNADEVLTPDGK PQT AHTTNPVPIVTKKGIKLRD  
GGILGDLAPTMLDLLGLPQPKEMTGKSLIVK

>P37689

MLVSKKPMVLVILDGYGYREEQQDNAIFSAKTPVMDALWANRPHTLIDASGLEVGLPDRQ  
MGNSEVGHVNLGAGRIVYQDLTRL DVEIKDRAFFANPVL TGAVDKAKNAGKAVHIMGLLS



AGGVHSHEDHIMAMVELAAERGAEKIYLHAFLDGRDTPPRSAESSLKKFEEKFAALGKGR  
VASIIGRYYAMDRDNRWDRVEKAYDLLTLAQGEFQADTAVAGLQAAAYARDENDEFVKATV  
IRAEGQPDAAMEDGDALIFMNFRAADRAREITRAFVNADFDFGFAKKVNVDFVMLTEYAA  
DIKTAVAYPPASLVNTFGEWMAKNDKTQLRISETEKYAHVTTTTFNGGVEESFKGEDRILI  
NSPKVATYDLQPEMSSAELTEKLVAAIKSGKYDTIICNYPNGDMVGHTGVMEAAVKAVEA  
LDHCVEEVAKAVESVGGQLLITADHGNAEQMRDPATGQAHTAHTNLPVPLIYVGDKNVKA  
VEGGKLSDIAPTMLSLMGMEIPQEMTGKPLFIVE

>P41277

MPLTTKPLSLKINAALFDVDGTIIISQPAIAAFWRDFGKDKPYFDAEHVIHISHGWRTYD  
AIAKFAPDFADEEYVNKLEGEIPEKYGEHSIEVPGAVKLCNALNALPKEKAWAVATSGTRD  
MAKKWFDILKIKRPEYFITANDVKQKPHPEPYLKGRNGLGFPINEQDPSKSKVVVFEDA  
PAGIAAGKAAGCKIVGIATTFDLDFLKEKGCDIIVKNHESIRVGEYNAETDEVELIFDDY  
LYAKDDLKWK

>Q9UBQ7

MRPVRLMKVVFVTRRIPAEGRVALARAADCEVEQWDSDEPIPAKELERGVAGAHGLLCLLS  
DHVDKRILDAAGANLKVISTMSVGDHLALDEIKKRIRVGYTPDVLTDTTAELAVSLLL  
TTCRRLPEAIEEVKNGGWTSWKPLWLCCGYGLTQSTVGIIGLGRIGQAIARRLKPFGVQRF  
LYTGRQPRPEEAAEFQAEFVSTPELAAQSDFIVVACSLTPATEGLCNKDFQKMKETAUF  
INISRGDVVNQDDLQALASGKIAAAGLDVTSPEPLPTNHPLTLKNCVILPHIGSATHR  
TRNTMSLLAANNLLAGLRGEPMPSELKL

>P14095

MVSATRSLCAALPVLATSRQATGAPVANELRCQCLQTVAGIHFKNIQSLKVMPPGPHCT  
QTEVIATLKNGREACLDPPEAPMVQKIVQKMLKGVPK

>Q9C469

MVLSKRVPVRIKACENCRRKRVKCSGGDVCFCQKYNENCVYRQFYRKIKRLKYNNDNSK  
IDNFSNEQMNIPFISVRNLDNDSSSIEFFGPASNISFVNQLNHYLKAERNGYDFLSEG  
QNDITPEEERKGLEKFGMKMLVKDNANNFDFSLSNITTEKMNGLLIAYLETWHIPCPIF  
KAEDLFNLSVRTWKNPSASVHDKALLYLILSIGSAASYFDLQSNSSTLPLARGFFNLALR  
TVPHIFTELSLDAIRIVFFMSVSAGNLGDTALSYLISGTAVRMSLAIGLHKCKNFSNDLS  
DKYQNIRLWVSVWQWEGYWSFCVGRPSCSRQDIPIPAVPNEAFSFSGYGEHGRFLINHEH  
MRLRVFFSSCCSKIQSEIYSTNRNLLSVLQTVQISKEVDKEYFSSTNHQLIRSEIGEYC  
KTLDINSCREWFWIRIYYLYLKLMIFRPFLIFLAYVNI SKTSAPDDIEGLKRGSDQCVQ  
EAIDISKFIVQLNRKVRMLQPIFFICTYLESACTVLLFYIASNSAKIQGQLATEIWAVLR  
DTCDFLQSSGPYVGSVSTIAKDALESLNNILVSKKYQDNSVNNTYFDKVMQHVLVHSPA  
FDDSSDPKFETNRSETPTQYTLDDSANDELMIPDLQGFWEQTLDWINN

>P80874

MEYTSIADTGIEASRIGLGTWAIGGTMWGGTDEKTSIETIRAALDQGITLIDTAPAYGFG  
QSEEIVGKAIKEYGKRDQVILATKTALDWKNNQLFRHANRARIVEEVENS LKRLQTDYID  
LYQVHWPDPVPIEETAEVMKELYDAGKIRAI GVSNF SIEQMDTFRAVAPLHTIQPPYNL  
FEREMEE SVLPYAKDNKITTLLYGSLCRGLLTGKMTEEYTFEGDDL RNHDPKFQKPRFKE  
YLSAVNQLDKLAKTRYGKSVIHLAVRWILDQPGADIALWGARKPGQLEALSEITGWT LNS  
EDQKDINTILENTISDPVGPPEFMAPPTRREEI

>P18265

MSGGGPSGGGPGGSGRARTSSFAEPGGGGGGGGGGPGGSASGPGGTGGGKASVGAMGGGV

GASSSSGGGPPSGSGGGGSGGPGAGTSFPPPGVKLGRDSGKVTTVVATLGQGPERSQEVAYT  
DIKVIINGSFVGVYQARLAETRELVAIKKVLQDKRFKNRELQIMRKL DHCNI VRLRYFFY  
SSGEKKDELYLNLVLEYPETVYRVARHF TKAKLI IPI IYVKVYMYQLFRSLAYIHSQGV  
CHRDIKPQNLLVDPDTAVLKLCDFGSAKQLVRGEPNVSYICSRYYRAPELIFGATDYTSS  
IDVWSAGCVLAELLLGQPIFPGDSGVDQLVEI IKVLGTP TREQIREMNP NYTEFKFPQIK  
AHPWTKVFKSRTPPEAIALCSSLLEYTPSSRLSPLEACAHSFFDELRS LGTQLPNNRPLP  
PLFNFS PGELSIQPSLNAILIPPHLRSPSPGATLTSSSQAL TETQTGQDWQAPDATPTLT  
NSS

>P56680

QKPGETKEVHPQLTTFRCTKRGGCKPATNFIVLDSL SHPIHRAEGLGPGGCGDWGNPPPK  
DVCPDVESCAKNCIMEGIPDYSQYGVTTNGTSLRLQHILPDGRVPSPRVYLLDKTKR RYE  
MLHLTGFEFTFDVDATKLP CGMNSALYLSEMHPTGAKSKYNPGGAYYGTGYCDAQCFVTP  
FINGLGNIEGKGS CCNEMDIWEANSRASHVAPHTCNKKGLYLCEGEECAFEGVCDKNGCG  
WNNYRVNVTDY YGRGEEFKVNTLKPFTVVVTQFLANRRGKLEK IHRFYVQDGKVI ESFYTN  
KEGVPYTNMIDDEFCEATGSRKYMELGATQGMGEALTRGMVLAMSIWWDQGGNMEWLDHG  
EAGPCAKGEGAPSNIVQVEFPPEVYTYTNLRWGEIGSTYQELQ

>P14250

MQLKNFYPKMSVLGIATVMALTACGDENTQALFANNPVPGAENQVPVSSSDMSPTSSDAV  
IDPTSSSAAVVDPSTLPAEGPITMPEGLGTLVDDFEDGDNLSKIGDYWYTYNDNDNGGAS  
IITTPLNEEENIIPGRVNNGSNYALQVNYTLDRGDYEDPYVGVGVQVAPDEANGHFGL  
TYWYKGAHEVHIEITDVEDYDVHLAKFPASRTWKQAVVRFKDLVQGGWGKEIPF DAKHI  
MAISFQAKGNKSKLVTD SLFIDNIY LQDSSEVEKDPDMEIKDPV I PVVEFTAEI TVTN  
PLQEKAMKYLNKGVNFTNWLENADGKFKSFELGESDVKILADNGFKSLR LPIDLDLYATN  
RDAFIAGTDTTELKFD DDTLFLVLDSFVEWTAKYNMSFVIDYHEYDNSYNTTSAKDPNYIK  
MMAETWKHVA AHYAESPREDLFFELLNEPDMSDGKVTAATWTTAAQAMIDAIRTVDTKHT  
ILFGDAQWYSITLLAKRTPFTDDNI IYVIHTYEPFAFTHQGGSWTDYATIHDIPFPYDPA  
KWSTVSGDFGVNKSTKSYVKTNIKNYK TGSKEAILEQILKAKKWAATNNVPVI INEFGA  
LNL RSTAESRLNYLTAMREICDTLQIPWTHWGYTGNF SVIENGKLI EGLDKALGVGSK

>O85465

MKKITTIFVLLMTVALFSIGNTTAADNDSVVEEHGQLSISNGELVNERGEQVQLKGMSS  
HGLQWYQGQFVNYESMKWLRDDWGINVFRAAMY TSSGGYIDDP SVKEKVKEAVEAAIDLDI  
YVIIDWHILSDNDPNIYKEEAKDFDEMSELYGDYPNVIYEIANEPNGSDVTWGNQIKPY  
AEEV IPIIRNNDPNNIIIVGTGTWSQDVHHAADNQLADPNVMYAFHFYAGTHGQNL RDQV  
DYALDQGA AIFVSEWGTSAATGDGGVFLDEAQVWIDFMDERNLSWANWSLTHKDESSAAL  
MPGANPTGGWTEAELSPSGTFVREK IRESASIPPSDPTPPSDPGE PDPTPPSDPGEYPAW  
DPNQIYTNEIVYHNGQLWQAKWWTQ NQEPGDPYGPWEPLN

>Q7SIG5

QSGNPFSGRTLLVNSDYSSKLDQTRQAF LSRGDQTNAAKVKYVQEKVGTFFYWISNIFLLR  
DIDVAIQNARA AKARGENP I VGLVLYNL PDRDCSAGESSGELKLSQNGLNRYKNEYVNP F  
AQKLKAASDVQFAVILEPDAIGNMVTGTSAFCRNARGPQQEAIGYAI SQLQASHIHL YLD  
VANGGWLGWADKLEPTAQEVATILQKAGNNAKIRGFSSNVSNYPYSTSNPPPYTSGSPS  
PDESRYATNIANAMRQRLPTQFIIDQSRVALSGARSEWGQWCNVNPAGFGQPFTTNTNN  
PNVD AIVWVKPGGESDQCGMGGAPAAGMWF DAYAQMLTQNAHDEIAR

>P37699

MIKGSLLKRFKSLVMAAIFS VSIISTAIASSAADQIPFPYDAKY PNGAYSCLADSQSIGN

NLVRSEWEQWKS AHITSNGARGYKRVQRDATTN YDTVSEGLGYGLLLSVYFGEQQLFDDL  
YRYVKVFLNSNGLMSWRIDSSGNIMGKDSIGAATDADEDIAVSLVFAHKKWGTSGGFNYQ  
TEAKNYINNIYNKMVEPPTYVIKAGDTWGGSNVTNPSYFAPAWYRIFADFTGNSGWINVA  
NKCYEIADKARNSNTGLVPDWCTANGTPASGQGFDFYDAIRYQWRAAIDYSWYGTAKAK  
THCDAISNFFKNIGYANIKDGYTISGSQISSNHTATFVSCAAAAAMTGTDTTYAKNIYNE  
CVKVKDSGNYTYFGNTLRMMVLLYTTGNFNP LYTYNSQPKPDLKGDVNNDGAIDALDIAA  
LKKAILTQTTSNISL TNADMNNDGNIDAIDFAQLKVKLLN

>Q9C1S9

MAKFFLTAFAAAAALAAPVVEERQNCAPTWGQC GGIGFNGPTCCQSGSTCVKQNDWYSQC  
LPGSQVTTTSTTSTSSSTTSRATSTTRTG GVTSIITAPTRTVTIPGGATTTASYNPNP  
EGVQLWANNYYRSEVHTLAIPQITDPALRAAASAVA EVP SFQWLDNRNVTVD TLLVETLSE  
IRAANQAGANPPYAAQIVVYDLPDRDCAAAA SNGEWAIANNGANNYKGYINRIREILISF  
SDVRTILVIEPDSL ANMVTNMNVAKCSGAASTYREL TIYALKQLDLPHVAMYMDAGHAGW  
LGWPANIQPAELFAKIYEDAGKPRAVRGLATN VANYNAWSISSPPPYTSPNPNYDEKHY  
IEAFRPLLEARGFPAQFIVDQGRSGKQPTGQKEWGHWCNAIGTGFMRPTANTGHQYVDA  
FVWVKPGGEC DGTSDTTAARYDYHCGLE DALKPAPEAGQWFQAYFEQLLRNANPPF

>P02022

GLSDSEKSAVASLWEK IAPQTNKLGAE SMERL FKNHPETKSFFF SRFDISPGSQDLLTHGG  
KIFGALGEAIKSLDNLQKYQDLHTNKLK LSSDHMKLLSAAIIEVFTA HF GG EVNQAAWNK  
FLGEVGAILTSS

>P53834

MVVLNPNNWHVVDKNTLPWSKDYLNGLTSLSTVSSDGKSKIELTQVSSITGDSNVSQRK  
GKPICYFDLQLSMNVKVTNLD TNKDD EDDDGILADGKLEIPEFMHDESDIPILSQGFDAF  
DGLVRSEFV PKV VETLLKYQDDLIKEH SKDIQV

>P16616

MRTIKVGSRRSKLAMTQTKWVIQKLKEINPSFAFEIKEIVTKGDRIVDVTLSKVGGKGLF  
VKEIEQALLNEEIDMAVHSMKDMPAVLPEGLVIGCIPEREDPRDALISKNRVKLSEMKKG  
AVIGTSSLRRSAQLLIERPDLTIKWIRGNIDTRLQKLETE DYDAIILAAAGLSRMGWKQD  
VVTEFLEPERCLPAVGQGALAI ECRESDEELLALFSQFTDEYTKRTVLAERAF LNAMEGG  
CQVPIAGYSVLNGQDEIEMTGLVASPDGKIIFKETVTGNDPEEVGKRCAALMADKGAKDL  
IDRVKRELD EDEGK

>P28464

MKKEIIIGTRSSPLALWQAEFTKAELSKRFPDMNISLKLVKTTGDVLLDSPLSKIGDMGL  
FTKDIEKHLLAGEIDLAVHSLKDVPVTRRKAWLSPRSPSVKTPRRHHFQVRQVDGPSAE  
AKMATSSLRRMSQLLSLRPDLEIMDIRGNL NTRFKKFDEGDFDAMMLAYAGVYRLEFSDR  
ITEILPHETMLPAVGQALGIETRTDDAETREIVRVLNDDNTEMCCRAERALLRHLQGGC  
QIPIGSFGSYIDGTLKLLAFVGSVDGKTGLRNEVTKAVKTP EEA EAVGIELAEI LLSMGA  
EKILADIRKTC

>P06983

MLDNVLR IATRQSPLALWQAHYVKDKLMASHPGLVVELVPMVTRGDVILDTPLAKVGGKG  
LFVKELEVALLENRADI AVHSMKDVPEFPQGLGLVTICEREDPRDAFVSNNYDSL DALP  
AGSIVGTSSLRRQCQLAERRPDLIIRSLRGNVGT RLSKLDNGEYDAIILAVAGLKR LGLE  
SRIRAALPPEISLPAVGQGAVGIECR LDDSR TRELLAALNH HETALRVTAERAMNTRLEG  
GCQVPIGSYAELIDGEIWL RALV GAPDGSQ IIRGERRGAPQDAEQMGISLAEELLNNGAR

EILAEVYNGDAPA

>P19356

MSGNGGAATTAEENGSMRVRIRVGTRKSQLARIQTDTVVAMLKTLYPGIQFEI IAMSTTG  
DKILDOTALSKIGEKSLFTKELENALEKNEVDLVVHSLKDVPTILPPGFTIGAICKRENPC  
DAVVVHPKFIGKTLETLPKSAVGTSSLRRAVQLQRKFPHLEFKSIRGNLNTRLRKLDEQ  
LEFSAILAVAGLQRMGWQNRVQILHPEECMYAVGQ GALAVEVRAKDQDILDLVGVLHD  
PETLLRCIAERAFLRHLEGGCSVPVAVHTVMKDGQLYLTGGVWVSLDGSDSMQETMQATI Q  
VPVQQEDGPEDDPQLVGITARNIPRGAQLAAENLGISLASLLLNKGAKNILDVARQLNDV  
R

>P09126

MSILVTRPSPAGEELVSRRLRTLQVAVWHFPLIEFSPGQQLPQLADQLAALGESDLLFALS  
QHAVAFAQSOLHQDRKWPRLPDYFAIGRTTALALHTVSGQKILYPQDREI SEVLLQLPE  
LQNIAGKRALILRGNGGRELIGDTLTARGAEVTFCECYQRC AIHYDGAE EAMRWQAREVT  
MVVVTSGEMLQQLWSLIPQWYREHWLLHCRLLVVSERLAKLARELGWQDIKVADNADNDA  
LLRALQ

>P10746

MKVL LLLKDAKEDDCGQDPYIRELGLYGLEATLIPVLSFEFFLSLPSFSEKLSHPEDYGG LI  
FTSPRAVEAAELCLEQNNKTEVWERSLKEKWNKSVYVVG NATASLVSKIGLDTEGETCG  
NAEKLAEYICRESSALPLLPFCGNLKR EILPKALKDKGIAMESITVYQTV AHPGIQGNL  
NSYYSQQGVPASITFFSPSGLTYSLKHIQELSGDNIDQIKFAAIGPTTARALAAQGLPVS  
CTAESPTPQALATGIRKALQPHGCC

>O67886

MKA EFDKELIKKYDRPGPRYTSYPPATEFTEEVKEDEYVKRLIKSNERKTPLSLYFHIPF  
CEQRCLYCGCNV IISHRKGIEEPYLERVCREMDLVSQYLDKDRKVIQLHWGGGTPNYLSP  
EQIKWFMEEIRKRFEFGDNAEISIELDPRYL TDEQIKAIKDAGFNRI SLGVQDLDPKVQQ  
AVNRVQPYELIKEKMEKLREAGFESINLDLIYGLPYQTKE SFEKTVEKVIELNPDRIATY  
SFAYIPQVKPHQQLLPKEALPSAEKLRIFEMVINKFQEAGYVYIGMDHFAKPEDELAVA  
QRKGELWRNFQGYTTKKGV ELLGFGATSIGMLYDSYFQNWKTLRDYNKTVDEGKIPVFRG  
YVLNEDDFIRREVIMDCNLGVEFSKIENMFGINFREYFAKELEELKEMEEDGLIKVEE  
DRIKIMPVGRLLIRNVAMVFDAHLRRKKELNFSRTI

>P54304

MKSAYIHIPFCEHICHYCDFNKYFIQSQPVDEYLNAL EQEMINTIAKTGQPD LKTIFIGG  
GTPTSLSEEQLKKLMDMINRVLK PSSDLSEFAVDANPDDL SAEKLIKKEAGVNRLSFGV  
QTFEDDLLEKIGRVHKQKDVFTSFERAREIGFENISLDLMFGLPGQTLKHLEHSINTALS  
LDAEHYSVYSLIVEPKTVFYNLMQKGRLLHLPPEQEAE MYEIVMSKMEAHGIHQYEISNF  
AKAGMESKHNLTYWSNEQYFGFGAGAHGYIGGTRTVNVGPVKHYIDLIAEKGF PYRDTHE  
VTTEEQIEEEMFLGLRKTAGVSKKRFAEKYGRSLDGLFP SVLKD LAEKGLIHNSESA VYL  
THQGN Y

>O31381

MRADLAVSYGEERLPRYTSYPTAPHFSPVIDAGTYARWLSEL PAGASASLYLHVPF CREM  
CWYCGCHTQIVRRDDLIAAYQRTL RSEIALVAETIGRR I KVEHIHFGGTPTIMAPEAFA  
ELMAAMRQAFFVLPSAEI AVEIDPRTL TADMVEAMRLSGVNRASLGVQS FDP IVQRAINR  
IQSFEQTA AVVDMLRHAGIAGINFDLIYGLPHQTVASCLDTVRRSLLLAPDRFSVFGYAH  
VPDFKKHQ RMINQGALPDGPARHDQACAIANALKEAGYVQIGLDHFAR PDDSM AVAFEER

TLRRNFQGYTTDQGEVLLGFGASAI GHLPQGYVQNEVQIGAYAQSIGASRLATAKGYGLT  
DDDRLRADIIERIMCEFSADLGDICARHGAEPEAMLKSASRLKPLISDGVVRLDGDRLAV  
ANDSRFLVRSVAAAFAHLDPGKQLHSRAV

>P32131

MSVQQIDWDLALIQKYNYSQPRYTSYPTALEFSEDFGEQAFLLQAVARYPERPLSLYVHIP  
FCHKLCYFCGCNKIVTRQQHKADQYLDALQEIVHRAPLFAGRHVSQHLHWGGGTPTYLNK  
AQISRLMKLLRENQFNADAEISIEVDPREIELDVLHDHLRAEGFNRLSMGVQDFNKEVQR  
LVNREQDEEFIFALLNHAREIGFTSTNIDL IYGLPKQTPESFAFTLKRVAELNPDRLSVF  
NYAHLPTIFAAQRKIKDADLPSPPQKLDILQETIAFLTQSGYQFIGMDHFARPDDELAVA  
QREGVLHRNFQGYTTQGD TDLLGMGVSAISMIGDCYAQNQKELKQYYQQVDEQGNALWRG  
IALTRDDCIRRDVIKSLICNFRLDYAPIEKQWDLHFADYFAEDLKLLAPLAKDGLVDVDE  
KGIQVTAKGRLLIRNICMCFD TYLRQKARMQQFSRVI

>Q9ZLH0

MQTIDFEKFSQYSKPGPRYTSYPTAVEFKENFNESLKTAFNHDNLKNPMPPLSLYTHLP  
FCRSACYFCACSVIYTSLEEKKVRYISYLKKE LALLKNAMDTNREVAQFHYGGGTPTFFS  
PPQLDEITQSIQEVFPNFSQDIEMSCEIDPRHF TKEHMQLTFDRGFNRLSFGVQDFDLEV  
QKAIHRIQPFEMVQESVKLARDYGIKSINFDLIYGLPNQTKEGFLKTLEWVLKLDPDLRA  
VFNYAHVPVWKKTRKIDETLLPSPRDKLEI LESLISFLEKANYQMIGMDHFAKSDNELY  
LALQKAELRRNFQGYTTKKFTQTIGIGVTSIGEGSDYTTQNYKDLHYEYKALDLGHL PVE  
RGVALSQEDVLRKEVIMQMMSNLKLDYSKIEEKFSIDFKAHFKKELEKLPYEEAGLLSF  
NSKGFEMTRTGMLVRNMAMEFDAYLRGGEKHF SKTL

>P71756

MPGQPFQVYLHVPFCLTRCGYCDFNTYTPAQLGGVSPDRWLLALRAELELAAAKLDAPTV  
HTVYVGGGTPSLLGGERLATLLDMVRDHFV LAPDAEVSTEANPESTWPEFFATIRAAGYT  
RVSLGMQSVAPRVLATLDRVHSPGRAAAAAATEAIAEGFTHVNLDLIYGTPEGESDDDLVRS  
VDAAVQAGVDHVSAYALVVEHGTALARRVRRGELAAPDDDLAHR YELVDARLSAAGFAW  
YEVSNWCRPGGECRHNLYGWDDGQWWGAGPGAHYIGVTRWVNKHPNTYAEILAGATLP  
VAGFEQLGADALHTEDVLLKVR LRQGLPLARLGAAERERAEAVLADGLLDYHGDRVLVLTG  
RGRLADAVVRTLLG

>Q51676

MEQQSQLERLGLFDARVPRYTSYPTAPHFTPAVGEPVFRDWIAAIPAGAAISLYMHV PFC  
RRLCWFACARTQGTQSDEPVRAYAKALLAE LDMKLSALAPGVRLSR LHWGGGTPTLMPAE  
MMRLVAGAVLDAFPLAEGA EFSVEIDPNEIDEARMDALAEAGLN RASIGVQDFDPEIQKI  
IGREQSFEVTKRAVDMIRDRGIASLNADILYGLPHQDPHRIAESVQKLLALS PDRVALYG  
YAHVPWMAKRQVMI PSEALPDPHGRLR LFFETARELFLADGYDEIGIDHFARPGDGLARAQ  
KAGLLRRNFQGYTTDDRAEVLVGLGASSISRFPQGYAQNAPATGAHLARIRDGRFSTTRGH  
AFSAEDRWR SRMIEALMCDFEIRAE EFIRDHGFD AESLSRILTPVAAHFGDMVDADASGL  
RITPRGRPLTRMIARMF DGYDMAASGHSAAI

>P77915

MLDTIRWDADLIRRYDLSGPRYTSYPTAVQFHEGIGPFDQLHALRDSRKAGHPLSLYVHI  
PFCANICYCACNKVITKDRGRSAPYLARLVREIEIVSRHLSREQVVEQLHFGGGTPTFL  
SPGQLRELMSQLRTHLNLDDDSGDYGIEIDPREADWSTMGLLRELGFNRVSLGVQDFDM  
EVQKAVNRMQTPEETRTIVEAARTLQYRSINL DLIYGLPKQTPDSFARTVDEVIALQPDR  
LSVFNIAHLPERFMPQRRINADDLPSPGQKLEMLQRTTEQLAAAGYRYIGMDHFALPDDE  
LASAQEDGTLQRNFQGYTTTHGHCDLVGLGVSAISQIGDLYSQNSSDINDYQTS LDNGQLA

IRRGLHCNSDDRVRRAVIQQLICHFELAFEDIETEFGIDFRSYFAELWPDLERFAADGLI  
RLDAKGIDITSSGRLLVRSICMLFDRYLP SLNRQRF SRVI

>O34162

MIPSAITSPAPDRRALSDFRALAGRIDGNGPRYTSYPTADR FHNGPDL SLYHDALAACRA  
DAPAPLSLYLHIFPCENICYCGCNKIITRDHGRSARYVNYLGREMALVADR LGPRRQVL  
QSHWGGGTPTFLDPGEMRRVMALLHEHFELAAEGEHSIEIDPRRVDHARMALLAELGFNR  
VSLGVQDFDPEVQQA IHRIQPFEETR AVVDAARTLGFRSVSLDLIYGLPHQTAARFGRTI  
DQVLALRPDRLSVYSYAHLP HVFKPQRRIDENALPPAGEKLDILVSTIERLSAEGYVYIG  
MDHFALPDDDLAVAQREGRLQRNFQGYSTHAGYDQVGLGISAIGAIAGRYVQNARTLDEY  
YGALDHGRLPLARGVAMSADDHLRREIIGALMCNGVLDIPALEARHGIRFGTAFAPELAD  
LAALGADGLVQCAPDRITVTPLGRLLVRRVAMVFDRYLREDAARPASTGAQAVAANDGAQ  
PVRFVPRARYSRVV

>P95651

MTNIALQLSLGLFDARVPRYTSYPAAPVFSGAVGADFQAQAI EALDPAVPISVYIHVPPFC  
ERLCWFCACRTQGTQTLAPVEAYVGTLLQELELVKKHLPAGVKAGRLHWGGGTPTILSPE  
LIHKLAQAIKAVIPFAEDYEFVSVEIDPMMVDEPKIRALSEEGMNRASIGIQDFTDIVQSA  
IGREQPFENTRACVETLRRYGVHSLNTDLVYGLPHQNRESLAATIDKVLQLGPDRVAIFG  
YAHVPWMAKRQKLIDENVLPNDMERHELANLAAKMFTEGGFERIGIDHFARPDDSMAVAA  
RSGKLRRNFQGYTDDTCPTLLGIGASSISKFEQGYLQNTAATAAYIKAIEEGRLPGYRGH  
RMTDEDYLHGRAIEMIMCEFRLLDLPALRARFGEEAETMVPRITEAAAKFAPFITVDEAGS  
MSIEAEGRALTRMIARVFDAYETPEARYSQAS

>O31067

AFLMTKDAEISIEVSPRYINGDYFLRGRKLGFNRI SFQVQDFDPQVQLAVNRVQRET MFF  
QVMEWIRAAEFESVNIDL IYGLPYQTVQSFEATI AKTLRLDPDRIAVFNFA YLPNLKPIQ  
KRIDPTTLPDSATKLTILQRVIERLTSQGYRYIGMDHFAKPTDELAIAQRSGDLKRNFGQ  
YTTLPATADLIGFGLTISMLQAAYAQNQKHLATYFSDVAAGHHGPQECGFNCTVEDLLRR  
TIIMELMCQFSLDKGAIARQFNLD FDAYFASELAALRELAADGLLHLGRDRLEVTVPVGR  
LIRNITAVFDAYLQKSGRTFSKAI

>P74132

MTTTFPTVEFSAELLNKYNQGI PRYTSYPPATELNKEFDP SDFQTA INLGN YKKTPLSLY  
CHIPFCAKACYFCGCNTIITQH KPAVD PYLKAVAKQIALVAPLVDQQR PVQQLHWGGGT  
NYLTLEQAEFLFNTITDAFPLAENAEISIEINPCYVDKDYIFALRQLGFNRISFGIQDFN  
SQVQQAVNRIQPEAMLQVMDWIRQANFDSVNVDLIYGLPHQNLATFRETLRKT AQLNPD  
RIAVFNFA YVPWLKPVQKKMPESALPPAEK LKIMQATIADLTEQGYVFI GMDHFAK PDD  
ELAI AQRRGELHRNFQGYTTQPE SDLLGFGITSISMLQDVYAQNHKTLKAFYNALDREVM  
PIEKGFKLSQDDLIRRTVIKELMCQFKLSAQELESKYNLGFD CDFNDYFAKELSALDVLE  
ADGLLRRLGDGLEVT PRGRILIRNIAAVFD TYLQNKSKQQMFSRAI

>Q05819

MKKQILYLIVLQQLFLCSAYAQQKSGNIPYRVNVQADSAKQKAIIDNKWVAVGINKPYA  
LQYDDKLRFNKPSYRFELKAEDNSLEGYAAAGETKGRTELSYSYATTNDFKFKFPPSVYQN  
AQKLT VYHYGKGICEQSSRSYTF SVYIPSSFPDNATTIFAQWHGAPSR TLVATPEGEI  
KTL SIEEFLALYDRMIFKKNIAHDKVEKKDKDGKITVYVAGKPNGWKVEQGGYPTLAFGFS  
KGYFYIKANSRQWLTDKADRNNANPENSEVMKPYSSSEYKTSTIAYKMPFAQFPKDCWIT  
FDVAIDWTKYGEANTILKPGKLDVMMTYTKNKKPQKAHIVNQQEILIGRNDDDGYYFKF  
GIYRVGNSTVPVTYNLSGYS ETAR

>P77335

MTEIVADKTVVVKNAIETADGALDLYNKYLDQVIPWQTFDETIKELSRFKQEYSQAASV  
LVGDIKTLMLDSQDKYFEATQTVYEWCGVATQLLAAYILLFDEYNEKKASAQKDILIKVL  
DDGITKLNKAEQKSLLVSSQSFNNASGKLLALDSQLTNDSEKSSYFQSQVVKIRKEAYAG  
AAAGVVAGPFGLIISYSIAAGVVEGKLIPELKNKLSVQNFFTTLSNTVKQANKDIDAAK  
LKLTTTEIAAIGEIKTETETTRFYVDYDDLMLSLKKEAAKMINTCNEYQKRHGKKTLEFEV  
PEV

>P24232

MLDAQTIATVKATIPLLIVETGPKLTAHFYDRMFTHNPELKEIFNMSNQNRNGDQREALFNA  
IAAYASNIENLPALLPAVEKIAQKHTSFQIKPEQYNIVGEHLLATLDEMFSQGEVLDAW  
GKAYGVLANVFINREAEIYNENASKAGGWEGRTRDFRIVAKTTPRSALITSFELEPVDGGAV  
AEYRPGQYLVGWLKPEGFPHQEIROYSLTRKPDGKGYRIAVKREEGQVSNWLHNHANVG  
DVVKLVAPAGDFFMAVADDPVTLISAGVGGQTPMLAMLDTLAKAGHTAQVNWFFHAAENGD  
VHAFADDEVKELGQSLPRFTAHTWYRQPSEADRAKQGFDEGLMDLSKLEGAFSDPTMQFY  
LCGPVGFQMFTAKQLVDLGVKQENIHYECFGPHKVL

>P39662

MLTQKTKDIVKATAPVLAHEGYDIKCFYQRMFEAHPKLVNFMMAHQEQGQQQALARA  
VYAYAENIEDPNSLMAVLKNIANKHASLGKVPKQYPIVGEHLLAAIKEVLGNAATDDIIS  
AWAQAYGNLADVLMGMESELYERSAEQPGGWKWRFTVIREKRPESDVITSFILPADGG  
PVVNFEPGQYTSVAIDVPALGLQQIRQYSLSDMPNGRSYRISVKREGGPPPGYVSNLL  
HDHVNVDQVKLAAPYGSFHIDVDAKTPIVLISGGVGLTPMVSMKVALQAPPRQVVFVH  
GARNSAVHAMRDLREAAKTYENLDLFFVYDQPLPEDVQGRDYDYPGLVDVKQIEKSILL  
PDADYYICGPIPFMRMQHDALKNLGIHEARIHYEVFGPDLFAE

>Q9SDL7

MVLEKKSALLEDLIKKCGCAVVDGGFATQLEIHGAAINDPLWSAVSLIKNPELIKRVHM  
EYLEAGADIVVTSSYQATIPGFLSRGLSIEESESLQKSVLAVEARDRFWEKVSXVSGH  
SYNRALVAASIGSYGAYLADGSEYSGHYGENVSLDKLDFHRRRLQVLVEAGPDLLAFET  
IPNKLEAQACVELLEEEKQVIPAWEICFTSVDGKAPSGESFEECLEPLNKSNNIYAVGIN  
CAPPQFIENLIRKFAKLTKKAIVVYPNSGEVWDGKAKQWLPSQCFGDDEFEMFATKWRDL  
GAKLIGCCRTTPSTINAI SRDLKRR

>P24092

MRNGRTLRLRWAGVLAATAIIGVGGFWSQGTTKALPEGPGEKRALDIEIGAMERFGKLDLP  
KVAFRHDQHTTAVTGMGKDCAACHKSKDGKMSLKFMRLLDDNSAAELKEIYHANCIGCHTD  
LAKAGKKTGPQDGECSCHNPKPSAASSWKEIGFDKSLHYRHVASKAIKPVGDPQKNCGA  
CHHVYDEASKKLVWGNKEDSCRACHGKPVDKRPALDTAAHTACISCHMDVAKTKAETG  
PVNCAGCHAPEAQAKFKVVREVPRLDRGQPDAAALILPVPKGDAPREMKGTMKPVAFDHKA  
HEAKANDCRTCHHVRIDTCTACHTVNGTADSKFVQLEKAMHQPD SMRSCVGNTRVQQP  
TCAGCHGFIKPTKSDAQCGVCHVAAPGFDAKQVEAGALLNLKAEQRSQVAASMLSARPQP  
KGTFDLNDIPEKVVIGSIAKEYQPSFPHRKIVKTLIAGIGEDKLAATFHIEKGTLCQGC  
HHNSPASLTPPKCASCHGKPFADDRGDRPGLKAAHYQQCMGCHDRMKIEKPANTACVDCH  
KERAK

>P70512

MNAQLTMEAI GELHGV SHEPVPAPADLLGGSPHARSSVGHRSGLP PAHPRSMGMASLLD  
GGSGSDYHHHHRAPHEHSLAGPLHPTMTMACETPPGMSMPTTYTTLTPLQLPPISTVSD

KFPHHHHHHHHHHHHHHHHHQRLAGNVSGSFTLMRDERGLASMNNLYTPYHKDVAGMGQSLS  
PLSGSGLGSIHNSQQGLPHYAHPGAAMPDCKMLTPNDFEAHHPAMLGRHGEQHLTPTSAG  
MVPINGLPHPHHAHLNAQGHGQLLGTAREPNPSVTGAQVSNGSNSGQMEEINTKEVAQR  
ITTELKRYISIPQAIFAQRVLCRSQGTLSDLLRNPKPWSKLSGRETFRRMWWKWLQEPFQ  
RMSALRLAACKRKEQEHGKDRGNTPKKPRLVFTDVQRRTLHAIFKENKRPSKELQITISQ  
QLGLELSTVSNFFMNARRSLDKWQDEGSSNSGNSSSSSSTCTKA

>Q6XNP7

MASQCPVKNSWPELVGTNGDIAAGIIQTENANVKAIVVKEGLPITQDLNFRVRVFDEN  
RVVTQVPAIG

>P26281

MTVAYIAIGSNLASEPLEQVNAALKALGDIPESHILTVSSFYRTPPLGPDQPDYLNAAVA  
LETSLAPEELNHTQRIELQQGRVKAERWGPRTLDDLDIMLFGNEVINTERLTVPHYDMK  
NRGFMLWPLFEIAPELVFPDGEMLRQILHTRAFDKLNKW

>P43777

MITAYIALGSNLNTPVEQLHAALKAISQLSNTHLVTTSSFYKSKPLGPDQPDYVNAVAK  
IETELSPLKLLDELQRIENEQGRVRLRRWGERTLDDLDILLYGNEIIQNERLTIPHYDMHN  
REFVIVPLFEIASDLVLPNSQIITELVKQFADHKMIKLNK

>O75506

MAETDPKTVQDLTSVVQTLQMQDKFQMSDQIIGRIDDMSSRIDDLKNIADLMTQAG  
VEELESENKIPATQKS

>P0ACG8

MKEKPAVEVRLDKWLWAARFYKTRALAREMIEGGKVHYNGQRSKPSKIVELNATLTLRQG  
NDERTVIVKAITEQRRPASEAALLYEETAESVEKREKMALARKLNALTMPHPDRRDPKKE  
RRDLLRFKHGDSE

>Q148F8

MEIPVSVQPSWLRRASAPLPGLSAPGRLFDQRFGEGLLEAELAALCPAALAPYYLRAPSV  
ALPTAQVSTDPGHFSVLLDVKHFSPEEIAVKVVGHDHVEVHARHEERPDEHGYIAREFHRR  
YRLPPGVDPAAVTSALSPEGVLSIQAAPAPAQAPLQSPPGAAAK

>Q9UJY1

MADGQMPFSCHYPSRLRRDPFRDSPLSSRLDDGFGMDPFPDDLTA SWPDWALPRLSSAW  
PGTLRSGMVRGPTATARFGVPAEGRTPPFPGEKPKVCVNVHSFKPEELMVKTKDGYVE  
VSGKHEEKQOEGGIVSKNFTKKIQLPAEVDPVTVFASLSPEGLLIEAPQVPPYSTFGES  
SFNNELPQDSQEVCT

>P17710

MGWGAPLLSRMLHGPGQAGETSPVPERQSGSENPAEDRRPLEKQCSHLLYTMGQNCQRG  
QAVDVEPKIRPPLTEEKIDKYLYAMRLSDEILIDILTRFKKEMKNGLSRDYNPTASVKML  
PTFVRSIPDGSEKGFIALDLGSSFRILRVQVNHEKSQNVSMESEVYDTPENIVHSGSGS  
QLFDHVAECLGDFMEKRKIKDKKLPVGFTFSFPCRSKIDEAVLITWTKRFKASGVEGAD  
VVKLLNKAIAKRGDYDANIVAVVNDTVGTMTCGYDDQCEVGLIIGTGTNACYMEELRH  
IDLVEGDEGRMCINTEWGAFGDDGSLEDIRTEFDRELDGRSLNPGKQLFEKMOVSGMYMGE  
LVRLILVKMAKESLLFEGRITPELLTRGKFTTSDVAAIETDKEGVQNAKEILTRLGVEPS  
HDDCVSVQHVCTIVSFRSANLVAATLGAILNRLRDNKGTPLRLRTTVGVDGSLYKMHQPYS



RRFHKTLRRLVPDSDVRFLLSESGSGKGAAMVTAVAYRLAEQHRQIEETLSHFRLSKQAL  
MEVKKKLRSEMEMGLRKETNSRATVKMLPSYVRSIPDGTEHGDFLALDLGGTNFRVLLVK  
IRSGKKRTVEMHNKIYSIPLEIMQGTGDELFDHIVSCISDFLDYMGIKGPRMPLGFTFSF  
PCKQTSLCDGILITWTKGFKATDCVGHVDVATLLRDAVKRREEFDLDVVAVVNDTVGTMMT  
CAYEEPSCEIGLIVGTGSNACYMEEMKNVEMVEGNQGMCMINMEWGAFDNGCLDDIRTD  
FDKVVDEYSLNSGKQRFKEMISGMYLGEIVRNILIDFTKKGFLFRGQISEPLKTRGIFET  
KFLSQIESDRLLALLQVRAILQQLGLNSTCDDSIILVKTVCVVSKRAAQLCGAGMAAVVQK  
IRENRGLDHLNVTVGVDGTLYKLHPHFSRIMHQTVKELSPKCTVSFLLSEDGSGKGAALI  
TAVGVRLRGDPTNA

>P50521

MEANFQQAVKKLVNDFEYPTESLREAVKEFDELROKGLQKNGEVLAMAPAFISTLPTGAE  
TGDFLALDFGGTNLRVCWIQLLDGDKYEMKHSKSVLPRECVRNESVKPIIDFMSDHVELF  
IKEHFPSKFGCPEEEYLPMGFTFSYPANQVSITESYLLRWTKGLNIPEAINKDFAQFLTE  
GFKARNLPRIEAVINDTVGTLVTRAYTSKESDTFMGIIFGTGTNGAYVEQMNQIPKLAG  
KCTGDHMLINMEWGATDFSLHSTRYDLLLLDHDTPNAGRQIFEKRVGGMYLGELFRRALF  
HLIKVYNFNEGIFPPSITDAWSLETSVLSRMMVERSAENVRNVLSTFKFRFRSDEEALYL  
WDAAHAIGRRAARMSAVPIASLYLSTGRAGKKSVDGVDGSLVEHYPHFVDMLEALRELI  
GDNEKLISIGIAKDGSGIGAALCALQAVKEKKGLA

>P27926

MAAIEPSGLHPGERDSSCPQEGIPRPSGSLELAQEYLLQQFKVTMTQLQQIQASLLCSMEQ  
ALKGQDSPAPSVRMLPTYVRSTPHGTEQGDFLVLELGATGASLRVLWVTLTGTKESVET  
RSQEFVIPQEVILGAGQQLFDFAAARCLSEFLDAYPVENQGLKLGFNFSFPCHQTGLDKST  
LISWTKGFRCSGVEGQDVVQLLRDAIQRQGTYNIDVVAMVNDTVGTMGCCELGTRPCEVG  
LIVDTGTNACYMEEARHVAALDEDRGRTCVSIEWGSFYDEEALGPVLTTFDDALDHESLV  
PGAQRFEKMIGGLYL GELVRLVLVHLSQHGVLFGGCASPALLSQNSILLEHVAKMEDPAT  
GIAHVHTVLQGLGLSPQASDAELVQRVCMAVCTRAAQLCASALAAVLSRLQHSREQQTLH  
VAVATGGRVFWEHPRFLCILKETVMLLAPECDVSFIPSVDDGGGRGVAMVTAVAARLATHR  
RILEETLAPFQLSLEQLTAVQAQMREAMIRGLQGESSLRMLPTYVRATPDGSERGDFLA  
LDLGGTNFRVLLVLRVAEGSVQITNQVYSIPEYVAQGGSGQKLFDHIVDCIVDFQKRQGLSG  
QSLPLGFTFSFPCKQLGLDQGILLNWTGKFNASGCEGQDVVYLLREAIRRRQAVELNVVA  
IVNDTVGTMMSGYDDPCCEMGLIVGTGTNACYMEELRNVASVPGDSGHMCINMEWGAFG  
DDGSLSMLGTCFDASVDQASINPGKQRFKEMISGMYLGEIVRHILLHLTSLGVLFGRQKT  
QCLQTRDIFKTKFLSEIESDSLALRQVRAILEDLGLTLTSDDALMVLEVCQAVSRAAQL  
CGAGVAAVVEKIRENRGLQELTVSVGVDGTLYKLHPHFSRLVSVTVRKLAPQCTVTFLOS  
EDGSGKGAALVTRVACRLTQMACV

>P33284

MVRLGPKKPPARKGSMADVPANLMEQIHGLETLFTVSSEKMRSIVKHFISELDKGLSKKG  
GNIPIPIGWVVEYPTGKETGDFLALDLGGTNLRVVLVKLGGNHDFDTTQNKYRLPDHLRT  
GTSEQLWSFIAKCLKEFVDEWYPDGVSEPLPLGFTFSYPASQKKINSGVLQRWTKGFDIE  
GVEGHVVPMLQEQIEKLNIPINVVALINDTTGTLVASLYTDPQTKMGIIGTG VNGAYY  
DVVSGIEKLEGLLPEDIGPDSMAINCEYGSFDNEHLVLPRTKYDVII DEESPRPGQAF  
EKMTSGYYLGEIMRLVLLDLYDSGFIFKDQDISKLKEAYVMDTSYPSKIEDDPFENLEDT  
DDLFKTNLNIETTVVERKLIRKLAELVGTRAARLTVCGVSAICDKRGYKTAHIAADGSVF  
NRYPGYKEKAAQALKDIYNWDVEKMEDHPIQLVAEDGSGVGAAIIACL TQKRLAAGKSV  
GIKGE

>Q26609

MVFSQQQLFEKVVVEILKPFDLVVDYEEICDRMGESMRLGLQKSTNEKSSIKMFPSYVTK  
TPNGTETGNFLALDLGGTNYRVLSVTLEGGKSPRIQERTYCIPAEKMSGSGTELFKYIA  
ETLADFLNENGMKDKKFDLGFTFSPFCVQKGLTHATLVRWTKGFSADGVEGHVVAELLQT  
ELDKRELNVKCVAVVNDTVGTLASCALEDPKCAVGLIVGTGTNAVAYIEDSSKVELMDGVK  
EPEVVINTEWGAFFGEGKELDCWRTQFQDKSMDIDSLHPGKQLYEKMVSGMYLGELVRHIIV  
YLVEQKILFRGDLPERLKVRNSLLTRYLTDVERDPAHLLYNTHYMLTDDLHVPVVEPIDN  
RIVRYACEMVVKRAAYLAGAGIACILRRINRSEVTVGVGDSLYKFHPKFCERMTDMVDKL  
KPKNTRFCLRLSEDSGSGKAAAAIAASCTRQN

>P17709

MSFDDLHKATERAVIQAVDQICDDFEVTPPEKLDELTAIFYIEQMEKGLAPPKEGHTLASDK  
GLPMIPAFVTGSPNGTERGVLLAADLGGTNFRICSVNLHGDHTFSMEQMSKIPDDLDD  
ENVTSDDLFGFLARRTLAFMKKYHPDELAKGKDAKPMKLGFTFSYPVDQTSLSNGTLIRW  
TKGFRIADTVGKDVVQLYQEQLSAQGMPIKVVALTNDTVGTYLSHCYTSNDTDSMTSGE  
ISEPVIIGCIFGTGTNGCYMEEINKITKLPQELRDKLIKEGKTHMIINVEWGSFDNELKHL  
PTTKYDVVIDQKLSTNPGFHLFEKRVSGMFLGEVLRNILLVDLHSQGLLLQQYRSKEQLPR  
HLTTPFQLSSEVLSHIEIDDSTGLRETELSLLQSLRLPTTPTERVQIQKLVRAISRRSAY  
LAAVPLAAILIKTNALNKRYHGEVEIGCDGSSVVEYYPGFRSMLRHALALSPLGAEGERKV  
HLKIAKDGSGVGAALCALVA

>P24397

MATFVSNWSTKSVSESFIAPLQKRAEKDVPVGNVPIIDLQQHHLLLVQQITKACQDFGL  
FQVINHGFPEELMLETMEVCKEFFALPAEEKEKFKPKGEAAKFELPLEQKAKLYVEGEQL  
SNEEFLYWKDTLAHGCHPLDQDLVNSWPEKPAKYREVVAKYSVEVRKLTMRMLDYICEGL  
GLKLGDFDNELSQIQMMLTNYPPCPDPSSTLGSGGHYDGNLITLLQQDLPLGLQQLIVKD  
ATWIAVQPIPTAFVVNLGLTLKVIITNEKFEFSIHRVVTDPTRDRVSIATLIGPDYSCIE  
PAKELLNQDNPPLYKPYSEFADIYLSDKSDYDSGVKPYKINV

>Q59634

MFGTPSRRTFLTASALSAMALAASPTVTDATAAAPPDSSWALCERWIDIITGRRAARTSD  
PRARAIIAKTDRKVAEILTDLVSGSSRQTVLISADLRKEQSPFITKTARAIESMACAWAT  
PGSSYHKDPEILSACIEGLRDFCRLRYNPSQDEYGNWWDWEDGASRAVADVMCILHDVLP  
PEVMSAAAAGIDHFIPDPWFQQPASVKPTANPVQPVVSTGANRMDLTRAVMCRSIATGDE  
KRLRHAVDGLPDAWRVTEGDGFRADGGFIQHSHPYTGGYGDVLF'SGLAMLFP'LVSGMR  
FDIVESARKAFHDQVERGFIPVMYNGQILDDVRRSISRINESAAMHGISIARAMLMMAD  
ALPHTRAEQWRGIVHGWMARNTFDHLSEPSTLVDISLFDAAAKARVPESSTPSYFASMD  
RLVHRTADWLITVSNCSDRIAWYEGNGENEWASRTSQGMRYLLLPDGMGQYEDGYWATV  
DYSAPTGTTVDSTPLKRAVGASWAAKTPTNEWSSGLASGSWSAAAASHITSQDSALKARRL  
WVGLKDAMVELTTDVTTDASRAITVVEHRKVASSSTKLLVDGNRVSSATSFQNPRAHLD  
GVGGYVFATDSDLADVATRKTWIDVNP SRKVKGADEVIERAYASLHVTHHDPVAWAL  
LPTASRSHTMALATRPGEVFPFTVLRNDATVQAVRSAGALLTKDPTVVTTLAFWKPATCGG  
VAVNRPALVQTRESANQMEVVIVEPTQKRGSLTVTIEGSKVKTADSHVDVSCENAAGTL  
HVDTAGLGGQSVRVTLARQVTQTPSGGGRHDRA

>P85172

SLASKPCCDSCLCTRSIPPQCRCTDIGETCHSACKSCICTRSFPPQCRCSDIHFICYKPC  
TSS

>Q8W4Y8

MVLMNKKAIMKLLALMLFLLGFTANVVDARFVDSSTFITQVLSNGDDVKSACCDTCLCTRSQ

PPTCRCVDVRESCHSACDKCVCAYSNPPQCQCYDTHKFCYKACHNSEIEE

>P83311

SGHHHHDSSDEPSESSKACCDHCACTKSIPPQCRCALRLNCNHCRSCICTFSIPAQCVCCT  
DTNDFCYEPCKSGHDDDDSG

>P83039

ELDEGNLRRPVCGEMAELLACPLVNLVPCGTDGNTYANECLLCVQMKTRQDIRILNNG  
RCRDT

>P83472

MKLLFAIVALLALAFLCADISAVKTSWPELVGETLEEAKAQILEDRPDAVIKQPEHSPV  
TYDYRPSRVIIIFVNKDGNAETPAAG

>Q13907

MPEINTNHLDKQQVQLLAEMCILIDENDNKIGAE'TKKNCHLNENIEKGLLHRAF'SVFLFN  
TENKLLLQQRSDAKITFPGCFTNTCCSHPLSNPAELEESDALGVRRAAQRRKAE'LGIP  
EEVPEEINYL'RIHYKAQSDGIWGEHEIDYILLVRKNVTLNPD'PNEIKSYCYVSKEELK  
ELLKKAASGEIKITPWFKIIAATFLFKWWDNLNHLNQFVDHEK'IYRM

>P46198

MNRKILKLENLLRFHTICRQLHSLCQRRMLAQWRHMFSSAYAVHTAQLYTRPWQTDALLR  
AALSQRLLLVTKKEKRSQKSPLPSTKSKKEVEVWLGMTVEELARAMEKDIDCVYESLMNT  
AIDIDSLETHSRLDEVWIKEVIKKS'GMKWKSKLQDKVRENKDAV'KRPQADPALLIPRS  
PVVTIMGHVDHGKTTLLDKLRKTQVAAMEAGGITQHIGAF'LVSLPSGEKITFLDTPGHAA  
FSAMRARGTQVTDIVILVVAADDGVMKQTVESIQA'KADAHVP'IVLAINKCDKAEADPEKV  
KKELLAYDVVCE'YGGDVQAVHVSAL'TGENMMALAEATIALAEMLELKADPTGAVEGTVI  
ESFTDKGRGPVTTAIIQRGTLR'KGSILVAGKSWAKVRLMFDENGRAVNEAYPSMPVGIIG  
WRDLPSAGDEI'LEVESEPRAREVVDWRKYEQEQEK'NKEDLKLIEEKRKEHQEAHRKDREK  
YGTVHWKERSYIKYREKRQQQPLKPK'EKLERDSNVL'PVIVKGDVDGSVEAILNVMDTYDA  
SHECELDLVHFGVGDISENDVNLAET'FHGVIYGFNVNAGNVIQQLA'AKKGVKIKLHKI'Y  
RLIEDLQEELSSR'LPCIVEEHPIGEASILATF'SITEGKKKVPVAGCRVQKGQIEKQKFK  
LIRNGHVIWKGSLISLKH'HKDDTSVVKTMDCGLSLDEEKIEFKVGD'AIICYEEKEVPAK  
TSWDPGF

>P03000

MSKDFIINEQIRAREVRLIDQNGDQLGIKSKQEAL'IEAARRNLDLVLVAPNAKPPVCRIM  
DYGKFRFEQQKEKEARKKQKVINVKEVRLSPTIEEHDFNTKLRNARKFLEKGD'KVKATI  
RFKGRAITHKEIGQRVLDRLSEACADIAV'VETAPKMDGRNMF'LVLPKNDNK

>P0A707

MKGGKRVQTARPNR'INGEIRAQEVRLTGLEGEQLGIVSLREAL'EKAE'EAGVDLVEISPNA  
EPPVCRIMDYGKFLYEKSKSSKEQKKKQKVIQVKEIKFRP'GTDEGDYQVKLRSLIRFLEE  
GDKAKITLRF'RGREMAHQQIGMEVLNRVKDDLQELAVVESF'P'TKIEGRQMIMVLAPKKKQ

>Q5SKU2

MKEYLTNERIRAKQVRV'VGPDKQLGIMDTREALR'LAQEMDLDLVLVGP'NADPPVARIMD  
YSKWRYEQQMAEKEARKKAKRTEVKS'IKFRVKIDEHDYQTKLGH'IKRFLQEGHKVKVTIM  
FRGREVAHP'ELGERILNRVTE'LDKDLAVVEMKPEMLGRDMNMLLAPVKVSA

>P36177

MVRSSCLQCDQPSQGSNSTFGCGGPLAAVCATGLLLVLYSPSSQTANWSAQGI STKALY  
PAVPVPSTLLPGSAPAKHQLHVWRAHAMSEATTNNSFKQSLFGYNAISSIWLQLAGVAAT  
FFAFGALMAAVTQRKEIAVFSASGQAAEPEGAEPKRPFPSPAAPKPLFSTPANSFSNI  
FQAPPSLRDSTYGRGPRSTSFTDISNWPSSNNALRNPQSVIDIGGGVDFLGDSPGNPFT  
RLRGSPSSTLSNLGMGLGLGLGKGGKGFVKGRGFPVEEEEVEEQEVLSWADRRRALA  
DPDAPPMNEDIKYPQLRLVRAVPGGRDEKLGVMRSRQEALELAEAEEDIDLVLVSI DTDPV  
AKLVNYSKLYESEKKKKDSHKKGKVKEVKELKVSHKIGQHDYDVRVKQARKFLEGGHRI  
KVSMEFKGRENQFVEIGRAVMKRFQNDLADMGKADAVPKKLGTRLI LNLAPAGEALKVIA  
ERRAERDRKAAAEEEGEGDDLDFVDENEDEDVEGEGEVEEAELEEEETAEGTEVPTRS

>Q07205

MSVNVNRSVSDQFYRYKMPRLIAKVEGKNGIKTVIVNMVDVAKALNRPPPTYPTKYFGCE  
LGAQTQFDVKNDRYIVNGSHEANKLQDMLDGF IKKFVLCPECENPETDLHVNP KKQTIGN  
SCKACGYRGM LDTHHKLCTF I LKNPPENSDIGTGKKEKEKKNRK GKDKENGSVSTSETPP  
PPPPNEISPPHAVEEEEDDDWGEDTTEEAQRRRMDEISDHAKGLT LSSDLERTVEERVNI  
LDFDVKKKKEEGI IDSSDKDIVAEERLDVKAMGPLVLTEVLFDEKIREQIKKYRRHFLR  
FCHNNKKAQRYLLHGLECVVAMHQAQLISKIPHILKEMYDADLLEEEVI ISWSEKASKKY  
VSKELAKEIRVKAEPFIKWLKEAEESGGEEDEDEDENIEVVYSKTASVPKVETVKSDNK  
DDDDIDDAI

>P38431

MSINICRDNDHPFYRYKMPP IQAKVEGRNGIKTAVLNVADISHALNRPAPYIVKYFGFE  
LGAQTSISVDKDRYLVNGVHEPAKLQDVL DGF INKFVLCGSKNPETE I IITKDNDLVRD  
CKACGKRTPMDLRHKLSSFILKNPPDSVSGSKKKKAATASANVRGGGLSISDIAQGKSQ  
NAPSDGTGSSTPQHHEDEDELSRQIKAAASTLEDIEVKDDEWAVDMSEEAIRARA KELE  
VNSELTQLDEYGEWILEQAGEDKENLPSDVELYKKAELDVLNDPKIGCVLAQCLFDEDI  
VNEIAEHNAFFT KILVTPEYEKNFMGGIERFLGLEHKDLIPLLPKILVQLYNNDI ISEEE  
IMRFGTKSSKKFVPKEVSKKVRRAAKPFI TWLETAESDDDEEDE

>P01578

MTYRCLLQMVLLLCFSTTALSRSYSLLRFQQRQSLKECQKLLGQLPSTSQHCLEARMDFQ  
MPEEMKQEQFQKEDAILVMYEV LQHIFGILTRDFSSTGWSETI IEDLLKELYWQMNRLQ  
PIQKEIMQKQNSTTEDTIVPHLGKYYFNLMOYLESKEYDRCAWTVVQVQILTNVSFLMRL  
TGYVRD

>P01574

MTNKCLLQIALLLCFSTTALSMSYNLLGFLQRSSNFQCQKLLWQLNGRLEYCLKDRMNF D  
IPEEIKQLQQFQKEDAALTIYEMLQNI FAIFRQDSSSTGWNETIVENLLANVYHQINHLK  
TVLEEKLEKEDFTRGKLMSSHLKRYYGRILHYLKAKEYSHCAWTIVRVEILRN FYFINR  
LTGYLRN

>P01575

MNNRWILHAAFLLCFSTTALSIN YKQLQLQERTNIRKQELLEQLNGKINLTYRADFKIP  
MEMTEKMQKSYTAFAIQEMLQNVFLVFRNNSSTGWNETIVVRLLDLHQQTVFLKTVLE  
EKQEERLTWEMSSALHLKSYWVRVQRYLKLKMYNSYAWMVVRAE IFRNFLI IRRLTRNF  
QN

>P83578

VIEPKCYKYEKGCPPDINPVC GTDKRTYYNECALCVFIRQSTKKADKAIKIKKWGKC

>P46647

MAKVPDMFEDLKNKYSENEEDSSSIDHLFLNPKSFYDVSYGPLHESCMDQSVSLSISEIS  
KTSKLSFKQSMVVVSTNGKVLKKRRLSLSQSIADDNLEAIANDSEEEI IKPRSAPFSFLS  
NMTYHIIRIIKHESILNDTLNQTIIIRANDQYLTAAGIHNLDLAVKFDMGAYTSSKDDTKV  
PVILRISKTLQYVSAQDEQPVLLKEMPEIPKTTTGGETNSLSSWETRGTKNYFISVAHP  
NLFIAATKHDNWWCLAKGLPSITDFQILENQA

>P01582

MAKVPDLFEDLKNKYSENEEDYSSAIDHLSLNPKSFYDASYGSLHETCTDQFVSLRTSETS  
KMSNFTFKESRVTVSATSSNGKILKKRRLSFSETFTEDDLQSI THDLEETIQPRSAPYTY  
QSDLRYKLMKLVQRKQFVMNDSLNTIYQDVKHYLSTTWLNDLQQEVKFDMYAYSSGGDD  
SKYPVTLKISDSQLFVSAQGEDQPVLLKELPETPKLITGSETDLIFFWKSINSKNYFTSA  
AYPELFIATKEQSRVHLARGLPSMTDFQIS

>P46648

MAEVPPELASEMMAYSSNEDDLFFFEVDGPKQMKCSFQDLDLCPDGGIQLQISHEHYNKG  
FRQAVSVVAMEKLRKMLVPCPQTFQDNDLSTLIPFIFEEEPVFLDTCNNDACVHDAPVR  
SLHCTLRDAQKLSLVMGYPYELKALHLQGDVEQQVVFMSFVQGEESNDKVPVALGLKA  
KNLYLSCVLKDDKPTLQLESVDPKNYPKMKMEKRFFVFNKIEINNKLCEESAQFPNWIIST  
SQAENMPVFLGGTRGGQDITDFTMQFVSS

>Q9XS77

MAMVPEITCDEVDFYRDDDRQFYEADGPNQKKGYFQYDLCSESLLEEDGIQLKFTTQ  
PHQFHQTVMVIVAIEKMKHLNGLSSQFFQDNDLMNIFTNIFQEEPITFKNCDIYESDSSF  
RLVSSQDCTIQDINQKCLALSKASELRALHLNGRNISQQVIFSMKYLLGDIGSQKTHVVL  
CIKKNLYLSCVRRGEKPIQLQEQIANFPSINVEKRFIFNKVEINNTEFESAEYPNWIIST  
STSQMDEQPVFLGNIRGGKIDITDFILADF

>P41690

MEPSLLLWGLTIVVHGHVTELCDENPPDIQHATFKALTYKTGTMLNCECKKGFRRISN  
GSAFMLCAGNSSHSSWENQCRCISTSPRATDGOIIPKPEEQKGSMPGMQSQMQPTDQVN  
LPGHCREPPPWEHEDSRRIYHFVVGQTVHYQCMQGFRAKRGPAKSVCKTTCGKATWTQP  
RLQCLSERSDGWFPDDEEPQASTDAALGSDTSCPSITASTTDFQRHTEVAMTTESFVFTT  
EYQIAVAGCVLLLLISIVLLSGLTWQRRWRKSRRTI

>P01590

MEPRLMLGFLSLTIVPSCRAELCLYDPPEVPNATFKALS YKNGTILNCECKRGFRRLKE  
LVYMRLGNSWSSNCQCTSNSHDKSRKQVTAQLEHQKEQQTTTDMQKPTQSMHQENLTGH  
CREPPPWKHEDSKRIYHFVEGQSVHYECIPGYKALQRGPAISICKMKCGKTGWTQPQLTC  
VDEREHHRFLASEESQGSRNSSPESETSCPITTTDFPQPTETTAMTETFLVLTMEYKVAVA  
SCLFLLISILLLSGLTWQHRWRKSRRTI

>O02733

MEPSLLMWGFFFTTMIIPGCMAGACVQQPPSLRNATFKILGYKVGTTLNCDQRGFRRDPS  
SGPYMICRGNSSHSFWENKQCQMP TSSPRIPVKQVTPRPEEQKERKTETQGMQPPNQA  
NLPGHCKEPPPWEHESLKRVIYHFMEGQTVRYQCLPGFRDGSQAQNSAQSVCKKQEDQEV  
RWTQPKLKCKSEKENG SFPEPQMSTAAPPTTKTSLPRTKGT TDSQNLTEVPATMQPIIF  
TTQYQLAVAGCVLLLLISILLLSGLTWQRRR

>P08700

MSRPLVLLLLLQLLVRPGLQAPMTQTTPLKTSWVNCNMIDEIITHLKQPPLPLLDNFNNLN  
GEDQDILMENNLRPNLEAFNRAVKSQNASAIESILKNLLPCLPLATAAAPTRHPHIHKD  
GDWNEFRKRLTFYLKTLENAQAQQTTLSLAIF

>P01586

MVLASSTTSIHTMLLLLLLMLFHLGLQASISGRDTHRLTRTLNCSSIVKEIIGKLPPEPELK  
TDDEGPSLRNKSFRRVNLSKFFVESQGEVDPEDRYVIKSNLQKLNCCLEPTSANDSALPGVF  
IRDLDDFRKKLRFYVMHLNDLETVLTSTRPPQPASGSVSPNRGTVEC

>P04823

MVLASSTTSILCMLLPLMLFHLQGLQISDRGSDAHHLLRRTLDCRTIALEILVKLPVSGLN  
NSDDKANLRNSTLRRVNLDEFKLSQEEFDSQDTTDIKSKLQKLCIPAAAASDSVLPGVY  
NKDLDDFKKKLRFYVIHLKDLQPVSVSRPPQPTSSSDNFRPMTVEC

>Q06435

MSSLSILHLLLLLLSLHAPQAQGLPLRTPRTPYSSLMEEIMDDLKKITPSPEGLNSDEK  
NILANKSLLQANLKAFMTFATDTFGSDSKIMKNLKEFQPVLPATPTEDSILIEDSNLGD  
FRMKLEEYLATIRGYLRHDLAAAETI

>P15260

MALLFLLPLVMQGVSRAMGTADLGPSSVPTPTNVTIESYMNPIVYWEYQIMPQVPVFT  
VEVKNYGVKNSEWIDACINISHHYCNISDHVGDPSNSLWVRVKARVGQKESAYAKSEefa  
VCRDGKIGPPKLDIRKEEKQIMIDIFHPSVFNVDGEQEVVDYDPEETTCYIRVYNVYVRMNG  
SEIQYKILTQKEDDCDEIQCQLAIPVSSLSNQYCVSAEGLHVWGVTEKSKEVCITIFN  
SSIKGSLWIPVVAALLLFLVLSLVFICFYIKKINPLKEKSIILPKSLISVVRSATLETKP  
ESKYVSLITSYQPFSLKEKVVCEEPLSPATVPGMHTEDNPGKVEHTEELSSITEVVTTEE  
NIPDVVPGSHLTPIERESSPLSSNQSEPGSIALNSYHSRNCSESDHSRNGFDTDSACLE  
SHSSLSDSEFPNNKGEIKTEGQELITVIKAPTSFGYDKPHVLVDLLVDDSGKESLIGYR  
PTEDSKEFS

>P18958

MKQLIIATLLSALSGGCMASLRPLPSAAELSGQWVLSGAEQHCDIRLNTDVLDTTWKLA  
GDTACLQKLLPEAPVGWRPTPDGLTLTQADGSAVAFFSRNRDRYEHKLVLDGSRVTLKKA

>Q54478

MKGTLTRAAALAGGMMVTSAVMAGSLALPTAQSLAGQWEVADSERQCQIEFLANEQSETN  
GYQLVDRQRCLQSVFAAEVAVAGAPDGIALLQADGSTLAFFSRDGLYRNQLGAGDALTL  
KALA

>O97972

MEGGFTGGDEYQKHFLPRDYLNNTYYSFQSGPSPEAEMLKFNLECLHKTFGPGGLQGDTLI  
DIGSGPTIYQVLAACESFKDITLSDFTDRNREELAKWLKKEPGAYDWTTPALKFACELEGN  
SGRWQEKAEKLRATVKRVLKCDANLSNPLTPVVLPPADCVLTLLAMECACCSLDAYRAAL  
RNLASLLKPGGHLVTTVTQLSSYVGEREFCVALEKEEVEQAVLDAGFDIEQLLYSPQ  
SYSASTAPNRGVCFLVARKKPGS

>Q9V427

MFDVFGSVKGLLKIDQVCIDNNVFRMHYKATVIIILIAFSLLVTSRQYIGDPIDCIVDEIP  
LGVMDTYCWIIYSTFTVPERLTGITGRDVPQPGVGSHEGEDEVKYHKYYQWCFVLFQQA

ILFYVPRYLWKSWEGRRLKMLVMDLNSPIVNDCKNDRKKILVDYFIGNLNRHNFYAFRF  
FVCEALNFVNVIGQIYFVDFFLDGEFSTYGSVDLKFTELEPDERIDPMARVFPKVTCTF  
HKYGPSGSVQTHDGLCVLPLNIVNEKIYVFLWFWFIIILSIMSGISLIYRIAVVAGPKLRH  
LLLRRARSRLAESEEEVELVANKCNIGDWFLLYQLGKNIDPLIYKEVISDLSREMSGDEHSA  
HKRPFDA

>Q05918

MKTHHANLALALMLGLSSATAVAADAPQAVATKAAAAPNVKPAADAHGVIIPDGAPGMCA  
RSPACRATAIPADAFVRTADLGRITDADRDALAALGVKLDIDLRTADEEAQSPDLLARDD  
RFDYQRIISLMGTEKMDLQKMMTSFPPDSLGEAYVQWLGHSSQPQFKQVFORIAAQDQDGAFLF  
HCTAGKDRGTGIIAGLLLDLAGVPKAEIVHNYAISAHYLEGQPKDSDERADHGAGQAEPGD  
RPQDGGHGRYRAGQHGAVLAALHSQYGGAEGLKSIGVSEQEIQQLKVRLGQAG

>Q2FZE9

MTKHYLNSKYQSEQRSSAMKKITMGTASIIILGSLVYIGADSSQVNAATEATNATNNQSTQ  
VSQATSQPIINFQVQKDGSSSEKSHMDDYMQHPGKVIKQNNKYYFQTVLNNASFWKEYKFFYN  
ANNQELATTVVNDNKKADTRTINVAVEPGYKSLTTKVHIVVPQINYNHRYTTHLEFEKAI  
PTLADAAPNNVQPKPAQPKPTPEQTKPVQPKVEKVKPTVTTTTSKVEDNHSTKVVST  
DTTKDQTKTQTAHTVKTAQTAQEQNKVQTPVKDVATAKSESNNQAVSDNKSQQTNKVTKH  
NETPKQASKAKELPKTGLTSVDNFISTVAFATLALLGSLSLLLLFKRKESK

>Q8KQR1

MKNILKVFNTTILALIIIIATFSNSANAADSGTLNVEVYKYNTNDTSLIANDYFNKPAKYI  
KKNGLYVQITVNHSHWITGMSIEGHKENIISKNTAKDERTSEFEVSKLNGKIDGKIDVY  
IDEKVNKPKPKYDHHYNIYKFNQPTDVAGANAPGKDDKNSASGSDKGSDDGTTTGQSESN  
SSNKDKVENPQTNAGTPAYIYAIPVASLALLIAITLTVRKKSKGNVE

>P10342

MKCPKILAALLGCAVLGVPAMPAAHAINSMSLGASYDAQANITFRVYSSQATRIVLYL  
YSAGYGVQESATYTLSPAGSGVAVTVPVSSIIKAAGITGAVYGYRAWGPNWPYASNWVK  
GSQAGFVSDVDANGDRFNPKNLLLDPYAQEVSQDPLNPSNQNGNVFASGASYRTTDSGIY  
APKGVVLPSTQSTGKTPTRAQKDDVIYEVHVRGFTEQDTSIPAQYRGTYGAGLKASYL  
ASLGVTAVEFLPVQETQNDANDVVPNSDANQNYWGYMTENYFSPDRRYAYNKAAGGPTAE  
FQAMVQAFHNAGIKVYMDVVYNHTAEGGTWTSDDPTTATIYSWRGLDNATYYELTSGNQY  
FYDNTGIGANFNTYNTVAQNLIIVDSLAYWANTMGVDGFRFDLASVLGNSCLNGAYTASAP  
NCPNGGYNFADAADSNVAINRILREFTVRPAAGGSLDLFAEPWAIIGNSYQLGGFPQGS  
EWNGLFRDSLRLQAQNELGSMIYVTQDANDFSGSSNLFQSSGRSPWNSINFIDVHDGMTL  
KDVYSCNGANNSQAWPYGPSDDGTSTNYSWDQGMSAGTGAAVDQRRARTGMAFEMLSAG  
TPLMQGGDEYLRTLQCNNNAYNLDSSANWLTYSWTTDQSNFYTFQAQRLIAFRKAHPALRP  
SSWYSGSQLTWYQPSGAVADSNYWNNTSNYAIAYAINGPSLGDSNSIYVAYNGWSSSVTF  
TLPAPPSGTQWYRVTDTCWWDGASTFVAPGSETLIGGAGTTYGQCGQSLLLLIISK

>P01088

MASSSSSSHRRLILAAVLLSVLAAASASAGTSCVPGWAIIPHNPLPSCRWYVTSRTRCGIG  
PRLPWPELKRRCRELADIPAYCRCTALSILMDGAIPPGPDAQLEGRLEDLPGCPREVQR  
GFAATLVTEAECNLATISGVAECPWILGGGTMPK

>P83974

MKTSILFVIFSLALLFALSAATEIEETDRACGQFVWKCCEGKPPCCANFACKIGLYLCIW  
SP

>P0AEW9

MSRRVATITLNPAYDLVGFCEIERGEVNLVKTGTLHAAGKGINVAKVLKDLGIDVTVGG  
FLGKDNQDGFQQLFSELGIANRFQVVQGRTRINVKLTEKDGEVTDNFNFSGFVTPADWER  
FVTDSL SWLGQFDMVCVSGSLPSGVSPFAFTDWMTRLR SQPCII FDS SREALVAGLKAA  
PWLVKPNRRELEIWAGRKLPEMKDVEAAHALREQGI AHVVISLGAEGALWVNASGEWIA  
KPPSVDVVSTVGAGDSMVGGLIYGLLMRESSEHTLRLATAVAALAVSQSNVGITDRPQLA  
AMMARVDLQPFN

>P23386

MTLRIATVSLNSAVDQTVTVPGFTADAVNRVAASRIDAGGKGVNVA SF LAHVGHGVAVTG  
LLGAENAALFARHFAATGLVDACQRLPGATR TNV KIVDPLQDQVTDLNFPGIAAGPADLD  
AVAATL TELL AQGLDWVALCGSLPAGIGAEAYAEL AALARKGGARVALDTS GPALGLALA  
ARPDIVKPNVAELGAHLGRTL TGL ESVREAARDLAASGVGLVAVSMGAGGAVLVRGAEAV  
LAIPPATPIASTVGAGDAMVAGLIHAATLGLDLAETARLATAFSLGALGEGPHLPPPER  
LAALARTVTVKTLPPV

>P00570

MEEKLKKTKIIFVVGPGSGKGTQCEKIVQKYGYTHLSTGDLLRAEVSSGSARGKMLSEI  
MEKGQLVPLETVLDMLRDAMVAKVDTSKGF LIDGYPREVQQGEEFERRIAQPTLLLYVDA  
GPETMTKRL LKRGETSGRVDDNEETIKKRLETTYKATEPVIAFYEKRGIVRKVNAEGSVD  
NVFSQVCTHL DALK

>P07170

MSSSESIRMVLI GPPGAGKGTQAPNLQERFHA AHLATGDMLRSQIAKGTQLGLEAKKIMD  
QGGLVSDDIMVNMIKDEL TNNPACKNGFILDGFPRTIPQAEKLDQMLKEQGTPLEKAIEL  
KVDEL LVARITGRLIHPASGRSYHKIFNPPKEDMKDDVTGEALVQRSDDNADALKKRLA  
AYHAQTEPIVDFYKKTGIWAGVDASQPPATVWADILNKLKGD

>P08166

MAPNVPAAEVPESP KGVRAVLLGPPGAGKGTQAPKLAKNF CVCHLATGDMLRAMVASGS  
ELGKLLKATMDAGKLVSD EMLLELIEKNLETPPCKNGFLLDGFPRTVRQAEMLDDLMEKR  
KEKLD SVIEFSIPDSLLIRRITGRLIHPQSGRSYHEEFNPPKEPMKDDITGEPLIRRSDD  
NKKALKIRLEAYHTQTTP LVEYYSKRGIHSAIDASQTPDVVFASILA AF SKATCKDLVMF  
I

>P08760

MGASARLLRAAIMGAPGSGKGTVSSRITKHFELKHLSSGDLLRDNMLRGTEIGVLAKTFI  
DQGKLI PDDVMTRLVLHELKNL TQYNWLLDGFPRTL PQAEALDRAYQIDTVINLNPFEV  
IKQRLTARWIHPGSRVYNI EFNPPKTMGIDDLTGEPLVQREDDRPETVVKRLKAYEAQT  
EPVLEYYRKKGVLETFSGTETNKI WPHVYAFLQTKLPQRSQETS VTP

>P27144

MASKLLRAVILGPPGSGKGTVCQRIAQNFG LQHLSSGHFLRENKASTEVGEMAKQYIEK  
SLLVDPDHVITRLMMSELENRRGQH WLLDGFPRTLGQAEALDKICEVDLVISLNIPFETLK  
DRLSRRWIHPGSRVYNLDFNPPHVHGIDDV TGEPLVQQEDDKPEAVAARLRQYKDVAKP  
VIELYKSRGVLHQFSGTETNKIWPVYVYTLFSNKITPIQSKEAY

>P38372

MNLILMGLPGAGKGTQAEKII EKYGIPHISTGDMFRAAMKNETELGLKAKSYMDAGELVP



DEVTIGIVRDRLSQDDCQNGFLLDGFPRPTVAQAEALEDILASLDKLDYVINIDVPEQLL  
MDRLTGRRVSPTSGRTYHVI FNPPKVEGICDVGSELIQRDDDKPETVKKRLEVNQKQAO  
PLIDFYSEKGYLQNINGDQDISRVFEDINELLKGLSS

>P39068

MRLILLGPPGAGKGTQAAFLTQHYGIPQISTGDMLRAAVKAGTPLGLEAKKVM DAGGLVS  
DDLIIIGLVRDRLTQPCANGYLFDFGFPRTIPQADALKSAGIALDYVVEIEVPESDI IERM  
SERRVHPASGRSYHVRFNPPKAEGVDDVTGEPLVQRDDREETVRHRLNVYQNQTRPLVD  
YYSSWAQSDAAAAPKYRKISGVGSVDEIKSRLSQALQS

>P69442

MRIILLGAPGAGKGTQAQFIMEKYGIPQISTGDMLRAAVKSGSELGKQAKDIMDAGKLV  
DELVIALVKERIAQEDCRNGFLLDGFPRPTIPQADAMKEAGINVDYVLEFDVPDELIVDRI  
VGRRVHAPSGRVYHVKFNPPKVEGKDDVTGEELTTRKDDQEETVRKRLVEYHQMTAPLIG  
YYSKEAEAGNTKYAKVDGTPVAEVRADLEKILG

>P10772

MAINIILLGPPGAGKGTQARRLIDERGLVQLSTGDMLREARSSGTEMGKRVAEVM DRGEL  
VTDEIVIGLIREKLGQGGKGFIFDGFPRTLAQADALQALMAEMDQRIDAVIEMRVDDAAL  
VSRISGRFTCGNCGEVYHDVTKPTKEPGKCDVCGSTDLRRRADDNEESLKTRLMEYKKT  
SPLIGYYYYVKGNLNPVDGLAEIDEVAAQVAKVMDKIPA

>P34099

MSNSNNNSSSGNHNSTTINNPKVNVYSNIPNSTTYTYGSGGGT LSGNNTNNNNNTNNNNN  
NNNNSSGDKNHSPVTSATDRLTKMDIEEKWDNKNYEKDEREKSP LFHILASNLNSFGNF  
KVPSTFSLTPPEPNKQQQPQQQPQQQPQQQPQQQPQQQQQQPQQQQQPQQQLQQNN  
QQQQQQQLQQQQQLQQQLQQQQQQQQQQQQQQQQKQKQQQQQQQHLHQDGI VNTPTTQTS  
TTTTTTTTTTTTNPHTSGLSLQHAHSSYTPSNVLHSPTHFQSSLPTRLDTNPITTP IRQQQQ  
SQQQQLQQQQQLQQIPPPTVNSFFLPPPVNARERLKEFKQIRVIGTGTGFKVYLIQNTK DGC  
YYAMKCLNKAYVVQLKQVEHLNSEKSILSSIHHPFIVNLYQAFQDEKKLYLLFEYVAGGE  
VFTHLRKSMKFSNSTAKFYAAEIVLALFLHKNIVYRDLKPENLLIDNQGHK ITDFGF  
AKRVEDRTFTLCGTPEYLAPEIIQSKGHGKAVDWWALGILIFEMLAGYPPFYDDDTFAIY  
NKILAGRITFPLGFVDKDLIKRLLTADRTRRLGALKDGALDVKNHRWFS DINWERLYQ  
RRDNGPFI PKIQHQGDSSNFEMYDEEEMVEEPPSSNYVDPYAHLFKDF

>P05987

MTNNISHNQKATEKVEAQNNNNITRKRREGAISSEPLGDKPATPLPNIPKT VETQQRLEQA  
LSNNIMFSHLEEEERNVFLAMVEVLYKAGDIIKQGDEGDLFYVIDSGICDIYVCQNGG  
SPTLVMEVFEGGSFGELALIYGSPRAATVIARTDVR LWALNGATYRRILMDQTIKRRKLY  
EEFLEKVSILRHIDKYERVSLADALEPVNFQDGEVIVRQGDPGDRFYIIVEGKV VVTQET  
VPGDHSTSHVVSELHPSDYFGEIALLTDRPRAATVTSIGYTKCVELDRQRFNRLCGPIDQ  
MLRRNMETYNQFLNRPPSSPNLTSQKS

>Q07551

MSFHQQFFTLNNGNKIPAI AII GTGTRWYKNEETDATFSNSLVEQIVYALKLPGI IHIDA  
AEIYRTYPEVGKALSLTEKPRNAIFLTDKYSPQIKMSDSPADGLDLALKKMGTDYVDLYL  
LHSPFVSKEVNGLSLEEAWKDMEQLYKSGKAKNIGVSNFAVEDLQRILKVAEVK PQVNQI  
EFSPFLQNQTPGIYKFCQEHDILVEAYSPLGPLQKKTAQDDSQPFF EYVKELSEKYIKSE  
AQIILRWVTKRGVLPVTTSSKPQRISDAQNLF SFDLTAEEVDKITELGLEHEPLRLYWNK  
LYGKYNAAQKV

>O15992

MADPETAAKFKSKNAFPDPLNDPKCNPKSLVKKYLTPKVFESLKNKTKLGITLWDCINS  
GVVNLDSGVGVYAGDEESYTLFGPLFDAI IEDYHSPYKLATGHNSDMNPAHVKAPDLDDPA  
NRYIRSTRIRVARSLKGYGLAPGVTKAHRLEIEKKVVGVLTSLTGDLAGKYYPLSGMDEK  
TRQQLVDDHFLFKKGDRFLEAAGINKEWPEGRGIYHNNDKTFVLVWLNEDHLRI ISMEKG  
SDIGSVFSRLCRAVNEIDKKLGFQHTKKKHGYLTSCPSNLGTGMRASVHVKIPHAKEHPDF  
ENILTKYHIQARGIHGEHSESTGEDAGVYDISNRRRLGLSEVQCVDQMYDGVKALMELEK  
EAIAKKRSVFPPEVLKNPEVKSLLRKYLTPELFDSLKDKKTAKGISLYDCINSGVENLDSS  
CGVYAGDEECYTLFAPLFDKIVEDYHSPYKLANKHTSDMNPEKVDAPNLDPEGTYIRSTR  
IRVARNVKGYALTPGLTRNERLDIERKVVGVLSLSTGDLAGQYYPLTGMDEATRQKLVND  
HFLFKKGDRFLEAAGVNLKWPEGRGIFHNNDKTFVLVWINEEDQLRI ISMEKGS DIGSVFG  
RLCRAVNEIDKQLGFQHTDAHGYSGCPTNLGTGMRASVHVKIPKASAHPDFQKICDEFH  
IQARGIHGEHSVSTGEDAGVFDISNRRRLGLSEVQCVDQMYNGVKKLLEIEKSTK

>P51544

MLAMASVEELWAKLDGAADCKSLKNNLTKERYEALKDKKTKFGGTLADCIRSGCLNLD  
GVGIYACDPDAYTVFADVLDAVIKEYHKVPELKHPEPEMGDLKLNFGDLDPGSEYIVST  
RVRVGRSHDSYGFPPVLTQERLMEEDTKAAFEKFSGELAGKYFPLEGMSKEDQKQMT  
DHFLFKDDDRFLRDAGGYNDWCSGRGIFFNNTAKNFLVWVNEEDHLRLISMQKGGDLAAVY  
KRLVVAINTMTASGLSFAKRDGLGYLTFPCPSNLGTALRASVHMKIPNLAASPEFKSFCDN  
LNIQARGIHGEHTE SVGGVYDL SNKRRLGLTEYQAVEEMRVGVEACLAKEKELAAAK

>P49674

MELRVGNKYRLGRKIGSGSFGDIYLGANIASGEEVAIKLECVKTKHPQLHIESKFYKMMQ  
GGVGIPSIKWCGAEGDYNVMVMELLGPSLEDLFNFCSRKFSLKTVLLLADQMISR IEYIH  
SKNF IHRDVKPDNFLMGLGKKGNLVYI IDFGLAKKYRDARTHQHIPYRENKNLTGTARYA  
SINTHLGIEQSRDDLESGLYVLMYFNLGSLPWQGLKAATKRQKYERISEKKMSTPIEVL  
CKGYPSEFSTYLNFCRSLRFDDKPDYSYLRQLFRNFLFHRQGFSDYVFDWNMLKFGAARN  
PEDVDREHEREHEREERMQLRGSATRALPPGPPTGATANRLRSAAEPVASTPASRIQPAG  
NTSPRAISRVDREKVMRLHRGAPANVSSSDLTGRQEVSRIPASQTSVPPFDHLGK

>P35509

MARPSGRLGHNTRGTGSSSSGVLVMPNFRVGGKIGCGNFGELRLGKNLYTNEYVAIKLE  
PMKSRAPQLHLEYRFYKQLGSGDGIQVYVYFGPCGKYNAMVLELLGPSLEDLFDLCDRTF  
SLKTVLMIAIQLISRMEYVHSKNLIYRDVKPENFLIGRPGNKQQVIHI IDFGLAKEYID  
PETKKHIPYREHKS LTGTARYMSINTHLGKEQSRDDLEALGHMFMYFLRGS LPWQGLKA  
DTLKERYQKIGDTKRATPIEVL CENFPEMATYLRVY

>Q63450

MPGAVEGPRWKQAEDIRDIYDFRDVLGTGAFSEVILAEDKRTQKLVAIKCIAKKALEGKE  
GSMENEIAVLHKIKHPNIVALDDIYESGGHLYLIMQLVSGGELFDRIVEKGFYTERDASR  
LIFQVLDAVKYLHDLGIVHRDLKPENLLYSLDEDSKIMISDFGLSKMEDPGSVLSTACG  
TPGYVAPEVLAQKPYSKAVDCWSIGVIAIYILLCGYPPFYDENDAKLFEQILKAEYEFDSP  
YWDDISDSAKDFIRHLMKEDPEKRF TCEQALQHPWIAGDTALDKNIHQSVSEQIKKNFAK  
SKWKQAFNATAVVRHMRKLLQLGTSQEGQGQTASHGELLTPTAGGPAAGCCCRDCCVEPGS  
ELPPAPPPSSRAMD

>P18294

MGCAASSQQTATGGQPAAGEKANPAPANNNPNAANKAETTGAEEELTKESEPFVEPDPN

YPDL SKHNNYLAESLTPSIYNKICNLRTL SGYSVDGCMQTGV DNP GHPFIKTVGLVAGDE  
ECYDLFADLFDPTIDKRHNGYPRNAKHTTDLNPDHLKGGDDFDPKYVLSRVRTGRCIRG  
YGLPPHCTRAERRDVEKVKDALATLDGPLKGTYYPLTGMTEEMQDKLIADHFLFDKPV  
PLMSARMARDWPDGRGIWHNADKNFLVWINEEDHTRVISMETS SGNMKNVFKRFCNGLNK  
VENALKAKGYEFSWNEHLGYVLTCP SNLGTGVRAGVHIKIPLFSKHAGFESILKHYRLQK  
RGTGGVDTASTDGTFDISNLDRLGTSEVQQVQSVVDGVKKLIELEKALEKGS DISGQIPR  
DPAIVRAEQVKEGYPDLSKHNNHLAHCLTYDIWKS LKDKKTPSGFTLDGCIQTGMNPGH  
PHIMTVGMVAGDEESYDV FADIFDPVIDARHGGYPKDAVHV TNINHADLKGGDNLDPKYV  
LSRVRTGRSIIIGYSLPPHCTVEERA AVETITIGALDKFDGDLQ GKYYPLEGMSDETQTQ  
LIDDHFLFDKPVSP LLTAARMHRDWPQGRGIWHNENKNFLVWVNEEDHIRVISMEKDG NM  
RAVFKRFCEGLQKFEQMIKKDGKEFMWNKHLGYVLTCP SNLGTGLRAGVHV KLP LLSKYP  
RFDQILRALRLQKRGTGGVDTASTDGTFDISNLDRLGSSEVQQVQFVVDGV ELLVQMEKK  
LEKGEDIFDILPQQCRPKPKPF SYDYPDFSLHNNWMSKCMTEEIYNKLCNLKTKGGVT  
LNDCIQTGIDNPGHPYIMTVGLVAGDEECYEVFAPLFDPVISARHGGYALDAKHPTNLNA  
AELKGGDDLDPFVLSRVRTGRCIRGLALPPCCTRAERA EVEKITTEALSTLSG PLK GK  
YYPLTGMTDEEQEKLI EDHFLFDKPVSP LLLCANMARDWPQGRGIWHNDEKNFLVWVNEE  
DHTRVISMEKSGNMKR VFERFC DGLKKVEDSIKSKGYQFMWNEHLGYVLTCP SNLGTGLR  
AGVHVKVP LLSQQKIFDSILDHMLRQKRGTGGVDTASTDGTFDISNSDRIGFSEVHLVQQ  
LVDGVKLLVNLEKALMKGEDINSL LPEKLRDSS

>P51546

MFKDYSREKFAKENFPDL SKHNNVMASHLTYELYEKYWDKVT PNGVTLDKCIQTGV DNP G  
NKFYGGKKTGCVFGDEHSYETFKDFFDRVIEEIHFFKPEDVHPATDLDETKLVGGVFDEKY  
VKSCRIRCGRSVRGVCLPPAM SRAERRLVEKVVSNALGGLKEDLAGKYFP LTTMNDKDME  
ALIEDHFLFEKPTGALLT TSGCARDWPDGRGIWHNNGKNFLVWINEEDHIRIISMQKGGD  
MRAVFSRFGRGLTEVERLMKEKGYELMRNERLGYICTCPTNLGT VVRASVHLRLANLEKD  
KRFDDFLAKLRLGKRGTGGESSLAEDSTYDISN LARLGKSERELVQVLVDGVNVLI EADK  
RLEAGKPIDDLTPRLNSSTGTSISATASRHMTL

>Q9SBQ8

MSNYHVAVLAFPFATHAGLLLGLVQRLANALPNVTF TFFNTSKSNSSLFTTPHDNNIKPF  
NISDGVPEGYVVGKGGIEALIGLFFKSAKENIQNAMAAVEESGKKITCVMADAFMWFSG  
EIAEELSVGWIPLWTS AAGSLSVHVYTDLIRENVEAQGIAGREDEILTFIPGFAELRLGS  
LPSGVVSGDLES PFSVMLHKMGKTIGKATALPVNSFEELDPPIVEDLKS KFNNFLNVGPF  
NLTTPPSANITDEYGCIAWLDKQEPGSVAYIGFGTVATPPP NELKAMAEALEESKTPFL  
WSLKDLFKSFFPEGFLERTSEYGKIVSWAPQVQVLSHGSVGVFINHCGWNSVLESIAAGV  
PVICRPFPGDHQLNAWMVEKVWKIGVKIEGGVFTKDG TMLALDLVLSKDKRNT ELKQQIG  
MYKELALNAVGPSGSSAENFKKLVDIITSCN

>P15454

MSRPIVIVISGPGTGKSTLLK LKFAEY PDSFGFSVSS TTRTPRAGEVNGKDYNFVSVDEFK  
SMIKNNEFIEWAQFSGNYYGSTVASVKQVSKSGKTCILDIDMQVKS VKAIPELNARFLF  
IAPPSVEDLKKRLEGRGTETEE SINKRLSAAQAE LAYAETGAHDKVIVNDDL DKAYKELK  
DFIFA EK

>Q86QT3

MKVLILIMI IASLMIMGVEMDRDSCVDKSRCAKYGYQECQDCCKNAGHNGGTCMFFKCK  
CA

>P39690

MPRFAIIFALLIAYSFLSTLFTGSIIPDRANTVTSNAPCQVVIWDWIRTRRICNCCSRLC  
YSLLRGRSNLSRTAKRGVCTIAGAVLATAAAVIVA AVLVGKSSGSATKRGLTKTISVLNHTI  
PFTDHILNGQTL SNGTGSNFVTIGFSGYAVHATIKRASTTDIISWIPESMEPTLARVAS  
YVSSSSINLAAPDGTGGNASALSFQNAVQEFATSWVSMTYDQSYGDLRNVANDEGGEEIL  
ILMRKRSYRISFQVIETGSTALLLRTRRVVSQLITMTYLTVQARVGIQIGDIFQHYGGI  
DNYVMTSISVLRITLEDKAFHENKLLIVREPPNKSNDANQSYRLRPF SANDLIQNLKSVD  
IGFLAFCSFFDKYAHYPEIIMMKITIFISKGNLWSIIYVIQARYVRKRVMKVRGQMPGGL  
LTNMESELLNIVSTPNLNISEFHIQTHSMSQSKPMYFQKQCYSSQNNIIYIYNSIHITCGA  
VYVIVHDVRTPSVFLIELRNCKPLKNSWCETTKTSRDTKIKKNEYNETVCRRAGALLD  
GRVRTIRFLMMRTHWSRVKGVSCNTANRLSRFCNHVVSYPSONATIHLLPTSLRAESLE  
QQYTTRPLSSSNRFFCCLKSIFINNCKKACESPSLVSCNLQQTAE LLMVYYLYICEACYV  
SRNHDL LSKQCMSTVRVYVARMRLPKFRSTFPCMPRLCWL VNGVVVV

>P20485

MVQESRPGSVRSYSVGYQARSRSSSQRRHSLTRQRSSQRLIRTISIESDVSNI TDDDDL R  
AVNEGVAGVQLDVSETANKGPRRASATDVTD SLGSTSSEYIEIPFVKETLDASLP SDYLK  
QDILNLIQSLKISKWYNNKKIQPVAQDMNLVKISGAMTNAIFKVEYPKLPSLLLRIYGP N  
IDNII DREYELQILARLSLKNIGPSLYGCFVNGRFEQFLENSKTLTKDDIRNWKNSQRIA  
RRMKELHVGVP LLSSEKNGSACWQKINQWLRTIEKVDQWVGDPKNIENSLLCENWSKFM  
DIVDRYHKWLI SQEQGIEQVNKNLIFCHNDAQYGNLLFTAPVMNTPSLYTAPSSTSLTSQ  
SSSLFPSSSNVIVDDIINPPKQEQSQDSKLVVIDFEYAGANPAA YDLANHLSEW MYDYN N  
AKAPHQCHADRYPDKEQVLNFLYSYVSHLRGGAKEPIDEEVQRLYKSI IQWRPTVQLFWS  
LWAILQSGKLEKKEASTAITREEIGPNGKKYIKTEPESPEEDFVENDDEPEAGVSIDTF  
DYMAYGRDKIAVFWGDLIGLGIITEEECKNFSSFKFLDTSYL

>Q60575

MSGASVKVAVRVRPFNSRETSKESKCI IQMQGNSTSI INPKNPKEAPKSF SFDYSYWSHT  
SPEDPCFASQNRVYNDIGKEMLLHAFEGYNVCIFAYGQTGAGKSYTMMGKQ EESQAGIIP  
QLCEELFEKINDNCNEEMSYSVEVSYMEIYCERVRDLLNPKNKGNLRVREHPLLGPYVED  
LSKLAVTSYTDIADLMDAGNKARTVAATNMNETSSRSHAVFTIVFTQKKQDPETNLSTEK  
VSKISLVDLAGSERADSTGAKGTRLKEGANINKSLTTLGKVISALAEVDNCTSKSKKKKK  
TDFIPYRDSVL TWLLREN LGNSRTAMVAALSPADIN YDETLSTLRYADRAKQIKCNAVI  
NEDPNAKL VRELKEEVTRLKDLLRAQGLGDIIDIDPLIDDYSGSGGKYLKDFQNNKHRYL  
LASENQRPGNFSTASMGSLTSSPSSCSLNSQVGLTSVTSIQERIMSTPGGEEA IERLKE S  
EKIIAELNETWEEKLRKTEAIRMEREALLAEMGVAIREDGGTLGVFSPKKT PHLVNLNED  
PLMSECLLYYIKDGITRVGQADAERRQDIVLSGAHIKEEHCLFRSERSNTGEVIVTLEPC  
ERSETYVNGKRV AHPVQLRSGNRIIMGKNHVFRFNHPEQARAEREKTPSAETPSEPVDWT  
FAQRELLEKQGIDMKQEMEKRLQEMEILYKKEKEEADL LLEQQRLDYESKLQALQRQVET  
RSLAAETTEEEEEEEV PWTQHEFELAQWAFR KWKSHQFTSLRDL LWGNVYLKEANAIS  
VELKKKVQFQFVLLTDTLYSPVPELLPSEMEKTHEDRPFPRTVVAVEVQDLKNGATHYW  
SLDKLKQRLDLMREMYDRAGEVASSAQDDSETTMTGSDPFYDRFHWFKLVGSSP I FHGCV  
NERLADRTPSPTFSTADSDITELADEQQDAMEDFDEAFVDDTGS DAGTEEGSE LFS DGH  
DPFYDRSPWFILVGRAFVYLSNLLYPVPLIHRVAIVSEKGEV RGLRVAVQAIAADEEAP  
DYGSGIRQSGTAKISFDNEYFNQSDFSSAAMTRSGLSLEELRIVEGQGSSEVISPPEEV  
NRMNDL DLKSGTLLDGKMVMEGFSEEIGNHLKLGSAFTFRVTVLQASGILPEYADIFCQF  
NFLHRHDEAFSTEPLKNNGRGSP LGFYHVQNI AVEVTE SFVDYIKTKPIVFEVFGHYQQH  
PLHLQGD LNSPPQPSRRFFPPMPLSKPVPATKLN TMNKTTLGQSMSKYDLLVWFEISE  
LEPTGEYIPAVVDHTAGLPCQGTFL LHQGIQRRITVTI IHEKGS ELHWKDVREL VVGRIR  
NKPEVDEAAVDAVLSLNIISAKSLKAAHSSSRTFYRFEAVWDS SLHNSLLLN RVTPYGEK  
IYMTLSAYLELDHCIQPAVITKDVCMVFYSRDAKISPPRSLRNLF GSGYSKSPDSNRVTG

IYELSLCKMADTGSPGMQRRRRKVLDTSVAYVRGEENLAGWRPRGDSLILEHQWELEKLE  
LLHEVEKTRHFLLLRERLGDSPKSLSDSLSPSLSSGTLSTSTSISSQISTTTFESAITP  
SESSGYDSADVESLVDREKELATKCLQLLTHTFNREFSQVHGSISDCKLSDISPGRDPS  
VSSFSSSTLTPSSTCPSLVDSDRSSSMQKTPEANSRASSPCQEFQFQIVPTVETPYLAR  
AGKNEFLNLVPDIEEVVAGSVVSKKGYLHFKEPLSSNWAKHFVVRPPYVFIYNSDKDPV  
ERGIINLSTAQVEYSEDQQAMVKTPNTFAVCTKHRGVLLQALNDKDMNDWLYAFNPLLAG  
TIRSKLSRRCPSPQPKY

>P00553

MNESTRNWPEELLELLGQTELTVNKIGYSGDHVYHVKEYRGTPAFLKIAPSVWWRTLRPE  
IEALAWLDGKLPVPKILYTAEHGGMDYLLMEALGGKDGSHETIQAKRKLFFVKLYAEGLR  
VHGLDIRECPLSNGLEKKLRDAKRIVDESLVDPADIKEEYDCTPEELYGLLLESKPVTE  
LVFAHGDYCAPNLIIDGKLSGFIDLGRAGVADRYQDISLAIRSLRHDYGDTRYKALFLE  
LYGLDGLDEDKVRYYYIRLDEFF

>P00759

MWLQILSLVLSVGRIDAAPPQSRIVGGYKCEKNSQPWQVAVINEYLCGGVLIDPSWVIT  
AAHCYSNNYQVLLGRNNLFKDEPFAQRRLVRQSFRRHPDYIPLIVTNDTEQPVHDHSDLM  
LLHLSEPADITGGVKVIDLPTKEPKVGSTCLASGWGSTNPSEMVVSHDLQCVNIHLLSNE  
KCIETYKDNVTDVMLCAGEMEGKDTGAGDSGGPLICDGVLQGITSGGATPCAKPKTPAI  
YAKLIKFTSWIKKVMKENP

>Q43484

MEEIGHHFGLGATAHQHHSQLPWGSSPLSAVISPPPPQQQQHQQQSAGYLAHSPLSLNT  
APPGVSHGGGSGCSNPVLQLANGSLLEACAKAAKEPSSSSYAADVEAIKAKIISHPHYSS  
LLAAYLDCQKVGAPPEVSARLTAVAQDLELRQRTALGGLGTATEPELDQFMEAYHEMLVK  
YREELTRPLQEAMEFLRRVETQLNSLSISGRSLRNILSTGSSEEDQEGSGGETELPEIDA  
HGVDQELKHHLLKKYSGYLSLQELSKKKKKKGLPKPEARQQLLSWEMHYKWPYPSESQ  
KVALAESTGLDLKQINNWFINQRKRHWKPTDEMVFVMMDAYHPPNAAFYMDGHFVND  
SGLYRFG

>Q90121

MQIINVVYSFLFAAAMLVHSLGINCRGSSQCGLSGGNLMVRIRDQACGNQGQTWCPGE  
RRAKVCGTGNSISAYVQSTNNCISGTEACRHLTNLVNHGCRVCGSDPLYAGNDVSRGQ  
LTVNYVNSC

>P07380

MKCLLLALGLSLMCGNQATDIPQTMQDLDLQEVAGRWHVSVAMVASDISLLDSESVPLRVY  
VEELRPTPEGNLEIILREGANHACVERNIVAQKTEDPAVFTVNYQGERKISVLDTDYAHY  
MFFCVGPPLPSAEHGMVCQYLARTQKVDEEVMEKFSRALQPLPGRVQIVQDPSGGQERC  
GF

>P11944

VENIRSKNDLGVEKFGVSWYLREAAKTMEFSIPLFDMDIKEVNLTPEGNLELVLLEKTDR  
CVEKLLLLKTKKPTFEFEIYISSESYTFCVMETDYDSYFLFCLYNISDREKMACAHYVR  
RIEENKGMNEFKKILRTLAMPYTVIEVRTRDMCHV

>P02920

MYYLKNTNFWMFGLFFFFFYFFIMGAYFPFFPIWLHDINHISKSDTGIIFAAISLFSLLFQ  
PLFGLLSDKLGRLKYLWIIITGMLVMFAPFFIFIFGPLLQYNILVGSIVGGIYLGFCFNA

GAPAVEAFIEKVSRRSNFEFGRARMFGCVGWALCASIVGIMFTINNQFVFWLGS GCALIL  
AVLLFFAKTDAPSSATVANAVGANHSASFSLKLALFLFRQPKLWFLSLYVIGV SCTYDVFD  
QQFANFFTSFFATGEQGTRVFGYVTTMGELLNASIMFFAPLI INRIGGKNALLLAGTIMS  
VRIIGSSFATSALLEVILKTLHMFVFPFLLVGCFKYITSQFEVRF SATIYLVCF CFFKQL  
AMIFMSVLAGNMYESIGFQGAYLVVLGLVALGFTLISVFTLSGPGPLSLLRRQVNEVA

>Q84V83

MTVSGAIPSMTKNRTL VVGGTGFIGQFITKASLGFGYPTFLLVVRPGVSPSKAVI IKTFO  
DKGAKVIYGVINDKECMEKILKEYEIDVVISLVGGARLLDQLTLLEAIKSVKTIKRFLPS  
EFGHDVDRTPVEPGLTMYKEKRLVRRAVEEYIGIPFTNICCN SIASWPYYDNCHPSQVPP  
PMDQFQIYGDGNTKAYFIDGNDIGKFTMKTIDDIRTLNKNVHFRPSSNCYSINELASLWE  
KKIGRTLPRFTVTADKLLAHAANIIPESIVSSFTHDIFINGCQVNF S IDEHSDVEIDTL  
YPDEKFRSLDDCYEDFVPMVHDKIHAGKSGEIKIKDGKPLVQTGTIEE INKDIKTLVETQ  
PNEEIKKDMKALVEAVPISAMG

>Q6T6H8

MINILHVIAGLALASVGV DARQVGVGADVLHAVENTIDSITGVEASHSALEVGGITNTD  
NWETFAGLPLTGAIKVNDGNSVVHISAYFPEDRRGKYSYAAATSDELQKT VVFLFVVEDD  
GLLLQAVKNNAHYPVTNGMYLASHRYYPKDSKYEGMVRLMVHADPAKAVIWEFVTVGGKQ  
YLVKVENRDY TALQIPRHHPRPG

>P83790

APEGGERASGKRCPNGKCCSQWGYCGT TDNYCGQCQSQC DYWRCGRDFGGRLCEEDMCC  
SKYGWCGYSDDHCE DGCQSQCD

>P07583

MSCQGPVCTNLGLKPGQRLTVKGI IAPNAKSFVMNLGKDS THLGLHFNPRFDAHG DVNLI  
VCNSKKMEEWGTEQRETVPFPQKGAPIEITFSINPSDLTVHLP GHQFSFPNRLGLSVFDY  
FDTHGDFTLRSVSWE

>P38552

MAYVPAPGYQPTYNPTL PYKRPIPGGLSVGMSIYIQGI AKDNMRRFHVNF AVGQDEGADI  
AFHFNPRFDGWDKVVFN TMQSGQWGKEEKKSMPFQKGHHFELVFMVMSEHYKVVVNGTP  
FYEYGHRLPLQMVTHLQVDGDLELQSINFLGGQPAASQYPGTMTIPAYPSAGYNPPQMNS  
LPVMAGPPIFNPPVPYVGT LQGGLTARRTII IKGYVLPTAKNLI INFKVGSTGDI AFHMN  
PRIGDCVVRNSYMN GSWGSEERKIPYNPFGAGQFFDLSIRCGTDRFKVFANGQHLFDFSH  
RFQAFQRVDMLEIKGDITLSYVQI

>P47929

MSNVPHKSSLPEGIRPGTVLRIRGLVPPNASRFHVNLLCGEEQGS DAALHFNPRLDTSEV  
VFNSKEQGSWGREERGPVFPQRGQPF EVLIIASDDGFKAVVGDAQYHHFRHRLPLARVR  
LVEVGGDVQLDSVRI F

>P42838

MVNFDLGQVGEVFRRKDKGAI VSGDNPEEEEDVDASEFEED EVKPVRTKNRRPKEDAF TQ  
QRLAAINPVLTPRTVLP LYLLIAVV FVI VGGCILAQNSKVDEVTIYYQDCMTNATSSWSD  
IPSEHWQFVFHKYKTYNTAPQWR FVDDDESDDFTKQRGTCQIRFTTPSDMKNNVYLN YVLE  
KFAANHRRYVLSFSEDQIRGEDASYETVHDATGINCKPLSKNADGKIYYP CGLIANSMFN  
DTFPLQLTNVGDTSNNYSLTNKGINWESDKKRYKTKYNYTQIAPPPYWEKMPDGYNET  
NIPDIQDWE EFQNWMRPGAFDKITKLIRINKNDTLPAGEYQLDIGLHWPVLEFNGKKG IY

LTHGSHLGGRNPFLLGIVYLIGGCICAAMALILLTFWLFGRKIADASSLSWNMK

>P02239

MGVLTDVQVALVKSSFEEFNANIPKNTHRFFTLVLEIAPGAKDLFSFLKGSSEVPQNNPD  
LQAHAGKVFKLTYEAAIQLQVNGAVASDATLKSLSVHVSKGVVDAHFPVVKEAILKTIK  
EVVGDKWSEELNTAWTIAYDELAII IKKEMKDAA

>P02233

MGFTDKQEALVNSSEFEKQNLPGYSILFYTTIVLEKAPAAKGLFSFLKDTAGVEDSPKLQA  
HAEQVFGLVDRDSAAQLRTKGEVVLGNATLGAIHVQKGVTPHFFVVKEALLQTIKKASGN  
NWSEELNTAWEVAYDGLATAIKKAMKTA

>P16635

MSLNDLNTLPGVTAQADPATAQFVFNHTMLRVKDI EKSLDFYTRVLGFKLVDKRDFVEAK  
FSLYFLALVDPATIPADDDARHQWMKSIPGVLELTHNHGTERDADFAYHHGNTDPRGFH  
ICVSPDVVAACERFEALQVPFQKRLSDGRMNHLAFIKDPDGYWVEVIQPTPL

>P50107

MSTDSTRYP IQIEKASNDPTLLL NHTCLRVKDPARTVKFYTEHF GMKLLSRKDFE EAKFS  
LYFLSFPKDDIPKNKNGEPDVFSAHGVL ELTHNWGTEKNPDYKINNGNEEPHRGFGHICF  
SVSDINKTCEELESQGVKFKKRLSEGRQKDI AFALGPDGYWIELITYSREGQEY PKGSVG  
NKFNHTMIRIKNPTRSLEFYQNV LGMKLLRTSEHESAKFTLYFLGYGVPKTD S VFSCE SV  
LELTHNWGTENDPNFHYHNGNSEPQGYGHICIS CDDAGALCKEIEVKYGDKI QWSPKFNQ  
GRMKNIAFLKDPDGYSIEVVP HGLIA

>P81715

MSLSVSRRLAAVTAFAVAGL FASAVPAALAAPSAVAAAPT PPDIPLANVKAHLSQLSTIA  
ANNGGNRAHGRAGYKASIDYVKGKLD AAGFTTTLQFTTSSGATGYNLIADWP GGD P NSVL  
MAGSHLDSVTS GAGINDNGSGSAAVLETALAVSRAGLQPTKHLRF GWWGAEELGLIGSKY  
YVNNLPAAEKAKISGYLNFDMIGSPNPGYFVYDDDPTIEQTFKNYYAGLGVPT E I ETEGD  
GRSDHAPFKNAGIPVGGFLSGADYTKTAAQAQKWGGTSGQAFDR CYHSSCDSL TNINDTA  
LDRNSDAVAYAIWTLGAGTPVPPGQSFENTADVNV PDS PAAAVSSPITVSGVTGNAPATT  
KVDVNIVHTYRGDLVVDLVPDGT VYNLHNRSGGSADNLVQTYTVNASSEVANGVWNLRV  
KDTAAQDVGYINSWKITF

>Q9ZAG3

MTSKIEQPRWASKDSAAGAASTPDEKIVLEFMDALTSNDAAKLIEYFAEDTMYQNMPLPP  
AYGRDAVEQTLAGLFTVMSIDAVETFHIGSSNGLVYTERVDVLRALPTGKSYNLSILGVF  
QLTEGKITGWRDYFDLREFEEAVDLP LRG

>P51698

MSLGAKPFGEKKFIEIKGRRMAYIDEGT GDPILFQHGNPTSSYLWRNIMPHCAGLGR LIA  
CDLIGMGSDSKLDPSGPERYAYAEHRDYLDALWEALDLGDRVVLVVDWGSALGF DWARR  
HRERVQGIAYMEAIAMPIEWADFP EQDRDLFQAFRSQAGEELVLQDNV FVEQVLPGLILR  
PLSEAEMAAYREPFLAAGEARRPTLSWRQIP IAGTPADVVAIARDYAGWLSESP IPKLF  
INAEPGALTTGRMRDFCRTWPNQTEITVAGAHFIQEDSPDEIGAAIAAFVRR L RPA

>P22088

MARTMRSRVVAGAVACAMSIAPFAGTTAVMTLATTHAAMAATAPAAGYAATRYPIILVHG  
LSGTDKYAGVLEYWYGIQEDLQQNGATVYVANLSGFSDDGPNRGEQLLAYVKTVLAAT

GATKVNLVGHSQGGLSSRYVAAVAPDLVASVTTTIGTPHRGSEFADFVQDVLAYDPTGLSS  
SVIAAFVNVFGILTSSSHNTNQDALAALQTLTTARAATYNQNYPSAGLGAPGSCQTGAPT  
ETVGGNTHLLYSWAGTAIQPTLSVFGVTGATDTSTLPLVDPANVLDLSTLALFGTGTVMI  
NRGSGQNDGLVSKCSALYGVKVLSTSYKWNHLDEINQLLGVRGAYAEDPVAVIRTHANRLK  
LAGV

>P60720

MYQDKILVRQLGLQPYEPI SQAMHEFTDTRDDSTLDEIWLVEHYPVFTQGQAGKAEHILM  
PGDIPVIQSDRGGQVTYHGPGQVMYVLLNLKRRKLGVRELVTLLLEQTVVNTLAELEGIEA  
HPRADAPGVYVGEKKICSLGLRIRRGCSFHGLALNVNMDLSPFLRINPCGYAGMEMAKIS  
QWKPEATTNNIAPRLLENILALLNMPDFEYITA

>Q10404

MTGSIRSKLSAIDVRQLGTVDYRTAWQLQRELADARVAGGADTLLLLLEHPAVYTAGRRTE  
THERPIDGTPVVDTRGGKITWHGPGQLVGYP IIGLAEPLDVVNYVRRLEESLIQVCADL  
GLHAGRVDGRSGVWLPGRPARKVAAIGVRVSRATTLHGFAFNCDLAAFTAIVPCGISD  
AAVTSLSAELGRTVTVDEVTRATVAAAVCAALDGVLPVGDVRVPSHAVPSPL

>P40600

MKKKLIYAAVVSALLAGCGGSDDNKGDTSYLDYLLTGSNAVGPSALAAAWDGTCLKFST  
ETADLSNPVSAMSTLDGWSTTQAIQIVPVTSSGITVQAPTAEFGASVAPLYLLEVTFDS  
TALRPSGVKKVLTYGVDFVVAASAWQAEPGSAQAVEPLPCLANDSGHRTAERQSRRCLKA  
GSDYGNYNKNNAGSNAQEQTINGLIALQEGLFKAATGIATDHVIFSDWFGTQSGADVLVAV  
KGAAASVLKADPVTLDAAKLWKQDAWEHQPARHLYPGRDRPTCLPDPAGCRAVPAAEQKD  
AIATAFGPVLRRSTRLLKRPRSIPVPSSCLTSSPHRRPQVPGARPRPSPGTVPSPVRRHRQ  
CAEGVTRSDRRAGGGGRGSGPAGDADCRSDPPERAAGRGEQADWGD AHLRRQAAGRRAEH  
WSLQPAADAGRGAIRADACL RQGCPOHHHGCHHLSARRDLGQRERLRPGAGPDLEDLCRH  
AGGQEGGAGGDRSSAARRAWLRLSGSMDTVTTSDNPTPYLNLSYLTVARDNLKQSVAI CW  
ACVWRLAWPTPRAIGTAGSLKVHFLGHSLGASRVPTCCGRQPDHRQRASGCPVQVRYRWP  
GHAGSHSAAAAELADFGPTIKMGVLTSGSAELKAGFTAYAPNCTDGGAYLLRQVRVPAEPG  
RGHSATAATR CRVQLCGPVGAGFG

>P09960

MPEIVDTCSLASPASVCR TKHLHLRCSVDFTRRRTLGTAAALTVQSQEDNLRSLVLDTKDL  
TIEKVINGQEVKYALGERQSYKGSMEISLPIALS KNQEIVIEISFETSPKSSALQWLT  
PEQTSQKEHPYLF SQCAIHCRAILPCQDTPSVKLT YTAEVSVPKELVALMSAIRDGETP  
DPEDPSRKIYKFIQKVP IPCYLI ALVVGALSRQIGPRTLWSEKEQVEKSAYEFSETES  
MLKIAEDLGGPYVWQYDLLVLPSPFPYGGMENPCLTFVTPTLLAGDKSLSNVIAHEISH  
SWTGNLVTNKTDHFWLNEGHTVYLERHICGRLFG EKFRHFNALGGW GELQNSVKTFGET  
HPFTKLVVDLTDIDPDVAYSSVPYKGFALLFYLEQLLGGPEIFLGF LKAYVEKFSYKSI  
TTDDWKDFLYSYFKDKVDVLNQVDWNAWLYSPGLPP IKPNYDMTLTNACIALSQRWITAK  
EDDLNSFNATDLKDLSSHQLNEFLAQTLQRAPLPLGH IKRMQEVYNFNAINNSEIRFRWL  
RLCIQSKWEDAIP LALKMATEQGRMKFTRPLFKDLAAFDKSHDQAVRTYQEHKASMHPVT  
AMLVGKDLKVD

>P61316

MKKIAITCALLSSLVASSVWADAASDLKSR LDKVSSFHASFTQKVTDGSGAAVQEGQGD L  
WVKRPNL FNWHMTQPDESI LVSDGKTLWFYNP FVEQATATWLKDATGNTPFMLIARNQSS  
DWQQYNIKQNGDDFVLTPKASNGNLKQFT INVGRDGTIHQFSAVEQDDQRSSYQLKSQQN  
GAVDAAKFTFTPPQGVTVDDQRK



>P61320

MPLPDFRLIRLLPLAALVLTACSVTTPKGPSPDQWRQHQQDVRNLNQYQTRGAFAY  
ISDQQKVYARFFWQQTGDYRLLLTNPLGSTELELNAQPGNVQLVDNKGQRYTADDAEE  
MIGKLTGMP IPLNSLRQWILGLPGDATDYKLLDDQYRLSEITYSQNGKNWVYGGYDTKT  
QPAMPANMELTDGGQRIKLLKMDNWIVK

>Q06327

MFGELRDLLTGGGNETTTKKVKGTVVLMKKNVLDNFDFNASFLDRLHEFLGNKITLRLVS  
SDVTDSENGSKGKLGKAAHLEDWITTTITSLTAGESAFKVTFFDYETDFGYPGAFLIRNSHF  
SEFLKSLTLEDVPGHGRVHYICNSWIYPAKHYYTDRVFFSNKTYLPHETPATLLKYREE  
ELVSLRGTGEGELKEWDRVYDYAYNDLGVPPKNPRPVLGGTQEYPPRRGRTRGRKPTKE  
DPQTESRLPITSSLDIYVPRDERFGHLKMSDFLAYALKAIAQFIQPALEAVFDDTPKEFD  
SFEDVLKIYEEGIDLPNQALIDSIVKNIPLLEMLKEIFRTDGQKFLKFPVPQVIKEDKTAW  
RTDEEFAREMLAGLNPVVIQLLKEFPKSKLDSESYGNQNSTITKSHIEHNLDGLTVEEA  
LEKERLFI LDHHD TLM PYLGRVNTTTTKTYASRTLLFLKDDGTLKPLVIELSLPHPNGDK  
FGAVSEVYTPGEGVYDSLWQLAKAFVGVNDSGNHQLISHWMQTHASIEPFVIATNRQLSV  
LHPVFKLLEPHFRDTMNINALARQILINGGGIFEITVFP SKYAMEMSSFIYKNHWTFPDQ  
ALPAELKKRGMAVEDPEAPHGLRLRIKDYPAVDGLEVWYAIESWVRDYIFLFYKIEEDI  
QTDTELQAWWKEVREEGHGDKKSEPWWPKMQTREELVESCTIIIWASALHAAVNFQYYP  
VAGYLPNRPTISRQYMPKENTPEFEELEKNPKVFLKTITTAQLQTLGSLIEILSTHSS  
DEVYLGQRDSKEWAAEKEALEAFEKFGKEVKEIEKNIDERNDDETLKNRTGLVKMPYTLL  
FPSSEGGVTGRGIPNSVSI

>P29114

MLLGGGLIDTLTGANKSARLKGTVVLMRKNVLDLNDFGATI IDGIGEF LGKGVTCQLISST  
AVDQDNGGRGKVGAEAELEQWVTSLSLTTGESKFGLTFFDWEVEKLGVPGAIVVNNYHSS  
EFLKKTITLHDVPGRSGNLTFFVANSWIYPAANYRYSRVFFANDTYLPSQMPAALKPYRDD  
ELRNLRGDDQQGPYQEHDRYRYDVYNDLGEGRPILGGNSDHPYPRRGRTERKPNASDPS  
LESRLSLLLEQIYVPRDEKFGHLKTSDFLGSYIKAITQGILPAVRTYVDTPGEFDSFQDI  
INLYEGGIKLPKVAALEELRKQFPLQLIKDLLPVGGDSLKLPVPHIQENKQAWRTDEE  
FAREVLAVGNPVMITRLTEFPPKSSLDPSKFGDHTSTITAHEIEKNLEGLTVQQALESNR  
LYILDHHRDFMPFLIDVNNLPGNFIYATR TLFFLRGDGRLTPLAIEELSEPIIQGGLTTAK  
SKVYTPVPSGSVEGWVWELAKAYVAVNDSGWHQLVSHWLNTHAVMEPFVISTNRHLSVTH  
PVHKLSPHYRDTMTINALARQTLINAGGIFEMTVFPGKFALGMSAVVYKDWKFTEQGLP  
DDL IKRGMAVEDPSSPYKVRLLVSDYPYAADGLAIWHAIEQYVSEYLA IYYPNDGVLQGD  
TEVQAWWKETREVGHGDLKDAPWWPKMQSVPELAKACTTI IWIGSALHAAVNFQYYPYAG  
FLPNRPTVSRRRMPEPGTEEYAELE RDPERAFIHTITSQIQTIIGVSLLEVLSKHSSDEL  
YLGQRDTPEWTSDPKALEVFKRFSDRLVEIESKVVGMNHDP ELKNRNGPAKFPYMLLYPN  
TSDHKGAAAGLTAKGIPNSISI

>P09439

MFSVPGVSGILNRGGGHKIKGTVVLMRKNVLDNFNSVADLTKGNVGGIGTGLNVVGS TLD  
NLTAFLGRSVALQLISATKPLANGKGVGKDTFLEGIIVSLPTLGAGESAFNIQFEWDES  
MGIPGAFYIKNYMQVEFYLSL TLEDV PNQGTIRFVCNSWVYNTKLYKSVRIF FANHTYV  
PSETPAALVGYREEELKNLRGDGKGERKEHDRIDYDVYNDLGNPDHGENFARPILGGSS  
THPYPRRGRTRGRYPTKDKQNSEKPGEVYVPRDENFGHLKSSDFLAYGIKSLSQYVLP AFE  
SVFDLNF TPNEFDSFQDVRDLHEGGIKLPTEVISTIMPLPVVKELFR TDGEQVLKFP PPH  
VIQVSKSAWMTDEEFAREMVAGVNPCVIRGLQEFPPKSNLDPTIYGEQTSKITADALDLD  
GYTVDEALASRRLFMLDYHDFMPYIRRINQTYAKAYATR TILFLRENGTLKPV AIELSL

PHPAGDLSGAVSQVILPAKEGVESTIWLLAKAYVVVNDSCYHQLMSHWLNTHAVIEPFI I  
ATNRHLSALHPIYKLLTPHYRDTMNNALARQSLINADGIEKSFLPSKHSVEMSSAVYK  
NWFVTDQALPADLIKRGVAIKDPSAPHGLRLLIEDYPYAVDGLEIWAAIKTWVQEYVSLY  
YARDDVVKPDSELQQWWKEAVEKEGHGDLKDKPWWPKLQTI EELVEICTI I IW TASALHAA  
VNFQYYPYGGFILNRPTSSRLLPEKGTPEYEEMVKSHQKAYLRTITSKFQTLVDLSVIE  
ILSRHASDEVYLGQRDNPHWTSKALQAFQKFGNKLKEIEEKLARKNNDQSLSNRLGPV  
QLPYTLLHPNSEGLTCRGIPNSISI

>Q8RNT4

MKRRSVLLSGVALSGTALANDSIFFSPLKYLGAEQQRSIDASRSLLDNLI PPSLPQYDNL  
AGKLARRAVLTSKKLAYVWTENFANVKGVP MARSVPLGELPNVDWLLKTAGVIVELIVNS  
FASLPASAAAQFERIPAGLNGDLEAARQVHEALLEEAKNDPAAAGSLLLRFTTELQTRVIA  
LLTRVGLLVDDILKSASNLVTQGGQGDGLNRFRVAVFGTLRLPEVADSF RDDEAFAYWRVA  
GPNPLLIRRVDALPANFPLGEEQFRRVMGADDSLLEAAA SRRLYLLDYAELGKLAPSGAV  
DKLLTGTGFAYAPIALFALGKDRARLLPVAIQCGQDPATHPMFVRPAESESDLYWGWQMA  
KTVVLVAEENYHEMFVHLAQTHLVSEAFCLATQRTLAPSHPLHVLLAPHFEGTLFVNEGA  
ARILLPSAGFIDVMFAAPIQDTQATAGGNRLGFDFYRGMLPESLKARNVDDPAALPDYPY  
RDDGLLVWNAIRQWAADYVAVVYASDGDVTADVELAAWVGEVIGSGKVAGFRPITGRSQL  
VEVLTMVIIFTASQAHA AVNFPQPSMMTYAPAI CAMSAAPAPDSPSGKSEADWLKMMPPAL  
VALEKVNIIYHLLGSVYHGRLGDYRQTGFPPYAPVFSDRRVTASGGPLERFQARLKEVEATI  
RTRNQARRKPYEYLLPSRIPASTNI

>O88202

MARATGPEQRLLAIYTGGTIGMRSEGGVLPVGRGLAAVLR TLHMLHDEEYARAHSLPEDT  
LVLPPASSDQRI IYKVL ECQPLFDSSDMTIT EWVQIAQTI ERHYTQYQGFVVIHGTDTMA  
FAASVLSFMLENLQKPVILTGAQVP IHELWSDGRENLLGALLMAGQYV IPEVCLFFQNQL  
FRGNRTTKVDARRFAAFCSPNL PPLATVGADV TINRELVRKASWKSHLVVHSNMEPDVGL  
LRLYPGIPASLVRTFLQPPLKGVVME TFGSGNGPTKPDLI QELRAAAERGLI IVNCTHCL  
QGAVTSDYAPGMAMAGAGI I SGFDMTSEALAKLSYVLGQPGLSLSDRKLLAKDLRGEM  
TLPTTDDLLGDDMLGCRATWLLSMNGSQDADAMKDVLLPGLALAAA HAGDLDTLQAFVEL  
GRDLNLKDYSQGTPLHVAARRGHASV VAMLLQKGVVDVACNEDGQSPLLLAVRGRHQSVI  
RLLRAAG AHLSPQELE DVGT EL CRLASRADSEGLRAWWQAGADLGPDPYDGH CALQVAEA  
AGNADVALLQSLED RVSAQPQPH

>P10547

MKKTKNYYTRPLAIGLSTFALASIVYGGIQNETHASEKSNMDVSKKVAEVETSKAPVEN  
TAEVETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSK  
APVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAE  
VETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSKAPVENTAEVETSKALV  
QNRTALRAATHEHSAQWLNNYKKG YGYGPYPLGINGMHYGVDFFMNIGTPVKAISSGKI  
VEAGWSNYGGGNQIGLIENDGVHRQWYMHLSKYNVKVG DYVKAGQIIGWSGSTGYSTAPH  
LHFQRMVNSFSNSTAQDPM PFLKSAGYKAGGTVTPTPNTGWKTNKYGTLYKSESASF TP  
NTDIITRTTGPFRSMPQSGVLKAGQTIHYDEV MKQDGHVWVGYTGNSGQRIYLPVRTW NK  
STNTLGVLWGTIK

>Q9EQZ5

MVKAKSWTLK KHFQ GKPTQSD FELKTVELPPLKNGEVLL EALFLSVDPYMRIASKRLKEG  
AVMMGQQVARVVESKNSAFPAGSIVLAQSGWTT HFISDGKGLEKLLTEWPKLPLSLALG  
TIGMPGLTAYFGLLEVCVKGGETV LVSAAAGAVGSVVGQIAKLKGCKVVG AAGSDEKIA  
YLKQIGFDAAFNKYKTVNSLEEALKKASP DGYDCYFDNVGGEFLNTVLSQMKDFGKIAICG

AISVYNRMDQLPPGPSPEIIYKQLRIEGFIVYRWQGDVREKALRDLMKWVLEGKIQYHE  
HVTKGFENMPAAFIEMLANGANL GKAVVTA

>Q8K1T4

MRARVLVGM LTMVGFAMGKAPVARVRTCHLCLLEDP SLGCISGSEKCTISLPSPCMVIT I  
YKNTTVRFHVRGCGQHHSYRCQERHVIYQSDYLYKADCCQYDYCNSWSSAQHQSTLRGSP  
GSHLGMPLSASQIKQFYQALNLSLPQPGFHAHKVSEGLESLILPPELGLSIADLRQIYLF  
LNSSGLLVLPWDRP

>Q9Z1Q4

MKHL LLLTL SALLYCWVSADTRCHS CYKVPVLGCVDRQSCRLEPGHKCLTTNVYLGKMWV  
FSNLRCGTPEEPCREVFNETNHKLGLNYNTTCCDKDNCNSPAPRPTPALALISL TSLAGL  
GLWLLH

>P38998

MAAVTLHLRAETKPLEARAALTPTTVKKLIAGFKIYVEDSPQSTFNINEYRQAGAIIVP  
AGSWKTAPRDRIIIGLKEMPETDTFPLVHEHIQFAHCYKDQAGWQNVLMRFIKGHGTLYD  
LEFLENDQGRRVAAFGFYAGFAGAALGVRDWAFFKQTHSDEEDLPAVSPYPNEKALVKDVT  
KDYKEALATGARKPTVLIIGALGRCGSGAIDLLHKVGI PDANILKWDIKETSRGGPFDEI  
PQADIFINCIYLSKPIAPFTNMEKLNPNRRLRTVVDVSADTTNPHNPIPIYTVATVFNK  
PTVLVPTTAGPKLSVISIDHLPSLLPREASEFFSHDLLPSLELLPQRKTAPVWVRAKKLF  
DRHCARVKRSSRL

>Q7SID7

KRFTRCGLVNELRKQGF DENLMRDWVCLVENESARYTDKIANVNKNGSRDYGLFQINDKY  
WCSKGSTPGKDCNVTCSQLLTDDITVASTCAKKIYKRTKFDAWSGWDNHCNHSNPDISSC

>P34020

MKGIDIYSGQGSVDFNAVKESGVEVVYIKATEGLTYTDSTYKDFYDGAKNAGLKIGFYHY  
LRANDPTSEAEHFFNTISGLSLDCKCAIDVEVTLGQSIDQISSNVRKFADYLINKGLDVC  
VYTYTNFYKDNLNSTVKDLPLWIAEYGVSKPNIDASYVGFQYSDSGSVNGISGSADLDEF  
SEGILVGGTVVIDPQGGDDNIKAIQQDLNILLKRGLEVDGIEGPEEAAIKDFQSIMGL  
TVDGIWGTNTSGAAQQIFSRPLDGVAYPHYEYATRYIQYRVGASVDGTFGSGTKAKVAAW  
QSNQGLMADGVVGSATWSKLLDEN

>P00697

MKALLVLGFLLLSASVQAKIYERCQFARTLKRNGMSGYGVSLADWVCLAQHESNYNTQA  
RNYNPGDQSTDYGIFQINSRYWCNDGKTPRAKNACGIPCSALLQDDITQAIQCAKRVVRD  
PQGIRAWVAWQRHCKNRDL SGYIRNCGV

>P17607

MKALIILGLLCLSVAVQGVFERCELARTLKEGLDGYKGVSLANWLCLTKWESSYNTKA  
TNYNPGSESTDYGIFQINSKWWCNDGKTPNAVDGCHVSCSELMENNIKAVACAKHIVSE  
QGITAWVAWKSHCRDHDVSSYVEGCSL

>P37156

KILKKQELCKNLVAQGMNGYQHITLPNWVCTAFHESSYNTRATNHNTDGSTDYGILQINS  
RYWCHDGKTPGSKNACNISCSKLLDDDI TDDLKCAKKIAGEAKGLTPWVAWKS SKCRGHDL  
SKFKC

>P00698

MRSLLILVLCFLPLAALGKVFGRCELAAMKRHGLDNYRGYSLGNWVCAAKFESNFNTQA  
TNRNTDGSTDYGILQINSRWWCNDGRTPGSRNLCNIPCSALLSSDITASVNC AKKIVSDG  
NGMNAWVAWRNRCKGTDVQAWIRGCRL

>O33599

MKKLTAAAIATMGFATFTMAHQADAAETTNTQQAHTQMSTQSQDVSYGTYTIDSNGDYH  
HTPDGNWNQAMFDNKEYSYTFVDAQGHYFYNCYPKNANANGSGQTYVNPATAGDNNDY  
TASQSQQHINQYGYQSNVGPDASYSHSMNNQAYNSHDGNGKVNYPNGTNSQNGGSASKA  
TASGHAKDASWLT SRKQLQPYGQYHGGGAHYGV DYAMPENSPVYSLTDGTVVQAGWSNYG  
GGNQVTIKEANSNNYQWYMHNNRLTVSAGDKVKAGDQIAYSGSTGNSTAPHVHFQRMSSG  
IGNQYAVDPTS YLQSR

>Q9UI17

MLRPGAQLLRGLLLRSCPLQGSPPGRPRSVCGREGEEKPPLSAETQWKDRAETVIIGGGCV  
GVSLAYHLAKAGMKDVVLEKSELTAGSTWHAAGLTTYFHPGINLKKIHYSIKLYEKLE  
EETGQVVGFHQPGSIRLATTPVRVDEFKYQMTRTGWHATEQYLI EPEKIQEMFLLNMNK  
VLAGLYNPGDGHIDPYSLTMALAAGARKCGALLKYPAPVTSLKARSDGTWDVETPQGS MR  
ANRIVNAAGFWAREVGMIGLEHPLIPVQH QYVVTSTISEVKALKRELPLVRDLEGSYLL  
RQERDGLLFGPYESQEKMKVQDSWVTNGVPPGFGKELFESDLDRIMEHIKAAMEMVPVLK  
KADIINVVNGPITYSPDILPMVGP HQGVRNYWVAIGFGYGI IHAGGVGKYLSDWILHGEP  
PFDLIELDPNRYGKWT TTYTEAKARESYGFNNIVGYPK EERFAGRPTQRVSGLYQRLES  
KCSMGFHAGWEQPHWFYKPGQDTQYRPSFRRTNWFEPV GSEYKQVMQRVGVTDLSPFGKF  
NIKGQDSIRLLDHLFANVIPKVGFTNISHMLTPKGRVYAELTVSHQSPGEFLLITGSGSE  
LHDLRWIEEEEAVKGGYDVEIKNITDELGVLGVAGPQARKVLQKLT PEDLSDDVFKFLQTK  
SLKVSNIPTVAIRISYTGELGWELYHRREDSVALYDAIMNAGQEEGIDNFGTYAMNALRL  
EKAFFRAWGLEMNCDTNPLEAGLEYFVKLNKPADFIGKQALKQIKAKGLKRRLVCLTLATD  
DVDPEGNESIWYNGKVVGNTTSGSYSYSIQKSLAFAYVPVQLSEVGGQQVEVELL GKNYPA  
VIIQEPLVLT EPTNRNLQKKGGKDKT

>Q17058

MKAVIVFCLMALSIVDAAWKPLPENLKEDLIVYQVYPRSFKDSNGDGI GDI EGIKEKLDH  
FLEMGMDFWLSPIYSPMVDGFDYD ISNYTDVHPIFGTISDLN LVSA AHEKGLKIILDF  
VPNHTSDQHEWFQLSLKNIEPYNNYYIWHPGKIVNGKRVPP TNWVG VFGGSAWSWREERQ  
AYYLHQFAPEQPD LNYYNPVVLDDMQNVLRFWLR RRGFDGFRVDALPYICEDMRFLDEPLS  
GETNDPNKTEYTLKIYTHDIPETYNVVRKFRDVLDEF P QPKHMLIEAYTNLSMTMKYYDY  
GADFPFNFAFIKNVSRDSNSSDFKKLVDNWMTYMPPSGIPNWVPGNHDQLRLVSRFGEEK  
ARMIT TMSLLLPGVAVNYYGDEIGMSDTYISWEDTQDPQCGAGKENYQTMSRDPARTPF  
QWDDSVSAGFSSSN TWLRVNNENYKTVNLAAEKKDKNSFFNMFKKFASLKKSPYFKEANL  
NTRMLNDNVFAFSRETEDNGSLYAILNFSNEEQIVDLKAFNNV PKLNMFYNNFN S DIKS  
ISNNEQVKVSALGFFILISQDAKFGNF

>P06993

MLIPSKLSRPVRLDHTVVRERLLAKLSGANNFRLALITSPAGYGKTT LISQWAAGKNDIG  
WYSLDEGDNQQERFASYLIAAVQQATNGHCAICETMAQKRQYASLTSLFAQLFIELAEWH  
SPLYLVIDDYHLITNPVIHESMRFFIRHQPENLTLVVLSRNL PQLGIANLRVRDQ LLEIG  
SQQLAFTHQEAKQFFDCRLSSPIEAAESSRICDDVSGWATALQLIALSARQNT HSAHKSA  
RRLAGINASHLSDYLVDEVLNDVLDLATRHFLKSAILRSMNDALITRVTGEENGQMRLEE  
IERQGLFLQRMDDTGEWFCYHPLFGNFLRQRCQWELAAELPEIHRAAAESWMAQGF PSEA  
IHHALAAGDALMLRDILLNHAWSLFNHSELSLLEESLKALPWDSLLENPQLVLLQAWLMQ

SQHRYGEVNTLLARAEHEIKDIREDTMHAEFNALRAQVAINDGNPDEAERLAKLALALEELP  
PGWFYSRIVATSVLGEVLHCKGELTRSLALMQQTEQMARQHDVWHYALWSLIQQSEILFA  
QGFLQTAWETQEKAFLINEQHLEQLPMHEFLVRIIRAQLLWAWARLDEAEASARSGIEVL  
SSYQPQQQLQCLAMLIQC SLARGDLDNARSQLNRLENLLGNGKYHSDWISNANKVRVIYW  
QMTGDKAAAANWLRHTAKPEFANNHFLQGQWRNIARAQILLGFEFPAEIVLEELNENARS  
LRLMSDLNRNLLLLNQLYWQAGRKSDAQRVLLDALKLANRTGFI SHFVIEGEAMAQQLRQ  
LIQLNTLPELEQHRAQRILREINQHHRHKFAHF DENFVERLLNHPEVPELIRTSPLTQRE  
WQVLGLIYSGYSNEQIAGELEVAATTIKTHIRNLYQKLGVAHRQDAVQHAQQLLKMMGYG  
V

>P21517

MMLNAWHLPVPPFVKQSKDQLLITLWLTGEDPPQRIMLRTEHDNEEMSVPMHKQRSQPQP  
GVTAWRAAIDLSSGQPRRRYSFKLLWHDRQRWF'TPQGF SRMPPARLEQFAVDVPDIGPQW  
AADQIFYQIFPDRFARSLPREAEQDHVYHHAAGQEI IILRDWDEPVTAQAGGSTFYGGDL  
DGI SEKLPYLKKLGV TALYLNPVFKAPS VHKYDTE DYRHVDPQFGGDGALLRLRHNTQQ  
GMRLVLDGVFNHSGD SHAWFDRHNRGTGGACHNPE SPWRDWSFSDDGTALDWLGYASLP  
KLDYQSESLVNEIYRGEDSIVRHWL KAPWNMDGWRLDVVHMLGEAGGARNMQHVAGITE  
AAKETQPEAYIVGEHF GDARQWLQADVEDAAMNYRGFT'FPLWGF LANTDISYDPQQIDAQ  
TCMAWMDNYRAGLSHQQLRMFNQLD SHDTARFKTLLGRDIARLPLAVVWLFTWPGVPCI  
YYGDEVGLDGKNDPFCRKPFPWQVEKQDTALFALYQRMIALRKKSQALRHGGCQVLYAED  
NVVVVVRVLNQQORVLVA INRGEACEVVL PASPFLNAVQWQCKEGHGQLTDGILALPAISA  
TVWMN

>P31723

MRLPVSFPLTVLSLLGSTIAHPYGETEAVLRSEPKSNQAKADAVKEAFQHAWNGYMKYAF  
PHDELTPVSNGHADSRNGW GASAVDALSTAVIMGKADVNAI LEHVADIDFSKTSDTVSL  
FETTIRYLAGMLSGYDLLQGP AKNLVDNQLDIDGLLDQSRNLADVLKFAFDTPSGVPYNN  
INITSHGNDGATTNGLAVTGTLVLEWTRLSDLTGDEEYAKLSQKAESYLLKPQPSSEPF  
PGLVGSSININDGQFADSRVSWNGGDSFYEYLIKMYVYDPKRFEYTKDRWVLAESTIK  
HLKSHPKSRPDLTFLSSYSNRNYDLSSQHLCFDGGSFLLGGTVLDRQDFIDFGLELVDG  
CEATYNSTLTKIGPDSWGWDPKKVPSDQKEFYEKAGFYISSGSYVLRPEVIESFYAHRV  
TGKEIYRDVWVNAFVA INSTCR TDSGFAAVSDVNKANGGSKYDNQESFLFAEVMKYSYLA  
HSEDAAWQVQKGGKNTFVYNTEAHPISVARN

>Q8WPJ2

MLLTALAVLFASTGCQARLSVSGTNLNNGHHIFLSGANQAWVNYARDFGHNQYSK GKST  
FESTLSDIQSHGGNSVRVWLHIEGESTPEFDNNGYVTGIDNTLISDMRAYLHAAQRHNIL  
IFFTLWNGAVKQSTHYRLNGLMVDTRKLSYIDHALKPMANALKNEKALGGWDIMNEPEG  
EIKPGESSEPCFDTRHLSGSGAGWAGHLYSAQEIGRFVNWQAAA I KEVDPGAMVTVGSW  
NMKADTDAMGFHNLYS DHCLVKAGGKQSGTLSFYQVHTYDWNHFGNESPFKHSFSNFR  
KKPMVIGEFNQE H GAGMSSESMFEWAYTKGYSGAWTWSRTDVS WNNQLRGIQH LKSR TDH  
GQVQFGL

>P51529

MRNARSTLITTAGMAFAVLGLL FALAGPSAGRAEAAAAGGIHVSNGRVVEGNGSAFVMRGV  
NHAYTWYPDR TGS IADIAAKGANTVRVVLSSGGRWTKTSASEVSALIGQCKANKVICVLE  
VHDTTGYGKDGATSLDQAGDYWVGKSAAWRAQEDYVVVNI GNEPFGNTNYAAWTDATKS  
AIGKLRGAGLGHALMVDAPNWGQDWSGTMR SNAASVFASDPDRNTVFSIHMYGVYDTAAE  
VRDYLNAFVGNGLPIVVGEFGDQHS DGNPDEDAIMATAQSLGVGYLGWSWSGNGGGVEYL  
DMVNGFDPNSLTSWGNRILYGSNGIAATSR TATVYGGGGGSGTGGTAPNGYPYCVNGGASD

PDGDGWWENSRSCVVRGSAADH

>Q7D785

MSELSVATGAVSTASSSIPMPAGVNPADLAAELAAVVTESVDEDEYLLYECDGQWVLAAGV  
QAMVELDSDELRVIRDGVTRRQQWSSGRPGAALGEAVDRLLETDQAFGWVAFEFVHRYG  
LQORLAPHTPLARVFSRTRIMVSEKEIRLFDAGIRHREAI DRLLATGVREVPQSRSDV  
SDDPSGFRRRVAVAVDEIAAGRYHKVILSRCVEVPFAIDFPLTYRLGRRHNTPVRSFLLQ  
LGGIRALGYSPELVTAVRADGVVITEPLAGTRALGRGPAIDRLARDDLESNSKEIVEHAI  
SVRSLEEITDIAEPGSAVIDFMTVRERGSVQHLGSTIRARLDPSSDRMAALEALFPAV  
TASGIPKAAGVEAIFRLDECPRGLYSGAVVMLSADGGLDAALTLRAAYQVGGRTWLRAGA  
GIIIESEPEREFEETCEKLSTLTPYLVARQ

>Q8SR66

MDSSSPLKTRFKDQAMEGKKEEIREHYNSIRERGRESRQSKTINIRNANNFIKACLIRL  
YTKRGDSVLDLGCCKGGDLLKYERAGIGEYYGVDIAEVSINDARVRARNMKRRFKVFFRA  
QDSYGRHMDLGKEFDVISSQFSFHAFSTSESLDIAQRNIARHLRPGGYFIMTVPSRDVI  
LERYKQGRMSNDFYKIELEKMEDVPMESVREYRFTLLDSVNNCIEYFVDFTRMVDGFKRL  
GLSLVERKGFIDFYEDEGRRNPELSKMKGLGCLTREESEVVGIEYVVFRKLVPESDA

>P21812

MQALLFLMALLLPSGAGAEIIGGVESRPHSRPYMAHLEITTERGFTATCGGFLITRQFV  
MTAAHCSGREITVTLGAHDVSKTESTQQKIKVEKQIVHPKYNFYSNLHDIMLLKQKAK  
ETPSVNVIPLPRPSDFIKPGKMCRAAGWRTGVTEPTSDTLREVKLRIMDKACKNYWHY  
DYNLQVCVGSPPKRSAYKGDSSGPLLCAAGVAHGIVSYGRGDAKPPAVFTRISSYVPWIN  
RVIKGE

>P83443

AVPQSIDWRDYGAVNEVKNQGPCGGCWAFAAIATVEGIYKIRKGNLVYLSEQEVLDCAVS  
YGCKGGWVNRAYDFIISNNGVTTDENYPYRAYQGTGNANYFPNSAYITGYSVRRNDESH  
MMYAVSNQPIAALIDASGDNFQYYKGGVYSGPCGFSLNHAITIIGYGRDSYWIVRNSWGS  
SWGQGGYVRIIRDVSHSGGVCGIAMSPLFPTLQ

>P04131

MKKLFASLALAAVVAPVWAATQTVTLVPGMTCSACPITVKKAI SEVEGVSKVDVTFETR  
QAVVTFDDAKTSVQKLTAKATADAGYPPSSVKQ

>P25665

MTILNHTLGFPRVGLRRELKKAQESYWAGNSTREELLAVGRELRARHWDQQKQAGIDLLP  
VGDFAWYDHVLTTSLLLGNVPARHQNKDGSVDIDTLFRIGRGRAPTGEPAAAAEMTKWFN  
TNYHYMVPEFVKQQFKLTWTQLLDEVDEALALGHKVKPVLLGPVTWLWLKVKGEQFDR  
LSLLNDILPVYQQVLAELAKRGIEWVQIDEPALVLELPQAWLDAYKPAYDALQGQVKLLL  
TTYFEGVTPNLDTITALPVQGLHVDLVHGKDDVAELHKRLPSDWLLSAGLINGRNVWRAD  
LTEKYAQIKDIVGKRDLWVASSCSLLHSPIDLSVETRLDAEVKSWFAFALQKCHELALLR  
DALNSGDTAALAEWSAPIQARRHSTRVHNPAVEKRLAAITAQDSQRANVYEVRAEAQRAR  
FKLPAWPTTTTIGSFPQTTEIRTLRLDFKKNLDANNYRTGIAEHKQAIVEQERLGLDVL  
VHGEAERNMVEYFGEHLDFGVFTQNGWVQSYGSRVCKPPIVIGDISRPAPITVEWAKYA  
QSLTDKPVKGMILTGPVTILCWSFPREDVSRETIKQIALALRDEVADLEAAGIGIIQIDE  
PALREGLPLRRSDWAYLQWGEAFRINA AVAKDDTQIHTHMCYCEFNDIMDSIAALDAD  
VITIETSRSDMELLESFEEFDYPNEIGPGVYDIHSPNVPSVEWIEALLKKAAKRIPAERL  
WVNPDCGLKTRGWPETRAALANMVQAAQNLRRG

>P55299

MITTVVGSYPATPREPETLRERISSFIGSYDACRPAIETAVRDQVRAGVDIISDGQVRGD  
MVGHF AEAMGMMVKDGVSIIFSRITPPAGSIGSDDLIYRIKILRKLTDDESKGVKGIIT  
GPSTMAHASKIEGFYSPQKRERAIMDMADALRVEAEHLQDAGALMIQIDEPFLSTGMVDM  
GTARRAVKRISGALDVDVSLHVCGDISGVI GELLTFPVDMLDLEFAGRPSNLEVLAEKWR  
GDKKLGFGCVDTSTEVVESTDTIKNLIERGADIAGEDNLYIDPDCGMRKLPREAAFSKLR  
NMVKAASEF

>O43451

MARKKLLKFKTTLEIVLSVLLLLVLFIIISIVLIVLLAKESLKSTAPDPGTTGTPDPGTTGTP  
DPGTTGTTTHARTTGPPDPGTTGTPVSAECPVVNELERINCPDQPPTKATCDQRGCCWN  
PQGAVSVPWCYYSKNHSYHVEGNLVNTNAGFTARLKNLPSSPVFGSNVDNVLTTAEYQTS  
NRFHFKLTDQTNNRFEVPHEHVQSFSGNAAASLTYQVEISRQPFSSIKVTRRSNNRVLFD  
SIGPLLFADQFLQLSTRLPSTNVYGLGEHVHQYRHD MNWKTWPIFNRDTPNGNGTNLY  
GAQTFFLCLEASGLSFGVFLMNSNAMEVVLQPAPAITYRTIGGILDFYVFLGNTPEQVV  
QEYLELIGRPALPSYWALGFHL SRYEYGTLDNMREVVERNRAAQLPYDVQHADIDYMDER  
RDFTYDSVDFKGFPEFVNELHNNGQKLVIIIVDPAISNNSSSSKPYGPYDRGSDMKIWVNS  
SDGVTPLIGEVWPGQTVFPDYTNPNCAVWWTKFELFHNQVEFDGIWIDMNEVSNFV DGS  
VSGCSTNNLNNPFTPRILDGYLFCKTLCMDAVQHWGKQYDIHNLYGYSMATAEAAKT  
VFPNKRSFILTRSTFAGSGKFAAHWLGDNATATWDDL RWSIPGVLEFNLF GIPMVGPDICG  
FALDTPPEELCRRWMLGAFYPPSRNHNGQGYKDQDPASFGADSLLLNSRHYLNIRYTL L  
PYLYTLFFRAHSRGDTVARPLLHEFYEDNSTWDVHQQFLWGPGLLITPVLDEGA EKVMAY  
VPDAVWYDYETGSQVRWRKQKVEMELPGDKIGLHLRGGYIFPTQQPNTTTLASRKNPLGL  
IIALDENKEAKGELFWDDGETKDTVANKVYLLCEFSVTQNRLEVNISQSTYKDPNNLAFN  
EIKILGTEEPSNVTVKHNGVPSQTSPTVTYDSNLKVAIITDIDLLLGEAYTVEWSIKIRD  
EEKIDCYPDENGASAENCTARGCIWEASNSSGVPFCYFVNDLYSVSDVQYN SHGATADIS  
LKSSVYANAFPSTPVNPLRLDVTYHKNEMLQFKIYDPNKNRYEVPVPLNIPSMPSSTPEG  
QLYDVLIKKNPFGEIRRKSTGTIIWDSQLLGF TFSDMFIRISTRLP SKYLYGFGETEHR  
SYRRDLEWHTWGMFSRDQPPGYKKN SYGVHPYMGLEEDGSAHGVL LLSNAMDVTFQPL  
PALTYRTTGGVLDYFVFLGPTPELVTQQYTELIGRPVMVPYWSLGFQLCRYGYQNDSEIA  
SLYDEMVAQAIPYDVQYSDIDYMERQLDFTLSPKFAGFPALINRMKADGMRVILILDPAI  
SGNETQPPYPAFTRGVEDDVFIKYPNDGDIVWGKVPDFPDVVVNGSLDWD SQVELYRAYV  
AFPDDFRNSTAKWWKREIEELYNNPQNPERSLKF DGMWIDMNEPSSFVNGAVSPGCRDAS  
LNHPPYMPHLESRRDGLSSKTL CMESQQILPDGSLVQHYNVHNLYGWSQTRPTYEAVQEV  
TGQRGVVITRSTFPSSGRWAGHWLGDNTAAWDQLKKSII GMMESLFGISYTGADICGFF  
QDAEYEMCVRWMLGAFYPPSRNHNTIGTRRQDPVSWDVAFVNISR TVLQTRYTL LPLYLY  
TLMHKAHTEGVTVVRPLLHEFVSDQVTWDIDSQFLLGPAFLVSPVLERNARNVTAYFPRA  
RWYDYTTGVDINARGEWKTLPAPLDHINLHVRGGYILPWQEPALNTHLSRQKFMGFKIAL  
DDEGTAGGWLFWDDGQSIDTYGKGLYLLASFSASQNTMQSHIIFNNYITGTNPLKLG YIE  
IWGVGSVPVTSVSI SVSGMVITPSFNNDPTTQVLSIDVTDRNISLHNFTSLTWI STL

>P80099

MIGYQIYVRSFRDGNLDGVGDFRGLKNAVSYLKE LGIDFVWLMVPVSSISFHGYDVVDFY  
SFKAEYGSEREFKEMIEAFHDSGIKVVL DLP IHHTGFLHTWFQKALKGDPHYRDYVWAN  
KETDLDERREWDGEKIWHPLEDGRFYRGLFGFPSPDLNYDNPQV FDEMKRLLVHLLDMGV  
DGFRF DAAKHMRDTIEQNVRFWKYFLSDLKGI FLAEIWA EARMVDEHGRIFGYMLNF DTS  
HCIKEAVWKENTRVLIESIERAVIGKDYLPVNFTSNHDM SRLASFEGGFSKEKIKLSISI  
LFTLPGVPLVIFYGDELGMKGVYQKPNTEVVLD PFPWNE SMCVEGQTFWKWPAYNGPFSGI  
SVEYQKRDPDSILSHTL GWTRFRKENQWIDRAKLEFLCKEDKFLVYRLYDDQHSLKVFHN

LSGEEVVFEGVKMKPYKTEVV

>P36046

MLRNLVVRNACRNRPSIQVARGLCRHQTRRLMASSPQFGRNSNQEKTAGFIMGILSMAGA  
LYFIAPNRKPLFASRKVESDKTAEELSSGGEQSPENEDDNNSSKSDENGDDNDSKNDETE  
AGPQLGGDKIGASKVAEDGELVVLAEEDNKSSDKDTDESKVSTKDDEQSNEDNATANNQ  
KDENISSENSEENTSDKTLDNAGSSEKKDPEHSDDEKSQQGQSDDKTTTEDNNGEEESS  
KKTVSDSENSAKQSESSDEEKEELRKQEEKQMGPTTEEVQHEGAYNPDTGEINWDCPCLG  
GMAHGPCGEEFKSAFSCFVYSEAEPKGIDCVEKFQHMQDCFRKYPEHYAEQLKETSDDEE  
PQDKVKVNTIESAPNVSSAKENAAKKAEQSDVKKEPLNEESKP

>Q96AX9

MGWKPSEARGQSQSFQASGLQPRSLKAARRATGRPDRSRAARPTTDP SAHRSRAAPPNMD  
PDPQAGVQVGMRVVRGVDWKWGQQDGGEGGVGTVVVELGRHGSPSTPDRTVVQWDQGRTRT  
NYRAGYQGAHDL LLYDNAQIGVRHPNIICDCCKKHGLRGMRWKCRVCLDYDLCTQCYMHN  
KHEL AHAFDRYETAHSRPVTLSPRQGLPRIPLRGIFQGAQVVRGPDWEWGSQDGGEGKPG  
RVVDIRGWDVETGRSVASVTWADGTTNVYRVGHKGVLDLKC VGEAAGGFYKDHLPRLGK  
PAELQRRVSADSQPFQHGDKVKCLLDTDVLRMQEGHGGWNPRMAEFIGQTGTVHRITDR  
GDVVRVQFNHETRWFHPGALTKHHSFWVGDVVRVIGDLDTVKRLQAGHGEWTD DMAPALG  
RVGKVVKVF GDGNLRVAVAGQRWTFSPSCLVAYRPEEDANL DVAERARENKSSLSVALDK  
LRAQKSDPEHPGRLVVEVALGNAARALDLLRRRPEQVDTKNQGR TALQVAAYLGQVELIR  
LLLQARAGVDLPDDEGNTALHYAALGNQPEATRVL LLSAGCRADAINSTQSTALHVAVQRG  
FLEVVRALCERGC DVNLPDAHSDTPLHSAISAGTGASGIVEVLTEVPNIDVTATNSQGFT  
LLHHASLKGHALAVRKILARARQLVDAKKEDGFTALHLAALNNHREVAQILIREGRCDVN  
VRNRKQLQSPLHLAVQQAHVGLVPLLV DAGCSVNAEDEEGDTALHVALQRHQLLPLVADGA  
GGDPGPLQLLSRLQASGLPGSAELTVGAAVACFLALEGADVSYTNHRGRSPLDLAAEGRV  
LKALQGCAQRFRERQAGGGAAPGPRQTLGTPNTVTNLHVGAAPGPEAAECLVCSELALLV  
LFSPCQHRTVCEE CARRMKKCI RCQVVVSKKLRPDGSEVASAAPAPGPPRQLVEELQSRV  
RQMEERITCPICIDSHIRLVFQCGHGACAPCGSALSACPICRQPIRDRIQIFV

>O00834

MGQALFLTVLLPVLFGVGP EAYGEASHSHSPASGRYIQQMLDQRCQEIAAELCQSGLRKM  
CVPSSRIVARNAVGI THQNTLQWRCFD TASLLESNQENNGVNCVDDCGHTIPCPGGVHRQ  
NSNHATRHEILSKLVEEGVQRFCSPYQASANKYCNDKFPGTIARRSKGFGNNVEVAWRCY  
EKASLLYSVYAE CASNCGTTWYCPGGRRGTSTELDKRHYTEEEGIRQAIGSVDSPCSEVE  
VCLPKDENPPLCLDESGQISRTGGGPPSOPPEMQPADRS DERGGGKEQSPGGEAQPDPH  
TKGGNIDLPEKSTSPEKTPKTEIHGDSTKATLEEGQQLTLTFISTKLDVAVGSCHSLVAN  
FLDGF LKFQ TGSNSAFDVVEVEEPAGPAVL TIGLGHKGR LAVVLDYTRLNAALGSAAYVV  
EDSGCSSSEEVSFQGVGSGATLVVTTLGESPTAVSA

>Q9XZH7

MRASLPVHLVVCTQLSAVWFVAKAHGGHRLEPHVPGFLQGF TDITPAGDDVSANVTSS E  
PAKLDLSCVHSDNKGSRAPTIGEPVPDVSLEQCAAQCKAVDGC THFTYND DSKMCHVKEG  
KPDLYDLTGKKTASRSCDRSCFEQHVS YEGAPDVM TAMVTSQSADCQAACAADPSC EIFT  
YNEHDQKCTFKGRGFSAFKERGVLGVTSGPKQFCDEGGKLTQEEMEDQISGCIQLSDVGS  
MTADLEEPMEADSVGACMERCRC DGRCTHFTFNDNTRMCYLKGD KMQLYSSPGDR TGPKS  
CDSSCF SNGVSYVDDPATDVETVFEI SHPIYCQVICAANPLCTVFQWYASEAKCVVKRKG  
FYKHKRKTGVTGVTGVPREFCDFGGSIRDRE EADAVGSDDGLNAEATMANS PFDHDEVECV  
HTGNIGSKAQTI GEV KRASSLSECRARCQAEKEC SHYTYNVKSGLCYPKR GKPQFYKYL G  
DMTGSR TCDT SCLR RGV DYSQGP EVGK P WYSTLPTDCQVACDAEDACL VFTWDSATSR CY



LIGSGFSAHRRNDVDGVVSGPYTFCDNGENLQVLEAKDTE

>Q01992

MLLAAGTRYAYRLCGRRAAAALQGRAGRSCARSVSTSWSPVGAAFNVKPQGHLDLLGER  
RGLFGVPELSTPEGFQVAQEEALRKTEWLVVERACSTPPGPQTVLIFDELSDCLCRVADLA  
DFVKIGHPEQAFREAAQEACRSIGTMVEKLNNTVELYQSLQKLLDDKKLMDSLDAETRVR  
AELFMDFFEISGIHLDEEKRRRAVDLNVKILDLSAFLMGTFNFKIKIQKHLLEPHIQHHF  
ARDGRHLVIDGLHAEASDDLREAAKYIFLYPNADQLKCLEELLSSRDLLANLVGYLPPF  
TGPPGTIAQTPETVMQFLEKLSEKLCERTRKDFEMMQMKTCLNPNQNSELMPWDPPYYSG  
VIRAERYNIEPSLYCPFLSLGACMEGLNVLFNRLLGVTLYAEQPFKGEVWCIDVRKLAUV  
HESEGLLGYIYCDFFQRANKPQQDCHFTIRGGRLKEDGSYQLPVVVLMLNLPHASRDFPT  
LLTPGMENLFFHEMGMHMSMLGRTRYQHVTGTRCPTDFAEVPSILMEYFSNDYRVVSQF  
AKHYQTGQPLPKAMVSRLECSKVKVAAAEMQLQVFYAALDQIYHGQHPLKKSTTDILMET  
QEQFYGLPYVPDTAWQLRFSHLVGYGAKYYSYLMSRAVASMVWKECFLQDPFNRAAGERY  
RREMLAHGGGKEPMLMIQGMQLKCPSIDDFVDALVSDLNLDLDFETFFMDSK

>P53778

MSSPPPARSGFYRQEVTKTAWEVRAVYRDLQPVGSGAYGAVCSAVDGRGTGAKVAIKKLYR  
PFQSELFAKRAYRELRLKXMRHENVIGLLDVFTPDETLDDFTDFYLVMPFMGTDLGLKM  
KHEKLGEDRIQFLVYQMLKGLRYIHAAGIHRDLKPGNLAVNEDCELKILDFGLARQADS  
EMTGYVVTRWYRAPEVILNWMRYTQTVDIWSVGCIMAEMITGKTLFKGSDHLDQLKEIMK  
VTGTPPAEFVQRLQSDEAKNYMKGLPELEKKDFASILTNASPLAVNLEKMLVLDAEQRV  
TAGEALAHYPYFESLHDTEDPQVQKYDDSFDDVDRTLDEWKRVTYKEVLSFKPPRQLGAR  
VSKETPL

>P41052

MFKRRYVTLPLPLFVLLAACSSKPKPTETDTTTGTPSGGFLLLEPQHNVMQGGDFANNPNA  
QQFIDKMNKXHGFDROQLQEILSQAKRLDSVLRMLMDNQAPTTSVKPPSGPNGAWLRYRKK  
FITPDNVQNGVFWNQYEDALNRAWQVYGVPEIIVGIGVETRWGRVMGKTRILDALAT  
LSFNYPRAEYFSGELETFLMARDEQDDPLNLKGSFAGAMGYGQFMPSSYKQYAVDFSG  
DGHINLWDPVDAIGSVANYFKAHGWWKGDQVAVMANGQAPGLPNGFKTKYSISQLAAAGL  
TPQQPLGNHQASLLRLDVGTYQYWYGLPNFYTITRYNHSTHYAMAVWQLGQAVALARV  
Q

>Q47690

MSQNNPLRALLDKQDILLLDGAMATELEARGCNLADSLWSAKVLVENPELIREVHLDYYR  
AGAQCASITASYQATPAGFAARGLDEAQSALIGKSVELARKAREAYLAENPQAGTLLVAG  
SVGPYGAYLADGSEYRGDYHCSVEAFQAFHRPRVEALLDAGADLLACETLPNFSEIEALA  
ELLTAYPRARAWFSFTLRDSEHLSDGTPLRDVVALLAGYPQVVALGINCIALENTTAAALQ  
HLHGLTVLPLVVYPNSGEHYDAVSKTWHHHGHECAQLADYLPQWQAAGARLIGGCCRTTP  
ADIAALKARS

>Q44118

MPAARPAGAGVGLVDYRGRRATDMRLSLTDKCNLRCTYCPAEGLEWLSKQAVMSASEIV  
RIVGIGVGRGLGVRELRLTGGEPLVRHDLVDIAELRRNHPELPI SMTTNGVGLAKKVAPL  
KAAGLTRINVSLSLHEETFTKLTRRPFLDQVLAGVDAAWAAGLGPVKLNAVLMRGINDA  
EAPSLLAWAVERGYELRFIEQMPLDADHWTRRNMITAAEIRDLLSTDFVLTDPDPRARDG  
APAERFEVRRRVAGSGAGLGPVLGTVGI IASVTEPFCSDCRRTRITAEGRIMSCLFSREE  
FDLLVLLRSGASDDDLARRWQDAMWLKPKAHGMDHVGLDAPDFVQPDRSMSAIGG

>Q02198

MAGKSPLINLNNGVKMPALGLGVFAASAEETASAIASAISSGYRLIDTARSYNNEAQVGE  
GIRNSGVDRAEMFVTTKLFNCDYGYERALRAFDESLGRLGLDYVDLYLLHWP TKDWNATI  
QSWKAAEKILGDGRARAIGVCNFLEDQLDELIAASDVVPAVNQIELHPYFAQKPLLAKNR  
ALGIVTEAWSPIGGAINDGDGDNDHGGRKHPLTDPVITTTIAEAHGRSAAQVILRWHFQNDV  
VAIPKSVNPERIAKNIDVDFDALSDAEMAQLDELDTGVRIGPDRDVTSSFAEFV

>P27760

MGIKHCYIILYFTLALVTLQPVRS AEDVEEF LPSANETRRLKACEAHNIIDKCWRCKA  
DWANNRQALADCAQGFAGKTYGGKHGDVYTVTSDKDDVDVANPKEGTLRFAAAQNRPLWII  
FKRNMV IHLNQELVVNSDKTIDGRGVKVNIVNAGL TLMNVKNI I IHNINIHDIKVCPGGM  
IKSNDGPPILRQQSDGDAINVAGSSQI WIDHCSLSKASDGLLDITLGS SHVTVS NCKFTQ  
HQFVLLLGADDTHYQDKGMLATVAFNMFTDHDVDRMPRCRFGFFQVNNNYDRWGTYAIG  
GSSAPTILSQGNRFAPDDI I KKNVLARTGTGNAESMSWNWRTDRDLENGAIFLPSGSD  
PVLTP EQKAGMIPAEPGEAVLRRLTSSAGVLSCHQGAPC

>P10414

MKNIFMLTLFIL IITSTIKAIGSTNEVDEIKQEDDGLCYEGTNC GKVGKYCCSPIGKYCV  
CYDSKAICNKNCT

>P39790

MKLVPRFRKQWFAYLTVLCLALAAAVSFGVPKAAENPQTSVSN TGKEADATKNQTSKAD  
QVSAPYEGTGKTSKSLYGGQTELEKNIQTLQPSIIIGTDERTRISSTTSFPYRATVQLSI  
KYPNTSSTYGCTGFLVNPNTVV TAGHCVYSQDHGWASTITAAPGRNGSSYPYGTYSGMTF  
YSVKGWTESKDTNYDYGAIKLNGSPGNTV G WYGYRTTNS SSPVGLSSSVTGFP CDKTFGT  
MWSDTKPIRSAETYKLYTTTDTYGCQSGSPVYRNYSDTGQTAIAIHTNGGSSYNLGRVT  
NDVFNNIQYWANQ

>P40859

MSTHFDVIVVGAGSMGMAAGYQLAKQGVKTL LVDADFDPHTNGSHHG DTRIIRHAYGEGR  
EYVPLALRSQELWYELEKETHHKIFTKTGVLVFGPKGESAFVAETMEAAKEHSLTVDLLE  
GDEINKRWPGITVPENYNAIFEPNSGVLFSENCIRAYRELAEARGAKVLTHTRVEDFDIS  
PDSVKIETANGSYTADKLIVSMGAWNSKLLSKLNLDIPLQPYRQVVGFFESDESKYSNDI  
DFPGFMVEVPNGIYYGFPSFGGCGGLKLG YHTFGQKIDPDTINREFGVYPEDES NLRAFLE  
EYMPGANGELKRGAVCMYTKTLDEHFIIDLHPEHSNVVIAAGFSGHGFKFSSGVGEVLSQ  
LALTGKTEHDISIFSINRPALKESLQKTTI

>P06530

MTLKIDIKGRGKYK PASDYSID DVKNVLM EKIFEESSRIINSDDLEIEKVDFR TDKIN  
VLSLFSGCGGLDLGFE LAGLA AVIGEQAAMEAFKDKDRFNELRNKSI FHTIYTNDLFKEA  
NQTYKTNFPGHV IQHEKDIRQVKYFPKCNLILGGFPCPGFSEAGPRLIDDDRNF LYLHFI  
RSLIQAQPEIFVAENVKGM MTLGKGEVLNQI IEDFASAGYRVQFKLLNARDYGVPQLRER  
VIIIEGVRKDISFNKYKPSPTHGEETGLKPFKTLRDSIGDLVTDPGPYFTGSYSSIYMSRN  
RKKSWDEQSFTTIQASGRQAPLHPGGLSMK KIGKDKWVFPDGEENHRRLSVKEIARVQTFP  
DWFQFSQGTNSQTSINNRLDKQYKQIGNAVPVLLAKAVASPIANWAINYLESSPNNKIKN  
RERKLSIRTFLRIKTS

>P00476

MGKLRVMSLFSGIGAFEAALRNIGVGYELVGFSEIDKYAVKSFCAIHNVDQLNFGDVSK  
IDKKKLPEFDLLVGGSPCQSFSVAGHRKGFEDTRGTLFFQYVETLKEKQPKFFVFENVKG

LINHDKGNTLNVMAEAFSEVGYRIDLELLNSKFFNVPQNRERLYIIGIREDLIKNEEWSL  
DFKRKDILOKQKQRLVELDIKSFNFRWTAQSAATKRLKDLLEEYVDEKYLLNEDKTNSLI  
KELSTSRNLNENLTVEQVGNINPSGNGMNGNVYNSSGLSPTITTNKGEGLKIAVEYSRKS  
LGRELAVSHTLSASDWRGLNRNQKQNAVVEVRPVLTPERGEKRQNGRRFKDDGEPAFVTN  
TIDRHGVAVGEYPKYRIRRLTPLECFRLQAFDDEDFEKAFAGAAGISNSQLYKQTGNSITVT  
VLESIFKELIHTYINKESI

>P05101

MSEFELLAQDLEKAEAEQRLQENDKLLGQVLEIYDQKYVAELLRKGKNEWSRETLM  
RWINGKCSPKTLTAAEEELLRKMLPEAPAHHPDYAFRFIDLFAGIGGIRKGFETIGGQCV  
FTSEWNKEAVRTYKANWFNDAQEHTFNLDIREVTLSDKPEVPENDAYAYINEHVDPHDVL  
LAGFPCQPFSLAGVSKKNSLGRAHGFECEAQGTFFDVARIRAKKPAIFVLENVKNLKS  
HDKGKTFKVIDMTLDELGYEVADAAEMGKNPKVIDGKHFLPQHRERIVLVGFRRDLNIH  
QGFTLRDISRFYPEQRPSFGELLEPVVDSKYILTPKLWEYLYNYAKKHAAGNGFGFGLV  
NPENKESIARTLSARYHKDGSEILIDRGWDMATGETDFANEENQHRPRRLTPRECARLM  
GFEKVDGRPFRIIPVSDTQSYRQFGNSVVVPVFEAVAKLLEPYILKAVNADSCKVERI

>P15446

MKDVLDNLLLEEPAAQYSLFEPESNPNLREKFTTFIDLFAGIGGFRIAMQNLGGKCIFSS  
WDEQAQKTYEANFGDLPYGDITLEETKAFIPEKFDILCAGFPQAFSIAKRGGFEDTRG  
TLFFDVAEIIIRRHQPKAFFLENVKGLKNHDKGRTLKTLNLVREDLGYFVPEPAIVNAKN  
FGVPQNRERIYIVGFHKSTGVNSFSYPEPLDKIVTFADIREEKTVPKYYLSTQYIDTLR  
KHKERHESKNGFGYEIIPDDGIANAIIVVGGMGRERNLVIDHRI TDFTPTTNIKGEVNRE  
GIRKMPREWARLQGFPSYVIPVSDASAYKQFGNSVAVPAIQATGKKILEKLGNYD

>P09424

MKALHFGAGNIGRGFIGKLLADAGIQLTFADVNVVLDALNARHSYQVHVGETEQVDTV  
SGVNAVSSIGDDVVDLIAQVDLVTAVGPPVLERIAPAIKAGQVKRKEQGNESPLNIIAC  
ENMVRGTTQLKGHVMNALPEDAKAWVEEHVGFVDSAVDRIVPPSASATNDPLEVTVETFS  
EWIVDKTQFKGALPNIPGMEITDNLMAFVERKLFNLNTGHAITAYLGLLAGHQTIRDAIL  
DEKIRAVVKGAMEESGAVLIKRYGFDADKHAAYIQKILGRFENPYLKDDVERVGRQPLRK  
LSAGDRLIKPLLGTLLEYGLPHKNLIEGIAAAMHFRSEDDPQAQELAALIADKGPQAALAQ  
ISGLDANSEVVSEAVTAYKAMQ

>P27543

MNAVHFGAGNIGRGFIGEILAKNGFHITFVDVNETIIQALKERKSYTIELADASHQQINV  
ENVTGLNNMTEPEKVV EAI AEADLVTTAIGPNILPRIAELIAQGIDARAEANCQKPLDII  
ACENMIGGSTFLAEVAKYLKNPAYAEQWIGFPDAAVDRIVPLQKHEDPLFVQVEPFCEW  
VIDDTNRKAKEIQLEGVHYVADLEPYIERKLF SVNTGHATVAYTGALLGYQTIDEAMQDA  
LVVAQLKSVLQETGKLLVAKWNFDEQEHAAYIEKIIQRFNKYISDAITRVARTPIRKL  
AQERFIRPIRELQERNLVSPHLLAMIGIVFNHYHDPEDQSRQLQEMLDQESVDTVIAEVT  
GIEDPETVKNIKQNV ERYARPQVA

>Q02418

MKKAVHFGAGNIGRGFIGQILFENGFAIDFVDVNDKIINALNERHSYDIEIAEDGKRHIT  
VSNVAGINNKENPQAVIDAVAETELITTAIGPNILPFIQQLIAKGIKRRSQNTPLDI  
IACENMIGGS AFLWQEVQKYL SADGLAFADYIGFPNAAVDRIVPAQVHEDPLFVVVEPF  
SEWVVETAAMKNPDLKLSVHYEENLEPFIERKLF SVNSGHATTAYTGAYFGAKTVLEAL  
KDQVQVEQVKA VLGEIRQLLMAKWQFKENDLKVYHDIISRFENPYIVDDVTRVARTPIR  
KLG YDERFIRPIRELKDRGLSYEYLLQTVAYVFHYKDSNDEQSVQLKLLQLQEKSLKAVVK

EVTGLTDAALIEEIVTSVESLD

>P33216

MTRSVTRPSYDRKALTPGIVHIGVGNFHRAHQAVYLLDDLFALGEGHDWAILGAGVRPTDAR  
MREALAAQDNLSTVIELDPAGHRARQVGAMVGFLPVEADNAALIEAMSDPRIRIVSLTV  
TEGGYYVDASGAFDPHTPDIVADAAHPARPATAFGAIIAALRARRDAGVTPFTVMSCDNL  
PGNGHVTRNAVVGLAELYDAELAGWVKAQVAFPNMVDRI'PATGPHERELAQGFGLADP  
VPVTCEPFRQWVIEDHFPAGRPALKEKVGVTFT'PHVHAYEAMKIRILNGGHAVIAYPSALM  
DIQLVHAAMAHPLIAAFLHKVEVEEILPHVPPVPDTSIPDYLTLLIESRFSNPEIADTTRR  
LCLDGSNRQPKFIVPSLRDNLAAAGTVPKGLVLLSALWCRYCFGT'TDSGVVVEPNDPNWTA  
LQDRARRAKETPAEWLAMEVYGDLAQNDLLAAEFAAALEAVWRDGAEEAVLRRFLAA

>Q8TAX7

MKTLPLFVCICALSACFSFSEGRERDHELHRRRHHHQSPKSHFELPHYPGLLAHQKPFIR  
KSYKCLHKRCRPKLPPSPNNPKFPNPHQPPKHPDKNSSVNP'PLVATTQIPSVTFPSAS  
TKITTL'PNVTFLPQNATTISSRENVNTSSSVATLAPVNSPAPQDTTAA'PPTPSATTPAPP  
SSSAPPETTAAPPTPSATTQAPPSSSAPPETTAAPPTPPATTPAPPSSSAPPETTAAPPT  
PSATTPAPLSSSAPPETTAVPPTPSATTLDPSSASAPPETTAAPPTPSATTPAPPSSPAP  
QETTAAPITTPNSSPTTLAPD'TSETSAAPTHQ'TITSVTTQ'TTTTKQPTSAPGQNKISRFL  
LYMKNLLNRIIDDMVEQ

>P0A9H1

MVEDILAPGLRVVFCGINPGLSSAGTGFPFAHPANRFWKVIYQAGFTDRQLKPQEAQHLL  
DYRCGVTKLVDRPTVQANEVSKQELHAGGRKLI'EKIEDYQPQALAILGKQAYEQGFSQRG  
AQWGKQTLTIGSTQIWVLPNPSGLSRVSLEKLV'EAAYRELDQALVVRGR

>P08373

MNHSCLKPWNTFGIDHNAQHIVCAEDEQQLLNAWQYATAEGQPVLILGEGSNVLFLEDYRG  
TVIINRIKIEI'EHDEPDAWYLHVGAGENWHRLVKYTLQEGMP'GLENLALIPGCVGSSPIQ  
NIGAYGVELQ'RVCAVYVDSVELATGKQVRLTAKECRFGYRDSIFKHEYQDRFAIVAVGLRL  
PKEWQPVLTYGDLTRLDP'TTVTPQQVFN'AVCHMRTTKLPDPKVNGNAGSFFKNPVVSAET  
AKALLSQFP'TAPNYPQADGSVKLAAGWLIDQCQLKGMQIGGAAVHRQQALVLINEDNAKS  
EDVVQLAHHVRQKVGEKFNWLEPEVRF'IGASGEVSAVETIS

>P11880

MISVTLSQLTDILNGELQGADITLDAVTTDTRKLT'PGCLFVALKGERFDAHDFADQAKAG  
GAGALLVSRPLDIDLPQLIVKDTRLAF'GELAAWVRQQV'PARVVALTGSSGKTSVKEMTAA  
ILSQCGNTLYTAGN'LNNDIGVPM'TLLRLTPEYDYAVIELGANHQGEIAWTVSLTRPEAAL  
VNNLAAAHLEGF'GSLAGVAKAKGEIFSGLPENGIAIMNADNNDWLNWQSVIGSRKVWRFS  
PNAANSDF'TATNIHVTSHGTEFTLQ'TPTGSVDVLLPLPGRHNIANALAAAALSMSVGATL  
DAIKAGLANL'KAVPGR'LFPIQLAENQLLLDDSYNANVGSMTAAVQVLAEMP'GYRVLVVG  
MAELGAESEACHVQVGEAAKAAGIDRVLSV'GKQSHAI'STASGVGEHFADKTALITRLKLL  
IAEQQVITILVKGSRSAAMEEV'RALQENGTC

>P08337

MKKLQIAVGIIRNENNEIFITRRAADAHMANKLEFP'GGKIE'MGETPEQAVVRELQEEVGI  
TPQHFS'LFEKLEYEFPDRHITLW'FWLVERWE'GEPWGKEGQ'PGEWMSLVGLNADDFPPANE  
PVI'AKLKRL

>Q10159

MSDSNHSLDLHSYTOLEVERFRESLIQFYDKTKRILPWRKKECIPPSSEDSPLEDWEQPVO  
RLYEVLVSEIMLQQTRVETVKRYTWMETLPTLKSCAEAEYNTQVMPLWSGMGFYTRCK  
RLHQACQHLAKLHPSEIPRTGDEWAKGIPGVGPYTAGAVLSIAWKQPTGIVDGNVIRVLS  
RALAIHSDCSKGANALIWKLANELVDPVRPGDFNQALMELGAICTPQSPRCSVCPISE  
ICKAYQEONVIRDGNTIKYDIEDVPCNICITDIPSKEDLQNWVARYPVHPAKTKQREER  
ALVVIFQKTDSPSTKEKFFLIRKRPSAGLLAGLWDFPTIEFGQESWPKDMDAEFQKSIAQW  
ISNDSRSLIKKYQSRGRYLHIFSHIRKTSHVFYAIASPDIVTNEDEFFWISQSDLEHVGM  
ELGLKNYRAALEIKKRKVTSLSNFKEPKLTSARRIVTKAEC

>Q9U1M8

MEDDDTLNGEYFQPVEDMITLPIILTEESLLLNLKMRYYKKKEIYTYTGSILVAVNPYEILP  
IYTADIVKSYFAKSRNLMLPHIFAVSDAAFTNMIEEGKNQSIISGESGAGKTESTKLI  
QYLAARTNRHSQVEQMIVESSPILEAFGNAKTIRNMNNSRFGKFIIEIQFNREGHISGARI  
INYLLEKSRIHQASSERNYHIFYQLLAGASDELKEKLLGEPEDYHYLSQSGCIRIENI  
NDVEDFEHVKYAMNVLGLPEDKQFTIFSIIVSAVLHIGNLKFEEKSEKTQGAEGSEVSNKDT  
LKI IAQLLSVDPVKLETCLTIRHVLRGQNFVIPLKVNEAEDTRDSLAKALYGNVFNWL  
VFINSKIHKPQKNSTFIGVLDIFGFENFKKNSFEQFCINFANEKLQHFHQHIFKLEQEE  
YEKEKINWSKIVYNDNQECLDLIEKRPLGILSLLDEESRFPQATDLTYLDKLTNHEKHP  
YYEKPRRSKNTFVVKHYAGEVHYDTQGFLDKNKDTVSDLLSLLQGSKSKFIELELFTPPR  
EEGDDSDKGREKKKTTAGQTFKTQLQSLINILSSTQPHYVRCIKPNTTKEPAVYDRELIQ  
AQLRYAGMMETIRIRKLGYP IRHHTHEFRDRYLILDYRARSTDHKQTCAGLINLLSGTGG  
LERDEWQLGNTKVFIRDHQYLKLEELRKLKLLKVVTLIQSVWRMYRCKKRYQQIRASAKI  
LGAAMLSSHSSRRDFQEQRQAVQRIKGFKMLTYQKQFKIIQINLRIVQNNIRSF IARRHS  
RNAVLLKRDRNARMLIEIQREKDEEERNRQEKEERDRQEKEDEKETADRRQLQEEQKRRE  
EELRAKREEEELKLEEKSQLKELNQIDELSSLERMLKEQQDKNINELDDFVNSLEAFS  
FEGGVDDSQPYSFNHKMYEMSPEALDKISITDLLQGLKQTVRSVTKFEVDESKFELPPGI  
ENVLKRAPGIKRQASSFLPGQIPDVYSSPQYPVDEADDDSNNNYINSNNGDLPLPTSQ  
SSDFSLPPPPSSSSMDFGLPPPPSSSSGGTYSLPPMPVDFDFGMIDPILGAPPPPPSTSD  
STSPSATATGNNTPNSSSASASQSTNQVNPQPTVSVVELPQILNDEEISLYSFYDYANKN  
FNIEKLLKQKDDIFSYQKSHIKSSLLVHSDAEQTKVAVEIFSKVLHYMNSNPLVSKKDPAD  
FYSPVKFILTKGLAIESLRDEIYCQLIKQSTSNPIQDLNIRVWELIHFTCSTFPPTRKL  
KYFAAYLKTIIQQSDVSKSVKDSAQASYFILQRFTLNGARKQVPSVTELESIKENRPIFV  
RITATDGLKGLHIDSATTQESSNDLSQRSRMRVNSKENGFTIIESFNIGIERDIAPTDK  
LCDVLSKVENLQATLSSKIQVNFKFVFKKLLFFDNITNNVPTTINVENEFYHQLFNDL  
FNSNYCKDQDYQISIGSLKLQFESSDYTDEIRAWLPGNGRGKYFTTDIEKNRFDDFINKY  
KSHKGLSPEDAKQMVQLLEKHPLANCSLVVCEHQSESLEPYPKNFVLALNVNGININYDPA  
TSKMLESVKYSNQSQNLKSDDKSVSIILENKSTLQAFVGDVQKLVSLIKEYSLYLNRNA  
KYARALKDYNVSDTSLLPFKRNDIITITFKDQENKWFMGQLNGKEGSFPVDHVEILLSDV  
PPPQPVHPVATLSPPMSPTIPNITNTPPPPPSISDSMSPPPQVGMPLPPPPPSVMGSTKP  
IEIPSLGIPPPPPSSNSVNPSPIGSPMMGIPPPPPPTISVHSLSNSGNSTPPPPPLPSLS  
TPPTLSTPPPISPPNFRSSLRVSMNLSNDGGDNSSDDPSKRLTVSPAIGTDSQLAQWA  
STRFRSFKRASTLNQQQATLKRKAPVDPNTAFYFNKDPIKEESLIEMEAKLSKKAIKNFSE  
IMMWMGDYPIPKGQTASLVIQSIISRGIENHELRLDEIYCQAYRQTNKNPKVESAKKGFEL  
IYFLSITFSPSDSLLQPFMEQLMSRNIAIQSSSPQLASLIAVCI EKLESHPIPSYQQRKM  
GPSATEIQSFRSNLENGDISTCKIRFIDQSTKLAKINTYTTIREITDTVCRQYGISQQSI  
KMGFISAVNETAGISKVVSETDMIYDVLARWEQSEEKGEFYFQVRRRFFLDDVNKILDQE  
HLWTDDDICFELTYCQIRDEWMKGLYTNVNEKDSIIAAILIQLLYPNQSKLVLTKEVVR  
QVLPDQILNSQNIKVVISMIESQIFELVSQTPEYLKLMFINLIGSKSPLFGCTLFNIQQK  
ENPPKAWLAINKKGVSIFDPHTKESKNFWTFQSI SNVAF'TDDTFCIMTGNLMKPIKQFTT  
TDEHSSIASVYQFYSSQ

>Q9TW28

MKHLLEGDIVVWPHTVNGYCRGKIIGYNEKNQVTVRLLLELNEEIKINEQLIQNYNQSDDKD  
FSDMVEIQDLSEAIILNNLGLRYKSDQIYTYIGNVLI SINPYKEIKDIYSLNILNKYKDI  
NTIKSNPPHIYAVALRAYQSMVSEKKNQSI IISGESGSGKTEASKTILQYLINTSNSNSN  
NNTNINNNNNSIEKDILNSNP ILEAFGNSRTTKNHNSRFRGKFLKIEFRSSDMKIDGASI  
ETYLLEKSRI SHRPDVNNLSYHIFYYLVMGASKEERERLGLDNDPSKYRYLDASTSVIES  
FKKQSNGGSGGGSGNNDLSESLQLVKQSLESMSIAKEQCDDIFLTLAAILHLGNIEFEVD  
QTENEQTSGFSKI SEQKASVKKSLSMVSKLLGYPEQVFKQTLNLRNLKGGGRGSVYCRPM  
EVYQSEQTRDALSKALYVRLFASIVEKINVKFIQNTGSKDLQGGYSSKRNNLFIGVLDIF  
GFENLSSNSLDQLLINF TNEKLQQQFNLVFENEQKDYLQEGIPWSTSNFIDNKECIELEF  
EKKS YGLLSLLDDECMMPKGSEVTLLEKYNKQYHNTNQYYQRTLAKGTLGIKHFAGDVTY  
QTDGWLEKNRDSIPTEVEQLLSASSNNLIKSLFNLKELNKSNDNNSNNNNSSSSSS  
SQSTASITAKASPPRERFNSGSGSGTTSPLNLSGSSSPLSGSGSYSIIGGNSNSNSNNNN  
SSNNKKSQSVSVAGQFIEQLNKLISTINSTSVHYIRC IKPNVTMDCNMFNNSHVLSQLRN  
VGV LNTVKVRKMGYSYRRDFIQFYSRYNCILNSLNIKINLTNINHSNLCKEILENVNSQY  
KNNNNNKNNNNQIVKIT TNSKPTFQIGTKIFISDELYIYLEKKRYDSLVD SVLKIQAFF  
KMIKIRNQYKRNKESLFLQTLIRAQRAKKDFEQLVILENKRKEEERKKELEQRKEEEE  
RQKELERQRREEEKELEKRRKEEERELERQRKEEKEQERKRKEEKEQERKKKEEKEIE  
KKRKEEKKKKKNEQNL SPLSLDITNSPSLINTTTTTTTTTTTTTTTTTNTSSPPLSPPI SPRP  
STPSSTSSSSSTTSSPSTKKQLL FKFNSISNLLSKSLHGSSHSKNSKEDNNSNNNNNGD  
STIILSSDSSFGQPTPKATSTPTPPPPPPPLKTQPVPISSGVENNSSPNLWHRNSPNFNG  
LVREKSRARIGRLTIRASPLDLTYLPDP SKNEGSPQFTSQSLDFTPNIPPIITNSIVEQ  
QSSLSGINKPIPQRTISSSENSPLSRANSSISSLLILPTLTSLSTSTPTPTPKTP  
TTLSSSSVSTSTSLSSVSSVSSSSSSSIPTPIIESTPSNSNEDLITTLSSPISTGHTGE  
SIEEKNRFRIKIINELIETERDYVRDLNIVVEVFLNPIREKQLLSAKDINSLFSNIEIL  
FSINMNVLKALEKDKDPLCENISVGQTF LDMSHYLKMYTTYCSNQNALKILEEEKIKNQ  
PFREYLEFCMND SVCRGLPLNSFI IKPVQRICKYPLLIKETIKFTPNDHPDKPALEEVDK  
KISDIVQSINEAKRTLELFQKIVDLQNSIDGLEDTNLMEQGR TLLMEGTVSAVKELNSED  
SLSR TFLFLNNLILICSGFTNVLSTAINQFKTKKLLKAKIPI SDSRLIFVSDTDSVKYA  
LEIVNIKEDSNYILCFMNDQDRSKWFKQIKALIQEQKLSNAKKAATIGNSRLIQTTS

>P10902

MNTLPEHSCDVLIIIGSGAAGLSLALRLADQHQVIVLSKGPVTEGSTFYAQGGIAAVFDET  
DSIDSHVEDTLIAGAGICDRHAVEFVASNARSCVQWLIDQGVLF DTHIQPNGEESYHLTR  
EGGHSHRRI LHAADATGREVETTLVSKALNHPNIRV LERSNAVDLIVSDKIGLPGTRRVV  
GAWVWNRNKETVETCHAKAVVLATGGASKVYQYTTNPDISSGDGIAMAWRAGCRVANLEF  
NQFHPTALYHPQARNFLLTEALRGEGAYLKRPDGTRFMPDFDERGELAPRDIVARAIDHE  
MKRLGADCMFLDISHKPADFIRQHFPMIYEKLLGLGIDL TQEPVPIVPAAHYTCGGVMVD  
DHGR TDVEGLYAIGEVSYTGLHGANRMASNSLLECLVYGSAAEDI TRRMPYAHDISTLP  
PWDES RVENPDERVVIQHNWHELRLFMWDYVGIVRTTKRLERALRRITMLQQEIDEYYAH  
FRVSNLLELRLNLVQVAELIVRCAMMRKESRGLHF TLDYPELLTHSGPSILSPGNHYINR

>Q04802

MRQAI FSNPNDAAEYLANYIIAKINSTPRTFVLGLPTGSSPEGIYAKLIEANKQGRVSFK  
NVVTFNMDEYLG FAPS DLQSYHYFMYDKFFNHIDIPRENIHILNGLAANIDE ECANYEKK  
IKQYGRIDLFLGGLGPEGH LAFNEAGSSRSKTRKVELVESTIKANCRFFGNDESKVPKY  
ALSVGISTILDNSDEIAIIVLGKSKQFALDKTVNGKPNDPKYPSSYLQDHANVLIVCDNA  
AAGL KSKL

>P29768

MTVEKSVVFKAEGEHFTDQKGNTIVGSGSGGTTKYFRIPAMCTT'SKGTIVVFADARHNTA  
SDQSFIDTAAARSTDGKKTWNKKIAIYNDRVNSKLSRVMDPTCIVANIQGRETIILVMVGK  
WNNNDKTWGAYRDKAPD TDWDLVLYKSTDDGVTF'SK VETNIHDI VTKNGTISAM LGGVGS  
GLQLNDGKLVFPVQMVRTKNIITTVLNTSFIYSTDGITW'SLPSGYCEGFGSENNIIEFNAS  
LVNNIRNSGLRRSFETKDFGKTWTEFPPMDKKVDNRNHGVQGSTITIPSGNKLVA AHSSA  
QNKNNDYTRSDISLYAHNLYSGEVKLIIDDFYPKVGNASGAGYSCLSYRKNVDKETLYVVY  
EANGSIEFQDL'SRHL'PVIKSYN

>P81186

MSTSRDFLKYFAMSAAVAAASGAGFGSLALAADNRPEKWVKGVCRYCGTGCGVLVGVKD  
GKAVAIQGD'PNNHNAGLL'CLKGSLLIPV'LNSKERV'TQPLVRRHKGGKLEPVS'WDEALDLM  
ASRFRSSIDMYGPN'SVAWYGSQCLTEESYVANKIFKGGFGTNNVDGNPRLCMASAVGGY  
VTSFGKDEP'MGTYADIDQATCFFIIGSNTSEAH'PVLFRRIARRKQVE'PGVKIIVADPRRT  
NTSRIADMHVAFRPGTDLAFMHSMAWVIINEELDNPRFWQRYVNFMDAEGKPSDFEGYKA  
FLENYRPEKVAEICRVPVEQIYGAARAFSAATMSLWCMGINQRVQGVFANNL'IHNLHL  
ITGQICRPGATSFSLTGQPNACGGVDRDGGALSHLLPAGRAIPNAKHRAEMEKLWGLPEGR  
IAPEPGYHTVALFEALGRGDVKCMIICETNPAHTL'P'NLNKVHKAMSH'PESFIVCIEAFPD  
AVTLEYADLVLP'PAFWCERDGVYCGGERRYSLTEKA'VDPPGQCRPTVNTLVEFARRAGVD  
PQLVNF'RNAEDVWNEWRMVSKGTT'YDFWGMTRERLRKESGLIWPCPSEDHPGTS'LRVVRG  
QDPCVPADHPDRFF'FFYGKPDGRAVIWMPAKGAAE'EPDAEYPLYLTSMRVIDHWHTATMT  
GKVP'ELQKANPIAFVEINEEDAARTGIKHGDSVIVETRRDAMEL'PARVSDVCRPGLI'AVP  
FFDPK'KL'V'NKL'FL'DATDPVSREPEYKICAARV'RKA

>Q0Q462

MASVKFQPRGRSKGRVPLSLFAPLRV'TDEKPLYKVL'PNNAVPQGMGGKDQQIGYWVEQQR  
WRMRRGDRVDLPSNWHFYFLGTGPHSDL'PFRKRTD'GVFWVAIDGAKTQPTGLGVRKSSEK  
PLVPKFKNKL'PNNVEIVEPTTPNNSRANSR'SRSRGGQSN'SR'GNSQNRGDKSRNQSRNRSQ  
SNDRGS'DSRDDLVA'AVKKALEDLGVGA'AKPKGKTQSGKNT'PKNKSRSGSVQRAEAKDKPE  
WRRTPSGDESVEVCFGPRGGTRNFGSSEFVAKGVNAPGYAQAASL'VPGAAALLFGGNVAT  
KEMADGVEITYTYKMLV'PKDDKNLEIFLAQV'DAYKLGDPK'PQRKVKRSRTPTPKPATEPV  
YDDVAADPT'YANLEWDTT'VEDGVEMINEV'FDTQ'N

>Q04700

MANQ'GQ'RVQWGDITK'KRGLS'NSRGRKNNTIPLSFFNPITLQ'QGSKF'WNLCPRDFV'PKGI  
GNKDQ'QIGYWN'RQSR'YRMVKGQRKELPERWFFYYLGTGPHADAKFKDRIDGVVWVAKDGA  
MNKPTTLGNRGANNESKALKFDGKVPGEFQLEVNQSRD'NSRSPSQRSQSRNRSQSRGRQ  
QSN'NKD'DSVEQAVLAALKKLGVDTEKQQ'RSR'SKSKERSNSKTRD'TTPKNENKHTWKRT  
AGKGDVTKFYGARSSSANFGSDLVANGAKHYPQLAECVPSVSSILFGSYWTAKEDGD  
QIEV'TFTHKYHL'PKDDPKTGQFLQ'QINAYARPSEVAKEQRQRKARSKSAERVEQE'VVPDA  
LTENYTDV'FDDTQVEIIDEVTN

>P15130

MATVKWADASEPQRGRQGRIPYSLYSPLLVDSEQPWKV'IPRNLV'PINKKDKNKLI'GYWNV  
QKRFRTRK'GKRV'DLSPK'LHFYYLGTGPHKDAKFRERVEGVVWVAVDGAKTEPTGYGVRRK  
NSEPEIPHFNQKLPNGVTVVEE'PDSRAPSRSQSR'QSRGRGESK'PQSRNPSSDRNHNSQD  
DIMKAVAAALKSLGF'DK'PQEKDKKSAKTGTPKPSRNQSPASSQTS'AKSLARSQSSETKEQ  
KHEMQKPRWKRQPNDDVTSNVTQCFGPRDL'DHNF'GSAGVVANGVKAKGYPQFAELVPSTA  
AMLFD'SHIVSKE'SGNTVVL'TFTTRV'TVPK'DH'PHL'GK'FLEELNAF'TREM'Q'HP'LLNPSALE  
FNPSQTS'PATAEPVRDEVS'IETDIIDEVN

>P59713

MSFVPGQENAGSRSSSGNRAGNGILKKTWADQTERGSNNQNRGRRNQPKQTATTQPNSG  
SVVPHYSWFSGITQFQKGKEFKFAEGQGVP IANGIPATEQKGYWFRHNRRSFKSPDGQQK  
QLLPRWYFYLLGTGPYAGA EYGDVVEGVCWVANKQADTRTSADIAERDPS SHEAIPTRFA  
PGTFLPQGYVEGSR SAPASRSRSRSRSGPNRARSSSNQRPASIVKPDMAEEIAAL  
VLAKLGKDAGQPKQVTKQSAKEVRQKILNKPRQKRTPNKQCPVQQCFGKRGNQNF GGPE  
MLKLGTSDPQFPILAEELAPTAGAFFFGSKLELVKKN SVGVDEPTKDVYELQYSGAVRFDS  
TLPGFETIMKVLRENLNAYQNQDGGADVSPKPQRKRGRQVAQKKNDEVDNVSVAKPKS  
AVQRNVNRELTPEDRSLLAQILDDGVVPDGLLEDDSNV

>Q9PZ51

MASGKATGKTDAPAPVIKLGPKPPKVGSSGSVSWFQA I KAKKLNSPQPKFEGSGVPDNE  
NLKTSQQHGYWRRQARFKSSRGGKPVDPDAWYFYTTGTGPAADLQWGD SQAGIVWVAAKG  
ADVKS KSNQGTDPDKFDQYPLRFSDGGPDGNFRWDFIPLNRGRSGRSTAVSSAASSRAP  
SREGSRGRRSGAEDDLIARA AKI IQDQKKKGSRI TKAKAEEMAHRRYCKRTVPPGYKVEQ  
VFGPRTKGKEGNFGDDKMNEEGIKDGRVTAMLNLVPS SHACL FASKLTPKLQPDGLHLKF  
EFTTVVPRDDPQFDNYVSI CDQCVDGVGTRPKDDEPRPKSRASSRPATRGNSPAPRQQL  
KKEKKPKKQDDEVDKALTSDEERNNAQLEFDFDEPKVINWGDSALGENEL

>Q07499

MASVSFQDRGRKRVP LSLYAPLRVTNDKPLSKVLANNAVPTNKG NKDQQIGYWNEQIRWR  
MRRGERIEQPSNWHFYLLGTGPHGDLRYRTRTEGVFWAKEGAKTEPTNLGVRKASEKPI  
IPKFSQQLPSVVEIVEPNTPPASRANSRSRSRGNMNRSRSPSNMRGNNQSRGNSQNRGN  
NQGRGASQNRGNNNNNNKSRNQSNRNQSNDRGGVTSRDDLVA AVKDALKSLGIGENPD  
RHKQQQKPKQEKSDNSGKNTPKKNKSRATSKERDLKDIPEWRRIPKGENSVAACFGPRGG  
FKNFGDAEFVEKGV DASGYAQIASLAPNVAALLFGGNVAVRELADSYEITYNKMTVPKS  
DPNVELLVSQVDAFKTGNAKLQRKKEKKNKRETTLQQHEEA IYDDVGAPSDVTHANLEWD  
TAVDGGDTAVEIINEIFDTGN

>P52848

MPALACLRRRLCRHVSPQAVLFLLFIFCLFSVFI S AYYLYGWKRGLEPSADAPEPDCGDP  
PVAPSRLPLPKPVQAATPSRTDPLVLVVFVESLYSQLGQEVVA ILESSRFKYRTEIAPGKG  
DMPTLTDKGRGRFALIIYENILKYVNLDAWNRELLDKYCVAYGVGIIGFFKANENSLLSA  
QLKGFPLFLHSNLGLKDCSINPKSPLLYVTRPSEVEKGVLPGEDWTVFQSNHSTYEPVLL  
AKTRSESSEI PHLGADAGLHAALHATVVQDLGLHDGIQRVLF GNNLNFWLHKL VFDVAFA  
LTGKRLSLPLDRYILVDIDDFVGKEGTRMKVEDVKALFDTQNELRAHIPNFTFNLGYSG  
KFFHTGTNAEDAGDLLLLSYVKEFWFPHMWSMQPHLFHNQSVLAEQMALNKKFAVEHG  
IPTDMGYAVAPHHSGVYPVHVQLYEAWKQVWSIRVTSTEEYPHLKPARYRRGF IHNGIMV  
LPRQTCGLFTHTIFYNEYPPGSSSELDKIINGGELFLTVLLNPISIFMTHLSNYGNDRLGL  
YTFKHLVRFVLSWTNLRQLTLPVQLAQKYFQIFSEEKDWQDPCEDKRHKDIWSKEKT  
CDRFPKLLIIGPQKTGTALYLFLGMHPDLSSNYPSSETFEEIQFFNGHNYHKGIDWYME  
FFPIPSNTTSDIFYFEKSANYFDSEVAPRRAAALLPKAKVLTILINPADRAYSWYQHQRH  
DDPVALKYTFHEVITAGSDASSKLRLQNRCLVPGWYATHIERWLSAYHANQILVLDGKL  
LRTEPAKVMDMVQKFLGVTNTIDYHKTLAFDPKKGFWCQLLEGGKTKCLGKSKGRKYPEM  
DLDSRAFLKDYRDHNIELSKLLYKMGQTLPTWLREDLQNT

>Q94EG3

MAAFGINSKIFQSMEMAILFLLAISIDRYCFAAEDMLQDVCVADLH SKVKVNGFPCKTN  
FTAADFSSLAISKPGATNNKFGSVVTTANVEQVPGLNLT LGVSLARIDYAPGGINPPHTP



RASEMVFMEGELDVGFITANVLVSKKI IKGEVVFVPRGLVHFQKNNGEVPAAVISAFN  
SQLPGTQSIPITLFGASPPVPDDVLAQTFQINTEDVQQIKSKFAPVKKF

>Q08751

MLLEAIFHEAKGSYAYPISETQLRVRLRAKKGDVVRCEVLYADRYASPEEELAHALAGKA  
GSDERFDYFEALLECSTKRKYVFLLTGPGQGEAVYFGETGFSAERSKAGVFQYAYIHRSE  
VFTTPEWAKEAVIYQIFPERFANGDPSNDPPGTEQWAKDARPRHDSFYGGDLKGVIDRLP  
YLEELGVTALYFTPIFASPSHHKYDTADYLAIDPQFGDLPTFRRLVDEAHRRGIKIILDA  
VFNHAGDQFFAFRDVLOKGEQSRKYDWFIEIDFPVSKTSRTNYETFAVQVPAMPKLR TEN  
PEVKEYLFDVARFWMEQGIDGWRLDVANEVDHAFWREFRRLVKSLNPDALIVGEIWHDAS  
GWLMDGQFDSVMNYLFRESVIRFFATGEIHAERFDAELTRARMLYPEQAAQGLWNLLDSH  
DTERFLTSCGGNEAKFRLAVLQMTYLGTPLIYYGDEIGMAGATDPDCRRPMIWEKEQN  
RGLFEFYKELIRLRHRLASLTRGNVRSWHADKQANLYAFVVRTVQDQHVGVVLLNNRGEKQT  
VLLQVPESGGKTWLDCLTGEEVHGKQGQLKLTLPYQGMILWNGR

>Q92021

MEEEEGADDGEQGEVEVLVVNVGSTYPCKRSDGSQHDAEIVKVRYNKQAGREEYYAHYVG  
LNRRQNEWVDKSRVLTKPPKEGETNGTDQEVTDTAEQPDSKTPQKRKIEEPEPEPKKAK  
VEEKDASKNASSLGAAGDFAEELTCPLCVELFKDPVMVACGHNFCRSCIDKAWEGQSSFA  
CPECRESITDRKYTINRVLANLAKKAACTPVTPVEKKTRPLEKCESEHDERLKLYCKDDGT  
LSCVICRDSLKHASHNFLPILDAVGVYREELSAIVAPLEASLKVTEQLSSEQSDKIEQHN  
KNMSQYKEHITSEFEKLLHKFLREREKLEQLKEQGENLLTEMENNLVKMQESQDAIKKT  
ISLAKERMEDTDSISFLMDIKAFIDKCQEQQRAVISTGNTLLSKELCQGTFFKGP IQYIMW  
KELKSVVIPSLTPMLLDPTSAHPNLHLSDGLT SVRYGENKLSLDPNPKRFSQCILVLGSQ  
GFDSGRHYWEVEVGDKTAWDVGMASESSNRKGIKLNPKNGYWA IWLNRNGNAYKALESPS  
KSLSLSSHPRKIGVYVDYEGGQISFYNADDMTI IYTFNATFTEKLYPYLSPFLHDSGKNV  
DPLRFVHNK

>P23262

MKNNKLGRLRIGIVGGGISGVALALELCRYSHIQVQLFEAAPAFGEVAGVSGFPNAVRAI  
VGLGLGEAYLQVADRTSEPWEDVWFWRGSDASYLGATIAPGVGQSSVHRADFIDALVT  
HLPEGIAQFGKRATQVEQQGGEVQVLFDTGTEYRCDLLIGADGIKSALRSHVLEGGQLAP  
QVPRFSGTCAYRGMVDSLHLREAYRAHGIDEHLVDVPQMYLGLDGHILTFPVRNGGI INV  
VAFISDRSEPKPTWPADAPWVREASQREMLDAFAGWGDAARALLECI PAPT LWALHDLAE  
LPGYVHGRVVLIGDAAHAMLPHQGAGAGQGLEDAYFLARLLGDTQADAGNLAELLEAYDD  
LRRPRACRVQQT SWETGELYELRDPVVGANEQLLGENLATRFDWLWNHDLDTDLAEARAR  
LGWEHGGGGALRQG

>P05314

MASLPVNKIIPSSTLLSSSNMNRNRNNSIRCQKAVSPAETA AVSPSVDAARLEPRVE  
ERDGFVWLKEEFRSGINPAEKVKIEKDPMKLFIEDGISDLATLSMEEVDKSKHNKDDIDV  
RLKWLGLFHRRKHHYGRFMMRLKLPNGVTTSEQTRYLASVIKKYKDG CADVTTRQNWQI  
RGVVLDPVPEI IKGLESVGLTSLQSGMDNVRNPVGNPLAGIDPHEIVDTRPFTNLISQFV  
TANSRGNLSITNLPRKWNPCVIGSHDLYEHPHINDLAYMPATKNGKFGFNLLVGGFFSIK  
RCEEAIPLDAAVSAEDVVPVCKAMLEAFRDLGFRGNRQKCRMMWLIDELGMEAFRGEVEK  
RMPEQVLERASSEELVQKDWERREYLGVHPQKQGLSFGVGLHIPVGR LQADEMEELARIA  
DVYGSSELRLTVEQNI IIPNVENSKIDSLLINEPLLKERY SPEPPIIMKGLVACTGSQFCG  
QAI IETKARALKVTEEVQRLVSVTRPV RMHWTGCPNSCGVQVADIGFMGCMTRDENGKP  
CEGADV FVGGRIGSDSHLGD IYKKA VPCKDLVPVVAEILINQFGAVPREREEAE

>P83434

MTCGQVQGNLAQCIGFLQKGGVPPSCCTGVKNILNSSRRTTADRRAVCSCLKAAAGAVRG  
INPNNAEALPGKCGVNIPIYKISTSTNCNSIN

>P30418

MSGDNTGNKSNSAPSXSIEELLKLLAMGQELSPAQQKEMKDYKFWKTQPVPSLSETVTEE  
GPIDKLTPELVNDPLPLISDFEWSTLDIDDLNLQLEDELYKLLYDNYVEDIDATFRFKYS  
HEFFQWALKPPGWRKDWVGVVRVKSTGKLVAFIAATPVTFKLNKSNKVIDSVEINFLCIH  
KCLRNRKRLAPVLIKEITRRVNKQNIWQALYTGGSILPTPLTTCRYQHRPINWSKLHDVGF  
SHLPPNQTKSSMVASYTLPNNPKLKGLRPMGTGKDVSTVLSLLYKYQERFDIVQLFTEEEF  
KHWMGLGHDENSNSNVVKSIVVEDENGIITDYFSYLLPFTVLDNAQHDELGIAYLFYYAS  
DSFEKPNYKRLNELITDALITSKKFGVDVFNCLTCQDNTYFLKDCKFGSGDGLNYLFL  
NYRTFPMDDGGIDKKTKEVVEDQTSIGVVL

>P14743

MSEEDKAKKLENLLKLLQLNDDTSKFTQEQQKAMKDHKFWRTQPVKDFDEKVVVEGPID  
KPKTPEDISDKPLPLSSFEWCSIDVDNKKQLEDVFLNENYVEDRDAGFRFNITKEFF  
NWALKSPGWKDWIIGVVRVETQKLVAFISAIPVTLGVRGKQVPSVEINFLCVHKQLRSK  
RLTPVLIKEITRRVNKCDIWHALYTAGIVLPAPVSTCRYTHRPLNWKLYEVDFTGLPDG  
HTEEDMIAENALPAKTKTAGLRKLLKEDIDQVFELFKRYQSRFELIQIFTKEEFEHNFIG  
EESLPLDKQVIFSYVVEQPDGKITDFFSFYSLPFTILNNTKYKDLGIGLYYYATDADFQ  
FKDRFDPKATKALKTRLCELIYDACILAKNANMDVFNALTSQDNTLFLDLDLKFPGDGL  
NFYLFNYRAKPIITGGLNPDNSNDIKRRSNVGVVML

>P40261

MESGFTSKDYLSHFNPRDYLEKYYKFGSRHSAESQILKHLKLNLFKIFCLDGKGDLLI  
DIGSGPTIYQLLSACESFKEIVVTDYSDQNLQELEKWLKKEPEAFDWSPVVTVCDLEGN  
RVKGPEKEEKLQAVKQVLKCDVTQSQPLGAVPLPPADCVLSTLCLDAACPDLPYCRAL  
RNLGSLKPGGLVIMDALKSSYMIQEQQFSSPLGREAVEAAVKEAGYTIWFVVISQ  
SYSSTMANNEGLFSLVARKLSRPL

>O94183

MKFLSTAAALLVCLAPVSTTARSLDFFKSSQSPIQAQAKSVPGNNPLEYCNDPSGDILDI  
KQVDLSPNPPLPGKTLAITASGTLREKIEDGAYVLLLEVKYGLITLVRQTADLCEQLVNVE  
LKCPLGPGDMTLTKQVDLPKQIPPGKYTVQADVFNSDGEHITCLKALNIEFKGPF

>Q9Q8L4

MSVYHAAAYIDYALRVTENMTDVMGTSETVTLKSYQHFSRVFLGLDKMHSLLLHETGVG  
KTITTVFVILKHLKDVYTNWIIILLVKKALVEDPWYAITKYAPEILKDCIFITYDDKNFH  
NKFFTNIKTISSRRLCIIIDECHNFISKSIKEDGKQRPTKSVYNYLSKNVALHHHKL  
CLSATPIVNSVKEFVMLVNLRLPKILSNVSLFENKRLVNESELINKLGAICSYIVTNEFS  
IFDDVAGSSAFARKTVYFYQVYVMTQKQEQVYQKAKLAEKAGISSFRYRRMAATFTFDA  
FLDKTDKTPPEEVANEQITLYKDFETFIKTKKFSEHALSQFKRGQSLGGTSSADDISFLNE  
LRERSCKFTDVCLRILASPGKCLVFEPFVNQSGINILLLYFSAFNISYIEFSSRTKNTRV  
QSVAEFNKRENTDGLIKTCVFSLSGGEGISSFFSINDIFILDMTWNEASLRQIIGRAIRL  
NSHVLTPHEHRYVNVHFIVARLSNGDATVDEDLLDIIRTKSKEFTQLFKVFKHTSIEWIY  
EHQTDSPVDNESGWSALISRSIDENPTTKRVPHVVKQNIWYSHSNRLIAVYKGFKTDD  
GRLFDSGDNFIQTIQDNPVIKIHNDKLVYVLD

>Q566C7

MMKLLKSNQTRTYDGDGYKKRAACLCFRSESEEEVLLVSSSRHPDRWIVPGGGMEPEEEPS  
VAAVREVCEEAGVKGLTGLRVLGIFENQERKHRTYVYVLLIVTEVLEDWEDSVNIGRKREWF  
KIEEAVKVLQYHKPVQASYFEALRQGYSANNGTPVLPPTYSSMSGIR

>Q9BW91

MAGRLLGKALAAVSLALASVTIRSSRCRGIQAFRNSFSSSWFHLNTNVMSGNSGSKEN  
SHNKARTSPYPGSKVERSQVPNEKVGWLVEWQDYKPV EYTA VSVLAGPRWADPQISESNF  
SPKFNEKDGHV ERKSKNGLYEIENGRPRNPAGRTGLVGRGLLGRWGNHAADPIITRWKR  
DSSGNKIMHPVSGKHILQFVAIKRKDCGEWAIPGGMVDPEKISATLKREFGEEALNSLQ  
KTSAEKREIEEKLHKLFSQDHLVIYKGYVDDPRNTDNAWMETEAVNYHDETGEIMDNLML  
EAGDDAGKVKWVDINDKLLKYASHSQFIKLVAEKRDAHWESEDSEADCHAL

>P24021

MPRLLPISAATLALAQLTYGWNLGHETVAYIAQSFVASSSTESFCQNILGDDSTSYLANV  
ATWADTYKYTDAGEFSKPYHFIDAQDNPPQSCGVDYDRDCGSAGCSISAIQNYTNILLES  
PNGSEALNALKFVVHIIIGDIHQPLHDENLEAGNGIDVTYDGETTNLHHIWDTNMPEEAA  
GGYSLSVAKTYADLLTERIKTGTYSKKDSWTDGIDIKDPVSTSMIWAADANTYVCSTVL  
DDGLAYINSTDLSEYYDKSQPVFEELIAKAGYRLAAWLDLIASQPS

>P60615

MKTLTLLTLVVVTIVCLDLGYTIVCHTTATSPISAVTCPPGENLCYRKMWCDAFCSSRGKV  
VELGCAATCPSKPKPYEEVTCSTDKCNPHKQRPQ

>Q8QGR0

MKTLTLLTLVVVTIVCLDLGYTLTCVKSNSIWFPTSEDCPDGQNLCFKRWQYISPRMYDFT  
RGCAATCPKAEYRDVINCCGTDKCNK

>P81245

QEPQPEQDPFELSGKWITSYIGSSDLEKIGENAPFQVFMRSIEFDDKESKVYLNFFSKEN  
GICEEFSLIGTKQEGNTYDVNYAGNKNFVVSYASETALIISNINVDEEGDKTIMTGLLGK  
GTDIEDQDLEKFKVETRENGIPEENIVNIIERDDCPA

>P31420

MKLLILTICALHVNQMMALKDCVVVNGKNYGKEVLKDNHQAQYQLSFDPPQNTLFFSYSD  
EVDSKTVLKMGYLNLATKSFGGEISGVKDGMAVDTTNHIVYLGKDGITYDYATKSAK  
NIGVTSLSIWQMFYCPHGLFFTTSDKPYVFKDQVNVQIVEASSKTRVMAVGEHHDVF  
FANSSGIFLNFHHTNKVIDLGDYNVNAFTKDSKGLYFSSPVGFYAVNEADRKMNKLISE  
TGEDSIWGAADFDDNIVYSNEDNIVKLVKPKDC

>P76045

MKLLPCTALVMCAGMACAQAEERNDWHFNIGAMYEIENVEGYGEDMDGLAEP SVYFNAA  
NGPWRIALAYYQEGPVDYSAGKRGTWFD RPELEVHYQFLENDDFSGLTGGFRNYGYHYV  
DEPGKDTANMQRWKIAPDWDVKLTDLRFNGWLSMYK FANDLNTTG YADTRVETETGLQY  
TFNETVALRVNYLLERGFNMDDSRNNGEFSTQEI RAYLPLTLGNHSVTPYTRIGLDRWSN  
WDWQDDIEREGHDFNRVGLFYGYDFQNGLSVSL EYAFEFWQDHDEGSDK FHYAGVGVNYS  
F

>P83632

MMWKLIIIVTILAVGVL CDDIATAVNEQTTQQIRD T LKAQCKKNGAEDKAQDVENA AKNFV  
ECVKGLFDFSTIKKEIEDAKPNGALDEVFGKYCAKSPQLKTCIH TLTT SATPCLEASVRE

QVGPINNGADQLIDFICYKDGDRIALFIAEGGPECFQEKSEGIRACAELKNNVGSVEAA  
QSLTLVEQCGKYDELTAACIIKSLEECSTPTPGNMAESLFRFVVRKGSPCNKAAPLKN

>P51528

GPKCPFNSDVTVSIIIEETRENRRDLYTLQTLQNHPEFKKKTITRPVVFITHGFTSSASEK  
NFINLAKALVDKDNMVISIDWQTAACTNEYPLKYAYYPTAASNTRLVGQYIATITQKL  
VKDYKISMANIRLIGHSLGAHVSGFAGKRVQELKLGKYSEIIGLDPARPSFDSNHCSERL  
CETDAEYVQIIHTSNYLGTEKILGTVDYFYMNGKNNPGCGRFFSEVCSHTRAVIYMAECI  
KHECCLIGIPRSKSSQPI SRCTKQECVCVGLNAKKYPSRGSFYVPVESTAPFCNNKGKII

>P00592

MKFLVLAVLLTVGAAQEGISSRALWQFRSMIKCAIPGSHPLMDFNNGCYCGLGSGTTPV  
DELDRCCETHDNCYRDAKNLDSCKFLVDNPHYTESYSYSCSNTEITCNSKNNACEAFICNC  
DRNAAICFSKAPYNKEHKNLDTKKYC

>Q9W7J4

MHPAHLVLLGVCVSLGAARIPPLPLSLDDFSNLITCANRGSRSWLDYAHYGCFCGSGG  
SGTPVDDLDRCCQVHDNCFGDAEKL PACNYLFSGPYWNPYSYKNEGETCTDDNDECAA  
FICNCDRTAAICFAGATYNDENFMVTIKKKNICQ

>P00608

NLVQFSYLIQCANHGKRPTWHYMDYGCYCGAGSGTTPVDELDRCCCKIHDDCYDEAGKKG  
CFPKMSAYDYCYGGENGPYCRNIKKKCLRFVCDVVEAAFCFAKAPYNNANWNIDTKKRCQ

>P81458

NLFQFAEMIVKMTGKNPLSSYSDYGCYCGWGGKGPQDATDRCCFVHDCCYEKVKSCPK  
LSLYSYSFQNGGIVCGDNHSCRAVCECDRVAATCFRDNLNTYDKKYHNYPPSQCTGTEQ  
C

>P79106

MGVNQSVSFPVPTGPHLVGCGDVMGQSLQGSFFRLFYPCQEAETSEQPLWIPRYEYCA  
GLAEYLKFNKRWGGLLFNLGVGSCRLPVSWNGPFKTKDSGYPLIIFSHGMGAFRTVYSAF  
CMELASRGFVVAVPEHRDGSAAATCFCKQTPEENQPDNEALKEEWIPHRQIEEKEKEFYV  
RNYQVHQRVSECVRVLKILQEVTAGQAVLNILPGGLDLMTLKGIDVSRVAVMGHSFGGA  
TAILALAKEMQFRCAVALDAWMFPLEHDFYPTARGPIFFINAELFQTVETVNLMKKICDQ  
HHQSRIITVLGSVHRSLTDFVVFVAGNWI SKFFSSHTRGSLDPYEGQETVVRAMLAF LQKH  
LDLKEDYDQWNNFIEGIGPSLTPGAPHHLSSL

>Q47PU3

MAGQTTVDSRRQPPEEVDVLVVGAGFSGLYALYRLRELGRSVHVIETAGDVGGVWYWNRY  
PGARCDIESIEYCYSFSEEVLEQEWNTERYASQPEILRYINFVADKFDLRSGITFHTTVT  
AAAFDEATNTWTVDTNHGDRIRARYLIMASGQLSVPQLPNFPGLKDFAGNLYHTGNWPHE  
PVDFSGQRVGVIGTGSSGIQVSPQIAKQAAELFVFQRTPHFAVPARNAPLDPEFLADLKK  
RYAEFREESRNTPGGTHRYQGPKSALEVSDEELVETLERYWQEGGPDILAAAYRDILDRD  
ANERVAEFIRNKIRNTVRDPEVAERLVPKGYPFGTKRLILEIDYYEMFNDRNVHLVDTLS  
APIETITPRGVRTSEREYELDSLVLATGFDALTGALFKIDIRGVGNVALKEKWAAGPRTY  
LGLSTAGFPNLFFIAGPGSPSALSNNMLVSI EQHVEWVTDHIAYMFKNGLTRSEAVLEKED  
EWVEHVNEIADETLYPMTASWYTGANVPKPRVFMVYVGGFHRYSRQICDEVAAGGYEGFV  
LT

>P0A9J4

MKITVLGCGALGQLWLTALCKQGHEVQGWLRVPQPYCSVNLVETDGSIFNESLTANDPDF  
LATSDLLLVTLLKAWQVSDAVKSLASTLPVTTPIILLIHNGMGTIEELQNIQQPLLMGTTTH  
AARRDGNVIIHVANGITHIGPARQQDGDYSYLADILQTVLPDVAWHNNIRAEELWRKLAVN  
CVINPLTAIWNCPNGELRHHHPQEIMQICEEVAAVIEREGHHTSAEDLRDYVMQVIDATAE  
NISSMLQDIRALRHTEIDYINGFLLRRARAHGIAVPENTRRLFEMVKRKESEYERIGTGLP  
RPW

>P10056

MAMIPSIKLLFVAICLVHMSVSFSGDFSI VGYSDDLTSTERLIQLFNSWMLNHNKFYE  
NVDEKLYRFEIFKDNLNYIDETNKKNNNSYWLGLNEFADLSNDEFNEKYVGSIDATIEQS  
YDEEFINEDTVNLPENVDWRKKGAVTPVRHQGSCGSCWAFSAVATVEGINKIRTGKLEVEL  
SEQELVDCERRSHGCKGGYPPYALEYVAKNGIHLRSKYPKAKQGTCTRAKQVGGPIVKTS  
GVGRVQPNNEGNLLNAIAKQPVSVVVEKGRPFQLYKGGIFEGPCGTVKVDHAVTAVGYGK  
SGGKGYILIKNSWGTAWGEGKYIRIKRAPGNSPGVCGLYKSSYYPTKN

>Q9BXP8

MMCLKILRISLAILAGWALCSANSELGWTRKKSVEREHLNQVLLLEGERCWLGAKVRPRR  
ASPQHHLFGVYPSRAGNYLRPYPVGEQEIHHTGRSKPDTEGNAVSLVPPDLTENPAGLRG  
AVEEPAAPWVGDSPIGQSELLGDDDAYLGNQRSKESLGEAGIQKGSAMAATTTTATFTTL  
NEPKPETQRRGWAKSRQRRQVWKRAEDGQGDSSHFQWPKHSLKHRVKKSPPEESN  
QNGGEGSYREAETFNSQVGLPILYFSGRRERLLLRLPEVLAEIPREAF'TVEAWVKPEGGQN  
NPAAIAGVFDNCSHTVSDKGWALGIRSGKDKGRDARFFFSLCTDRVKKATILISHSRYQ  
PGTWTHVAATYDGRHMALYVDGTQVASSLDQSGPLNSPFMASCRSLLLGGDSSEDGHYFR  
GHLGTLVFWSTALPQSHFQHSQHSSGEEEEATDLVLTASFEPVNTTEWVPRDEKYRLEV  
LQGFEPPEPEILSPLQPPCGQTVCDNVELISQYNGYWPLRGEKVIRYQVWNICDDEGLNP  
IVSEEQIRLQHEALNEAFSRYNISWQLSVHQVHNSTLRHRVVLVNCEPSKIGNDHCDPEC  
EHPLTGYDGGDCRLQGRCYSWNRRDGLCHVECNMLNDFDDGDCCDPQVADVTKCFDPD  
SPKRAYMSVKELKEALQLNSTHFLNIYFASSVREDLAGAATWPWDKDAVTHLGGIVLSPA  
YYGMPGHTDTMIHEVGHVGLYHVFKGVSERESCNDPCKETVPSMETGDLCADTAPTPKS  
ELCREPEPTSDTCGFTRFPGAPFTNYMSYTDNCTDNFTPNQVARMHCYLDLVYQQWTES  
RKPTPIPIPPMVIQGTNKSLTIHWLPPISGVVYDRASGSLCGACTEDGTFRQVHTASSR  
RVCDSSGYWTPEEAVGPPDQVQCEPSLQAWSPEVHLYHMNTVPCPTEGCSLELLFQHP  
VQADTLTLWVTSFFMESSQVLFDEILLENKESVHLGPLDTFCDIPLTIKLVHDGKVS  
KVYTFDERIEIDAALLTSQPHSPLCSGCRPVRYQVLRDPPFASGLPVVTHSHRKFVDVE  
VTPGQMYQYQVLAEEAGGELGEASPPLNHIHGAPYCGDGKVSERLGEEDDGLVSGDGCS  
KVCELEEGFNVCVGEPSLCYMYEGDGICEPFERKTSIVDCGIYTPKGYLDQWATRAYSSE  
DKKKCPVSLVTGEPHSLICTSYHPDLPNHRPLTGWFPCVASENETQDDRSEQPEGSLKKE  
DEVWLKVCFNRPGEARAIIFLTTDGLVPGEHQQPTVTLYLTDVIRGNSHSLGTYGLSCQH  
NPLIINVTHHQVLFHHTTSVLLNFSSPRVGISAVALRTSSRIGLSAPSNCISEDEGQNH  
QGQSCIHRPCGKQDSCPSLLLDHADVVNCTSIGPGLMKCAITCQRGFALQASSGQYIRPM  
QKEILLTCSSGHWDQNVSCLPVDCGVPDPSLVNYANFSCSEGTFLKRCISCVPPAKLQ  
GLSPWLTCLDGLWLSLPEVYCKLECDAPPIILNANLLLPHCLQDNHDVGTICKYECKPGY  
YVAESAEGKVRNKLKIQCLEGGIWEQGSIPVVCEPPPPVFEGMYECTNGFSLDSQCVL  
NCNQEREKLPILCTKEGLWTQEFKLCENLQGECPPPPSELNSVEYKCEQGYGIGAVCSPL  
CVIIPSDPVMLENITADTLEHWMFVKVQSIVCTGRRQWHPDVLVHC IQSCEPFQADG  
WCDTINNRAYCHYDGGDCSSSTLSSKKVIPFAADCDDLECTCRDPKAEENQ

>Q02650

MDLEKNYPTPRTIRTGHGGVNQLGGVFNVRPLPDVVRQRIVELAHQGVRPCDISRQLRV

SHGCVSKILGRYYETGSIKPGVIGGSKPKVATPKVVEKIAEYKRQNPTMFAWEIRDRLLA  
ERVCDNDTPVSVSSINRIIRTKVQQPPNQVPASSHSIVSTGSVTQVSSVSTDSAGSSYS  
ISGILGITSPSADTNKRKRDEGIQESPVNNGHSLPGRDFLRKQMRGDLFTQQQLEVLDRV  
FERQHYSIDIFTTTEPIKPEQTTEYSAMASLAGGLDDMKANLTSPTPADIGSSVPGPQSYF  
IVTGRDLASTTLPGYPPHVPPAGQGSYSAPTTLTGMVPGSEFSGSPYSHPQYSSYNDSWRF  
PNPGLLGSPYYSAPAARGAAPAAATAYDRH

>Q95VE9

MMNHKELVLFVAVVCLSLYQAVEPSQDVVKDMSLNFVRKGLDACKKELNLPDTINADFNRFW  
NDDHVVTNRDTGCAIMCLSSKLELVTDGLHGHNTLEYAKQHGADETVAQQIVDLLHTCA  
QAVPDLQDTCMKVLEWAKCFKAEIHKLNWAPSAEVMMAEMLAEV

>Q01470

MITRPIAHTTAGDLGGCLEGLYVFRGVPYAEPPVGDLRWRAARPHAGWTGVRDASAYGP  
SAPQVPEPGGSPILGTHGDPFDEDECLTLNLWTPNLDGGSRPVLVWIHGGGLLTGSGNLP  
NYATDTFARDGDLVGISINYRLGPLGFLAGMGDENVWLTQVEALRWIADNVAAFGGDPN  
RITLVGQSGGAYSIAALAQHPVARQLFHRAILQSPFFGMQPHTVEESTARTKALARHLGH  
DDIEALRHEPWRLIQGTIGVLMEHTKFGEWPLAFYPVFDEATIPRHPIESIIDSIEII  
IGWTRDEGTFPFAFDQVVSQADRDQVESWLQKRFGDHAASAYEAHAGDGTSPWTVIANVV  
GDELFSAGYRVADERATRRPVRAYQFDVVSPLSDGALGAVHCIEMPFTFANLDRWTGKP  
FVDGLDPDVVARVTNVLHQAWIAFVRTGDPTHDQLPVWPTFRADDPVLLVVGDEGAELVAR  
DLARPDHVSVRTL

>P0ABF1

MFTRVANFCRKVLSREESEAEQAVARQVTVIPREQHAI SRKDISENALKVMYRLNKAGY  
EAWLVGGGVRDLLLLGKKPKDFDVTNATPEQVRKLFNRCLVGRFRRLAHVMFGPEIEV  
ATFRGHHEGNVSDRTTSQRGQNGMLLRDNI FGSIEEDAQRDF'TINSLYYSVADF'TVRDY  
VGGMKDLKDGVIRLIGNPETRYREDPVRMLRAVRFAAKLGMRISPETAEP IPRLATLLND  
IPPARLFEESLKLQAGYGYETYKLLCEYHLFQPLFPPTITRYFTENGDSMERIEEQVLK  
NTDTRIHNDRVNPFAFLFAAMFWYPLLETAQKIAQESGLTYHDAFALAMNDVLDEACRSL  
AIPKRLTTLTRDIWQLQLRMSRRQKRAWKLEHHPKFRAAYDLLALRAEVERNAELQRLV  
KWWGEFQVSAPPDQKGMNLDELDEEPSRRRRTRRPRKRAPRREGTA

>P29122

MPPRAPPAPGPRPPRAAAATDTAAGAGGAGGAGGAGGPGFRPLAPRPWRLLLLLALPAA  
CSAPPPRPVYTNHWAVQVLGGPAEADRVA AAHGYLNLGQIGNLEDYHFYHSKTFKRSTL  
SSRGPHFTFLRMDPQVKWLQQQEVKRRVQRSDPQALYFNDP IWSNMWYLHCGDKNSRC  
RSEMNVQA AWKRGYTGKNVVVTILDDGIERNHPDLAPNYDSYASYDVNGNDYDPSPRYDA  
SNENKHGTRCAGEVAASANNYSYCVGIAAYNAKIGGIRMLDGDVTDVVEAKSLGIRPNYID  
IYSASWGPDDDGKTVDGPGRLAKQAFYGIKKGRQGLGSIFVWASGNGGREGDYCSCDGY  
TNSIYTVISVSSATENGYKPWYLEECASLATTYSSGAFYERKIVTTDLRQRCTDGHTGTS  
VSAPMVAGIIALALEANSQLTWRDVQHLLVKT SRPAHLKASDWKVNAGHKKVSHFYGFGL  
VDAEALVVEAKKWTAVPSQHMCVAASDKRPRSIPLVQVLRRTALTSAEHSQRVVYLE  
HVVVRTSISHPRRGDLQIYLVSPSGTKSQLLAKRLLDLSNEGFTNWEFMTVHCWGEKAEG  
QWTLIEIQDLP SQVRNPEKQKLEKESLILYGTAEHPYHTFSAHQSRSRMLELSAPELEPP  
KAALSPSQVEPEDEEDYTAQSTPGSANILQTSVCHPECGDKGCDGPNADQCLNCVHFSL  
GSVKTSRKCVSVCPLGYFGDTAARRCRRCHKGCETCSSRAATQCLSCRRGFYHHQEMNTC  
VTLC PAGFYADESQKNCLKCHPSCKKCVDEPEKCTVCKEGFSLARGSCIPDCEPGTYFDS  
ELIRCGECHHTCGTCVGP GREECIHCAKNFHFHDWKVPACGEGFYPEEMPGLPHKVCRR  
CDENCLSCAGSSRNC SRCKTGFTQLGTSCITNHTCSNADETFCEMVKSNRLCERKLFIQF

CCRTCLLAG

>Q02242

MWVRQVPWSFTWAVLQLSWQSGWLLLEVPNGPWRSITFYPAWLTVSEGANATFTCSLSNWS  
EDLMLNWNRLSPSNQTEKQAAFCNGLSQPVQDARFQIIQLPNRHDFHMNILDTRRNDSGI  
YLCGAIISLHPKAKIEESPGAELVVTERILETSTRYPSPSPKPEGRFQGMVIGIMSALVGI  
PVLALLLAWALAVFCSTSMSEARGAGSKDDTLKEEP SAAPVPSVAYEELDFQGREKTPELP  
TACVHTEYATIVFTEGLGASAMGRRGSADGLQGPRPPRHEDGHCSWPL

>Q9W4T4

MMRLARFTQGF SFNKNVAKHRGSGSSNGTGNGSGTGNGQGLGGSCSANGLAATGGVGGGG  
GSGSGGGGCGSGSGSGSGKRSKARTKCFGGTVFRCCLP CRGGGSAAPATSPPTPAQTP  
DELKVIPEDCNLEKSAEQKRDLLERNKEDDLLNRTVSGSEL DLYGGAGGGTKKHS LADT  
IDTSVTTPI SLKTLINDVDEELDQQLSAADIAAASLASGLVARRAEPETLSDASVSPTAV  
VQQQQQQQQQLQOPLLQSOPHFVPS SGNILSQVTLYSGSNPSTNPCQSAVQNQGN SNP  
PNQNPNTNPNQNQRCSCQPQTSPLPHIKEEEESDQANFKHQ TSLKEHQPLPPPIT IATG  
YCGSCESVHHSSATSSSAGTVPPGGQQTQEYIAGTSSTPSPRIKLKF RKPHKSCWSRIVL  
APIGSAGGSSSATTVIGSNSNETLASSSTTGGTATTTQNSSSVSVAHHRLTSSSASALA  
TSHPSNSQLLPTSKMQAEQSGIGDLQKYHSRYLKNRRHTLANVRFDVENGQGARSPLEGG  
SPSAGLVLQNLQORRESFLYRSDSDFEMSPKMSRNSSIASERFKEQEASILVDRSHGED  
LIVTPFAQILASLRSVRNLLSLTNVPASNKSRRPNQSSSASRSGNPPGAPLSQGE EAYT  
RLATDTIEELDWCLDQLETIQTHR SVSDMASLKF KRMLNKELSHFSESSRSGNQISEYIC  
STFLDKQQEFDLPSLRVEDNPELVAANAAAGQQSAGQYARSRSRPGPPMSQISGVKRPLS  
HTNSFTGERLPTFGVETPRENELGTL LGELDTWGIQIFSIGEF SVNRPLTCVAYTIFQSR  
ELLTSLMIPPKTFLNFMSTLEDHYVKDNPFHNSLHAADVTQSTNVLLNTPALEGVFTPLE  
VGGALFAACIHDVDHPGLTNQFLVNSSSELALMYNDES VLENHHLAVAFKLLQNQGC DIF  
CNMQKKQRQTLRKMVIDIVLSTDM SKHMSLLADLKT MVETKKVAGSGVLLLDNYTDRIQV  
LENLVHCADLSNPTKPLPLYKRWVALLMEEFFLQGDKERESGMDISPMCDRH NATIEKSQ  
VGFIDYIVHPLWETWADLVHPDAQDILD TLEENRDYYQSMIPSPPPSGVDENPQEDRIR  
FQVTTLEESDQENLAEELEEGDES GGESTTTGTTGTTAASALSGAGGGGGGGGMAPRTGGC  
QNQPQHGGM

>Q9M571

MAASAMGVLQEREVFKKYWIEHSVDLTVEAMMLDSQASDLKVERPEVLSMLPPYEGKSV  
LELGAGIGRFTGELAEKASQVIALDFIESVIKKNESINGHYKNVKFMCADVTSPSLNISP  
NSVDIIFSNWLLMYLSDEEVERLVERMLKWLKPGGYIFFRESCFHQSGDHRKSNP THYR  
EPRFYTKIFKECHMQDDSGNSYELSLIGCKCIGAYVKS KKNQNI SWLWQKV DSEDDKGF  
QRFLDSSQYKFNSILRYERVFGPGYVSTGGLETTKEFVSKLDL KPGQKVL DVGCGIGGGD  
FYMAENYDVEVVGIDLSINMISFALERSIGLKCAVEFEVADCTKKDYPENSFDVIYSRDT  
ILHIQDKPALFRSFHKWLKPGGKVLISDYCKSAGTPSAEFAAYIRQRGYDLHDVKAYGKM  
LKDAGFVEVIAENRTDQFIQVLQKELDALEQEKDDFIDDFSEEDYNDIVDGWKAKLVRTT  
EGEQQWGLFIAKKM

>P39116

MKKVMLATALFLGLTPAGANAADLGHQTLGSDNGWGAYSTGTTGGSKASSSNVYTVSNRN  
QLVSALGKETNTTPKIIYIKGTIDMNVDDNLKPLGLNDYKDPEYDLDKYLKAYDPSTWKG  
KEPSGTQEERARSQKNQKARVMVDIPANTTIVGSGTNAKVVGGNFQIKSDNVIIRNIEF  
QDAYDYFPQWDPTDGSSGNWNSQYDNITINGGTHIWI DHCTFNDGSRPDSTSPKYYGRKY  
QHHDGQTDASNGANYITMSYNYHDHDKSSIFGSSDSKTSDDGKLIKITLHHNRYKNIVQR  
APRVRFGQVHVYNNYYEGSTSSSSYPFSYAWGIGKSSKIYAQNNVIDVPGLSAAKTISVF

SGGTALYDSGTLNLTQINASAANGLSSSVGWTPSLHGSIDASANVKSINVINQAGAGKLN

>Q07744

MTRIQDDLAFATVNAEWLENAEIPADKPRISAFDELVLKNEKNLAKDLADLSQNLPTDNPE  
LLEAIKIFYNKAGDWQTREKADFSAVKNEELAKVETLNTFEDFKNNLTQLVFHSQAPLPFSF  
SVEPDMKDAIHYSLGFSGPGLILPDTTYYNDEHPRKKELELDFWAKNTSEILKTFDVENAE  
EIAKSALKFDALLVPSANTSEEWAKYAELYHPISTDSFVSKVKNLDDLKSLIKDLVKTEPD  
KVIVYEDRFYESFDSLINENWSLIKAWMLTKIARGATSFNEDLRILGGAYGRFLSNVQ  
EARSQEKHQDLDTESYFSQVIGLFYGGKYFGEAAKADVCRMVTAMIKVYQARLSKNEWLS  
QETAEKAIKLDAITPFIGFPDKLPEIYSRLKTTSGSLYEDALKFDEILTARTFEKFS  
VDKTSWHMPAHMVNAYSPDSNTIVFPAAILQAPFYSLEQSSSQNYGGIGTVIAHEISHA  
FDNNGAQDFKEGNLKNWVLDDEYEAFFEEKQKEMIALFDGVEEAGPANGKLIVSENIADQ  
GGITAALTAAKDEKDVLDKAFFSQWAKIWRMKASKEFQQMLLSMDVHAPAKLRANIPPTN  
LEEFYETFDVKETDKMYRAPENRLKIW

>P84516

MSRAPTLAAAAVAAVVLIICSSSTATAADGNARQPPLAPGLSFDYKRSCKAESIVRSF  
VQDAVRRDVGLAAGLLRLHFHDCFVQGCDAVLLDGSATGPGEQQAPPNLTLRPTAFKAI  
NDIHDRLHKECGGTVVSCSDVLAALAAARDSVVVSGGPSYKVPPLGRRDSASFATQQDVL  
SGLPPPTAAVPALLAVLSKINLDATDLVALSGGHTI

>P00433

MHFSSSSTLFTCITLIPLVCLILHASLSDAQLTPTFYDNSCPNVSNIVRDTIVNELRSDP  
RIAA SILRLHFHDCFVNGCDASILLDNNTTSFRTEKDAFGNANSARGFPVIDRMKAAVES  
A CPRTVSCADLLTIAAQSVTLAGGPSWRVPLGRRDSLQAFLLDLANANLPAPFFTLPLQK  
D SFRNVGLNRSSDLVALSGGHTFGKNQCRFIMDRLYNFSNTGLPDPTLNTTYLQTLRGL  
CPLNGNLSALVDFDLRPTIFDNKYVYNLEEQKGLIQSDQELFSSPNATDTIPLVRSFAN  
ST QTFNFAVFEAMDRMGNITPLTGTQGGIRLNCRVVNSNSLLHDMVEVVDVSSM

>Q6UBI3

MATLSLPHNSPTFALPSQTPKPHSSQNLISIISKSAHSQFCGIKLSHSSSLSPPLYPR  
SYK ASIVAKVSEGSMPFAFTLKDQDGKNVSLSKFKGKPVVYFYPADETPGCTKQACAF  
RDSY EKFKKAGAEVIGISGDDSSSHKAFKQKYKLPYTLLSDEGNKVRKDWGVP  
SDLFGALPGRQ TYVLDNRNGVVRLVYNNQFQPEKHIDETLKFLQSL

>P24328

MNMSLSRIVKAAPLRRTTLAMALGALGAAPAYADWNNQSIKAGERQHGIHIKQSDGAG  
VRTATGTTIKVSGRQAQGVLLLENPAEELRFQNGSVTSSGQLFDEGVRRFLGTVTVKAG  
KLVADHATLANVSDTRDDGIALYVAGEQAQASIA DSTLQAGGVRVERGANVTVQRSTIV  
D GGLHIGTLQPLQPEDLPPSRVVLGDTSVTAVPASGAPAAVVFVGANELTVDGGHITG  
GRA AGVAAMDGAIVHLQRATIRRGDAPAGGAVPGGAVPGGAVPGGFGPLLDGWYGV  
DVS DSTV DLAQSI VEAPQLGAAIRAGRGARVTVSGGSL SAPHGNV IETGGARRF  
PPPASP LSI TLQ AGARAQGRALLYRVLPEPVKLTLAGGAQGGDIVATELPPIPGASS  
GPLDVALASQARWT GATRAVDSL SIDNATWVMTDNSV GALRLASDGSVDFQQPAEAG  
RFKVL MVDTLAGSGLF RMNVFADLGLSDKLVVMRDASGQHRLWVRNSGSEPASGNT  
MLLVQT PRGSAATFTLANKD GKVDIGTYRYRLAANGNQWLSV GAKAPPAPK  
PAPQPGPQPGPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPPQPP  
PQRQPEAPAPQPPAGRELSAAANA AVNTGGVGLASTLWYAESNALS  
SKRLGELRLNPDAGG AWGRGFAQRQQLDNRAGRRFDQKVAGFELGADH  
AVAVAGGRWHLGGLAGYTRGDRGFTGD GGGHTDSVHVGGYATYIANS  
GFYLDATLRASRLENDFKVAGSDGYAVKGYRTHG VGVSL EAGR  
RFAHADGWFLPQAELAVFRVGGGAYRAANGLRVRDEGGSSVLGRLGLE  
VGKRIEL



AGGRVQPYIKASVLQEFDGAGTVRTNGIAHRTELRGTRAELGLGMAAALGRGHSLYASY  
EYSKGPKLAMPWTFHAGYRYSW

>Q01655

MAVKTLKDLLDEGVDGRHVIVRSDFNVPLNDDREITDKGRIIASLPTLKALSEGGAKVIV  
MAHLGRPKGEVNEKYS LAPVAEALSDELQYVALAADVVGEDAHERANGLTEGDILLLEN  
VRFDPRETSKDEAERTAFQAQELAAALADNGAFVSDGFGVVHRAQTSVYDIAKLLPHYAGG  
LVETEISVLEKIAESPEAPYVVVLGGSKVSDKIGVIEALAAKADKIVGGGMCYTFLLAQ  
GHNVQOSSLQEEMKATCTDLLARFGDKIVLPVDLVAASEFNKDAEKQIVDLDSIPEGWMS  
LDIGPESVKNFGEVLSTAKTIFWNGPMGVFEFAAFSEGTRGIAQAIIDATAGNDAFSVVG  
GGDSAASVRVGLNEDGFSHISTGGGASLEYLEGKELPGVAIIAQ

>Q9GPM4

MSSNKIGNKLSLDKVDVKGRVLI RVDYVPLDKMNNITSTQRIDASIP TLEYCLKNGAK  
SIVLMSHLGRPDGLVKPEYSLKPVVKVLEDQLKRP IKFLSDCVGEQVEKECANPEEGTVI  
LLENLRFHIEEEGSGVDAEGKKVKANPEKVKEFRESLTKLGDVYVNDAFGTAHRAHSSMV  
GINLPQKAAGFLMKKELEYFAKALESPSKPFLAILGGAKVSDKIKLIENLLYKVDEMIIG  
GGMAFTFKKIDNKEIGSSLFEKTAEQITKDI IAKAAKNNVKLHFPVDYVIADKFDNDAN  
IKTVTQDQGIPEGWMLDCGPETIKENRDTISRAKTIVWNGPMGVFEKSNFEAGTKAAMD  
DVVNATTNGAITIIGGGDTATCAAKYNTEDKVSHVSTGGGASLELLEGGKELPGVTALSDDL

>P0A799

MSVIKMTDLDLAGKRVFIRADLNVPVKDGKVTSDARIRASLPTIELALKQGAKVMVTSHL  
GRPTEGEYNEEFSLLPVVNYLKDKLSNPVRLVKDYLDGVDVAEGELVVLENVRFNKGEKK  
DDETL SKKYAALCDVFMDFGTAHRAQASTHGIGK FADVACAGPLLAELDALGKALKE  
PARPMVAIVGGSKVSTKLTVLDSLKIADQLIVGGGIANTFIAAQGHVDGKSLYEADLVD  
EAKRLLTTCNIPVPSDVRVATEFSETAPATLKS VNDVKADEQILDIGDASAQELAEILKN  
AKTILWNGPVGVFEFPNFRKGTEIVANA IADSEAFS IAGGGDTLAAIDLFGIADKISYIS  
TGGGAFLEFVEGKVLPAVAMLEERAKK

>P20972

MSLPFYITIDDFNLEDKTVLVRVDINSPVDPSTGSILDDTKIKLHAETIDEISKKGAKTVV  
LAHQSRPGKKDFTTLQQHAKALSNILNRPVDYIDDFGTAAREEIKRLKKGDILLLENVR  
FYPEEILKRDPHQQAETHMVRKLYPIIDIFINDAFAAAHRSQPSLVGFVAVKLP SGAGRIM  
EKELKS LYGAVDNAEKPCVYVVLGGVKVDDSIMVLENVLRNGSADYVLT TGLVANIFLWAS  
GINLGKYNEDFIINKGYIDFVEK GKQLLEEFDGQIKMPDDVAVCVDNARVEYCTKNIPNK  
PIYDIGTNTITEYAKFIRDAKTIFANGPAGVFEQEGFSIGTEDILNTIASSNGYSIIGGG  
HLAAAANQMGLSSGITHISSGGGASINLLAGEKLPVVEILTEVKMKGRK

>P09404

MAFRTLDDIGDVKGKRVLVREDLNVPMDGDRVTD DTRLRAAIP TVNELAEKGAKVLI LAH  
FGRPKGQPNPEMSLARIKDALAGVLRPVHFINDIKGEAAA KAVDALNPGAVALENTRF  
YAGEEKNDPALAAEVAKLGDIFYVNDAFSAAHRAHVSTEGLAHKLP AFAGRAMQKELEALE  
AALGKPTHVAAVVGAKVSTKLDVLTNLVSKVDHLIIGGMANTFLAAQGV DVGKSLCE  
HELKDTVKGIFAAA EKTGCKIHLPSDVVVAKEFKANPPIRTIPVSDVAADEMILDVGPKA  
VAALTEVLKASKTLVWNGPLGAFEIEPFDKATVALAKEAAAALTKAGSLISVAGGGDTVAA  
LNHAGVAKDFS FVSTAGGAFLEWMEGKELPGVKALEA

>P25055

MLLSTQSIPIKKSVDIWPVAGKRVLI RVDVFNVP TSSGGIDDDFRIRSAIPTIRRIDVQDQ

GICILISHLGRPTGVVDYDTAHAEQEKRQTPVQLPNSRGKTAFFSGLRGDAKATILAWSSQ  
REKAATLSNPYGSCKTAVFARLPPEEKRRLLLLRFMSEHKEELFPQLGSAGYEKEFSLEPV  
AVKLAELLDQHVYFGHDCGLGAQADI AKLRGCEVMLEENLRFYTNENSSDERKRLMARIL  
ASYADVYINDAFGTAHRDSASLTGIPRVLQOGAAGYLMEKEISYFSKVLNPPRPLLAII  
GGAKLSDKMVLENLLDCVDSLFIGGGLAYTFLRSQGYSIGTSHFEEAFVPPFAQALPLAG  
SGRQVRVVLPEDHVCHAHRPAEAPLTTTSANIPDGYAGLDIGPLTIQSITHLVRQCSSV  
IWNGLPLGMFEMPYYAFGTFSIARVVSQSSAAKGTTSIVGGGDTASAMMKSGEAAHISHIS  
TGGNASLELLEGGKVLAAVAVLDNKE

>P41762

MSHVTGVTSNIRIKKTIDDIWPLTAKRVLVRVDFNVP IQNGHITNDYRIRATIPTIQR II  
DQGGICILLSHLGRPAGISMTTAVRDRRRRYHEAHFHDNKGKTAFFSVLPPEEKIKILAQ  
SSLREEATHIMPVKSGKTILFARLPEDDEKQLLMQYLDEKKNGLPQLSVSAGYEEQYS  
LRPVAVRLAELLGQHVYFAHDCMDAKMELSRLKRGVMLEENVRFYREEDSKKEEEREAM  
AKVLAASYGDI FVSDAFGTAHRDSATMTGIPKVLGHGAAGYLMEKEISYFSKVLGNPPRPL  
VAIVGGSKVSDKIQLLDNMLQRIDYLLIGGAMAYTFLKAQGHRIGTSMCEEDRLDLARSL  
LKKAEDRKVQVLLPVDHVCHTEFKAVDTPVVTADADIPDGHMALDIGPKTIANYVETIGK  
CKSAIWNGLPMGVFEMPYPYSGKTFFAVAKAMGDCTQKNGLMSIIGGGDSASAAEQSGEATRM  
SHVSTGGGASLELLEGGKTLPGVAILDDKE

>P12782

MASTAAPPAALVARRAASASVAAPLRGAGLAAGCQPARSLAFAAGADPRLAVHVASRCRA  
ASAARGTRAVATMAKKSVDLTAADLEGRVLRADLNVLDDNQNI TDDTRIRAAIPTI  
KYL LSNGAKVIL TSHLGRPKGVTPKFS LAPLVPRLSELLGIEVKAEDVIGPEVEKLVAD  
LANGAVLLENVRFYKEEENKNDPEFAKKLASLADLFVNDAFGTAHRAHASTE GVTKFLKP  
SVAGFLLQKELDYL DGA VSNPKRPF AAIVGGSKVSSKIGVIESLLEKCDILLGGGMIFT  
FYKAQGLSVGSSLVEEDKLELATSLLAKAKAKGV SLLLPSDVI IADKFAPDANSQTVPAS  
AIPDGMGLDIGPDSVKTFNDALDTTQTIIWNGPMGVFEFDKFAVGTESI AKKLAE LSKK  
GVT TIIIGGGDSVAAVEKVG VADVM SHISTGGGASLELLEGGKELPGVVALDEGVMTRSVTV

>P18192

MEYQSGKRVLSLSLGLIGLFSASAFASDSRTVSEPKAPSSCTVLKADSSTATSTIQKALN  
NCGQGKAVKLSAGSSSVFLSGPLSLPSGVSLLDKGVTLRAVNNAKSFENAPSSCGVVD T  
NGKGCDAFITATSTTNSGIYGPGTIDGQGGVKLQDKKVSWWDLAADAKVKKLKQNTPRLI  
QINKSKNFTLYNVSLINSPNFHVVFSDGDGFTAWKT TIKTPSTARNTDGDIDPMSKNIT I  
AHSNISTGDDNVAIKAYKGRSETRNISILHNEFGTGHGMSIGSETMGVYNVTVDLIMTG  
TTNGLRIKSDKSAAGVVNGVRYSNVVMKNVAKPIVIDTVYEKKEGSNVPDWSDI TFKDIT  
SQTGKVVVLNGENAKKPIEV TMKNVKLTS DSTWQIKNVTVKK

>Q6H9K0

RGVQSSGSVFNVDY GAKGAGDISQAVMKAWKAACASQGPSTVLI PKGNYNMGEVAMQGP  
CKGSKIGFQIDGVVKAPADPSKFKSDGWVSFYRIDGLTVSGTGTLDGQQTAWAKNNCDK  
NPNCKHAAMNLRFDLKHAMVRDITSLNSKMFHINVLECEDITFQHVTVTAPGTSINTDG  
IHVGISKGVTTNTKIATGDDCISIGPGSQNVTTITQVNCGPGHGISIGSLGRYNNEKEVR  
GITVKGCTFSGMTNGVRVKTWPNSPPGAATDLTFQDLTMNNVQNPVILDQEYCPYGCQR  
QAPSRIKLSNINFNNIRGTSTGKVAVVIACSHGMPCSNMKIGEINLSYRGAGGPATSTCS  
NVKPTFSGKQVPAIKCA

>P20041

MNHRYTL LALAAAALSAGAHATGTSVTAPWGEVAEPLPADSAVCKTLSASITPIKGSVD

SVDGNPANSQPASRIQSAIDNCPAGQAVKLVKGSAGESGFLSGSLKLSGVTLWIDTGV  
TLFASRNPADYDNLGTCGTATTSNDKSCNALIVARDTAGSGIVGAGAI DGRGGS LVTSG  
PNANRLTWWDIAYLNKTKGLNQONPRLIQTYNGSAFTLYGVTQNSPNFHIVTTGTSQV  
AWGIKIVTPSLAYAVAGYKCPGSGSTPDKVTPATCFTPETVKNTDGFDPGQSTNVVLAYS  
INTGDDHVAVKASSGPTRNLLFAHNHFYFGHLSIGSETNTGVSNNMLVTDLTMDGNDSSA  
GNLRIKSDASRGGKVTNIVYDGI CMRNVKEPLVFDPFYSSVKGS LYPNFTNIVVKNFHD  
LGSAKSIKRTMTFLGYKANKQKNPLTITLDNVVFDGTLPAFEGSHYGGPASPNGVHFTFG  
GTGPVVSFADAIVTSSTTDVTVTGTPTGTA AAVDCSKAFVPLKSVAPTSP I

>P05117

MVIQRNSILLIIIFASSISTCRSNVIDDNLFKQVYDNILEQEFAHDFQAYLSYLSKNIE  
SNNNIDKVDKNGIKVINVL SFGAKGDGKTYDNIAFEQAWNEACSSRTPVQFVVPKNKNYL  
LKQITFSGPCRSSISVKIFGSLEASSKISDYKDRRLWIAFDSVQNLVVG GGTINGNGQV  
WWPSSCKINKSLPCRDAPTALTFWNCKNLKVMNLKSKNAQQIHIKFESCTNVVASNLMIN  
ASAKSPNTDGVHVSNTQYIQISDTIIGTGDDCISIVSGSQNVQATNITCGPGHGISIGSL  
GSGNSEAYVSNVTVNEAKIIGAENGVRIKTWQGGSGQASNIKFLNVEMQDVKYPIIIDQN  
YCDRVEPCIQQFSAVQVKNVYENIKGTSATKVAIKFDCSTNFPCEGIIMENINLVGESG  
KPSEATCKNVHFNNAEHVTPHCTSLEI SEDEALLNY

>P36871

MVKIVTVKTQAYQDQKPGTSGLRKRKRVKFQSSANYAENFIQSIISTVEPAQRQEATLVVG  
GDGRFYMKEAIQLIARIAAANGIGRLVIGQNGILSTPAVSCIIRKIKAIIGGIILTASHNP  
GGPNGDFGIKFNISNGGPAPEAITDKIFQISKTEEYAVCPDLKVDLGVLGKQQFDLENK  
FKPFTVEIVDSVEAYATMLRSIFDFSALKELLSGPNRLKIRIDAMHG VVGPYVKKILCEE  
LGAPANSAVNCVPLEDFGGHHPDNLTYAADLVETMKS GEHDFGAAFDGDGDRNMILGKH  
GFFVNPSDSVAVIAANIFSIPIYFQQTGVRGFARSMPTSGALDRVASATKIALYETPTGWK  
FFGNLMDASKLSLCGEESFGTGS DHIREKDGLWAVLAWLSILATRKQSVEDILKDHQKY  
GRNFFTRYDYEEVEAE GANKMMKDLEALMFDRSFVKGQFSANDKVYTV EKADNF EYSDPV  
DGSISRNOGLRLIFTDGSRI VFRLSGTGSAGATIRLYIDSYEKDVAKINQDPQVMLAPLI  
SIALKVSQ LQERTGRTAPT VIT

>Q8INK6

MTALGLVLLSMMGYSQHMQQANLGDGVATARLLSRSDWGARLPKSVEHFQGPAPYVI IHH  
SYMPAVCYSTPDCMKSMRDMQDFHQLERGWNDIGYSFGIGGDMIYTGRGFNVIGAHAPK  
YNDKSVGIVLIGDWRELPKQMLDAAKNLIAFGVFKGYIDPAYKLLGHRQVRDTECPGG  
RLFAEISSWPHFTHINDTEGVSSTTAPVVPVHPQAAAPQKPHQSPPAAPKV

>Q9VXN9

MSESGIKKLSQERTREWLASQEDEELESIAESSVVDSDLDYDYTEEEEDADQNTSEEISTM  
TLGTQIATKKHSIISDTIRDLMNSINSIQTLGNVNISNSTNVHIGNVTNINGNIQIIADG  
LTQNRDRRHVSPPRDNAPKTPTHFEDDYQDESEERVRSDVFIRRQKFKIPKELSAIIPR  
SSWLAQKPMDEPLPLQLPVKYVVILHTATESSEKRAINVRLIRDMQCFHIESRGWNDIAY  
NFLVGC DGNIEGRGWKT V GAHTLGYNRISLGISFICFMKELPTADALNMCRNLLARGV  
EDGHISTDYRLIHCQC CNSTESPGRRLYEEIQTWPHFYNI EEEEEQ

>Q96LB9

MGTLPWLLAFFILGLQAWDTPTIVSRKEWGARPLACRALLTLPVAYIITDQLPGMQCQQQ  
SVCSQMLRGLQSHSVYTI GWCDVAYNFLVGGDGRVYEGVGWNIQGLHTQGYNNISLGI AF  
FGNKIGSSPSPAALSAEGLISYAIQKGHLSPRYIQPLLLKEETCLDPQHPVMPRKVCPN  
IIKRS AWEARETHCPKMNLPAKYVVI IHTAGT SCTVSTDCQTVVRNIQS FHM DTRNFCDI

GYHFLVGQDGGVYEGVGWHIQGSHTYGFNDIALGIAFIGYFVEKPPNAAALEAAQDLIQC  
AVVEGYLTPNYLLMGHSDVVNILSPGQALYNIISTWPHFKH

>P43334

MKTTQYVARQPDDNGFIHYPETEHQVWNTLITRQLKVI EGRACQEYLDGIEQLGLPHERI  
PQLDEINRVLQATTGWRVARVPALIPFQTFPELLASQQFPVATFIRTPPELDYLQEPDIF  
HEIFGHCPLLTNPWFAEFTHTYGLKGLKASKEERVFLARLYWMTIEFGLVETDQGKRIYG  
GGILSSPKETVYSLSDPELHQAFNPLEAMRTPYRIDILQPLYFVLPDLKRLFQLAQEDIM  
ALVHEAMRLGLHAPLFPKQAA

>P29166

MKTI IINGVQFNTDEDTTILKFARDNNIDISALCFLNNCNNDINKCEICTVEVEGTGLVT  
ACDTLIEDGMIINTNSDAVNEKIKSRISQLLDIHEFKCGPCNRRENCEFLKLVIKYKARA  
SKPFLPKDKTEYVDERSSKSLTVDRTKCLLCGRVCVNACGKNTETYAMKFLNKNKGTIIGAE  
DEKCFDDTNCLLCGQCI IACPVAALSEKSHMDRVKNALNAPEKHVIVAMAPSVRASIGEL  
FNMFGVDVDTGKIYALTALRQLGFDKIFDINFGADMTIMEEATELVQRIENNGPFPMTSCC  
PGWVRQAENYYPELLNNLSSAKSPQQIFGTASKTYYPSSISGLDPKNVFTVTVMPCTSKKF  
EADRPQMEKDGLRDIDAVITTRRELAKMIKDAKIPFAKLEDSEADPAMGEYSGAGAI FGAT  
GGVMEAAALRSKDFAEAELEDIEYKQVRGLNGIKEAEVEINNNKYNVAVINGASNLFKF  
MKSGMINEKQYHFIEVMACHGGCVNNGGQPHVNPKDLEKVDIKKVRASVLYNQDEHLSKR  
KSHENTALVKMYQNYFGKPGEGRAHEILHFKYKK

>P09598

MKKKVLALAAAITVVAPLQSVAFAHENDGGSKIKIVHRWSAEDKHKEGVNSHLWIVNRAI  
DIMSRNTTLVKQDRVAQLNEWRTLENGIYAADYENPYDNSTFASHFYDPDNGKTYIPF  
AKQAKETGAKYFKLAGESYKNKDMKQAFFYLGSLHLYLGDVNQPMHAANFTNLSYPQGFH  
SKYENFVDTIKDNKYKVTDGNGYWNWKGTPNPEEWIHGAAVVAKQDYSGIVNDNTKDFVKA  
AVSQEYADKWRAEVTTPMTGKRLMDAQRVTAGYIQLWFDTYGDR

>Q2FWP1

MVKKTKSNSLKKVATLALANLLL VGALTDNSAKAESKKDDTDLKLVSHNVYMLSTVLYPN  
WGQYKRADLIGQSSYIKNNVDVIFNEAFDNGASDKLLSNVKKEYPYQTPVLGRSQSGWDK  
TEGSYSSTVAEDGGVAIVSKYPIKEKIQHVFKSGCGFDNDSNKGFFVYTKIEKNGKNVHVI  
GTHTQSEDSRCGAGHDRKIRAEQMKEISDFVKKKNIPKDETVYIGGDLNVNKGTPPEFKDM  
LKNLNVNDVLYAGHNSTWDPQSNSIAKYNYPNGKPEHLDYIFTDKDKHKQPKQLVNEVVTE  
KPKPWDVYAFPPYYVYNDVSDHYPKAYSK

>P09194

MFGGVKWSPOSWMSDTRSSIEKKCIGQVYMGVGAHNAGTHGIQMFSPFGLDAPEKLRSLPP  
YVTFLLRFLTIVGVSSRWGRQCQLSIRQLLDHGVRYLDLRMNISPDQENKIYTHFHISVP  
LQEVLDVKDFLTPASANEFVILDFLHFYGFNESHMTRFVEELQALEEFYIPTTVSLT  
TPLCNLWQSTRRIFLVVRPYVEYPYARLRSVALKSIWVNQMELNDDLDRLEELMTRDLED  
VSIGGVPSKMYVTQAIGTPRNNDFAVAACCGACPGSHPDLYSAAKHKNPHLLKWFYDLNV  
NGVMRGERVTIRRGNNTHGNILLDFVQEGTCTVKGVDKPMNAVALCVHLNTNQ TARS

>P25297

MSSVNKDTIHVAERSLHKEHLTEGGNMAFHNHLNDFAHIEDPLERRRLALESIDDEGFGW  
QQVKTISIAGVGFLTDSYDIFAINLGITMMSYVYWHGSMGPGSQTLKVVSTSVGTVIGQF  
GFGTLADIVGRKRIYGMELIIMIVCTILQTTVAHSPAINFVAVLTFYRIVMGIGIGDYP  
LSSIIITSEFATTKWRGAIMGAVFANQAWQISGGIIALILVAAYKGELEYANS GAEC DAR

CQKACDQMWRILIGLGTVLGLACLYFRLTIPESPRYQLDVNAKLELAAAAQEODGEKKIH  
DTSDEDMANGLERASTAVESLDNHPPKASFKDFCRHFGQWKYKILLGTAGSWFTLDVA  
FYGLSLNSAVILQITIGYAGSKNVYKLYDTAVGNLILICAGSLPGYWVSFTVDIIGRKP  
IQLAGFIILTALFCVIGFAYHKLGDHGLLALYVICQFFQNFNPNTTTFIVPGECFPTRYR  
STAHGISAASGKVGAI IAQTALGTLIDHNCARDGKPTNCWLPVMEIFALFMLLGI FTTL  
LIPETKRKLTLEEINELYHDEIDPATLNFRNKNNDIESSSPSQLQHEA

>P45548

MSFDPTGYTLAHEHLHIDLSGFKNNVDCRLDQYAFICQEMNDLMTRGVRNVIEMTNR YMG  
RNAQFMLDVMRETGINVVACTGYQQDAFFPEHVATR SVQELAQEMVDEIEQGIDGTELKA  
GIIAEIGTSEK ITPLEEKVFI AAALAHNQTGRPISTHTSFSTMGLEQLALLQAHGVDLS  
RVTVGHCDLKDNLNLIK MIDLGAYVQFDTIGKNSYYPDEKRIAMLHALRDRGLLRVML  
SMDITRRSHLKANGGYDYLLTTFIPQLRQSGFSQADVDVMLRENPSQFFQ

>P27526

MFRTIRTTLPTTSVFPPTSLHFKLKTTMAPSKRKASAPPQTSHVNGNPSADKKRKT TTD  
PPTNPNTSSDPLRAPHPFYK DSETHGIVLRKFPHEMSNARAQAYNDNELPRPIETLSAA  
LAETAALRKSLPVRQAVVHWFKMDLRLHDNRSLWLASQKAKEAGVPLICLYVLSPEDELEA  
HLRAPIRVDFMLRTLEVLKTDLEDLGIPLWVETVEKRKEVPTKIKELMKSWGASHLFCAM  
EYEVDELRRKALVKLLAEGEKGEKMAADVVDTCVMPGALQSGSGGQYAVYSPWFRAW  
IKHIEENPECLEIYEKPGPNPPGTKEKHENLFACTIPEAPEGKRLRDEKARYHSLWPAG  
EHEALKRLEKFCDEAIGKYAERRNIPAMQGTSNLSVHFASGTL SARTAIRTARDRNNTKK  
LNGGNEGIQRWISEVAWRDFYKHVLVHWPYVCMNKPFPKPTYSNIEWSYNVDHFHAWTQGR  
TGFP IIDAAMRQVLSTGYMHNRLRMIVASFLAKDLLVDWRMGERYFMEHLIDGDFASNNG  
GWGFAASVGVDPQPYFRVFNPLLQSEKFDPDGDYIRKWVEELRDLPELKGKGGGEIHD  
YGRGSEKVKKKLEEKGYPRPIVEHSGARDRALDAYKRGLARDL

>P25078

MPTHLVWFRRDLRLQDNLALAAACRDASARVLALYISTPAQWQAHDMAPRQAAFISAQLN  
ALQTALAEKGIPLLFHEVADFNAS IETVKNVCRQHDVSHLFYNYQYEFNERQRDAAVEKT  
LPSVICEGFDDSVILAPGAVMTGNHEMYKVFTPFKNAWLKRLKEDI PPCVPAPKIRVSGA  
LSTPLTPVSLNYPQQAFAALFPVEENAVIAQLRQFCAQGADEYALRRDFPAVDGTSRLS  
ASLATGGLSPRQCLHRLLAEQPQALDGGPGSVWLNELI WREFYRHLMTWYPALCKHQPF  
IRWTKRVAWQENPHYFQAWQKGETGYPIVDAAMRQLNATGWMHNRLRMITASFVLDLLID  
WRLGERYFMSQLIDGDLAANNGGWQAASTGTDAAPYFRIFNPPTQGERFDRDGEFIRQW  
LPALRDI PGKAIHEPWRWAEKAGVVLDYPRPIVEHKQARIATLSAYEAARKGA

>P05327

MAAPILFWHRRDLRLSDNIGLAAARAQSAQLIGLFCCLDPQILQSADMAPARVAYLQGC  
LQELQORYQQAGSRLLLLQGDPOHLIPQLAQQLQAEAVYWNQDIEPYGRDRDGQVAAALK  
TAGIRAVQLWDQLLHSPDQILSGSGNPYSVYGF FWNWQAQPKPTPVATPTELVDLSPE  
QLT AIAPLLLSELPTLQKLGFDWDGGFPVEPGETAAIARLQEFCDRAIADYDPQRNFP  
AEAGT SGLSPALKFGAIGIRQAWRAASAHAHSRSEARN SIRVWQQELAWREFYQH  
ALYHFPSLADGPYRSLWQQFPWENREALFTAWTQAQTGYPIVDAAMRQLTETGWMHN  
RCWMIVASFLT KDLIIDWRRGEQFFMQHLVDGDLAANNGGWQWSASSGMDPKPLRIF  
NPASQAKKFDATAT YIKRWLPELRHVHPKDLISGEITPIGRRGYPAPIVNHNLRQKQ  
FKALYNQLKAAIAEPEA EPDS

>Q55081

MGRQLILFPMSDQSDHPLILLWHRRDLRLNDHLALAKARQKTAKIVGVFCLDNKILQ  
AED

MAPARVAYLLGCLQSLQDHYQRLGSELLVQADPVQLLPKLAN TLGAHGVTWTLDTPEYA  
QKRDLAVAQALRERGLAIATEWDQLMHHPGEVLTQAGSPYTVYTPFWKNWSQLPKTSPVP  
TPKDLQGLTPAEKEKLAPLEPLAIPQLADLGF IWDQPLPLTPGEEAAEQRLDWFVAHGLE  
EYQQRNFPALDGTSQLSAALKFGVISPRTLWQTTLEAWEQSRSEEARAS IETWQQELAW  
REFYQHCLYSFPALAQGPYRSPFQEFPWEENQDHFQAWCEGRTGYPI IDAAMAQLNQTGW  
MHNRCRMIVASFLIKDLILNWQWGELYFMQTLYDGD LAANNGGWQWSASSGMDPKPLRIF  
NPHTQAQKFDPEGEYIRTWLPQLARFDTGDL LTGKLT PGSRRSVNYPEP IVDHNQQQREF  
KRRYQLVK

>P61496

MGPLL VWHRGDLRLHDHPALLEALARGPVVGLVVLDPNNLKTTPRRRAWFLENVRALREA  
YRARGGALWVLEGLPWEKVPEAARRLKAKAVYALTSYTPYGRYRDAKVQEALPVPLHLLP  
APHLLPDLPRAYRVYTPFARRFLGVEAPLPAPEALPKGPEEGEIPREDPGLPLPEPEGEE  
AALAGLRAFLEAKLPRYAEERDRLDGE GGSRLSPYFALGVLSPRLA AWEAERRGGEGARK  
WVAELLWRDFS YHLLYHFPWMAERPLDPRFQALPWQEDEALFRAWYEGRTGVPLVDAAMR  
ELHATGFLSNRARMNAAQFAVKHLLLPWKRC EEAFRHLLLDGDRAVNLQGWQWAGGLVD  
AAPYFRVFNVLQGERHDPEGRWLKRWAP EYPSYAPKDPVVDLEEARRRYLRLARDLARG

>Q9UKJ1

MGRPLLLPLLLPLLLPPAFLQPSGSTGSGPSYLYGVTQPKHLSASMGG SVEIPFSFYYPWE  
LATAPDVRISWRRGHFHGQSFYSTRPPSIHKDYVNRFLFNWTEGQKSGFLRISNLQKQDQ  
SVYFCRVELDTRSSGRQQWQSIEGTKLSITQAVTTTTQRPS SMTTTWRLSSTTTTGLRV  
TQGKRSDSWHISLETAVGVAVAVTVLGIMILGLICLLRWRRRKGGQRTKATTPAREPFQ  
NTEEPYENIRNEGQNTDPKLNPKDDGIVYASLALSSSTSPRAPP SHRPLKSPQNETLYSV  
LKA

>P11309

MPHEPHEPLTPPFSALPDPAGAPSRQRQPQLSSDPSA FRASRSHSRNATRSHSHSH  
SPRHSLRHSPGSGSCGSSSGHRPCADILEVGMLLSKINSLAHLRAAPCNDLHATKLAPGK  
EKEPLESQYQVGPLLGSGGFGSVYSGIRVSDNLPVAIKHVEKDRISDWGELPNGTRVPM E  
VVLLKKVSSGFGSVIRLLDWFERPDSFVLILERPEPVQDLDFDITERGALQEELARSFFW  
QVLEAVRHCHNCGVLRHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTD FGDTRVYSP  
PEWIRYHRYHGRSAAVWSL GILLYDMVCGDIPFEHDEEIRGQVFFRQ RVSSECCQHLIRW  
CLALRPSDRPTFEEIQNHPPWMDVLLPQETA EIHLHSLSPGFSK

>P15246

MAWKSGGASHSELIHNLRKNGI IKTDKVFVEMLATDRSHYAKCNPYMDSPQSIGFQATIS  
APMHAYALELLFDQLNEGAKALDVGSGS GILTACFARMVGP SGKVIGIDHIKELVDDSI  
NNVRKDDPMLLSSGRVQLVVG DGRMGYAAEAPYDAIHVGAAAPVVPQALIDQLKPGGRLI  
LPVGPAGGNQMLEQYDKLQDGSVKMKPLMGVIYVPLTDKEKQWSRWK

>Q27869

MAWRVSGANNEDLIRQLKDHGV IASDAVAQAMKETDRKHYSRPNPYMDAPQPIGGGV TIS  
APMHAFALEYLRDHLKPGARILDVGS GSYLTACFYRYIKAKGVDADTRIVGIEHQ AEL  
VRRSKANLNTDDRSM LDSGQLLIVEGDGRKGYPNAPYNAIHVGAAAPDTPTELINQLAS  
GGRLIVPVGPDGGSQYMQQYDKDANGKVEMTRLMGVMYVPLTDLRS

>P0A7A5

MVSRRVQALLDQLRAQGIQDEQVLNALAAVPREK FVDEAFEQKAWDNIALPIGQGQTISQ  
PYMVARMTELELTPQRSVLEIGTGSGYQTAILAHLVQHVC SVERIKGLQWQARRRLKNL

DLHNVSTRHGDGWQGWQARAPFDAIIVTAAPPEIPTALMTQLDEGGILVLPVGEEHQYLK  
RVRRRRGGEFIIIDTVEAVRFVPLVKGELA

>Q8TZR3

MMDEKELYEKWMRTVEMLKAEGIIIRSKEVERAFLKYPRYLFFVEDKYKKYAHIDEPLPIPA  
GQTVSAPHMVAIMLEIANLKPGMNILEVGTGSGWNAALISEIVKTDVYTIERIPELVEFA  
KRNLERAGVKNVHVILGDGSKGFPPKAPYDVIIVTAGAPKIPPEPLIEQLKIGGKLIIPVG  
SYHLWQELLEVRKTKDGIKIKNHGGVAFVPLIGEYGWKE

>Q56308

MREKLFWILKKYGVSDHIAKAFLEIPREEFLTKSYPLSYVYEDIVLVSYYDDGEEYSTSSQ  
PSLMALFMEWVGLDKGMRVLEIGGGTGYNAAVMSRVVGEKGLVVSVEYSRKICEIAKRN  
ERLGIENVIFVCGDGYGVPFSPYDVIVFVTVGVDEVPETWFTQLKEGGRVIVPINLKL  
RRQPAFLFKKKDPYLVGNKLETRFITAGGNLGNLLEARNRKLLEFPFNREILLVRS  
HIFVELVDLLTRRLTEIDGTFYYAGPNGVVEFLDDRMRIYGDAPETIENLLTQWES  
CGYRSFEYLMLHVGYNASHISCSI

>Q43209

MAQFWAEGSLEKNNALVEYLKQYGVVVRTDKVAEVMETIDRALFVPEGFTPYTDS  
PMPIGYNATISAPMHATCLELLKDYLPQGMHALDVGSGSYLTACFAMMVGPEGRAV  
GIEHIPELVVASTENVERSAAAALMKDGSLSFHVSDGRLGWPDAAPYDAIHVGAA  
APEIPRPLLEQLKPGGRMVIIPVGTYSQDLQVIDKSADGSTSVRNDASVRYVPLTS  
RSAQLQDS

>P46541

MYTEGFIDVTGGRVSFQKFDENGGGTPVIVLHGGPGSSCYSLGLKALAKDRPV  
ILYDQLGCGKSDRPMDDTTLWRLDRFVEELAQIRQALNLDEVHILGHSWGTTLAA  
AYCLTKPSGVKS VIFSSPCLSAPLWEQDQKRNLKKLPLDVQETINRCEENGT  
TDSEEFAAAIEVFGKHFVNRLEKQPEWLEQKPSGYRNADIYNIMWGPSEFTV  
LGNLKNFDCTTQLKEITCPSLYTCGRFD EATPETTEYYSSLTPKSKFHVFEK  
SAHMPYIEEPEEYLAVIGDFLNSI

>P12273

MRLQLLFRASPATLLLVLCQLGANKAQDNTRKIIIKNFDIPKSVRPNDEV  
TAVLAVQTELKECMVVKTYLISSIPLQGAFFNYKYTACLDDNPKTFYWDFY  
TNRTVQIAAVVDVIRELGICPDAAVPIKNNRFYTIIEILKVE

>O32449

MEQLRGLYPPLAAYDSGWLDTGDGHRIFYWELSGNPNGKPAVFIHGGPGGGI  
SPHHRQLFDPERYKVLVFDQRGCSRPHASLDNNTTWHLVADIERLREMAGVE  
QWLVFGGSWGSTLALAYAQTHPERVSEMVLRGIFTLRKQRLHWYYQDGASRFF  
PEKWERVLSILSDDERKDVIAYRQRLTSADPQVQLEAAKLWSVWEGETV  
TLLPSRESASFGEDDFALAFARIENHYFTHLGFLESDDQLLRNVPLIRHI  
PAVIVHGRYDMACQVQNAWDLAKAWPEAELHIVEGAGHSYDEPGILHQLMI  
ATDRFAGK

>P34024

MYKNYLQRTLVLVLLCFILYFFTFPLGGKAYSLNNWNKPIKNSVTTKQW  
SALPDTTNLAA LSIPGTHDTMSYNGDITWTLTKPLAQQTMSLYQQLEAGIRY  
IDIRAKDNLNIYHGPIFLNASLSGVLETITQFLKKNPKETIIMRLKDEQNS  
NDSFDYRIQPLINIYKDYFYTTPTRTDTSNKIPTLKDVRGKILLSENHT  
KKPLVINSRKFQMGAPNQVIQDDYNGPSVKTKFKEIVQTAYQASKADNKL  
FLNHISATSLTFTPRQYAAALNNKVEQFVLNLTSEKVRGLGILIMD  
FPEKQTIKNIKNNKFN

>Q43007

MAQMLLHGTLHATIFEAAASLSNPHRASGSAPKFIKRFVEGIEDTVGVGKATKVYSTIDL  
EKARVGRTRMITNEPINRWYESFHIIYCAHMASNVIFTVKIDNPIGATNIGRAYLPVQEL  
LNGEEIDRWLDICDNNREPVGESKIHVKLQYFDVSKDRNWARGVRSTKYPGVPYTFFSQR  
QGCKVTLYQDAHVPDNFIPKIPLADGKNYEPHRCWEDIFDAISNAQHLYITGWSVYTEI  
TLVRDSNRPKPGGDVTLGELLKKKASEGVRVLMMLVWDDRTSVGLLKRDLGDMATHDEETEN  
YFHGSDVNCVLCPRNPDDSGSIVQDLSISTMFTHHQKIVVVDHELPNQGSQRRIVSFVG  
GLDLCDGRYDTQYHSLFRTLDSTHHDDFHQPINFATASIKKGGPREPWHDIHSRLEGP  
IAW  
DVLNFEQRWRKQGGKDLLLQLRDLSDTIIPPSPVMFPEDRETWNVQLFRSIDGGA  
AFGF  
PDTPEEAAKAGLVSGKDQIIDRSIQDAYIHAIRRAKNFIYIENQYFLGSSYAWK  
PEGIKP  
EDIGALHLIPKELALKVVSKEAGERFTVYVVVPMWPEGVPESGSVQAILLDWQRR  
TMMEM  
YTDITEALQAKGIEANPKDYLTFFCLGNREVKQAGEYQPEEQPEADTDYSRAQEARR  
FMI  
YVHTKMMIVDDEYIIIGSANINQRSMDGARDSEIAMGGYQPYHLATRQPARGQIHG  
FRMA  
LWYEHLGMLDDVFQRPESLECVQKVNRIAEKYWDMYSSDDLQQDLPGHLLSYP  
IGVASDG  
VVTELPGMEYFPDTRARVLGAKSDYMPPILTS

>O14295

MPIVSGFKVGPIGFGLMGLTWKPKQTPDEEAFEVMNYALSQGSNYWDAGEFYGVDP  
PPTSN  
LDLLARYFEKYPENANKVFLSVKGGDLFKTLVPDGNPDFVSKSVENVIAHLRGT  
KKLDLF  
QCARVDPNVP IETTMKTLKGFVDSGKISCVGLSEVSAETIKRAHAVVPIAAVEVE  
YSLFS  
RDIETNGIMDICKLSIPIIAYSPPFCRGLLTGRIKTVEDLKEFAKSFPFLEYLDR  
FSPDV  
FAKNL PFLQAVEQLAKKFGMTMPEFSLLFIMASGNGLVIPIPGSTSVSRTKSNL  
NALNKS  
LSPEQFKEAKEVLSKYPIYGLRYNEQLAGTLSV

>P19179

MENNVTTISREELEELREAFNKIDIDNSGYVSDYELQDLFKEASLPLPGYK  
VREIEKIF  
AVTDSNKDGINFEFVSLIQELKSKDVSKSYRKSINKKLGITAGGTSSISTEGTQ  
HSY  
SEEEKVAFVNWINKALQDDPDKHILPMNPSDASLFKSLADGILLCKMINFSQ  
PDTIDER  
AINKKKLTPTFTISENLNLALNSASAIGCTVVNIGSQDLQEGKPHLVGLLWQ  
IIKVGLFA  
DIEISRNEALIALLNEGEELDQLMKLSPEELLLRWVNYHLANAGWQKISNFSQ  
DIRDSRA  
YYHLLNQIAPKGGDFDEIHVEIDFSGFNKNDLRRACMLQQADKLGCRQFVTP  
ADVVAG  
NPKNLAFVANLFNTYPALHKPDNSSYDLTLLEGESNEERTFRNWMNSLGVSP  
YVNHLYS  
DLSDALIIIFQLYEMTRVPVDWTHVNKRYPYLLGGNMKKIENCNYAVELGK  
TKAKFSLVGI  
AGHDLNEGNTLTLALIWQLMRRYTLNVLSDLGEGEKVNDEIIIKWVNQTLAN  
ANKKTSI  
TSFKDKSISTSLPVLDLIDAIAPKAVRQEMVKREDLSYQDKLNNAKYAI  
SVARKIGARIY  
ALPDDLVEVKPKMVMVTFACL MGRGLNKIK

>P0C1A9

MLKTI SGTALSLIIAASVHQAQAATTYNVAVVSKSSSDGKTFKTIADAIASAP  
AGSTPFV  
ILIKNGVYNERLITIRNNLHLKGESRNGAVIAAATAAGTLKSDGSKWGTAGS  
STITISAK  
DFSAQSLTIRNDFDFPANQAKSDSDSSKIKDTQAVALYVTKSGDRAYFKD  
VSLVGYQDTL  
YVSGGRSFFSDCRISGTVDFIFGDGTALFNCDLVSRYRADVKSGNVSGYL  
TAPSTNINQ  
KYGLVITNSRVIRESDSVPKASYGLGRPWHPTTTFSDGRYADPNAIGQTV  
FLNTSMDNHI  
YGWDKMSGKDKNGNTIWFNPEDSRFFEYKSYGAGATVSKDRRQLTDAQAAEY  
TQSKVLGD  
WTPTLP

>P30792

MGSSGFSWTL PDHPKLPKGGKSVAVVVLDGWGEANPDQYNCIHVAQTPVMD  
SLKNGAPEKW  
RLVKAHGTAVGLPSDDDMGNSEVGHNALGAGRIFAQGAKLVDQALASGKIYD  
GDGFNYIK



ESFESGTLHLIIGLLSDGGVHSRLDQLQLLLKGVSERGAKKIRVHILTDGRDVLGSSIGF  
VETLENDLLELRAKGVDAQIASGGGRMYVTMDRYENDWDVVKRGWDAQVLGEAPYKFKSA  
LEAVKTLRAQPKANDQYLPPFVIVDDSGNAVGPVLDGDAVVTINFRADRMVMLAKALEYA  
DFDNFDRVRVPKIRYAGMLQYDGEKLPSTRYLVSPPPEIDRTSGEYLVKNGIRTFACSETV  
KFGHVTFWFNGNRSGYFDATKEEYVEVPSSDSGITFNVAPNMKALEIAEKARDALLSGKFD  
QVRVNLPNGDMVGHTGDI EATVVACKAADEAVKIILDAVEQVGGIYLV TADHGNAEDMVK  
RNKSGKPLLDKNDRIQILTSHTLQPVVVAIGGPGLHPGVKFRNDIQTPGLANVAATVMNL  
HGFEAPADYEQTLIEVADN

>P37967

MTHQIVTTQYGVKVGTTENGVHKWKGIPYAKPPVGQWRFKAPEPPEVWEDVL DATAYGSI  
CPQPSDLLSLSYTELPRQSEDCLYVNVFAPDTPSKNLPVMVWIHGGAFYLGAGSEPLYDG  
SKLAAQGEVIVVTLNYRLGPFGLHLSSFNEAYSDNLGLLDQAAAALKWVRENISAFGGDP  
DNVTVFGESAGGMSIAALLAMPAAKGLFQKAIMESGASRTMTKEQAASTSA AFLQVLGIN  
EGQLDKLHTVSAEDLLKAADQLRIA EKENIFQLFFQPALDPKTLPEEPEKAI AEGAASGI  
PLLI GTTRDEGYLFFTPDSDVHSQETLDAALEYLLGKPLAEKVADLYPRSLESQIHMTD  
LLFWRPAVAYASAQSHYAPVWMYRFDWHPKKPPYNKAFHALELPFVFGNLDGLERMAKAE  
ITDEVKQLSHTIQSAWITFAKTGNPSTEAVNWPAYHEETRETLILDSEITIENDPESEKR  
QKLFPSKGE

>P21163

MRKLLIFSISAYLMAGIVSCKGVDSATPVTE DRLALNAV NAPANADNTVNIKT FDKVKNAFG  
DGLSQSAEGTFTFPADVTTVKTIKMFIKNECPNKT CDEWDRYANVYVKNKTTGEWYEIGR  
FITPYWVGTEKLPRGLEIDVTD FKSLLSGNTE LKIY TETWLAKGREYSVDFDIVYGT PDY  
KYSAVVPVIQYNKSSIDGVPYKGAHTLGLKKNIQLP T NTEKAYLR T TISGWGHAKPYDAG  
SRGCAEWCFRTH TIAINNANTFQHQLGALGCSANP INNQSPGNWAPDRAGWCPGMAVPTR  
IDV LNNSLTGSTFSYEYKFQSWT NNGTNGDAFYA I S S F V I A K S N T P I S A P V V T N

>Q9AJD6

MAQYDVAIIGAGSAGALIAARLSEDPARNVLLIEAGGRPSDPDILKPSMWP AIQHRSYDW  
DYKTTTPQEGAAGRSFAWARGKGLGGSSLLHAMGYMRGHPADFAAWAEATGDERWSWEGLL  
PSFMANEDHVSGGDGIHGKDGMPVWI PDDEV SPLTQAFMTAGNALGLPRIPDHNTGQMI  
GVTPNSLMIRDGRRVTVAEAWLTPEVCARP NLTIMTGTLTRRLKLEKSHVSAIELAGPEG  
LATVTASEIILSAGSLESPALLMRSGIGRENVLREAGVTCRVKAP E LGLNLMDHLLGAGN  
LYATKKHLPPSRLQHSESMAYMRAGDFSAGGQPEIVVGC GVAPIVSE SFTAPAPGNAYSF  
LFGVTHPTSRGEIRITGDAPDSPLIIDPRYLQTQNDRNLFRAALGAAREIGHRPELAEWR  
DHEILPKSLAASQDIDTFIAKAVITHHHPSGTCRMGKDEM SVVDADLRLRGLDNLYVVDG  
SVLPSLTAGPIHAAVQAIAENFTTGFK

>P54660

MLVLRNLLALVTLALLFTLSSAQYTL SVS NSASGSKCTTAVSAKLNACNTGCLNSFNIVE  
SSNGKGLVFKTFINAACSGEYESLSQFTCAANQKIPTTSYIVSCNSTPSSNSTTDS DSSS  
GSTVMIGLASSLLFAFATLLALF

>Q00680

MSVEVDGFNASPLFKELHEGLADKSKAE EAVKAVNAVIVITLKNKEGKEQSWVLDLKKAG  
TLAKVDGAAPKGDVQLILKDVDFVKLANNKVNGQKLFMNGKLVKGNMMKATAIESVFKK  
LDPRPKL

>P40371

MKGSHPNAGSLLEPLHKLNPFSENSTSGHRKNASDHSADGETRPIA IEMKDSKGNTVVPVG  
NSRPSKASNWLAGLMEDKNQRWRRSMEDTHICLYDFGGNQDDGFVAVYDGHAGIQASDYC  
QKNLHKVLLLEKVRNEPDRDLVTDLMDETFVEVNSKIAKATHNDICGCTAAVAFFRYEKNRT  
RRVLYTANAGDARIVLCRDGKAIRLSYDHKGS DANESRRVTQLGGLMVQNR INGVLA VTR  
ALGD TYL KELVSAHPFTTETRIWNGHDEFFIIACDGLWDVVS DQEAVDFVRNFVSPREAA  
VRLVEFALKRLSTDNITCIVVNLTRNPGDLDDSGLTADNDSYSNDYY

>Q09172

MGQTLSEPVLDKHS SSGDRWLHFGVSHMQGWRISMEDAHCALLNFTDSNSSNPPTSFFG  
VFDGHGGDRVAKYCRQHLPDI IKSQPSFWKGN YDEALKSGFLAADNALMQDRDMQEDPSG  
CTATTALIVD HQVIYCANAGDSRTVLGRKGTAEP LSF D HKPNNDVEKARIT AAGGFIDFG  
RVNGSLALSRAIGDFEYK KDS SLPPEKQIVTAFPDVVIHNI DP DDEF LILACDGIWDCKS  
SQQVVEFVRRGIVARQSLEVICENLMDRCIASNSESCGIGCDNMTICIVAF LHGRGLEDW  
YNWITQRVNSGEGPCAPPSYAE LRGPN TIADARNLQLEYDHIASHEYSGD TYDS DSDE  
TIAYDRYYLH

>Q09173

MGQTLSEPVTEKHSVNGSNEFVLYGLSSMQGWRISMEDAHSA ILSMECSAVKDPVDFFAV  
YDGHGGDKVAKWCGSNLPQILEKNPDFQKGFVNALKSSFLNADKAILDDDQFHTDPSGC  
TATVVLRVGNKLYCANAGDSRTVLGSKGI AKPLSADHKPSNEAEKARICAAGGFVDFGRV  
NGNLALSRAIGDFEFKNSNLEPEKQIVTALPDVVVHEITDDDEFVVLACDGIWDCKTSQQ  
VIEFVRRGIVAGTSLEKIAENLMDNCIASDTETTGLGCDNMTVCIVALLQENDKSAWYKK  
IADRVAANDGPCAPPEYAENHGP GWRSGDNMKKVI VPPNFHQVKLNGSDGYDKDANENSK  
EDDSTNGSLAAGFRWKEHFFPHKAE EENS SSETDIVNSNKDVAD DHKEAVSAAD

>P20584

MKGTAASALLIALSATAAQARPVVDERFPYTGPAVPIGDWVDPTINGNGKGFPRLVEPPA  
VKPATANPRNNVNI SLSYIPKGMHIHYQTPFGLGQLPAVRWGKDPRLNKQHAGLLSHF  
QDWSSGRSPGIVQRRRAERHGLHQRSRNTQAAGQGC PMREL PFAWPTEVTISYADELGI I  
LVPTTGRSATTAPVLLFRVAYSGRVQEALARGEIPDQGEVVANRRRNFTAYQHPPFRMPGP  
ETGGVGNFWYSFDYGLAHFVSIDGETDFANSPEWNFAEDVTGNETLPSEAE TFI TDSGPF  
GNVNGSVHETKSYEQWHLAEAGSGEGRPQQDPVGLRHEPPPYVQFRLFLYQLHVREAFEG  
LLLSMAWMLTSLGDVCPFFKLVHHP LTLSSATSTGTSSLSRATAPSILPPCEQQHLLCP  
QRQVHHPHHQRHGRQH

>Q05117

MDSWVLLGLQI IWLPLLTHGTAPTPTLRFVAVGDWGGVNPAPFHTAREMANAKEIARTV  
QTMGADFIMSLGDNFYFTGVHDASDKRFQETFEDVFS DRALRNIPWYVLAGNHDHLGNVS  
AQIAYS KISKRWNFPSPYRLRFKIPRTNITVAIFMLDTVMLCGNSDDFASQQPKMPRDL  
GVARTQLSWLKKQLAAAKEDYVLVAGHYPIWSIAEHGPT RCLVKNL RPLLATYGV TAYLC  
GHDHNLQYLQDENG VGYVLSGAGNFMDPSVRHQ RKVPNGYLR FHYGSEDSLGGFTHVEIS  
PKEMTIIYVEASGKSLFKTSLPRRPRP

>Q12546

MKGTAASALLVALSATAAQARPVVDERFPYTGPAVPIGDWVDPTINGNGKGFPRLVEPPA  
VKPATANPRNNVNI SLSYIPKGMHIHYQTPFGLGQLPAVRWGKDPRLN NSTAQGYSHTY  
DRTPSCSQVKA VTQCSQFFHEVSI DGLEPDTTYYYQIPAANGTTQSEVLSFKTSRPAGHP  
GSFSVAVLNDMGYTNAHGTHKQLVKAATEGTAFAWHGGDLSYADDWYSGILACADDWPVC  
YNGTSSTLPGGGPLPEEYK KPLPAGEIPDQGGPQGGDMSVLYESNWDLWQQWLN NVTLKI  
PYMVLPGNHEASCAEFDPHNILTAYLNDDIANGTAPT DNLTYYSCPPSQRNFTAYQHRF

RMPGPETGGVGNFWYSFDYGLAHFVVSIDGETDFANSPEWNFAEDVTGNETLPSESETFIT  
DSGPFPGNVNGSVHETKSYEQWHWLQQDLAKVDRSKTPWVIVMSHRPMYSSAYSSYQLHVR  
EAFEGLLLLKYGVDAYLSGHIHWYERLYPLGANGTIDTAAIVNNNTYYAHNGKSI TH IING  
MAGNIESHSEFSDGEGLTNITALLDKVHYGFSKLTIFNETALKWELIRGDDGTVGDSLTL  
LKPSHVAGGKLLHS

>P07102

MKAILIPFLSLLIPLTPQSAFAQSEPELKLESVVIVSRHGVRAPTKATQLMQDVTTPDAWP  
TWPVKLGWLTTPRGGELIAYLGHYQRQRLVADGLLAKKGCPOSGQVAI IADVDERTRKTGE  
AFAAGLAPDCAITVHTQADTSSPDPLFNPLKTGVCQLDNANVTDAILSRAGGSIADFTGH  
RQTAFRELERVLNFPQSNLCLKREKQDESSLTQALPSELKVSADNVSLTGAVSLASMLT  
EIFLLQQAQGMPEPGWGRITDSHQWNTLLSLHNAQFYLLQRTPEVARSRATPLLDLIKTA  
LTPHPPQKQAYGVTLPTSVLFIAGHDTNLANLGGALELNWTLPGQPDNTPPGGELVFERW  
RRLSDNSQWIVSLVFQTLQOMRDKTPLSLNTPPGEVKLTLAGCEERNAQGMCSLAGFTQ  
IVNEARIPACSL

>P27028

MKYNKLSVAVAAFAFAAVSAQNSNVLKYPETKKVSHTDTYFGTQVSDPYRWLEDDRAEDT  
KAWVQOEVKFTQDYLAQIPFRDQLKKQLMDIWNYEKISAPFKKGYTYFSKNDGLQAQSV  
LYRKDAAGKTEVFLDPNKFSEKGTSLASVSFNKKGTLVAYSISEGGSDWNKIIILDAET  
KKQLDETLDDVKFSGISWLGDEGFFYSSYDKPKEGSLSGMTDKHKVYFHKLGTKQSQDE  
LIIGGDKFPRRYIGAYVTDDQRYLVVSAANATNGNELYIKDLKKNKTDIFIPITGFDSNVN  
VADTDGDTLFLFTDKDAPNKRLVKTTIQNPKAETWKDVIAETSEPLEINTGGGYFFATYM  
KDAIDQVKQYDKNGKLVRAIKLPGSGNASGFGGEKTEKDLYSFTNYITPPTIFKYNVTT  
GNSEVYQKPKVKFNPENYVSEQVFYTTSSDGTKIPMMISYKKGKLDGKNPTILYSYGGFN  
ISLQPAFSVVNAIWMENGGIYAVPNIRGGGEYGKKWHDAGTKMQKKNVFNDFIAAGEYLQ  
KNGYTSKEYMALSGRSNGGLLVGATMTMRPDLAKVAFPGVGVLDMLRYNKFTAGAGWAYD  
YGTAEADSKEMFEYLKSYSPVHNKAGTCYPSTMVITSDHDDRVPVPAHSFKFGSELQAKQS  
CKNPILIRIETNAGHGAGRSTEQVVAENADLLSFALYEMGIKSLK

>P35813

MGAFLDKPKMEKHNAQQGNGRLRYGLSSMQGWRVEMEDAHTAVIGLPSGLESWSFFAVYD  
GHAGSQVAKYCEHLLDHITNNQDFKGSAGAPSVENVKNGIRTGFLEIDEHMRVMSEKKH  
GADRS GSTAVGVLI SPQHTYF INCGDSRGLL CRNRKVHFF'TQDHKPSNPLEKERIQNAGG  
SVMIQRVNGSLAVSRALGDFDYKCVHGKGPTEQLVSPPEPEVHDIERSEEDDQFIILACDG  
IWDVMGNEELCDFVRSRLEVTDLEKVCNEVVDTCLYKGSRDNMSVILICFPNAPKVSPE  
AVKKEAELDKYLECRVEEIIKKQGEVDPDLVHVMRTLASENIPSLPPGGELASKRNVIEA  
VYNRLNPHYKNDDTDSTSTDDMW

>P30044

MGLAGVICALRRSAGYILVGGAGGQSAAAAARRCSEGEWASGGVRSFSRAAAAAMAPIKVG  
AIPAVEVFEGEPGNKVNLAELFKGKKGVLFVPGAFTPGCSKTHLPGFVEQAEALKAKGV  
QVVAACLSVNDAFVTGEWGRAHKAEGKVRLLADPTGAFGKETDLLLLDDSLVSIFGNRRLKR  
FSMVVQDGIKALNVEPDGTGLTCSLAPNIIISQL

>P0ABS5

MAGRIPRVFINDLLARTDIVDLIDARVKLKKQGNFHACCPFHNEKTPSFTVNGEKQFYH  
CFGCGAHGNAIDFLMNYDKLEFVETVEELAAMHNLEVPFEAGSGPSQIERHQRTLYQLM  
DGLNTFYQQSLQOPVATSARQYLEKRGLSHEVIARFAIGFAPPGWDNVLKRFGGNPNENRQ  
SLIDAGMLVTNDQGRSYDRFRERVMFPIRDKRGRVIGFGGRVLGNDTPKYLNSPETDIFH

KGRQLYGLYEAAQQDNAEPNRLLVVEGYMDVVVALAQYGINYAVASLGTSTTADHIQLLFRA  
TNNVICCYDGDGRAGRDAAWRALETALPYMTDGRQLRFMFLPDGEDPDTLVRKEGKEAFE  
RMEQAMPLSAFLFNSLMPQVDLSTPDGRARLSTLALPLISQVPGETLR IYLRQELGNKLG  
ILDDSQLERLMPKAAESGVS SRVPVQLKRTTMRILIGLLVQNPELATLVPPLENLDENKLP  
GLGLFRELVNTCLS QPGLTTGQLEHYRGTNNAATLEKLSMWDDIADKNIAEQTF TDSL  
NHFDSLLELRQEELIARERTHGLSNEERLELWTLNQELAKK

>P00776

MTFKRFSPLSSTSRYARLLAVASGLVAAAALATPSAVAAPAEASKATVSQ LADASSAILA  
ADVAGTAWYTEASTGKIVLTADSTVSKAELAKVSNALAGSKAKLTVKRAEGKFTPLIAGG  
EAITTTGGRCSLGFNVSVNGVAHALTAGHCTNISASWSIGTRTGT SFPNNDYGIIRHSNP  
AADGRVYLYNGSYQDITTAGNAFVGVQAVQRSGSTTGLRSGSVTGLNATVNYGSSGIVYG  
MIQTNVCAEPGDSGGSLFAGSTALGLTSGGSGNCR TGGTTFYQPVTEALSAYGATVL

>P00777

MRIKRTSNRSNAARRVRTTAVLAGLAAVAALAVPTANAETPRTF SANQLTAASDAVLGAD  
IAGTAWNIDPQSKRLVVTVDSTVSKAEINQIKKSAGANADALRIERTPGKF TKLISGGDA  
IYSSTGRCSLGFNVRSGSTYYFLTAGHCTDGATTWANSARTTVLGT TSGSSFPNNDYGI  
VRYTNTTIPKDGTVGGQDITSAANATVGMVTRRGSTTGTHSGSVTALNATVNYGGDVV  
YGMIRTNVCAEPGDSGGPLYSGTRAIGL TSGGSGNCSSGGTTFYQPVTEALSAYGVS VY

>Q99405

MKKPLGKIVASTALLISVAFSSSIASAAEEAKEKYLI GFNEQEAVSEFVEQIEANDDVAI  
LSEEEEEVEIEELLHEFETIPVLSVELSPEDVDALELDPTISYIEEDA ETVTMAQSVPWGIS  
RVQAPAAHNRGLTGSGVKVAVLDTGISTHPDLNIRGGASFVPGEPSTQDGN GHGTHVAGT  
IAALNNSIGVLGVAPSAELYAVKVLGASGSGSVSSIAQGLEWAGNNGMHVANLSLGS P  
SATLEQAVNSATSRGVLVVAASGN SGAGSISYPARYANAMAVGATDQNNNRASF S QY GAG  
LDIVAPGVNVQSTYPGSTYASLNGTSMATPHVAGVAALVKQKNPSWSNVQIRNHLKNTAT  
GLGNTNLYGSGLVNAEAAATR

>Q9XEX2

MAPIAVGDVVPDGTISFFDENDQLQTASVHSLAAGKKVILFGVPGAF TPTCSMKHVPGF I  
EKAEELKSKGVDEIICFSVNDP FVMKAWGKTYPENKHVKFVADGSGEYTHLLGLELDLKD  
KGLGVR SRRFALLLDDLKVTVANVESGG EFTVSSADDILKAL

>Q949U7

MATSLSVSRFMSSSATVISVAKPLLSPTVSFTAPLSFTRSLAPNLSLKFRNRR TNSASAT  
TRSFATTPVTASISVGDKLPDSTLSYLDPSTGDVKTVTVSSLTAGKKTILFAVPGAF TPT  
CSQKHVPGFVSKAGELRSKGIDVIACISVNDAFVMEAWRKDLGINDEVMLLSDGNGEFTG  
KLGVELDLRDKPVGLGVR SRRYAILADDGVVKVLNLEEGGAF TNSAEDMLKAL

>Q9M7T0

MAMSILKLRNLSALRSAANSARIGVSSRGSKLAEGTDITSAAPGVSLQKARSWDEGVSS  
KFSTTPLSDIFKGGKVVIFGLPGAYTGVCSQQHVPSYKSHIDKFKAKGIDSVICVSVNDP  
FAINGWAEKLGAKDAIEFYGDFDGKFKSLGLDKDL SAALLGPRSERWSAYVEDGKVKAV  
NVEEAPSDFKVTGAEVILGQI

>P46483

MSRVNLAAPANHVVPRAAQEEVQGEYQTASNNWAVAAMASAGAAVGA AVLAMRRRATNTY  
EAIREDPEAVLAGAGRAMGAALIGAAVAGSANAASLT YDELQSLSYLEVKSSGIAGTCPV

LADGVSSKLSLKAGKYEINNWCLEPSSFQVKLPPTEKQQVTEFERTKLMTRLTYTLDAIS  
ADLNVGGDGSWTIQEKDGLDYAATTVQLAGGERVFPFLFTIKNLLAKGDAGQFLGQFDVPS  
YRGATFLDPKGRGGASGYDTAVALPASGDDEEYAKENSKSTAASVGTIAFKVAKVNAETG  
EIAGVFESI QPSDSDLGAKVPKDIKTSGVWYAQISPSK

>P11472

MRYRAFLAAFLAVCLGVLTAACSSGPTAADLGTLYDQIKDTGLANKCLSLKESARGTIPL  
EAGKKYALTDLCLEPQEFFVKEEPGNKRQKAEFVPGKVLTRYTSSLDQVYGDALALKADGT  
VSFTEKGGIDFQAITVLLPGGEEVFPFLFTVKGLVASTSEPATSINTSTDLRGGYRVPSYR  
TSNFLDPKARGLTTGYESAIPA SAGDAEDLTKENVKRFVVGQGEISLAVSKVDGATGEV  
AGVFTAIQPSDSDTMGGKEAVDVKLVGQFYGR IEPADA

>075475

MTRDFKPGDLIFAKMKGYPHWP PARVDEVDPGAVKPP TNKLP IFFFFGTHE TAF LGPKDIFP  
YSENKEYKYPNKRKGFNEGLWEIDNNPKVKFSSQQAATKQSNASSDVEVEEKETSVSKE  
DTDHEEKASNEDVTKAVDITTPKAARRGRKRKA EKQVETEEAGVVT TATASVNLKVSPKR  
GRPAATEVKIPKPRGRPKMVKQPCPSESDIITEEDKSKKKGQEEKQPKKQPKKDEEGQKE  
EDKPRKEPDKKEGKKEVESKRKNLAKTGV TSTSDSEEEGDDQEGEKKRKGGRNFQTAHRR  
NMLKGQHEKEAADRKRKQEEQMETEQQNKDEGKKPEVKKVEKKRETSMDSRLQRIHAEIK  
NSLKIDNLDVNRCEALDELASLQVTMQQAQKHEM ITTLKKIRRFKVSQVIMEKSTMLY  
NKFKNMFLVGE GDSVITQVLNKS LAEQRQHEEANKTKDQGKKGPNKKLEKEQTGSKTLNG  
GSDAQDGNQPQHNGESNEDSKDNHEASTKKKPSSEERETEISLKDSTLDN

>P35496

MKLGTAI PWALLLSTATLVSTARINGPDECGRVIKDTSGSISNTDRQKNLCTWTILMKPD  
QKVRMAIPYLNACGKEYVEVFDGLLSGSPSYGKLCAGAAIVFLSTANTMTIKYNRISGNS  
SSPFLIYFYGSSPGSEY

>P60484

MTAI I KEIVSRNKRRYQEDGFDLDTYIYPNI IAMGFPAERLEGVYRNNIDDVVRFLDSK  
HKNHYKIYNLCAERHYDTAKFNCRVAQYPFEDHNPPQLELIKPFCELDLQWLSEDDNHVA  
AIHCKAGKGRGTGVMICAYLLHRGKFLKAQEALDFYGEVTRDRDCKGVTIP SQRRYVYYYSY  
LLKNHLDYRPVALLFHKMMFETIPMFSGGTCNPQFVVCQLKVKIYSSNSGPTRREDKFMY  
FEFPQPLPVC GDIKVEFFHKQNKMLKKDKMFHFVWNTFFIPGPEETSEKVENGLCDQEI  
DSICSIERADNDKEYLVLT LTKNDLDKANKDKANRYFSPNFVKLYFTKTVEEPSNPEAS  
SSTSVPDVS DN EPDHYRSDTTDSDPENEPFDEDEQHTQITKV

>Q9Y3E5

MPSKSLVMEYLAHPSTLGLAVGVACGMCLGWSLRVCFGMLPKSKT SKTHTDTESEASILG  
DSGEYKMILVVRNDLKMKGKVAQAQCSHAAVSA YKQIQRRNPEMLKQWEYCGQPKVVVKA  
PDEETLIALLAHAKMLGLTVSLIQDAGR TQIAPGSQTVLGI GPGPADLIDKVTGHLKLY

>P07515

MEKKEFHIVAETGIHARPATLLVQTASKFNSDINLEYK GKSVNLKSIMGVMSLGVGQGS  
VTITVDGADEAEGMAAIVETLQKEGLAE

>Q55012

MPQDVDFHIPLPGRQSPDHARAEAEQLAWPRSLGLIRSDAAAERHLRGGYADLASRFYPH  
ATGADLDLGVDLMSWFFLFDDLFDGPRGENPEDTKQLTDQVAAALDGPLPDTAPP IAHGF  
ADIWRR TCEGMPAWCARSARHWRNYFDGYVDEAE SRFWNAPCDSAAQYLAMRRHTIGVQ

PTVDLAERAGRFEVPHRVFDSAVMSAMLQIAVDVNLLLNDIASLEKEEARGEQNNMVMIL  
RREHGWSKSRSVSHMQNEVRARLEQYLLLESCLPKVGEIYQLDTAEREALERYRTDAVRT  
VIRGSYDWHRRSSGRYDAEFALAAGAQQGYLEELGSSAH

>P35236

MVQAHGGRSRAQPLTSLGAAMTQPPPEKTPAKKHVRLQERRGSNVALMLDVRSLGAVEP  
ICSVNTPREVTLHFLRTAGHPLTRWALQRQPPSPKQLEEEFLKIPSNFVSPEDLDIPGHA  
SKDRYKTILPNPQSRVCLGRAQSQEDGDYINANYIRGYDGKEKVYIATQGMPNPTVSDFW  
EMVWQEEVSLIVMLTQLREGKEKCVHYWPTEEETYGPFQIRIQDMKECPEYTVRQLTIQY  
QEERRSVKHILFSAWPDHQTPEASAGPLLRLVAEVEESPETAAHGPIVVHCSAGIGRTGC  
FIATRIGCQQLKARGEVDILGIVCQLRLDRGGMIQTAEQYQFLHHTLALYAGQLPEEPS

>076942

MKGISKILSASIALMKLENVYSATALCSNAYGLTPGQQGMAQQPSYVLIPTSTPGTIANCA  
SGSQDTYSPSPAAPTSPVTPGKTSNETSPSAPAEDVGTCKIAVLKHCDAFGTTSGTTPG  
SGPCETPEQQPLSVISTTPAVPVTVESAQSPSVVPPVVAHHQAVPGYNNGTSGIPG  
QQQILSGTLPPGATLCQGQAMPSTPGQQQILSGTLPPGVTL CQGQATPSTPGQQVLSGT  
LPPGVTL CQGQATPSTPGQQVLSGTL LPPGATLCQDQGMPTSGVPGQQGSSGQCCAPQ  
IPNPVMPSPMNISGNGYPSSTAYSPNLGSLGSCVDIQKTGGTSCQKPEKSATQYAMEAC  
ATPTPTVIIGNSEYLVGPGMYNAINSPCNTAVQCC

>P69795

MEKKHIYLFCSAGMSTSLLVSKMRAQAEKYEVPVIEEAFPETLAGEKGNADVVLLGPQI  
AYMLPEIQRLLPNKPVEVIDSLLYGKVDGLGVLKAAVAAIKKAAAN

>P15640

MKVLVINGGREHALAWKAAQSPLVETVVFVAPGNAGTALEPALQNVAI GVTDIPALLDFA  
QNEKIDLTIVGPEAPLVKGVVDTFRAAGLKIFGPTAGAAQLEGSKAFTKDFLARHKIPTA  
EYQNFTVEPALAYLREKGAPIVIKADGLAAGKGVIVAMTLEEAEAAVHDMLAGNAFGDA  
GHRIVIEEFLDGEAEASFIVMVDGEHVLPMATSQDHKRVGDKDTGPN TGGMGAYSPAPVVT  
DDVHQRTMERIIWPTVKMAAEGNTYTGFLYAGLMIDKQGNPKVIEFNCRFGDPETQPIM  
LRMKSDDLVELCLAACESKLDKTSSEWDERASLGVVMAAGGYPGDYRTGDVIHGLPLEEVA  
GGKVFHAGTKLADDEQVVTNGGRVLCVTALGHTVAEAQKRAYALMTDIHWDDCFCRKDIG  
WRAIEREQN

>Q4QME6

MTVKTFRGSPALSEFRLTQLQQKCQQYQLPITSVYAEYLHFVEQKTSLVEDEIVKLQALL  
HYGSMFSELKPAGYCLIVTPRVGTISSWSSKATDIAHNCGLSKVNRIERGIAYYFNIERD  
LTEAEELATLKDLLHDRMLETVLNHETEAAALLFTQQEPKALT'TIDILNGGRQALERANIAL  
GLALADDEMDYLVESFTALKRNPQDVELYMFAQANSEHCRHKIFNADWIIDGKKQDKSLF  
KMIKNTFEQTPDFVLSAYKDNAAVMEGSKVGRWFPDPDGQYRVHQEDAHI LMKVETHNHP  
TAISPFGAATGSGGEIRDEGATGRGAKPKAGLTGFSVSNLVI PNFEQPWENPLSKPNRI  
ASALDIMIDAPLGSAAFNNEFGRPALLGYFRTYEEKVNSFAGKEVRYHHPIMLAGGIGN  
IRGEQVQKGEIPIGAKLIVLGGAAMNIGLGGGAASSMDSGKSKEDLDFASVQRENPEMER  
RCQEVIDRCWQLGEENPILFIHDVGAGGLSNAMPELVHDGRRGGKFDLRSILCDEKGMSP  
LEIWCNESQERYVLAVAPENLELFTALCERERAPFAVIGEATQAEHLILHDSHFNNPID  
LPMNVLLGKTPKMTREVLSKTVENQSLKTEGIQLKEAFHRVLRPVAEKTFLITIGDRS  
VTGMVARDQMVGWPQIPVSDVAVTASLDSYHGEAMAMGERSPVALLNFSASARLAVAEA  
ITNIAGTHIGEMKRIKLSANWMSAAGHTGEDAGLYEAVKAVGEELCPALGLTIPVGKDSM  
SMKTTWIDNGEQKSVTAPLSLVISAFARVEDVRKTLTPQLRDTDKGLSSLLLIDLGEHNR

LGATALAQVYKQLGDKPADVVVKVQRLKDFYNAMQTLVAEDKLLAYHDRSDGGLITTLAEM  
AFAGHCGEVVDISALGDNLDLAVLFNEELGAVIQVADSQLESVREVLKAHNLLGI THQLGT  
VTADDRFEISRGSHKLFSEKRSELRSIWAELTYQMQRRLRDNPECAEQEFQAKKNPDDKGL  
SAFLTYDVNEDITAPFINKGVKPTIAILREQGVNSHYEMAAAFDRAGFN AIDVHMSDLMI  
GRRNLAEFNAMVACGGFSYGDVLGAGGGWAKSILFNPKLHEQFSQFFINPNTLTLGVCNG  
CQMISNLAEIIPGTENWPHFVRNKSERFEARVSLVINEVDSVWFAGMAGSHMPIAVSHG  
EGQVKFKSVEQFAGLKAQGI IAAQYIDNNGSPTELYPANPNGSAEGITAITNLDGRVAIM  
MPHPERVFRAVSNWHPENWTEDGAWMRLFRNARMVF

>Q1D9V4

MHTLRGAPALSDFRLAKLLAQCRERVPSVSSIYAEFVHLIDAPAPLSEADLATLGRLLDY  
GPRVATGARIGSLLLVLPRPGTISPWSSKATDIVHNCGLGERVRRMERGTAFFIAGPDGQ  
ALQDAELERLKPVLHDMTQAVVGRLEDAAILFAGHTPRPFTTVDVLGGGRAALVTANRE  
LGLALADDEMDYLVARFTELKRNPTDVELMMFAQANSEHCRHKIFNASWTIDGKQPERSL  
FQAIKNTYVQHKEGVLGAYKDNAAVIEGFEVDRFFPSPESGEWGSVREPAHIMIKVETHN  
HPTAISPYPGAATGAGGEIRDEGATGRGARPKAGLTGFSVSHLRIPGFQEPWEQPYGKPD  
RIVSALDIMVDGPLGGAAFNNEFGRPNLTGYFRSYEVQVPTPGGVEVRGYHKPIMIAGGL  
GNIRASHVQKRLQPGDKLIVLGGPAMLIGLGGGAASSMAQGASAADLDFASVQRDNAEM  
ERRCQEVIDSCWALGDKNPIRSIHDVGAGGLSNAVPELAHDNDLGGRLERLRAVPNAEPM  
SPVEIWCNEAQERYVLGVAPEDLARFAALCERERAPFSVLGDATAEQTLKLGDTQFGNAP  
IDLPMVDLFGKPPMRHDVTSRPVSFAPLTLDGSLALLAERVLSHPTVADKSFLLITIGDR  
TVSGLSSRDQMVGPWPQVPVADCAVTLSTVTSTTGEAMAMGERTPLALIDAAASARMAVGE  
ALTNIAAARIKGLSDVKLSANWMAAAGSPGEDASLYAAVHAVGMELCPALGLTIPVGKDS  
MSMRTVWEEGGARKAVTSPVSLIISAFAPVLDVRKSLTPQLVDVADDTRLLFIDLARGKQ  
RLGGSVAHVHGQVGPESPDVEDPALLRGGFAAVQALSESGSLLAYHDRSDGGLWATLCE  
MAFAGRCGLDVDLAPLGGDVTAALFNEELGAVVQVRASDVARVREVL AQHGLSRDVHEL  
RPVTALQVRVRHGGDTLMAEDTLALRRTWSRVSYEMQKLRDNPICADQESAARSDASDPG  
LSPKLTFDPAQDVAAPFIKAGARPRVAVLREQGVNSQQEMAAAFTRAGFAAVDVHMSDIL  
SGRVSLLEGFKVLACGGFSYGDVLGAGGGWAKSILFNPARRADFAAFFARPD SFGLVCN  
GCQMMSQLKDIIPGAEHFPRFVRNASEQYEARLSLVEVSKTPSLFYQMEGSRMLIVTSH  
GEGRAEFPSVEDAARVNLGLVTTTRWVDNHGRVAESYPANPNGSPHGIAGLTTRDGRFTI  
TMPHPERVHRSVQHSWRPREWGDDGPWMRMFRNARVWLG

>Q5F7J4

MPLRGVTALSDFRVEKLLQKAAALGLPEVKLSSEFWYFAGSEKALDAATVEKLQALLAAQ  
SVEQTPEAREGLHLFLVTPRLGTISPWASKATNIAENCGLAGIERIERGMAVWLEGALTD  
EQKQQAALLHDMRTE SVLPDFQTASKLFHHLKSETFSTVDVLGGGKEALVKANTETGLA  
LSADEIDYLVENYQALQRNPSDVELMMFAQANSEHCRHKIFNADFILNGEKQPKSLFGMI  
RDTHNAHPEGTVVAYKDNSSVIKAKIERFYPNAAENQGYRFHEEDTHIMKVE'THNHPT  
AIAPFAGAATGAGGEIRDEGATGKGSRPKAGLTGFTVSNLNIIPDLKQPWEQDYGKPEHIS  
SPLDIMIEGPIGGAAFNNEFGRPNLLGYFRTFEKFQVVRGYHKPIMIAGGLGSIQAQQ  
THKDEIPEGALLIQLGGPGMLIGLGGGAASSMDTGTNDASLDFNSVQRGNPEIERRAQEV  
IDRCWQLGDQNPISIHDVGAGGLSNAFPPELVNDAGRGAVFELREVPLEEHGLTPLQIWC  
NESQERYVLSILEKDLDTFRAICERERCPFAVVGTA'TDDGHLKVRDDLFSNNPVDLPLNV  
LLGKPPKTTTRTDKTVTPSKKPFHAGDIDITEAAYRVLRLPAVAAKNFLITIGDRSVGGMT  
HRDQMVGKYQTPVADCAV'TMMGFNTYRGEAMSMGEKPAVALFDAPASGRMCVGEAITNIA  
AVNIGDIGNIKLSANWMAACGNEGEDEKLYRTVEAVSKACQALDLSIPVGKDSL SMKT'VW  
QDGEKKS'VVSPLSLIISAFAPVKDVRKTVTP'ELKNVEGSVLLFIDLGF'GKARMGGSAFG  
QVYNMNSGDAPDLDAGRLKAFYSVIQQLVAEDKLLAYHDRSDGGLFATLAEMAF'AA'RCG  
ISADIDCLMDKFLPIHLPDFQGDPAEDLSDELYNHAAIKILFNEELGAVIQIRQKDRDYV

DAAFETAGLTDAVSRIGSPDFDNEFISFFGYGYFLEQNRADLQRAWQETSHAIQRLRDNP  
ACADSEFALIGDNERSALFADVKFVNDEDIAAPFINSGAKPKIAILREQVNGQIEMAAA  
FTRAGFDAYDVHMSDLMAGRFRLLADFKMLAACGGFSYGDVVGAGEGWAKSILFHPALRDQ  
FAAFFADPNTLTGLVCNGCQMVSNLAEIIPGAETWPKFKRNLSEQFEARLNMVHVPKSAS  
LILNEMQDSSLPVVVSHGEGRADFALHGGNISADLGIALQYVDGQNVQTYPLNPNNGSP  
QGIAGITNADGRVTIMMPHPERVYRAAQMSRKPEGWTELSGWYRLFAGARKALG

>Q8XYN6

MAHFSCFPGALALSFRQORLLSTLKRIDPEIDAVSAQYLHFVAADAPLSADDAARVQAL  
LTYGSPASAETEGDRFVVI PRFGTISPWASKATEIARHCALPQIHRIERGVEFTVTCKKG  
LLRGLTGGRKQLDEATRAVA AHLHDRMTEIVVATREAGYGLFDVLPKALRFVDLGS GD  
AAAGRGAL EAA NTEMGLALS DDEIDYLV DAYRKLGRNPTDVELMMFAQANSEHCRHKIFN  
ADWTIDGETQDKSLFAMIRNTHQLAPQGTVVAYS DNAAVMEGGMAERWFPHAGTDGETGV  
POYGRREALTH TLMKVETHNHPTAISPFPGASTGAGGEIRDEGATGRGAKPKAGLTGFTV  
SNLLLPEAVQSWENARDTAQPAQRNPGDTAPGPFVKGKPDRIASPLQIMIEGPIGGA AFNN  
EFGPNLGGYFRVYEQNVGGTVRGYHKPIMIAGGIGNIDAGH THKHGLPAGTLLVQLGGP  
GMRI GMGGGAASSMATGTNTADLDFDSVQRGNPEMQRR AQEVINACWALGEDNPILSIHD  
VGAGGISNAFPELV DGADRGARFDLRQVHLEESGLSPA E IWCNESQERYTLAIAPGDFPR  
FQAMCERERAPFSVVG FATEEQQLQVVDGDAPADAVEHFPVNMPMDVLLGKPPRMHRDVR  
RVAQALPEVDVTGLDLETVARDVLRHPTVASKSFLITIGDR TVGGLNTRDQMVGPWQVPV  
ADVAVTTLDYKGYAGEAMTMGERTPLAVIDAPASGRMAIGEAITNIAAAPIASLAQLKLS  
ANWMAACGVDGEDARLYDTV KAVGMELCPALGISIPV GKDSL SMRTKWDDAGEAKEVVAP  
VSLIVSAFAPVTDVRKTLTPQLKPVASAGEAADTTLIVIDLGHGKHRLGGSILAQVTQQI  
GNSVPDVGDAEDLKRFFAAIQQLNAA GMLLAYHDRSDGGLWATVCEMAFAGHCGVSINVD  
MLTLDGAHASDYGDAKNWAQQVSGRRADMTLRALFAEELGAVIQVPAQRDAVFAV LREH  
GLAACSHVIGAPNASGQIEIWRDAKKVFSAPRIELQRAWTDVSWRIASLRDNPECTQSEY  
DRLLDAEDPGISP NLTFDLAEDVAAPFIATGARPRMAILREQVNSQVEMAYAMDKAGFD  
AYDVHMSDLLAGRTRLADFKGFVACGGFSYGDVVGAGEGWAKTILFNGMLAEQFAAFFNR  
ADSIALGVCNGCQMMANLAPIIPGAGAWPKFTRNQSEQYEGRLVTVQVEASPSIFYAGME  
GSRIPIVVAHGEGYADFSQQGDIGKVAVGLRYVDNRGEVTQTYPLNPNNGSPQGIASVTTH  
DGRFTVLMPPHPERVFRVAVQMSWHPKD WAAAGDGSSPW MRMFRNARKQMG

>Q8PGR7

MMVLEGASALSPFRRARLETRLQTLV PALRITGAWHVYFIRPEAGQSPDQATLQRILQAN  
AAPAERDADASSRYVVPRLGTLSPWSSKATELVRGAGQPIQRVERGTRIDL AGWPD DASA  
QAAVAKLLHDPMTQSLLGSA AAEALFNVPDPGQLRRVPLDGL EQANRDLGLALAQDEID  
YLRRERFGALGRDPADVELMMFAQANSEHCRHKIFNATWTIDGK PQERSLFRMIKH THQQT  
PQHTLSAYS DNAAVVEGVPAARYRDPATGQYRSEAVLPSAFAIKVETHNHPTAIAPFPG  
AATGAGGEIRDEGATGRGGKPKAGLTGFSVSHLRIP TLPQPWEAPRALNPRMAPALD IML  
DGPLGGA AFNNEFGRPNLLGYFRSFE LAEGPLTRAYDKPIMLAGGLGAI DRNQVEKLRL  
QPGDAVIVLGGPAMLI GLGGGAASSVAAGDSAEALDFASVQRENPEMERRCQEVIDRCVA  
LGVDNPIRWFHDV GAGGLSNAIPELLHDSGVGGIIDLGRVLTDDPSLSPLELWCNESQER  
YVLGVPQARLEEFAAI CARERCPFAAVGVATAEERLVVGYGVLDAGNRESGVGNRNGTLV  
AADTASHHSPFPTRDSQLPIDLPMDVLF GKAPKMHRDAAHPGAPQWPVLQTASLDLQQAG  
LRVLAHPTVASKSFLVTIGDRSVGGLTAREQMIGPWQLPLADCAITLAGFDTFEGEAMSI  
GERTPLALLNAAASARMAVGEAITNLCAAPVQTLDSIKLSANWMAAAGHSGEDALLYDAV  
RAIGMELCPALELSVPV GKDSL SMAQWQVGNRESGIGNGETPQPSASTIPDSFPPIPGE  
TLKSVPVSLIISAFAPVGDVVRTQLTPLLRS GEESELWLI GLGGKQRLGGSVLAQVYAD  
DTALPAFGGEV PDLDDAQR LRSFFELIRDARDSGLLLAYHDRSDGGAFAALCEMAFASRQ  
GLDITLDAWGDDA FRSLFNEELGAVVQIASEDRAAFADLVERHALTECAQR IARPTGTPR



IRVSGQGRVLAEWRWEELFDAWWSVTHAMQKLRDNPDSADEERALARDFKASGLRPKLVF  
DPSDDVAAPFVATGTRPKVAILREQGVNGQIEMAYNFERAGFRPYDVHMSDLIEGRVDLS  
AFVGF AACGGFSYGDV LGAGRGWATSILERSALRDAFAAFFARSDFALGVCNGCQMLSQ  
LKDIIPGAEHWPRFLNRNRSEQFEARTALLEVVESPSIFLGRMAGSRIPVAVAHGEGRAEF  
DSAVDQAAARVALRYIDGDGAVASQYPLNPNNGSPDGITGLTSSDGRVTILMPHPERTPRS  
ANLSWYPVDWGDDSPWLRMFRNARVWCG

>Q87DN2

MIVLKGASALSPFRLARFESRLQTTVPELRIVGAWHCYLIQIKSGHTLDMSALHRILQAE  
SVSEL P QKHVVSRYVMPRLGTHSPWSSKTTTELLHGADQPIARIERGTRIDL LGWSANAAT  
CPAI AKQLYDPM TQSLLESEDEVKTLFNVP EPRPLERIALIDLEHANTR LGLALT ADEID  
YLRTRYTELNRVPSDVELMMFAQANSEHCRHKIFNATWTIDDK EQPYSL FQMIKH THQHT  
PQYTL SAYADNA AVIEGHPTTRYR PDPITGEYRHEAVLP GAFQIKVETHNHPTAIAPFPG  
ASTGAGGEIRDEGATGRGGKPKAGLSGFSVSHLRIP TLPHPWETPRALNPRMASALDIML  
EGPLGSAAFNNEFGRPNLLGYFRSFE LSASKTLTRAYDKPIMLAGGLGAIDRIHIKKLRL  
QPGDVIIVLGGPAMLI GLGGGAASSVTS GTSTEALDFASVQRDNPEMQRR CQEVIDHCVA  
LGTNNP I R S F H D V G A G G L S N A I P E L L H D S E V G G V I D L A K I P S D D P S L S P L E L W C N E S Q E R  
YV L G I S A P H L Q A F A A I C S R E R C P F A A V G V A T A T E Q L I V G Y G V T L P A A L H V T E Q Q T P Q R A N  
R T E T S P T P N T L V S P V R E A F A I D L P M D V L F G K A P K M H R N T A H P P P P Q W P T L D S T Q L D L H H A  
G L R V L A H P T V A A K N F L V T I G D R S I G G L T A R E Q M I G P W Q L P L A D C A I T L A G F S S Y A G E A F A  
I G E R A P L A L L N S A A A A R M A V G E A I T N L C A A P V E S L S M V K L S A N W M A A A E Y P G E D A L L Y D A  
V K A I G I E L C P A L D I S I P V G K D S L S M Q S R W Q G D G A T H T C I S P V S L V I S A F T P V A D A R R Q L T  
P L L H H Q T N S E L W L I A L D G G K Q R L G G S V L A Q V H A D S A A L P A F G G E C P D L D T P E T L R A F F A L  
M N D A R N A G L L L A Y H D R S D G G A F A A L C E M A F A S H L G L D I T C D N R T E H L F P H L F N E E L G A I V  
Q V A D E H R T A F A D L V E H H G L T A Y T Q R I A H P T T A P S I R V M H N D Q C L A Q W T W E T L F D A W W S V T  
H A I Q R L R D N P E C A D E E R E I A R T F T A P G L K P T L S F D P A A D V A M P F I S T G I R P K V A I L R E Q G  
I N G H I E M A L C F E R A G F H S V D I H M N D L I T G R V H L D E F V G L A A C G G F S Y G D V L G A G R G W A T S  
I L E R T A L R D Q F A A F F T R T D R F A L G V C N G C Q M L S Q L K S M I P G A E H W P R F V R N R S E Q F E A R T  
A L L E V I Q S P S I F L S G M A G S R L P V A V A H G E G Y A M F D T P A D Q A A A H V A L R Y I N G H G Q A A T H Y  
P L N P N G S P N G I T G L T T T D G R I T I L M P H P E R T P R T I N L S W C P N E W G E D A P W L R L F R N A R A W  
V G

>P16113

MEHVAFGSEDIEN TLAKMDDGQLDGLAFGAIQLDGDGNILQYNAAEGDITGRDPKQVIGK  
NFFKDVAPCTDSPEFYGKFKEGVASGNLNTMFEYTFDYQMTPTKVKVHMKKALSGDSYVW  
FVKRV

>P0A7F9

MRVTDFSFELPE SLIAHYMPERSSCRLLSLDGPTGAL THGTFTD LLDKLNPGDLLVFNN  
TRVIPARLFGRKASGGKIEVLVERMLDDKRILAHIRASKAPKPGAELLLGDDESINATMT  
ARHGALFEVEFNDE SVLDIILNSIGHMPLPPYIDRPDEDADRELYQTVYSEKPGAVAAPT  
AGLHFDEPLLEKLRAGKGVEMAFVTLHVGAGTFQPVRVD TIEDHIMHSEYAEVPQDVVDAV  
LAAKARGNRVIAVGTTSVRSLESAAQAAKNDLIEPFFDDTQIF IYPGFQYKVV DALVTNF  
HLPESTLIMLVSAFAGYQHTMNAYKAAVEEKYRFFSYGDAMFITYNPQAINERVGE

>Q9WZ44

MKVSEFDYELPPELIAQEPVEPRDASRLMVLHRKTQRIEHRIFREIIEYLEPGDLLVLNV  
SKVIPARLYARKKTGASIEILLIERLEEGIWKCLVRPGQKVKKGTELVIDEDLSAVCLGR  
GEDGTRILKFQPQDDRLIFEKGRTPPPYIKNEVPLERYQTVYAKEEGSVAAPTAGLHFT  
PELIEKLLKKKG VQFAEVLHVIGIGTFRPVKVEEVEKHKMHEEFYQVPKETVRKLRERER

GNRIVAVGTTTVRTLETIARLPEQEEYVGKTDLFIYPPFEFKLVDALVTNFHLPRSTLLM  
LVAAAFAGKDFVMEAYREAVKRRYRFFSFGDAMLIL

>P16552

MNSASTHKNTDFWIFGLFFFFLYFFIMATCFPFPLPVWLSDVVGLSKTDTGIVFSCLSLFAI  
SFQPLLGVISDRGLGKKNLIWSISLLLVFFAPFFLYVFAPLLHLNIWAGALTGGVFIGFV  
FSAGAGAIEAYIERVSRSSGFYEGKARMFGLGWALCATMAGILFNVDPSLVFWMGSGGA  
LLLLLLLLYLARPSTSQTAMVMNALGANSSLISTRMVFSLFRMRQMWMFVLYTIGVACVYD  
VFDQQFAIFFRSFFDTPQAGIKAFGFATTAGEICNAIIMFCTPWIINRIGAKNTLLVAGG  
IMTIRITGSAFATTMTEVVILKMLHALEVPFLLVGAFKYITGVFDTRLSATVYLIGFQFS  
KQLAAILLSTFAGHLYDRMGFQNTYFVLGMIVLTVTVISAFTLSSSPGIVHPSVEKAPVA  
HSEIN

>P41915

MVDNKQNVVAEFKLVLVGDGGVGKTTFFVTRHQGTGEFEKRYIATQGVNVSNMVLYTTKGP  
RFNIWDTAGQEKLGGLREGYYIGANAAIMMFDVTSRITYKNIPKWHKDLTRICENIPIVL  
VGNKVDSDRQVVKARQITFHRKRSLQYYDVSASKNYQYKPFLLWILRKLTDGPTLNLVEG  
IALVAPDTEHVMTEDEQIKQLEMEQAEAMNLAQQGVLPDDEDEDEFN

>Q9ZWM9

MESSSVDESTTSTGSI CETPAITPAKKSSVGNLYRMGSGSSVVLDSENGVEAESRKLPS  
KYKGVVPQPNGRWGAQIYEKHQRVWLGTFNEEDEAARAYDVAVHRFRRRDAVTNFKDVKM  
DEDEVDFLNSHKSSEIVDMLRKHTYNEELEQSKRRRNGNMGMTRTLTLTSGLSNDGVSTTG  
FRSAEALFEKAVTPSDVGKLNRLVIPKHHAEKHFPLPSSNVSVKGVLLNFEDVNGKVWRF  
RYSYWNSSQSYVLTGKWSRFVKEKNLRAGDVVSFSRSNGQDQQLYIGWKSRSRSGSDDLDA  
VLRFLFGVNI SPESSRNDVVGKRVNDTEMLSLVCSKKQRI FHAS

>P23489

MQVTMKSSAVSGQRVGGARVATRSVRRRAQLQVVAPSRKQMGWRWSIDAGVDASDDQDIT  
RGREMVDDLQGGFGAGGTHNAVLSSQEYLSQSRASFNNIEDGFYISPAFLDKMTIHIK  
NFMDLPKIKVPLILGIWGGKGQKTFQCALAYKKLGIAPIVMSAGELESGNAGEPAKLIR  
TRYREASDI IKKGRMCSLFINDLDAGAGRMGDTTQYTVNMQMVNATLMNIADNPTNVQLP  
GVYKNEEIPRVPVCTGNDFSTLYAPLIRDGRMEKYYWNPREDRIGVCMGIFQEDNVQR  
REVENLVDTFPGQSIDFFGALRARVYDDMVRQWITDTGVDKIGQQLVNARQKVAMPKVSM  
DLNLVLIKYGKSLVDEQENVKRVQLADAYLSGAELAGHGGSSSLPEAYSR

>Q9UBZ9

MRRGGWRKRAENDGWETWGGYMAAKVQKLEEQFRSDAAMQKDGTSSTIFSGVAIYVNGYT  
DPSAEELRKLMLLHGGQYHVYYSRKTTHIIATNLPNAKIKELKGEKVIRPEWIVESIKA  
GRLLSYIPYQLYTKQSSVQKGLSFNPVCRPEDPLPGPSNIAKQLNNRVNHIVKKIETENE  
VKVNGMNSWNEEDENNDFFSVDLEQTSPGRKQNGIPHPRGSTAI FNGHTPSSNGALKTQD  
CLVPMVNSVASRLSPAFSQEEDKAESSTDFRDCTLQQLQQSTRNTDALRNPHTNSFSL  
SPLHSNTKINGAHHSTVQGPSSTKSTSSVSTFSKAAPSVPSPKPSDCNFISNFYSHSRLHH  
ISMWKCELTEFVNTLQRQSNIGIFPGREKLKKMKTGRSALVVTDTGDMSVLNSPRHQSCIM  
HVDMDCEFFVSVGIRNRPDLKGPVAVTSNRGTGRAPLRPGANPQLEWQYYQNKILKGGAA  
DIPDSSLWENPDSAQANGIDSVLSRAEIASCSYEARQLGIKNGMFFGHAKQLCPNLQAVP  
YDFHAYKEVAQTLYETLASYTHNIEAVSCDEALVDITEILAE TKLTPDEFANAVRMEIKD  
QTKCAASVIGISNILLARMATRKAAPDGQYHLKPEEVDDFIRGQLVTNLPVGVGHSMESKL  
ASLGIKTCGDLQYMTMAKLQKEFGPKTGQMLYRFCRGLDDRVPVTEKERKSVSAEINYGI  
RFTQPKAEAEFLLSLSEEQRRLEATGMKGKRLTLKIMVRKPGAPVETAKFGGHGICDNI

ARTVTLDQATDNAKI I GKAMLMNFHTMKLNI SDMRGVGIHVNLVPTNLNPSTCPSRPSV  
QSSHFPSGSYSVRDVFQVQKAKKSTEEHKEVFRAAVDLEISSASRTCTFLPPFPAHLPT  
SPDNTKAESSGKWNGLHTPVSVQSRLNLSIEVPSPSQLDQSVLEALPPDLREQVEQVCAV  
QQAESHGDKKKEPVNGCNTGILPQPVGTVLLQIPEPQESNSDAGINLIALPAFSQVDPEV  
FAALPAELQRELKAAAYDQRQRQGENSTHQQSASASVPKNPLLHLKAAVKEKKRNKKKTI  
GSPKRIQSPLNNKLLNSPAKTLPGACGSPQKLDGFLKHEGPPAEKPLEELSASTSGVPG  
LSSLQSDPAGCVRPPAPNLAGAVEFNDVKTLLEWITTTISDPMEEDILQVVKYCTDLIEE  
KDLEKLDLVIKYMKRLMQQSVESVWNMAFDFILDNVQVVLQQTYGSTLKV

>O29238

MIPVVYSNLCPVCGGDLESKEIEKHVCFRKKRSLCLFPEDFLLKEFVEFFRKCVCGEPRAI  
QKMWAKRILRKESFAATAPTGVGKTSFGLAMSLFLALKGKRCYVIFPTSLLVIAAETIR  
KYAEKAGVGTENLIGYYHGRIPKREKENFMQNLRNFKIVITTTQFLSKHYRELGHFDFIF  
VDDVDAILKASKNVDKLLHLGLGFHYDLKTKSWVGEARGCLMVSTATAKKGKKAELFRQLL  
NFDIGSSRITVRNVEDVAVNDESISTLSSILEKLGTTGGIIYARTGEEAEEIYESLKNKFR  
IGIVTATKKGDYEKFVEGEIDHLIGTAHYGYTLVRGLDLPERIRFAVAVGCPSPFRVTIED  
IDSLSPQMVKLLAYLYRNVDEIERLLPAVERHIDEVREILKKVMGKERPOAKDVVREGE  
VIFPDLRTYIQSGRTRSRLFAGGLTKGASFLLEDDSELLSAFIERAKLYDIEFKSIDEVD  
FEKLSRELDESRRYRRRQEFDLIKPALFIVESPTKARQISRFFGKPSVKVLDGAVVYEI  
PMQKYVLMVTASIGHVVDLITNRGFHGVLVNGRFVPVYASIKRRCDCGYQFTEDRESCPK  
CGSENVDNSRSRIEALRKLAAHDAEFVIVGTDPDTEGEKIAWDLKNLLSGCGAVKRAEFHE  
VTRRAILEALESRLRDVDENLVKAQVRRIEDRWIGFVLSQKLWERFNNRNLASGRAQTPV  
LGWIIDRFQESRERRKIAIVRDFDLVLEHDEEEFDLTIKLVEEREELRTPLPPTYTETML  
SDANRILKFSVKQTMQIAQELFENGLITYHRTDSTRVSDVGQRIAKEYLGDDFVGREWGE  
SGAHECIRPTRPLTRDDVQRLIQEGVLVVEGLRWEHFALYDLIFRRFMASQCRPFKVVVK  
KYSIEFDGKTAEEERIVRAEGRAYELYRAVWVKNELPTGTFRVKAEVKSVPKVLPFTQSE  
IIQMMKERGIGRPSTYATIVDRLFMRNYVVEKYGRMIPTKLGDVFRFLVRRYAKFVSED  
RTRDLESRMDAIERGELDYLKALEDLYAEIKSID

>P95479

MKAIYRDMCPNCRGAI TDERLAAKNPCDACLDEPISMDDYFQLVTAIRKALKLKGVLKEW  
EEIYALNKEVKEIEELFKKATGFTTFWSAQRSWVKRIKKGKSFSLIAPTGMGKSTFGAFMS  
IYFALKGKKSIVVPTTLPVQTVKKIKAMMEKAEVKVNLVYYHGNLKKKEKDEALEKIK  
SGNFDILVTSSQFLATRFDELLKDKRIDFMFVDDVDAFLKASKNIDRSLMMLGFNEEIIK  
KAWEIIKLLKQLAKLLQNESGNEEVEKLNREIERLEREIERYKKNKIGILIVASATGSA  
RGDRIKLYRELLGFVEVSGRSVLRNIVDYYIPEKSMEEHVEELLKTLGRGGLIFVPIDK  
GIEYAEQLTNYLKSkgfKVELVSARDKKGLELFEKEEVDYLVGVATYYGTIVRGLDPLHL  
VRFAIFTGVPKFRFSLDLEQPTIYRVLGLMSEILEFLPEEKRTTEGEKLYARLRRLRNIP  
QYELMKIEEALAEGLLEGFYNHVLEVFVKQAVEFLREALKDEEVLLKIAENPFSLKQIE  
GKWYIEIPDVRTYIQASGRTRSRLFAGGITKGLSVILVDDQKVFNGLIRQMRWRVFVEFEIK  
PLGEINIEEVLKEIDRDREKVRVLVLEGKISEQVKDLVKSALMIVESPNKARTIANFFGQP  
SKRRIGDLVAYEVSIGDKMLTILASGGHMFDLVTTTEGYHGVLLLEKGGKRYFVPVYDTIK  
RCRDCGHQFVDWEEKGVCPCGSRNVYDALENVKAMRDLAQEVDEILIGTDPDTEGEKIA  
WDIRNVLSPYAPVIKRIEFHEVTRPAILRAINEARDINEDRVNAQLVRRIEDRWIGFELS  
QKLWEVFENYNLSAGRVQTPVLGWIVQRYKEFTSESETDFLGLTLENDITIILEGVSGDVQ  
EVYVKEVTIEEREINPLPPYTTDAMLQDASRFLGFSATHMQLAQDLFELGLTTYHRTDS  
IHVSNTGIEIAKEYITQEIGEEYFAPRKWGEEGAHEAIRPTRPIDTGRLIQLIRDGIITL  
PRNLTKDHFKLYDLIFRRFMASQMKPAKVLYERAVIGTPYGEVEIEGYIDVIYDGWSRIK  
PLPLKLLPRLEKDQILKVTEIRKWRAPKVSlyTQGDVIALMKERGIGRPSTYAKIVQTLL  
QRGYVIETKSKKLVPTKEGIKVYHYLVSKYKDLVSEERTRQLEKLMVMVEEAKANYQEV

LNELYEEILRYVKS

>Q08582

MQSLSDIPPSSIYLFSCPNCGRSISTYRLLLLGSVCNICLEEDKEYKNIGDLIKDIEKQGNL  
IKLKDIQRVLLDDYESFVSVFRRLLGFPFPQKSWIYRLLSGESFAIIAPPGLGKTTFFGL  
ISSIYLYLRGKKSILVFPTKSLVRQAIDKLSSYIQNLAEIKENPPKVIYYYSGMSASERK  
EADEGLQSKTFDIFISTNRFLIDNIDQISSTSYQFLFVDDVDTALKSSKSAQAAILKLLGF  
TPSDQDKIKESLKKYRENTQKNEQNEYIFEEIDKIRKDRDLASKTVIFSSATLNRSNPILT  
SLVGFKPGSSVIYIRKVYDMYVKQPDKEQETFNLIKSLLHRLGDGGLIFVPVDKKQEYIK  
RLQSELSNEFNVAAITSTSATKIDDFANGEIDVLIQSATHYGILVRGLDLPWRVKYSIFV  
GIPKFKFRLGEKVNLLTSLRLLSLIALITKDQEVYISRRVKDKIRRLSPAALTMLSVQA  
KEGKLEDSILLKAYDLLNKYLSNQNVLKRISIEIGDFVLSPDNDILIPDYLTYYVQASGRTS  
RIYAGDVTTLGILLSLVDDFNLFRLLNKKLQYILDDIQWRELDVEKWTAGDVEIKNLISKI  
NEERNEISKLKNEGNVAPALQKVKTVLLVVEVSPNKAKTISFFSRPSIRQIGNMRVYETV  
LGDKVLMVTASGGHVYDLTTQDMGIYGVIMKQNSSLVFIPIYNSIKKCENNHQFTDFFE  
SNKCPRCMTTKVRYDSLKSINVLRLNAVEADEVLIGTDPDTEGEKIAWDLYLALRPYNSN  
IRRAEFHEVTRKAILQAINQPREFNVLVKSQLVRRIEDRWIGFKLSSILQTRFWPEYCK  
SLSSNKQLNCNENKNLSAGRVTQVLSWIVDRYTEYQRNKSRYVYGGKIDQLQDIVIYVVK  
QDGVKNSKIIVVFNEINQLEEEFGPLPPYTTDTLLSDSNFFGLSAPETMRIAQDLFEL  
GLITYHRTDSNRISNTGISVAENYLKDVLDGKYTNIFKPRSWGDDGAHEGIRPTKPIDVE  
QLRLLIEEGELELAKRLTNNHFVYDIIFFRRFISSQIIPLKVRKEIVKIELYGENKKEKI  
NSNQNIIEVITGITLPGIDTEISKFAVYVVRNVSRVAERLKLGRSIPTDFSIEISNSF  
IKSTVNLYTQADLVMEMKNKKIGRPSTYATIIGTILRRGYVLESKTKKLIPTRLGVEVN  
KYLNENYGRFVSEDRTKLLQLMDMVEAGQEKYEEVLKQVYEEINEIR

>O51934

MAVNSKYHHSCINCGLNTDERNERGLPCEVCLPEDSPSDIYRALLERKTLKEYRFYHEF  
WNEYEDFRSFFKKKFGKDLTGYQRLWAKRIVQGKSFTMVAPTGVGKTTFGMMTALWLARK  
GKKSALVFPTVTLVKQTLERLQKLADEKVKIFGFYSSMKKEEKEKFEKSFEEDDYHILVF  
STQFVSKNREKLSQKRFDFVVDVDAVLKASRNIDTLLMMVGIPPEIIRKAFSTIKQGK  
IYERPKNLKPGLVSSATAKPRGIRPLLFRLDNLNFTVGRLLVSVARNITHVRISRSKEK  
LVELLEIFRDGILIFAQTEEEGKELYEYLKRFKFNVGETWSEFEKNFEDFKVGINILIG  
VQAYYGKLTRGVDLPERIKYVIFWGTSPMRFSLELDKAPRFVLARVLKEMGLIKAQENPD  
VEELRKIAKEHLTQKEFVEKVKEMFRGVVVKDEDELELIIPDVYTYIQASGRSSRILNGVL  
VKGVSVIFEEDDEEIEFESLKRLLLLIAEEEEIEEAEANWKELVHEVEESRRRSERELTDS  
RSLLIIVESPTKAETLSRFLGRASSRKERNIVHEAVTGEGVILFTATRGHVYDLVTKGG  
IHGVEEENGKFPVYNSLKRCDGCGYQFTEDRDECPVCSKNIIDDKTETLRALREISLEA  
DEILVATDPDVEGEKISWDVTQYLLPSTRSLRRIEMHEITRYGFKKARESVRVDFNLVK  
AQIVRRVQDRWIGFELSGKLQKRFGRSNLSAGRVTQSTVLGWIVEREEYKKSEKDFLLV  
LENGVNLEVEGKIAADDVTVVLELQEAEEENPLPPYTTSSALSEISQKLRLLGVQEVMDIL  
QDLFEKGFITYHRTDSTRISLEGQNVARTYLRKIGKEDIFMGRSWSTEGAHEAIRPVKPI  
DARELEEMIEEGLIADLTKKHLRVYELIFNRFLASQSAAVKVKKQIVTVDDVGDGRMGIEQ  
IVEILRDGWNLFVPLTVSPRFEHRTYKIKEKKFYKKHTVPLFTQASIVEEMKKRGIGRPS  
TYAKIVEVLFRRGYVYEDKYKVRPTRFGVMVYSYLKERYEKYVTEETTRRLEEIMDKVE  
RGEEDYQATLRLLYEEIKSLMEEG

>P32171

MFRNCVAVDLGASSGRVMLARYERECRSLTLREIHRFNNGLHSQNGYVTWDVDSLES  
RLGLNKVCEEGRIDSIGIDTWGVDFVLLDQQGQRVGLPVAYRDSRTNGLMAQAQQQLGK  
RDIYQRSGIQFLPFNTLYQLRALTEQQPELIPHIAHALLMPDYFSYRLTGKMNWEYTNAT

TTQLVNINSDDWDESLWASGANKAWFGRPTHGPNVIGHWICPQGNEIPVVAVASHDTAS  
AVIASPLNGSRAAYLSSGTWSLGMGFESQTPFTNDTALAANITNEGGAEGRYRVLKNIMGL  
WLLQRVLQEQQINDLPALISATQALPACRFIINPNDDRFINPETMCSEIQAACRETAQPI  
PESDAELARCI FDSLALLYADV LHELAQLRGEDFSQLHIVGGGCQNTLLNQLCADACGIR  
VIAGPVEASTLGNIGIQLMTLDELNNVDDFRQVVSTTANLTTFTPNPDSEIAHYVAQIHS  
TRQTKELCA

>Q969G6

MPRADCIMRHLPHYFCRGQVVRGFGGRGSKQLGIPTANFPEQVVDNLPADISTGIYYGWASV  
GSGDVHKMVVSIWNPPYKNTKSMETHIMHTFKEDFYGEILNVAIVGYLRPEKNFDSLE  
SLISAIQGDIEEAKRLELPEHLKIKEDNFFQVSKSKIMNGH

>Q60365

MVKLMIIEGEVVSGLGEGRYFLSLPPYKEIFKKILGFEPYEGTLNLKLDREFDINKFKYI  
ETEDFEFNGKRFFGVKVLPIKILIGNKKIDGAIVVPKPTYHSSEIEEIIAPMKLREQFNL  
KGDVILIKLIGDKDE

>O74866

MTVNLEEKRPEIVGPEKVQSPYP IRFEGKVHGFGRGSKELGIPTANISEDALQELLRYR  
DSGVYFGYAMVQKRVFPMVMSVGNPPYKKNLRSAEVHLIERQGEDFYEEIMRVIVLGYI  
RPELNYAGLDKLIEDIHTDIRVALNSMDRPSYSSYKKDPFFKV

>P25892

MAETNPESDLMAQTNKKIVPKFTEIFPVEDVNYPPYSAFIASVRKDVIKHCTDHKGIFQP  
VLPPEKKVPELWFYTELKTRTSSITLAIRMDNLYLVGFRTPGGVWWEFGKAGDTHLLGDN  
PRWLGFGGRYQDLIGNKLETVTMGRAEMTRAVNDLAKKKKMATLEEEVQMOMQMPPEAA  
ELAAAAAADPQADTKSKLVKLVVMVCEGLRFNTVSRVTDAGFNSQHGVTLTQKQVQ  
KWDRISKAAFEWADHPTAVIPDMQKLGKDKNEAARIVALVKNQTTAAAAATAASADND  
DDEA

>Q03464

MKMMVVVVVMMLSWLILKPPSTWAINITITFDVGNATINKYATFMKSIHNQAKDPTLKYG  
IPMLPNTNLTPKYLLVTLQDSSLKTITLMLKRNLYVMGYADTYNGKCRYHIFKDISNTT  
ERNVMTTLCPNPSSRVGKNINIDSSYPALEKKVGRPRSQVQLGIQILNSGIGKIYGVDS  
FTEKTEAEFLLVAIQMVSEAFKYIENQVKTNFNRAFYRNAKVLNLEESWGKISTAIHN  
AKNGALTSPELKNANGSKWIVLRVDDIEPDVGLLKVYNGTCQATYQSAMFPHL

>P41391

MSRFSIEGKSLKLDAITTEDEKSVFAVLLEDDSVKEIVLSGNTIGTEARWLSENIASKK  
DLEIAEFSDFITGRVKDEIPEALRLLQALLKCPKLHTVRLSDNAFGPTAQEPLIDFLSK  
HTPLEHLYLHNNGLGPQAGAKIARALQELAVNKKAKNAPPLRSICGRNRLENGSMKEWA  
KTFQSHRLLHTVKMVQNGIRPEGIEHLLLEGLAYCQELKVLDDLQDNFTHLGSSALALAL  
KSWPNLRELGLNDCLLSARGAAVDAFSKLENIQLTLRLQYNEIELDAVRTLKTVIDE  
KMPDLLFLELNGNRFSEEDDVVDEIREVVFSTRGRGELDELDDMEELTDEEEDEEEEAES  
QSPEPETSEEEKEDKELADELSKAHI

>P07998

MALEKSLVRLLLLVILLVVGWVQPSLGKESRAKKFQRQHMDSDSSPSSSSTYCNQMMRR  
RNMTQGRCKPVNTFVHEPLVDVQNVCFQEKVTCKNGQNCYKSNSSMHITDCRLTNGSRY  
PNCAVRTSPKERHIIVACEGSPYVPVHFDASVEDST

>Q07762

MRRVALSVLFFQSSRVLHFTDLRDKQIALCNAAPGHTVQFHHQRRRHSSAPVSSVGGQNTFS  
CLGASCAGLLHPSRVRFANRRRSRGSTSKKAQVKSSVNQLAIPSAATREERRKPKLSNSCAP  
AVESQKVGVPAPTTSRASGETRTSCAPPPASRMKPSFYVVAVGRQRGIYSTWDQCSEQVKG  
FSGAVYKSFRTLSEARAYLTAHPARSGLEKSDRGDGAASLSALSEPQVGLRRSRAAEAEA  
SYVVEAPAQPTLRQRVEEEVPSGAAAVQRAESSVPQVVYVDGACSHNGTPKARAGYGGFY  
GSTSDSRNFSLPVPITEAQTNRMRAVIHCIVQGFDVAGVPPAALGTSHCVPDWELS  
ELPQPLRRLVIYTDSTRYVIDGLTRYALKWVANGFKLASKEPVLNQDLWRQLIRLRDAYNT  
RYAEQQHWAAATCSHASTRVPAAASQSKRFHHTNTRNDETEGIELRHVKGHSNDYGNEMAD  
VLAVAGARMHGTSE

>P0A7Y4

MLKQVEIFTDGSCLGPNPGGYGAILRYRGREKTFSSAGYTRTTNNRMELMAAIVALEALK  
EHCEVILSTDSQYVRQGITQWIHNWKKRGWKTADKKPVKNVDLWQRLDAALGQHQIKWEW  
VKGHAGHPENERCDELARAAAMNPTLEDTGQVEV

>P29253

MNPSPRKRVALFTDGACLGPNPGGWAALLRFHAHEKLLSGGEACTTNNRMELKAAIEGL  
KALKEPCEVDLYTDSHYLKKAFTEGWLEGRWRKRGWRTAEGKPVKNRDLWEALLLAMP  
VRHFHVKGHTGHPENERVDREARRQAQSQAKTPCPPRAPTLFHHEA

>P21338

MKAFWRNAALLAVSLLPFSSANALALQAKQYGFDRYVLALSWQTGFCQSQHNRNRNERD  
ECRLQTTETTKADFLTVHGLWPLPKSVAARGVDERRWMRFGCATRPIP NLPEARASRMC  
SSPETGLSLETAAKLSEVMGAGGRSCLERYEYAKHGACFGFDPDAYFGTMVRLNQEIKE  
SEAGKFLADNYGKTVSRRDFDAAFKSWGKENVKAVKLTCCQGNPAYLTEIQISIKADAIN  
APLSANSFLPQPHPGNCGKTFVIDKAGY

>P21499

MSQDPFQEREAKEYANPIPSREFILEHLTKREKPARDELAVELHIEGEEQLEGLRRRLR  
AMERDQQLVFTRRQCYALPERLDLVKGTVI GHRDGYGFLRVEGRKDDLYLSSEQMKT  
GDQVLAQPLGADRKGRREARIVRVLVPKTSQIVGRYFTEAGVGFVPPDDSRLSFDILIPP  
DQIMGARMGFVVVELTQRPTRRTKAVGKIVEVLGDNMGTGMAVDIALRTHEIPYIWPQA  
VEQQVAGLKEEVPEEAKAGRVDLRDLPLVTIDGEDARDFDDAVYCEKKRGGWRWVAIA  
DVSYYVRPSTPLDREARNRGTSVYFSPQVIPMLPEVLSNGLCSLNPQVDRLCMVCEMTVS  
SKGRLTGYKIFYEAVMSSHARLTYTKVWHILQGDQDLREQYAPLVKHLEELHNLYKVL  
DREERGGISFESEAKFIFNAERRIERIEQTQRNDAHKLIEECMILANISAARFVEKAKEP  
ALFRIHDKPSTEAITSFRSVLAELGLELPGGNKPEPRDYAELLESVADRPDAEMLQTM  
RSMKQAIYDPENRGHFGLALQSYAHFTSPIRRYPDLT LHRAIKYLLAKEQGHQNTTETG  
GYHYSMEEMQLQGHCMAERRADEATR DVADWLKCDFMLDQVGNVFKGVISSVTGFGFF  
VRLDDLFDIGLVHVSLLDNDYRFDQVGRQLMGESSQTYRLGDRVEVRVEAVNMDERKI  
DFSLISSERAPRNVGKTAREKAKKGDAGKKGGKRRQVGGKKNFEPDSAFRGEKKT  
KPKAA  
KKDARKAKKPSAKTQKIAAATKAKRAAKKKVAE

>Q7SID5

DFEYLQLVLTWPASFCYANHCEIAPNNFTIHGLWPDNVKTRLHNCKPKPTYSYFTGKML  
NDLDKHWMLKFEQDYGRTEQPSWKYQYIKHGSCQKRYNQNTYFGLALRLKDKFDLLRT  
LQTHRIIPGSSYTFQDIFDAIKTVSQENPDIKCAEVTGTPELYEIGICFTPNADSMFRC  
PQSDTCDKTAKVLFRR

>Q5SLP1

MRIVPFGAAREVTGSAHLLLAGRRVLLDCGMFQKKEEARNHAPFGFDPKEVDAVLLTHA  
HLDHVGRLPKLFREGYRGPVYATRATVLLMEIVLEDAKVMDEPFFGPEDEVVEALGHLRP  
LEYGEWLRLGALSALAFQAGHLPGSAFVVAQGEGRTLVYSGDLGNREKDVLPDPSLPPLA  
DLVLAEGTYGDRPHRPYRETREFLEILEKTLSQGGKVLIPTFFAVERAQEILYVLYTHGH  
RLPRAPIYLDSPMAGRVLSTYPRLVRYFSEEVQAHFLQGNPFRPAGLEVVEHTEASKAL  
NRAPGPMVVLGASGMLAGGRILHHLKHGLSDPRNALVFVGYQPQGGLGAEI IARPPAVRI  
LGEEVPLRASVHTLGGFSGHAGQDELDDWLQGEPRVVLVHGEEKLLALGKLLALRGQEV  
SLARFGGVPV

>P00651

MMYSKLLTLTLLLLPTALALPSLVERACDYTCGSNCYSSSDVSTAQAAGYQLHEDGETVG  
SNSYPHKYNNYEGFDFSVSSPYEWPILSSGDVYSGGSPGADRVPFNENNQLAGVITHTG  
ASGNFVECT

>Q06846

MTDTVFSSSSSRWMCPSDRPLQSNKQELQGTGWSVHPSGQPDQRKQEELTDEEKEI INR  
VIARAEMEEMEQRIGRLVDRLLENMRKNVAGDGVNRCILCGEQLGMLGSACVVCEDCKK  
NVCTKCGVETSNNRPHPVWLCKICIEQREVWKRSGAWFFKGFQVLPQMPKKNKPKQQ  
PVSEPVPAPEPATPEPKHPARAPTRGDTEDRRGPGQKTGPDMTSAPGRGSYGPVRRAS  
EARMSSSRGSDSDWDQGHGMAAGDPSQSPAGLRRANSVQASRPAPASMQSPAPPQPGQPG  
PPGSRPSPGPTGRFPDQRPEVAPSDPDYTGAAAQPREERTGGIGGYSAAGTREDRAGHP  
PGSYTQASAAAPQPVVASARQPPPEEDEEEANSYDSDEATTLGALEFSLLYDQDNSSLH  
CTIIKAKGLKPMDSNGLADPVYKLLHLLPGASKSNKLRKTLRNRNPIWNETLVYHGITD  
EDMQRKTLRISVCEDEKFGHNEF IGETRFSLKKLKPQRKNFNICLERVIPMKRAGTTGS  
ARGMALYEEEEQVERIGDIEERGKILVSLMYSTQQGGLIVGI IRCVHLAAMDANGYSDPFV  
KLWLKPDMGKKAKHKTQIKKKTLPNEFNEEFFYDIKHSDLAKKSLDISVWDYDIGKSNDY  
IGGCQLGISAKGERLKHWECLKNKDKKIERWHQLQENHVVSSD

>Q58559

MIGDYERFKQLKKKVAEALNISEEELDRMIDKKEENGGIILKDAALMMIAKEHGVYGEE  
KNDEEFLISDIEEGQIGVEITGVITDISEIKTFKRRDGSGLGKYKRITIADKSGTIRMTLW  
DDLAELDVKVGDIKIERARARKWRNNLELSSTSETKIKKLENYEGELPEIKDTYNIGEL  
SPGMTATFEGEVISALPIKEFKRADGSIGLKLKSFIVRDETGSI RVTLWDNLTDIDVGRGD  
YVRVRGYIREGGYGGLECTANYVEILKKGEKIESEEVNIEDLTKYEDGELVSVKGRVIAI  
SNKKSVDLDGEIAKVQDIILDNGTGRVVRVSWFRGKTALLENIKEGDLVRI TNCRVKTFYD  
REGNKRDTLVATLETEVIKDENIEAPEYELKYCKIEDIYNRDVDWINDINLIAQVVEDYGV  
NEIEFEDKVRKVRNLLLEDGTGRIRLSLWDDLAEIEIKEGDIVEILHAYAKERGDYIDL  
IGKYGRIIINPEGVEIKTNRKFIADIEDGETVEVRGAVVKILSDTLFLYLCPNCRKRVE  
IDGIYNCPICGDVEPEEILRLNFVDDGTGTLICRAYDRRVEKMLKMNREELKNLTIEMV  
EDEILGEEFVLYGNVRVENDELIMVRRVNDVDVEKEIRILEEME

>P03034

MSTKKKPLTQEQLEDARRLKAIYEKKKNEGLSQQESVADKMGMGQSGVGALFNGINALNA  
YNAALLAKILKVSVEEFSPSIAREIYEMYEAVSMQPSLRSEYEPVFSHVQAGMFSPELR  
TFTKGDAERWVSTTKKASDSAFWLEVEGNSMTAPTGSKPSFPDGMLILVDPEQAVEPGDF  
CIARLGGDEFTFKKLIRDSGQVFLQPLNPQYPMIPCNESCSVVGKVIASQWPEETF

>P00573

MNTINIKNDFSDIELAAIPFN TLADHYGERLAREQLALEHESYEMGEARFRKMFERQLK  
AGEVADNAAAKPLIT TLLPKMIARINDWFEEVKAKRGKRPTAFQFLQEIKPEAVAYITIK  
TTLACLTSADNTTVQAVASAI GRAIEDEARFGRIRDLEAKHFKNVVEQLNKR VGHVYKK  
AFMQVVEADMLSKGLLGGEAWSSWHKEDSIHVGVRCIEMLIESTGMVSLHRQNAGVVGQD  
SETIELAPEYAEAIATRAGALAGISPMFQPCVVPKPTWGITGGY WANGRRPLALVRTH  
SKKALMRYEDVYMPVEYKAINIAQNTAWKINKKVLAVANVITKWKHCPVEDIPA IEREEL  
PMKPEDIDMNPEALTAWKRAAAVYRKDKARKSRRISLEFMLEQANKFANHKA IWF PYNM  
DWRGRVYAVSMFNPQGN DMTKGLLTLAKGKPIGKEGYW LKIHGANCAGVDKVPFPERIK  
FIEENHENIMACA KSPLENTWWAEQDSPFCFLAFCFEYAGVQHHGLSYNCSLPLAFD GSC  
SGIQHFSAMLRDEVGGRVNL LPSETVQDIYGI VAKKVNEILQADAINGT DNEVTVTDE  
NTGEISEKVKLGTKALAGQW LAYGVTRSVTKRSVMTLAYGSKEFGFRQQVLEDTIQPAID  
SGKGLMFTQPNQAAGYMAKLIWESVSVTVVAAVEAMNWLKSAKLLAAEVKDKKTGEILR  
KRCVHVWVTPDGFPVWQEYKKPIQTRLNLMFLGQFRLQPTINTNKDSEIDAHKQESGIAP  
NFVHSQDGSHLRKT VVWAHEKYGIESFALIHDSFGTIPADAANLFKAVRETMVDTYESCD  
VLADFYDQFADQLHESQLDKMPALPAKGNLNL RDILESDFAFA

>P0A776

MIDDDGYRPNVGIVICNRQ GQVMWARRFGQHSWQFPQGGINPGESAEQAMYRELFE ECVGL  
SRKDVRILASTRNWLR YKLPKRLVWRDTPVCIGQKQKWFLLQLVSGDAE INMQTSSTPE  
FDGWRWVSYWYPVRQVVSFKRDVYRRVMKEFASVMSLQENTPKPQNASAYRRKRG

>Q9ZDT9

MRNSSNKYLDL PYRPGVGMILNADNQIFV GKRIDTKISSWQMPQGGIVPGETPSIAAMR  
EMLEEIGSNKGYIIAESK CWYSYDVP SFLIPKLNWGNFRGQKQRWFLIRFTGNNKD INIH  
TSNPEFDQWRWTS LDELLSIIIPFKRKL YQAVVKEFESLIQ

>P39406

MSAFTPASEVLLRHSDDFEQSRILFAGDLQDDLPARLDTAASRAHTQQFH HWQVLSRQMG  
DNARFSLVATADDVADCDTLIYYWPKNKPEAQFQLMNL LSLLPVGTDFV VGENRSGVRS  
AEQMLADYAPLNKVDSARRCGLYFGRLEKQP VFD AEFWGEYSVDGLTVKTLPGVFSRDG  
LDVGSQ LLLSTLTPHTKGKVL DVGCGAGVLSVAFARHSPKIRLTLCDVSAPAVEASRATL  
AANGVEGEVFASNVFSEVKGRFDMIISNPPFHDGMQTS LDAAQTLIRGAVRHLSGGELR  
IVANAFLPYPDVLD ETFGFHEVIAQTGRFKVYRAIMTRQAKKG

>P0AA43

MRLDKFIAQQLGVSRAIAGREIRGNRVTV DGEIVRNAAFKLLPEHDVA YDGNPLAQQHGP  
RYFMLNKPQGYVCSTDDPDHPTVLYFLDEPVAWKLHAAGR LDIDTTGLVLM TDDGQWSHR  
ITSPRHHEKTYLV TLES PVADDTAEQFAKGVQLHNEKDLTKPAVLEVITPTQVRLTISE  
GRYHQVKRMFAAVGNHVVELHRERIGGITL DADLAPGEYRPLTEEEIASVV

>Q93PP8

MAEPQDMWRCQM VNCGYVYDPDRGD KRRKVPAGTKFEDLPEDWRCPVCGAGKKSFRRLSD  
EA

>P58025

MQKWVCPVCGEYEDPADGDPENGI EPGTAFEDLPEDWVCPVCGVDKSF FEPVS

>P24930

MYTQNTMKKNWYVTVGAAAAL AATVGMGTAMAGTLDTTWKEATLPQVKAMLEKDTGKVSG  
DTVTYSGKTVHVVA AAVLPGFPPFSFEVHDKKNPTLEIPAGATVDVTFINTNKGF GHSFD



ITKKGPPYAVMPVIDP IVAGTGFSPVPKDGKFGYTDF'TWHPTAGTYYYVCQIPGHAATGM  
FGKIVVK

>P58875

MSGRVGDLSPKQKEALAKFRENVQDVL PALPNPDDYFLLRWLRARNFNLQKSEAMLRKHV  
EFRKQKIDIDNIMSWQPPEVVQQYLSGGMCGYDLEGSPIWYDIIGPLDAKGLLLSASKQDL  
FKTKMRDCELLLQECVRQTEKMGKKIEATTLIYDCEGLGLKHLWKPAVEAYGEFLCMFEE  
NYPETLKRFLIVKAPKLFVAYNLVKPFLSEDTRKKIQVLGANWKEVLLKYISPDQLPVE  
YGGTMTDPDGNPKCKSKINYGGDIPKKYYVRDQVKQYEHVQVQISRGSSHQVEYEILFPG  
CVLRWQFMSDGSIDIGFIFLKTQVGERQRAGEMREVLPSQRYNAHLVPEDEGLTCSDPGI  
YVLRFDNTYSFIHAKKVSFTVEVLLPDKALEEKMQQLGAVTPK

>P08635

METAVNAKSPRNEKVLNCLYQNPDAVFKLICFPWAGGGS IHFAKWGQKINDSLEVHAVRL  
AGRETRLGEPFANDIYQIADIEIVTALLPIIQDKAFAFFGHSGSYIALITALLLKEKYKM  
EPLHIFVSGASAPHSTSRPQVVDLNLTELTEEQVRHLLDFGGTPKHLIEDQDVLRFIPLL  
KADAGVVKKFIKPKSKALLSLDITGFLGSEDTIKDIEGWQDLTSGKFDVHMLPGDHFYL  
MKPDNENFIKNYIAKCLELSSLT

>P31226

MAPTFQTALFFTTIISLSFAAPNAKQVRWCAISDLEQKKNLNDLVGSCNVPDITLVCVLRSS  
TEDCMTAIKDGQADAMFLDSGEVYEASKDPYNLKP IIAEPYSSNRDLQKCLKERQQALAK  
KMIGHYIPQCDEKGNYPQQCHGSTGHCWCVNAMGEKISGTNTPPGQTRATCERHELKPK  
LKERQVALGGDEKVLGRFVPPQCDEKGNYPQQFHGSTGYSWCVNAIGEEIAGTKTPPGKI  
PATCQKHDLVTTCHYAVAMVKKSSAFQFNQLKGRSCHSGVSKTDGWKALVTVLVEKLL  
SWDGPAKESIQRAMSKFFSVSCIPGATQTNLCKQCKGEEGKNCKNSHDEPYGNYGAFRC  
LKEDMGDVAFLRSTALSDEHSEVYELLCPDNTRKPLNKYKECNLGTVPAGTVVTRKISDK  
TEDINNFLMEAQRQCKLFS SAHGKDLMFDDSTLQLALLSSEVDAFLYLVGKLFHAMKAL  
TGDAHLPSKNKVRWCTINKLEKMKCDDWSAVSGGAIACTEASCPKGCVKQILKGEADAVK  
LEVQYMYEALMCGLLPAVEEYHNKDDFGPCKTPGSPYTDGTLRAVALVKKSNKDINWNN  
IKGKKSCHTGVGDIAGWVIVVSLIRRQNDNSDIDSFFGESCAPGSDTKSNLCKLCIGDPK  
NSAANTKCSLSDKEAYYGNQGAFRCLVEKGDVAFVPHTVVFENTDGNPVAWAKNLKSED  
FELLCLDGSRAPVSNYKSKLSGIPPPAIVTREESISDVVRIVANQQSLYGRKGFEEKDMF  
QLFSSNKGNNLLFNDNTQCLITFDRQPKDIMEDYFGKPYT'TVYGASRSAMSSELI SACT  
IKHC

>P03882

MKNIKKNQVMNLGPNSKLLKEYKSQLIELNIEQFEAGIGLILGDAYIRSRDEGKTYCMQF  
EWKNKAYMDHVCLLYDQWVLSPPHKKERVNHLGNLVI TWGAQTFKHQAFNKLANLFI VNN  
KKTIPNNLVENYLT PMSLAYWFMDGKWDYNKNSTNKSIVLNTQSFTFEEVEYLVKGLR  
NKFQLNCYVKINKNKP I IYIDSMSYLIIFYNLIKPYLIPQMMYKLPNTISSETFLK

>P56678

VRDGYIAQPENCVYHCFPGSSGCDTLCKEKGGS GHCGFKVGHGLACWCNALPDNVIIV  
EGEKCHS

>P54178

MKVIKGLTAGLIFLFLCACGGQQIKDPLNYEVEPFTFQNDGKNVSLES LKGEVWLADF I  
FTNCETICPPMTAHMTDLQKKLKAGNIDVRIISFSVDPENDKPKQLKKFAANYPLSFDNW  
DFLTGYSQSEIEEFALKSFKAIVKKPEGEDQVIHQSSFYLVGPDGKVLKDYNGVENTPYD

DIISDVKSASTLK

>P80547

MSLKVDGFTSSII FVDVIRDGLNDPSQAKQKAESIKKANAI IVFNLKNKAGKTESWYLDLK  
NDGDVGGKGNKSPKGDADIQLTLSDDHFAQQLVEGKANAQRLFM TGKLVKGNVMKAAAIEG  
ILKNAQNNL

>O81191

MSSLIMQVVIPKPAKIFHNLF SVISKRRHFSTTITTRGGRWAHCSLQMGNEIQ TGRRTG  
GYQPTLWDFSTIQ LFDSEYKEEKHLMRAAGMIAQVNMLLQEEVDSIQRL ELIDDLRRLGI  
SCHFDREIVEILNSKYTNE IDESDLYSTALRFKLLRQYDFSVSQEVFDCFKNDKGTDF  
KPSLVDDTRGLLQLYEASFLSAQGEETLHLARDFATKFLHKRVLVDKDINLLS IERALE  
LPTHWRVQMPNARSFIDAYKRRPDMNPTVLELAKLDFNMVQAQFQQELKEASRWWNSTGL  
VHELPFVRDRIVECYYWTTGVVERREHGYERIMLTKINALVTTID DVFDIYGTLEELQLF  
TTAIQRWDIESMKQLPPYMQICYLALFNFNEMAYDTLRDKGFNSTPYLRKAWVDLIVESY  
LIEAKWYYMGHKPSLEEYMKNSWISIGGIPILSHLFFRLTDSIEEEDAESMHKYHDIVRA  
SCTILRLADDMGTSLEVERGDVPKSVQCYMNEKNASEEEAREHVRSLIDQ TWKMMNKEM  
MTSSFSKYFVQVSANLARMAQWIYQHESDGFGMQHSLVNKMLRGLLFD RYE

>P33667

MQERHTEQDYRALLIADTPIIDVRAPIEFEHGAMPAAINLPLMNNDERAAVGT CYKQQGS  
DAALALGHKL VAGEIRQQRMDAWRAACLQNPQGILCCARGGQRSHIVQSWLHAAGIDYPL  
VEGGYKALRQTAIQATIELAQKPIVLIGGCTGSGKTL LVQQQPNGVDLEGLARHRGS AFG  
RTLQPQLSQASFENLLAAEMLKTDARQNLRLWVLEDESRMIGSNHLP ECLRERMTQAAIA  
VVEDPFEIRLERLNEEYFLRMHHDFT HAYGDEQGWQEYCEYLH HGLSAIKRRLGLQR YNE  
LAARLDAALTTQLTTGSTDGHLAWLVPLLEEYDPMYRYQLEKKA EKVVFRGEWAEVAEW  
VKAR

>Q92355

MAENLSDQDCFEKLS SKEGQHWFC SGLLTQYIQPTFFWF AHDETPSFKWVLNAYHERLR  
SCTSCIQAYYELRNESLAKGSYSFTGFSITDLQEKWNKWDI IRVLEDFKALEDETIDFTS  
LPCLIFETLLNPKLFTCKNIYKNAIDAFNGLLSDWCSNIFLPGYLLFFYEASHPDVLEWV  
HSFFKENTEIRISSATVDAVFNTVVFESQNSSSDCNFVSIS SPEFWERTYMFLELLPLQ  
SITAACESILKDYLLNLVKTSESLSSQQMSCLRICCNSSSFWSAADS FKEVSSFLKNLLK  
NVTATPFEVSDMNWAYIIASFFRTCLNDFVSVFPEWLKGFVEEKRTIGFI IYSVLDALFD  
LLSLDYSSPSFLNNTLSLMNANSITILQDYPEYMLKLR LHSLLYDIAFISWSHKAITKNP  
SFVFDPSYELSPFWKLDNLQEEKISDVLF SKISSCCFAHDIEISENSTPSGTMVQFAELW  
QVMSEYISGFLKGFSEKSSTEISNMLGDSSKFDTVVSFLLSPTQPLYVSAFHIVQII TNC  
TKNRNEALKKLVAMDFRGIVHGLADAVLNWQSILSFFPALRIMRFLSITNKSLSSDNSAF  
TENDIPTLGAYWQCIWNILDLVFSNVARWSLNNPADTVKALMKLTLKFVDDL FQNDGIFI  
KLLAKFDSLILLGETSESLFSFIMWLKINDLELRGIVINSLCKLFTKFSNFDYLFEDRTV  
TFLTDFIIRKQKAHLSADQCKQLANVLTQASPEAKTVLEQHRLSEMRKTKKQTELTNSAH  
VIKPSPTPQITVKQNTTKSSAPRMGMLEQLKQEYLT KRNFESKLSAVSSRKP TFNEV  
KPANLLAEDLSDNEDDIDRKQGLFSLAKANKIPEIRQQERRQVQLLSNSTIKMHPSQIRM  
MTNRNVANVKARLFP SMTDFYKEILSWEPANQSPNPVLKFKLDGKIIDSFKTVEHYMEV  
LQPMIFMECWSQIQSTKLDLKFSPVEGIMVERTAVNNFVDIGVSVAPKDLYGYPLYDTEV  
VSLAFNKEDASSMKGLCCFAKVERIVRQTNGVLVVLRTLP SMEILNKLQGN CALWFLKLT  
NLATFTTRQYAGIRGLPYFHLADDIIRARPCSQPVKHSSEIKAAMKRYQVNEPQAKAIMC  
ALDNNGFTLIQGGPTGKTKTIIGIISALLVDLSRYHITRPNQQSKSTESKQQI LLCAPS  
NAAVDEVLLRLKRGFLLENGEKYIPRVVRIGNPETINVSVRDLSLEYQTEKQLLEVNQGA

IDLGSLQELTRWRDTFYDCIQKIEELEKQIDVARDVAEDTKSLGKELQNKINEKNLAEQK  
VEELQSQSFTKNKEVDLLRKKKAQKAILKQADVVCATLSGSGHDLVAHSSLNFSTVIIDEA  
AQAVELDTIIPLRYGAKKCILVGDPNQLPPTVLSKKAASLNYSQSLFVRIQKNFSNQMCL  
LSIQYRMHPDISHFPSKKFYDSRLEDGDNMAEKTQQVWHVNPKFTQYRLFVDRGKERTSN  
TMSTYNLEEVEEYLVNMVDELNKNFDPVNFTGRIGVITPYRSQHLHELRRAFKVKYGKSFMS  
TIDIQTVDGFGQEQEKDIIFFSCVKSYSKHGIGFLRDFRRLNVALTRARSSLLIIGNMETL  
KTDDLWGSVLVDDALSRKLVEsphidsegRLITISRTSEKRMKNEEFVEPPSKKLANSEPS  
KEIRQRS

>Q02040

MAAATIVHDTSEAVELCPAYGLYLKPI TKMTISVALPQLKQPGKISISNWEVMERLKG MVQ  
NHQFSTLRISKSTMDFIRFEGEVENKSLVKSFLACL DGTIKLSGFS DILKVRAAEFKID  
FPTRHDWDSFFRDAKMNETLPGERPDIHLEGLPCKWFALKESGSEKPS EDVLVKVFEK  
FGEIRNVDIPMLDPYREEMTGRNFHTFSFGGHLNFEAYVQYREYMGFIQAMSALRGMKLM  
YKGEDGKAVACNIKVSFDSTKHLSDASIKKRQLERQKLQELEQQREEQKRREKEAEERQR  
AEERKQKELEELERERKREKLRKREKQQRDRELRRNQKKLEKLQAEQKQLQEKIKLEE  
RKL LLAQRNLQSIRLIAELL SRAKAVKLREQE QKEEKLRLQQQEERRRLQEAELRRVEEE  
KERALGLQRKERELRERLLSILLSKPPDDSHTHDELGV AHADLLQPVL DILQTVSSGCVS  
ATT LHLPGGQPPAGAPKESPAHPEADGAPKSVNGSVAAEAPCKEVQSSCRVVPEDGSPEK  
RCPGGVLS CIPDNNQQPKGIPACEQNVSRK DTRSEQDKCNREPSKGRGRATGDGLADRHK  
RERSRARRASSREDGRPRKERRPHKKHAYKDDSPRRRSTSPDHTRSRRSHSKDRHRRERS  
RERRGSASRKHSRHRRRSERSRSRSPSRHRSTWNR

>P33085

MLDIFRGLKNLVKVS HVKTDSIVFRLHYSITVMILMSFSLIITTRQYVGNPIDCVHTKDI  
PEDVLNTYCWIQSTYTLKSLFLKKGVSVPYPGIGNSDGD PADKKHYKYQWVCFCLFFQ  
AILFYTPRWLWKSWE GGIHALIMDLDIGICSEAEKKQKKKLLLDYLWENLRYHNWWAYR  
YYVCELLALIN VIGQMF LMRNFFDGEFITFGLKVIDYMETDQEDRMDPMIYIFPRMTKCT  
FFKYGSSGEVEKHDAICILPLNVVNEKIYIFLWFWFILLTFLTLTLTIYRVVIIFSPRMR  
VYLFMRMFR LVRDAIEIIVRRSKMGDWFLLYLLGENIDTVIFRDVVQDLANRLGHNQHH  
RVPGLKGEIQDA

>Q26622

MGMVSSQATPVEAYKVQVQINDQTV EQLV RVQTSAGTTVTTIDAATAERLVKLR EEDLI  
KFSAQGMSQAQMMAKPGMTSPRPIELCAVCGDKASGRHYGAISCEGCKGFFKRSIRKHLG  
YTCRGNKDCQIIKHNRNRCQYCR LQKCLDMGMKSDSVQCERSPLKTRDKTPGNCAASTDK  
IYIRKDIRSPLTATPTFVTG SVLAGGDMKSPQGNRQGLFDQGI LLNVQTTPTSSPSASTS  
DSTTDLSTLASVVTSLANMNK KTEEGPSHSQQIYSPSQTLQIISNGDQDVQGGGDNVSKA  
FDALTKALNTSGDSEAGDLSIDQSANGGSSEVELVKLDS PMLS DHHMQFKLTTPSPMPQF  
LNVHYICESASRLLFLSMHWARS LPAFQVLSADHTHTSMVQK CWSELFTLGLAQCAQAMAL  
STILTAIVNHLQTS LQQDKLSADR VKAVMEHIWKLQEFVTTT SKLDVDQTEFAYLKTIVL  
FSPDHPGLSNVRQIEKFQEMAI SELHDYEAQTYPSKLNRF SKLLLR LPTLRLLSPAIMEE  
LFFAGLIGNVQIDSIIPYILRMETADYNSAQITMSASPGSLIG

>Q02774

MFSYSDFCSIGTAMILSAT TFLMGVFFSNMPYDYHLLFNPNSTQEHFDLALRHYQILHET  
PLPVIVTLCVVAGIGLVGGTIKVFKNPELQMF EYCSLGLYVLAICVFLTNVKTGIDCSV  
SHNWGEVTENQGLAVIASSNIILLVMFAGV IILQIGLWYSNWDLQKRLKEFYAQEEREAA  
NAGKKTEKVDNAKKNDNKSKGAQKRKNAKK

>P30008

MSPTAAPQKLSKVEDLKARSQYLLEPILSQLQEEESTHFNEDGIQILKFHGSYQQDNRDNR  
VKGQEKDFQFMLRLRSPGGYIPPQLYLTLTDQLADDYGNGLRATTRQAFQLHGILKRDLE  
TVIRRIVENLGSTISACGDVNRNVMAPPAPFRDRPEYEWARTYANNIADLLTPESGAYYE  
LWLDGEEKVLSGEPDPAVLAARRNPKGRVADSVEPLYSDRYLPRKFKIAVTVPGDNSIDL  
TQDIGLVVIGNDRGELEGFNVYVGGMGGRTHNKEETFARLADPLGFVPAADIYAAVQAIV  
ATQRDYGDRSNRRHARMKYLIHDWGIKFKKEAVESVFGKAIAPVRELPPFRYRDYLGWHE  
QGDGKWFGLPLITSGRIKDDGNWQLRSALREIVSRWQLPLLLTGSQDVLIYDVQPGDRAA  
IDKLLRDRGVHTVEAIDSLQRYAMACPALPTCGLAITESEERALPGLLVRIRRLLEEQGLP  
DEHFVVRMTGCPNGCARPYMAELAFVGSAPNTYQLWLGGSPDQTRLARPFIDRLADGDVE  
TQLRPLFVFFKQSRQAGESFGDFCDRVGFDALRQFSESYQHEAAKPRYRVGLRADVHGRL  
KAEADKRGVSLTDLACEAIAAYLR

>P35823

MFKKTLIAAAIVVGSAAAPAFADVVISPNNDNTFVTTSLASVTKQPVLDFSTAQQNLTNLFS  
EVGDLKNNGFIVLEIQGEGQFNDAEIRQWLSNGFWRRPFTGLLVNPNHDHGNFANSGEVND  
VRKFFKIIISDGTQLTIVHTIDSNGKRLRLALASDVEETINFADAEVELKLNLANQAFKLT  
SGSQGTVALTAGALWNASYTADPVATKPLFKLGLKLFQLSLTNAGKATALVSEGFLLKLNIG  
DANISATDFAITNVTTNQTIQRDKNLTLTGDVSAFKKDANGNLVNKAGASIGWAAAADG  
QSATAVLGAGNMAGGVQNALAAFGLTYVAADNTVPVPAVNFNVKAEIQGDSQATYNYFKD  
ELADLFI LTRDGMKFDITTTGTTSANLIHIRDVSNILPTEGGKIFVVTITEYADHAANGRG  
EGTVLVTRKALSVTLPSGGAVTLKPADVAADV GASITAGRQARLVFEVETNQGEVAVKKS  
NAEGVDIQNGTRGTAPLVDFTL

>Q82S91

MKTTLIKVIAASVTALFLSMQVYASGHTAHVDEAVKHAEEAVAHGKEGHTDQLEHAKES  
LTHAKAASEAGGNTHVGHGKIKHLEDAIKHGEEGHVGVATKHAQEAIEHLRASEHKSH

>P43163

MRMPLSVLTAAGLSLATLGLGTAGPASATPTAEGAPVVAYDGSPTSAGSPADAKAEAAANR  
AFFEAVLRSVAEKRAANPKSTAAVTVVYNASGAPSFATQIARGTQIWNSSVSNVRLQAGS  
SGVDFTYREGNDPRGSYASTDGHGRGYIFLDYRQNQTYDSTRVTAHETGHVGLGLPDHYS  
PCSELMSSGGPGPSCTNAYPNSAERSRVNQLWANGFAAAMDKALEKSAR

>P01242

MAAGSRTSLLLAFLGLLCLSWLQEGSAFPTIPLSRLFDNAMLRRARRLYQLAYDTYQEFEEA  
YILKEQKYSFLQNPQTSLCFSESIPTPSNRVKTKQKSNLELLRISLLLIQSWLEPVQLLR  
SVFANSLVYGASDSNVYRHLKDLEEGIQTLMWRLLEDGSPRTGQIFNQSYSKFDTKSHNDD  
ALLKNYGLLYCFRKMMDKVFTRIVQCRSVEGSCGF

>Q8N5J4

MTCVEQDKLQAFEDAFEVLRQHSTGDLQYSPDYRNYLALINHRPHVKGNSSCYGVLPT  
EPVYNWRTVINSAADFYFEGNIHQSLQNI TENQLVQPTLLQKGGKGRKKLRLFEYLHES  
LYNPEMASC IQWVDKTKGIFQFVSKNKEKLAELWGRKGNRKTMTYQKMARALRNYGRSG  
EITKIRKLTQYFSEAILQRLSPSYFLGKEIFYSQCVQPDQEYLSLNNWNANYNITYANY  
HELNHHDC

>P39621

MPKVSVMITSYNKSDYVAKS ISSILSQTFSDFELFIMDDNSNEETLNVIRPFLNDNRVRF  
YQSDISGVKERTEKTRYAALINQAIEMAEGEYITYATDDNIYMPDRLLKMWRELDTHPEK

AVIYSASKTYHLNENRDIVKETVRPAAQVTWNAPCAIDHCSVMHRYSVLEKVKEKFGSYW  
DESPAFYRIGDARFFWRVNHFPYPLDEELDNLNYITDQSIHFQLFELEKNEFVRNLPPQ  
RNCRELRESLKKLGMG

>Q3UN54

MEKYL L L L L L L L L L L G I F L R V G F L Q A L T C V S C G R L N S S G I C E T A E T S C E A T N N R K C A L R L L Y K D G  
K F Q Y G F Q G C L G T C F N Y T K T N N M V K E H K C C D H Q N L C N K P

>P18417

MANFSESKSMMAVFFMFFLLLS SSSSSSSSSSPILKKIFIESPSYAPNAFTFDSTDKGFY  
TSVQDGRVIKYE GPN S G F T D F A Y A S P F W N K A F C E N S T D P E K R P L C G R T Y D I S Y D Y K N S Q M  
Y I V D G H Y H L C V V G K E G G Y A T Q L A T S V Q G V P F K W L Y A V T V D Q R T G I V Y F T D V S S I H D D S P E  
G V E E I M N T S D R T G R L M K Y D P S T K E T T L L L K E L H V P G G A E I S A D G S F V V A E F L S N R I V K Y  
W L E G P K K G S A E F L V T I P N P G N I K R N S D G H F W S S E E L D G G Q H G R V V S R G I K F D G F G N I L  
Q V I P L P P P Y E G E H F E Q I Q E H D G L L Y I G S L F H S S V G I L V Y D D H D N K G N S Y V S S

>P00782

MRGKKVWISLLFALALIFTMAFGSTSSAQAAGKSNGEKKYIVGFKQTMSTMSAAKKKDV I  
SEKGGKVQKQFKYVDAASATLNEKAVKELKKDP S V A Y V E E D H V A H A Y A Q S V P Y G V S Q I K A  
P A L H S Q G Y T G S N V K V A V I D S G I D S S H P D L K V A G G A S M V P S E T N P F Q D N N S H G T H V A G T V A  
A L N N S I G V L G V A P S A S L Y A V K V L G A D G S G Q Y S W I I N G I E W A I A N N M D V I N M S L G G P S G S A  
A L K A A V D K A V A S G V V V V A A G N E G T S G S S S T V G Y P G K Y P S V I A V G A V D S S N Q R A S F S S V G  
P E L D V M A P G V S I Q S T L P G N K Y G A Y N G T S M A S P H V A G A A A L I L S K H P N W T N T Q V R S S L E N T  
T T K L G D S F Y Y G K G L I N V Q A A A Q

>Q59495

M E I Q N K A M L I T Y A D S L G K N L K D V H Q V L K E D I G D A I G G V H L L P F F P S T G D R G F A P A D Y T R V  
D A A F G D W A D V E A L G E E Y Y L M F D F M I N H I S R E S V M Y Q D F K K N H D D S K Y K D F F I R W E K F W A K  
A G E N R P T Q A D V D L I Y K R K D K A P T Q E I T F D D G T T E N L W N T F G E E Q I D I D V N S A I A K E F I K T  
T L E D M V K H G A N L I R L D A F A Y A V K K V D T N D F F V E P E I W D T L N E V R E I L T P L K A E I L P E I H E  
H Y S I P K K I N D H G Y F T Y D F A L P M T T L Y T L Y S G K T N Q L A K W L K M S P M K Q F T T L D T H D G I G V V  
D A R D I L T D D E I D Y A S E Q L Y K V G A N V K K T Y S S A S Y N N L D I Y Q I N S T Y Y S A L G N D D A A Y L L S  
R V F Q V F A P G I P Q I Y Y V G L L A G E N D I A L L E S T K E G R N I N R H Y Y T R E E V K S E V K R P V V A N L L  
K L L S W R N E S P A F D L A G S I T V D T P T D T T I V V T R Q D E N G Q N K A V L T A D A A N K T F E I V E N G Q T  
V M S S D N L T Q N

>Q06752

M T I T L Y N T L T R Q K E T F V P L E E G K V K M Y V C G P T V Y N Y I H I G N A R P A I V Y D T V R N Y L E Y K G Y  
D V Q Y V S N F T D V D D K L I K A A N E L G E D V P T I S E R F I K A Y F E D V G A L G C R K A D L H P R V M E N M D  
A I I E F V D Q L V K K G Y A Y E S E G D V Y F K T R A F E G Y G K L S Q Q S I D E L R S G A R I R V G E K K E D A L D  
F A L W K A A K E G E I S W D S P W G K G R P G W H I E C S A M V K K Y L G D Q I D I H A G G Q D L T F P H H E N E I A  
Q S E A L T G K T F A K Y W L H N G Y I N I D N E K M S K S L G N F V L V H D I K Q H D P Q L L R F F M L S V H Y R H  
P I N Y S E E L L E N T K S A F S R L K T A Y S N L Q H R L N S S T N L T E D D D Q W L E K V E E H R K A F E E M D D  
D F N T A N A I S V L F D L A K H A N Y Y L Q K D H T A D H V I T A F I E M F D R I V S V L G F S L G E Q E L L D Q E I  
E D L I E K R N E A R R N R D F A L S D Q I R D Q L K S M N I I L E D T A Q G T R W K R G E

>P21888

M L K I F N T L T R Q K E E F K P I H A G E V G M Y V C G I T V Y D L C H I G H G R T F V A F D V V A R Y L R F L G Y K  
L K Y V R N I T D I D D K I I K R A N E N G E S F V A M V D R M I A E M H K D F D A L N I L R P D M E P R A T H H I A E  
I I E L T E Q L I A K G H A Y V A D N G D V M F D V P T D P T Y G V L S R Q D L D Q L Q A G A R V D V D D K R N P M D

FVLWKMSKEGEPSPWPSPWGAGRPGWHIECSAMNCKQLGNHF'DIHGGGSDLMFPHHENEIA  
QSTCAHDGQYVNYWMHSGMVMVDREKMSKSLGNFF'TVRDVLKYYDAETVRYFLMSGHYRS  
QLNYSEENLKQARAALERLYTALRGTDKTVAPAGGEAFEARFIEAMDDDFNTPEAYSVLF  
DMAREVNRLKAEDMAAANAMASHLRKLSAVLGLLEQEPEAFLOSGAQADDSEVAEIEALI  
QORLDARKAKDWAAADAARDRLNEMGIVLEDPGQGT'TWRRK

>O35775

MSPLCLLLLALALVAVPGARGACPVVADLKKSDGTRTCARLYENSDPYDNCQGPPELSV  
DPGTDLPYLPDWSNSASSLVVAQRCELTVWSLPGKRGKTRKFSTGSYPRLEEYRKGIFG  
TWAKSISGLYCKCY

>P22249

MAKDVRVGYAPSPTGHLHIGGARTALFNLYLFARHHGGKMIVRIEDTDIERNVEGGEQSQL  
ENLQWLIGIDYDESVDKDGGYGPYRQTERLDIYRKYVDELLEQGHAYKCFCTPEELERERE  
EQRAAGIAAPQYSGKCRRLTPEQVAELEAQGKPYTIRLKVPEGKTYEVDDLVRGKVTFES  
KDIGDWVIVKANGIPTYNFAVVIDDHLMESHVFRGEEHLSNTPKQLMVYEFYFGWPEPPQF  
AHLTLIVNEQRKKLSKRDESI IQFVSQYKELGYLPEAMFNFFALLGWSPEGEEEEIFSKDE  
LIRIFDVSRLSKSPSMFDTKKLTWMNQYIKKLDLDRLEVELALPHLVKAGRLPADMSDEQ  
RQWARDLIALYQEQMSYGAEIVPLSELFFKKEVEYEDEARQVLAEEQVPDVLSAFLAHR  
DLDPFTADEIKAAIKAVQKATGQKGGKLFMPIRAAVTGQTHGPELPPFAIQLLGKQKVIER  
LERALQEKF

>P04805

MKIKTRFAPSPTGYLHVGGARTALYSWLFARNHGGEFVLR IEDTDLERSTPEAIEAIMG  
MNWLSLEWDEGPYYQTKRFDRYNAVIDQMLEEGTAYKCYCSKERLEALREEQMAKGEKPR  
YDGRCRHSHEHHADDEPCVVRFANPQEGSVVFDQIRGPIEF'SNQELDDLI IRRTDGSPT  
YNFCVVVDDWDMETHVIRGEDHINNTPRQINILKALKAPVPVYAHVSMINGDDGKKLSK  
RHGAVSVMQYRDDGYLPEALLNYLVRLGWSHGQEIF'TREEMIKYFTLNAVSKSASAFNT  
DKLLWLNHHYINALPPEYVATHLQWHIEQENIDTRNGPQLADLVKLLGERCKTLKEMAQS  
CRYFYEDFAEFDADAACKHLRPVARQPLEVVDRKLAAITDWAENVHHAIQATADELEV  
MGKVGMPLRVAVTGAGQSPALDVTVHAIGKTRSIERINKALDFIAERENQQ

>P15189

MADSAVRVRIAPSPTGEPHVGTAYIALFNLYLFAKKHGGKFI LR IEDTDATRSTPEFEKKV  
LDALKWCGLEWSEGPDI GGPYGPYRQSDRKDIYKPYVEKIVANGHGFRFCCTPERLEQMR  
EAQRAAGKPPKYDGLCLSLSAEEVTSRVDAGEPHVVRMKIPTEGSCKFRDGVYGDVEIPW  
EAVDMQVLLKADGMPTYHMANVVDDHLMKITHVARGEEWLASVPKHILYQYLGLEPPVF  
MHLSLMRNADKSKLSKRKNPTSISYYTALGYLPEALMNFLGLFFIQIAEGEELLTMEELA  
EKFPDENLSKAGAFDIQKLDWLNARWIREKLSEEEFAARVLAWAMDNERLKEGLKLSQT  
RISKLGELPDLAFLFKSDLGLQPAAFAGVKASPEEMLKILNTVQPDLEKILEWNKDSIE  
TELASAERMGKKLKAVVAPLFVACSGSQRSPLPFDSEMLLGRSVVRQLKVAAQVVASM  
AGSGK

>P27000

MVVTRIAPSPTGDPHVGTAYIALFNLYAWARRNGGRFIVRIEDTDRARYVPGAEERILAL  
KWLGLSYDEGPDVGGPHGPYRQSERLPLYQKYAEELLKRGWAYRAFETPEELEQIRKEKG  
GYDGRARNIPPEEAERARRGEPHVIRLKVPRPGTTEVKDELRGVVYDNQEIPDVVLLK  
SDGYPTYHLANVVDDHLMGVTDVIRAEEWLVSTPIHVLLYRAFGEAPRFYHMPLLRNP  
KTKISKRKSHSTLDWYKAEGFLPEALRNYLCLMGFSMPDGREIF'TLEEFIQAF'TWERVSL  
GGPVFDLEKLRWMNGKYIREVLSLEEVAERVKPFLREAGLSWESEAYLRRAVELMRPRFD

TLKEFPEKARYLFTEDYPVSEKAQRKLEEGPLLLKELYPRRLRAQEEWTEAALEALLRGFA  
AEKGVKLGQVAQPLRAALTGSLETPGLFEILALLGKERALRRRLERALA

>O95363

MVGSALRRGAHAYVYLVSKASHISRGHQHQAWSRPPAAECATQRAPGSVVELLGKSYPQ  
DDHSNLTRKVLTRVGRNLHNQQHHLWLKERVKEHFYKQYVGRFGTPLFSVYDNLSPVV  
TTWQNFDSLIPADHPSRKKGDNYLNRTHMLRAHTSAHQWDLHAGLDAFLVVGDVYRR  
DQIDSQHYPFIHQLEAVRLFQSKHELFAKIDGESLQLFQSSRSQSAHKQETHTMEAVKLVE  
FDLKQTLTRLMAHLFGDELEIRWVDCYFPFTHPSFEMEINFHGEWLEVLGCGVMEQQLVN  
SAGAQRIGWAFGLGLERLAMILYDIPDIRLFWCEDERFLKQFCVSNINQKVKFQPLSKY  
PAVINDISFWLPSENYAENDFYDLVRTIGGDLVEKVDLIDKFFVHPKTHKTSHCYRITYRH  
MERTLSQREVRHIHQALQEAQVQLLGVVEGRF

>P08425

MFLNRMKTRTGLYRLYSTLKVPHVEINGIKYKTDPTTNVTDSI IKLTDRSLHLKESHP  
VGILRDLIEKKLNSVDNTFKIFNFKPVVTTMENFDSLGFPKDHPGRSKSDTYINETHL  
LRTHTSAHELECFQKIRNDSDNISGFLISADVYRRDEIDKTHYPVFHQMEGATIWKRK  
ADVGVKEPMYIEKIREDIRQVENLLNKENVKITVDDDTIPLKENNPKQEYMSDLEVDLCS  
QHLKRSIELIVSEVFNKKISSMIKNKANNTPKELKVRWINAYFPWTAPSWEIEVWWQGEW  
LELCGGLIRQDVLIRAGYKPSSETIGWAFGLGLDRIAMLLFEIPDIRLLWSRDERFSRQF  
SKGLITSFKPYSKHPSFRDVAFWLPEDKPDIHQVHENDLMEIRNIAGDLVESVKLVDS  
FTHPKTGRKSMCYRINYQSMRNLTAENVTLQDMVCSKLVKEYSVELR

>P18330

MTDYKATLNLPTAFPMKAGLPQREPQILQRWNSIGLYGKLRIGKDRPKFVLHDGPPYA  
NGTIHIGHALNKILKDMILRSKTLSGFDAPYVPGWDCHGLPIEHKVEVITYGKNLGADKTR  
ELCRAYATEQIEGQKSEFIRLGLVGEWDNPYKTMNFKNEAGEIRALAEIVKGGFVFKGLK  
PVNWCFCGSALEAEVEYEDKKSSTIDVAFP IADDAKLAEAFGLASLAKPAAIWIWTTT  
PWTIPANQALNVHPEFTYALVDVGDRLLVLAEEEMVESCLARYELQGSVIATATGSALELI  
NFRHPFYDRLSPVYLADYVELGSGTGIVHCSPAYGVDDFVICKKYGMVNDIINPVQSN  
VYVPSLEFFGGQFIFKADQPIIEKLREVGALMQTAAIQHSYMHWCWRHKTPLIYRATAQWF  
IGMDKEPTSGDTLRVRSLKAIEDTKFVPSWGQARLHSMIANRPDWCISRQRNWGVP I PFF  
LNKESGELHPRTVELMEVVAQRVEQQGIEAWFKLDAAELLGDEAPLYDKISDTLDVWFDS  
GTTHWHVLRGSHPMGHETGPRADLYLEGSQHRGWFHSSLLTGCAIDNHAPYRELLTHGF  
TVDETGRKMSKSLKNVIEPKKINDTLGADIMRLWVASTDYSGEIAVSDQILARSADAYRR  
IRNTARFMLSNTLGFNPASDLLPAEDMLALDRWAVDRTLQLRELQEHYGEYRFWNVYSK  
IHNFCVQELGGFYLDI IKDRQYTTGANSKARRSAQTALYHISEALVRWIAPILAF TADEL  
WEYLPGERNESVMLNTWYEGLELTELPADEFELGREYWEGVMAVKVAVNKELEVQRAAKAVGG  
NLQAEVTLFAEDGLTADLAKLSNELRFVLIITSTASLAPFTQAPADAVATEVPGLKLVK  
SAFPKCARCWHCREVDGVNPEHPEICGRCVDNISGEGEVRHYA

>P41972

MDYKETLLMPKTDFFPMRGGLPNKEPQIQEKWDAEDQYHKALEKNKGNETF ILHDGPPYAN  
GNLHMGHALNKILKDFIVRYKTMQGFYAPYVPGWDTHGLPIEQALTKKGVDRKKMSTAEF  
REKCKEFALEQIELQKDFRRLGVRGDFNDPYITLKPEYEAQIRIFGEMADKGLIYK GK  
KPVYWSPSSSESLAEAEIEYHDKRSASIVYAFNVKDDKGVVDADAKFI IWTTTPWTIPSN  
VAITVHPELKYGQYNVNGEKYIIAEALS DAVAEALDWDKASIKLEKEYTGKELEYVVAQH  
PFLDRESLVINGDHVTTDAGTGCVHTAPGHGEDDYIVGQKYELPVISPIDDKGVFTTEGG  
QFEGMFYDKANKAVTDLLETKGALLKLDLITHSYPHDWRTPKPVIFRATPQWFASISKVR  
QDILDAIENTNFKNVWVKTR IYNMVRDRGEWVISRQRVWGVPLPVFYAENGEIIMTKETV

NHVADLFAEHGSNIWFEREAKDLLPEGFTHPGSPNGTFTKETDIMDVWFDSGSSSHRGVLE  
TRPELSFPADMYLEGSQYRGWFNSSITTSVATRGSVPYKFLLSHGFMVDGEGKKMSKSL  
GNVIVPDQVVKQKGADIARLWVSSTDYLDVRLSDEILKQTSADVYRKIRNTLRFMLGNIN  
DFNPDTDSIPESELLEVDYLLNRLREFTASTINNYENFDYLNIIYQEVQNF INVELSNFY  
LDYGKDILYIEQRDISHIRSMQTVLYQILVDMTKLLAPILVHTAEVWVSHTPHVKEESVH  
LADMPKVVEVDQALLDKWRTFMNLRDDVNRALETARNEKVIKGSLEAKVTIASNDKFNAS  
EFLTSFDALHQLFIVSQVKVVDKLDQATAYEHGDIVIEHADGKERCERCWNYSEDLGAVD  
ELTHLCPRCQQVVKSLV

>P00956

MSDYKSTLNLNPETGFPMRGDLAKREPGMLARWTDDDLGYIIRAACKGKKTFLIHDGPPYA  
NGSIHIGHSVNIKLDIIVKSKGLSGYDSPYVPGWDCHGLPIELKVEQEYKPKGEKFTAA  
EFRAKCREYAATQVDGQRKDFIRLGLVLDWVSHPLYLTMDFKTEANIIRALGKIIGNGHLHK  
GAKPVHWCVDCRSALAEAEVEEYDKTSPSIDVAFQAVDQDALKAKFAVSNVNGPISLVIW  
TTTTPWTL PANRAISIAPDFDYALVQIDGQAVILAKDLVESVMQRIGVTDYTIILGTVKGAE  
LELLRFTHPFMGFDVPAIILGDHVTL DAGTGAVHTAPGHGPDYVIGQKYGLE TANPVGPD  
GTYLPGTYPTLDGVNVFKANDIVVALLQEKGALLHVEKMQHSYPCCWRHKTPIIIFRATPQ  
WVFSMDQKGLRAQSLKEIKGVQWIPDWGQARIESMVANRPDWCISRQRTWGVPM S L F V H K  
DTEELHPRTLELMEEVAKRVEVDGIQAWWDLDAKEILGDEADQYVVPD TL DVWFDSGST  
HSSVVDVRPEFAGHAADMYLEGSQHRGWFMSSLMISTAMK GKAPYRQVLTHGFTVDGQG  
RKMSKSIGNTVSPQDVMNKL GADILRLWVASTDYTGEMAVSDEILKRAADSYRRIRNTAR  
FLLANLNGFDPKADMVKPEEMVVLDRWAVGCAKAAQEDILKAYEAYDFHEVVQRLMRFC  
VEMGSFYLDI IKDRQYTAKADSVARRSCQTALYHIAEALVRWMAPILSFTADEVWGYLPG  
EREKYVFTGEWYEGFLGLADSEAMNDAFWDELKVRGEVNKVI EQARADKKVGG SLEAAV  
TLYAEPELSAKLTALGDELRFVLLTSGATVADYNDAPADAQQSEVLKGLKVALSKAEGEK  
CPRCWHYTQDVGKVAEHAEICGRCVSNVAGDGEKRKFA

>P56690

MFKEVGEPNFPKLEEEVLAFWKREKIFQKSVENRKGGRYTVYEGPPTANGLPHVGHQA  
RSYKDLFPKYKTMRGYAPRRAGWDTHGLPVELEVEKLLGLKSKREIEAYGIERFNQACR  
ESVFTYEKEWEAFTERIAYWVDLENAYATLEPTYIESIWWSLKNLFRGLLYRDHKVVPY  
CPRCGTPLSSHEVALGYKEIQDPSVYVRFPLKEPKKLGLEKASLLIWTTPWTLPGNVAA  
AVHPEYTYAAFQVGDEALILEEGLGRKLLGEGTPVLKTFPGKALEGLPYTPPYPPQALEKG  
YFVVLADYVSQEDGTGIVHQAPAFGAEDLETARVYGLPLLKTVDEEGKLLVEPFKGLYFR  
EANRAILRDLRGRGLLFKEESYLHSPHCWRCSTPLMYATESWFIKNTLFKDELIRKNQ  
EIHVWPPIHKEGRYGEWLKNLVDWALSARNRYWGTPLP I WVCQACGKEEAIGSFQELKARA  
TKPLPEPFDPHRPYVDQVELACACGGTMRRVYVIDVWYDSGAMPFASLHYPFEHEEVFR  
ESFPADFIAEGIDQTRGWFNLSHLQGVMLFGSIAFKNVI CHGLILDEKGGKMSKSKGNVV  
DPWDI IREFGADALRWYIYVSAPPEADRRFGPNLVRETVRDYFLTLWNVYSFFVTYANLD  
RPDLKNPPPPEKRPEMDRWLLARMQDLIQRVTEALEAYDPTTSARALRDFVVEDLSQWYV  
RRNRRRFWKNEALDREAAYATLYEALVLVATLAAPFTPF LAEVLWQNLVRSVRPEAKES  
VHLADWPEADPALADEALVAQMRAVLKVVDLARAARAKSGVKTTRTPLPLLLVTAPTALER  
EGLKRFAHEIAEELNVKEVRVLEPGEEILSYRVLPNLKLLGRKYGKLVPKIREALQRE  
RAAALALKGEAIPLEVEGEAL TLLPEEVLLAEAPKGYQALEKDGVAALKVEVTEALRM  
EGLARDLIRLLQQARKDMGLKVSDRIRVGYEAEGPYLEALKRHGPWIAEEVLATAFGEGL  
FGGFEARVEDEEGKAVFHLARAE

>P07813

MQEQRPEEIESKVQLHWDEKRTFEVTEDESKEKYYCLSM LPYPSGRLHMGHVRNYTIGD  
VIARYQRMLGKNVLQPIGWDAFGLPAEGAAVNNTAPAPWTYDNIA YMKNQLKMLGFGYD



WSRELATCTPEYYRWEQKFFTELYKKGLVYKKTSAVNWCPNDQTVLANEQVIDGCCWRCD  
TKVERKEIPQWFIKITAYADELLNDLDKLDHWPDTVKTMQRNWIGRSEGVEITFNVNDYD  
NTLTVYTTTRPDTFMGCTYLAVAAGHPLAQKAAENNP ELAAFIDE CRNTKVAEAE MATMEK  
KGVDTGFKAVHPLTGEEIPVWAANFVLM EYGTGAVMAVPGHDQRDYEFASKYGLNIK PVI  
LAADGSEPDLSQQALTEKGVLFNSG EFNGLDHEAAFNAIADKLTAMGVGERKVN YRLRDW  
GVSQRQYWGAPIPMVTLEDGTVMP TPDDQLPVILPE DVVMDGITSP IKADPEWAKTTVNG  
MPALRETDTFDTFMESSWYYARYTCPQYKEGMLDSEAAANYWLPVDIYIGGIEHAIMHLLY  
FRFFHKL MRDAGMVNSDEPAKQLLCQGMVLADAFYYVGENGERNWVSPVDAIVERDEKGR  
IVKAKDAAGHEL VYTGMSKMSKSKNNGIDPQVMVERYGADTVRLFM MFASPADMTLEWQE  
SGVEGANRFLKRVWKL VYEHTAKGDVAALNVDAL TENQKALRRDVHKTIAKVTDDIGRRQ  
TFNTAIAAIMELMNKLAKAPTDGEQDRALMQEALLAVVRMLNPF TPHICFTLWQELKGE  
DIDNAPWPVADEKAMVEDSTLVVVQVNGKVRAKITVPVDATEEQVRERAGQEHLVAKYLD  
GVTVRKVIYVPGKLLNLVVG

>O05593

MKPYVTTAIAYPNAAPHVGHAYEYIATDAIARFKRLDRYDVRFLTGTDEHGLKVAQAAA  
AAGVPTAALARRNSDVFQRMQEALNISFDRFIRTTDADHHEASKELWRRMSAAGDIYLDN  
YSGWYSVRDERFFVESETQLVDGTRRLTVETGTPVTWTEEQTYFFRLSAYTDKLLAHYHAN  
PDFIAPETRRENEVISFVSGGLDDLSISRTSFDWGVQVPEHPDHVMYVWVDALTN YLTGAG  
FPD TSELFRRYWPADLHMIGKDIIRFHAVYWP AFLMSAGIELPRRIFAHGFLHNRGEKM  
SKSVGNIVDPVALAEALGVDQVRYFLLREVPFGQDGSYSDEAIVTRINTDLANELGNLAQ  
RSLSMVAKNLDGRVPNPGEFADADAALLATADGLLERVRGHFDAQAMHLALEAIWMLGD  
ANKYFSVQQPWVLRKSESEADQARFR TTYVTCEVVR IAALLIQPVMPE SAGKILDLLGQ  
APNQRSFAAVGVRLTPGTALPPPTGVFPRYQPPQPEGK

>P00962

MSEAEARPTNFI RQIIDEDLASGKHTTVHTRFPPEPNGYLHIGHAKSICLNFGIAQDYKG  
QCNLRFDDTNPVKEDI EYVESIKNDVEWLGFWHSGNVRYSSDYFDQLHAYAIELINKGLA  
YVDELTP EQIREYRGTLTQPGKNSPYRDRSVEENLALFEKMRAGGFEEGKACLRAKIDMA  
SPFIVMRDPVLYRIKFAEHHQTGNKWC IYPMYDFTHCISDALEGITHSLCTLEFQDNRRL  
YDWVLDNITIPVHPRQYEF SRLNLEYTVMSKRKLNLLVTDKHVEGWDDPRMPTISGLRRR  
GYTAASIREFCKRIGVTKQDN TIEMASLESCIREDLNENAPRAMAVIDPVKLV IENYQGE  
GEMVTMPNHPNKPEMSRQVPFSGEI WIDRADFREEANKQYKRLVLGKEVRLRNAYVIKA  
ERVEKDAEGNITTI FCTYDADTLSKDPADGRKVKGV IHWVSAHALPVEIRLYDR LFSVP  
NPGAADDFLSVINPESLVIKQGF AEP SLKDAVAGKAFQFEREGYFCLDSRHSTA EKPVFN  
RTVGLRDTWAKVGE

>P11875

MNIQALLSEKVRQAMIAAGAPADCEPQVRQSAKVQFGDYQANGMMAVAKKLGMAPRQLAE  
QVLTHL DLNGIASKVEIAGPGFINIFLDP AFLAEHVQQALASDR LGVATPEKQTI VVDYS  
APNVAKEMHVGH LRSTIIGDAAVRTLEFLGHKVIRANHVGDWGTQFGMLIAWLEKQQQEN  
AGEMELADLEGFYRDAKKHYDEDEEFAERARNYVVKLQSGDEYFREMWRKLVDI TMTQNQ  
ITYDRLNVTLTRDDVMGESLYNPMLPGI VADLKAKGLAVESEGATVVF LDEFKNKEGEP  
GVIIQKKDGGYLYTTTDIACAKYRYETLHADRVLYYIDSRQHQLMQAWAIVRKAGYVPE  
SVPLEHHMFGMMLGKDGKPFKTRAGGTVKLADLLDEALERARRLVAEKNPDM PADELEKL  
ANAVGIGAVKYADLSKNRTTDYIFDWDNMLAFEGNTAPYMQYAYTRVLSVFRKAEIDEEQ  
LAAAPVI IREDREAQLAARLLQFEETLTVVAREGTPHVMCAYLYDLAGLFSGFYEHCPIL  
SAENE EVRNSRLKLAQLTAKTLKLG LDTLGIETVERM

>P37880

MDGLVAQCSARLLQQEKEIKSLTAEIDRLKNCGHLEDSPLDQLREENLKLKYRLNII LQR  
SLQAEKRRRPTKNMININSRLQDVFGCAIKAAYPDLNPPPLVVTPSQPKFGDYQCNSAM  
GISQMLKAKEQKVNPRGIAENITKHLPNNEYIDRVEIAGPGFINVHLRKFVSEQLTNLL  
VNGIQLPALGENKKVIVDFSSPNIKEMHVGHRLSTIIGESMSRLEFAGYDVLRLNHVG  
DWGTQFGMLIAHLQDQFPDYLTVSPPIGDLQAFYKESKKRFDTEEEFKKRAYQCVVSLQS  
KDPDFIKAWNLI CDVSRAEFNKIYDALDITLIERGESFYQDRMKDIVKEFEDKGYVQVDD  
GRKIVFVPGCSIPLTIVKSDGGFTYDTSDLAAIKQRLFEEKANKI IYVVDNGQAVHFQTI  
FAAAQMIGWYDPKVTQVTHVGFVVLGEDKKKFKTRSGETVRLVDLLGEGLRSMCKLKE  
KERDKVLTEEELTAAQTSIAYGCIKYADLSHNLNDYIFSFDKMLDDRGNNTAAAYLLYAF  
RIRSIARLANVDEEMLQKAARETKIVLDHEKEWKLGRCILRFPEILQKMLDDLFLHTLCD  
YIYELATTFTEFYDSCYCVKEDRQTGKVLKVNMMRMLLCEAVAAVMAKGF DILGKIPVQR  
M

>Q05506

MASTANMISQLKKSIAEPAVAKDSDHPDVIIVDLMRNYISQELSKISGVDSSLI FPALEW  
TNTMERGDLLIPIPRLRKIGANPKDLAVQWAEKFP CGDFLEKVEANGPFIQFFFNPPQFLA  
KLVIPDILTRKEDYGSCKLVENKKVIEFSSPNIKPFHAGHLRSTIIGGF LANLYEKL  
WEVIRMNYLGDWKGQFGLLAVGFERYGNEEALVKDPIHHLFDVYVRINKDIEEEGDSIPL  
EQSTNGKAREYFKRMEDGDEEALKIWKRFREFSIEKYIDTYARLNKIDVYSGESQVSKE  
SMLKAIDLFEKGLTHEDKGAVLIDLTKFNKLGKAI VQKSDGTTLYLTRDVGAAMDRYE  
KYHFDKMIYVIASQQDLHAAQFFEILKQMGFEWAKDLQHVNFQGMVQGMSTRKGTVVFLDN  
IILEETKEKMHEVMKKENKYAQIEHPPEEVADLVGISAVMIQDMQGRINNYEFKWERMLS  
FEGDTGPYLQYAHSRLSVERNASGITQEKWINADFSLLKEPAAKLLIRLLGQYPDVLRN  
AIKTHEPTTVVTYLFLKLT HQVSSCYDVLWVAGQTEELATARLALYGAARQVLYNGMRLLG  
LTPVERM

>Q99N50

MIDLSFLTEEEQDAILKVLQRDAALKRAEEERVRHLPEKIKDDQQLKNMSGQWFYEA KAK  
RHRDKIHGADIIRASMRKLLPAAAEQNKDTAMRAKESWVNNVNKDAVLPPEIAVVEEPE  
DDTDPAGPSSSLVDPASSVIDMSQESTRTPAVSLPKQRKNPFPNSPKLPEDHSLQQTKPEQ  
SKTGKAGLFQISKEGELSEKESKSSIPDMPRQQLEKPKQTVSTEPENASHTKAPIPKARK  
LIYKSNLDKDDNQSFPRQRDSL NARGAPRGI LKRNSSSSSTDSETLRNLNLDPKSKI  
LSPGLTIHERISEKEFSLEDDSSSTSSLEPLKHVRFSAVKNELPQSPRPVLGQEVGEFTVL  
ESDQLQNGTEDAGDIEEFQNHPELSHKTPLSHYQLVSSPSDSGREREQLMSSGSAPRDEI  
PCHSDILPTGPQCVESVINGQQEKSSHFTKLPSEL SKSPSDEL TQCGEPEPSQTADHS  
FRDHRQGSEEEHSPVLKTLERRAARKLP SKSLEDIPSDSSNQAKVDNLPEELVRS AEDDQ  
KADQEPDTNECIPGISTVPSLPDNQF SHPDKLKRMSKSVPAFLQDESDDRETDTASESSY  
QLRRYKKS PSSLTNLSSSSGMTSLSSASGSVMSVYSGDFGNLEVKGSVQFALDYVESLKE  
LHVFAVQCKDLAAADVKKQRSDPYVKTYLLPDKGKMGKKKTLVVKKTLNVPVYNEILRYKI  
ERQFLKTQKLNLSVWHRDTFKRNSFLGEVELDLETWDWDSKQNKQLKWYPLKRKTAPVAL  
ETENRGEMKLALQYVPEPSPGKKLP TTTGEVHIWVKECLDLP LLRGSHLNSFVKCTILPDT  
SRKSRQKTRAVGKTTNPVFNHTMVYDGRFPEDLMEACVELTVWDHYKLTNQFLGGLRIGF  
GTGKSYGTEVDWMDSTSEEVALWEKMVNSPNTWEATLPLRMLLI AKLSK

>P11931

MAQHEVSMPPKYDHRAVEAGRYEWWLKGKFFEATGDPNKRPF TIVIPPPNVTGKLHLGHA  
WDTTLQDIITRMKRMQGYDVLWLP GMDHAGIATQAKVEEKL RQQGLSRYDLGREKFLEET  
WKWKEEYAGHIRSQWAKLGLGLDYTRERFTLDEGLSKAVREVFVSLYRKGLIYRGEYIIN  
WDPVTKTALS DIEVVYKEVKGALYHMRYPLADGSGFIEVATTRPETMLGDTAVAVHPDDE  
RYKHLIGKMKVLPVIGREIPIIADEYVDMFEFGSGAVKITPAHDPNDFEIGNRHNLPRILV

MNEDGTMNENAMQYQGLDRFECKQIVRDLQEQGVLFKIEEHVHSVGHSESGAVIEPYL  
STQWVFKMKPLAEAAIKLQQTGDKVQFVPERFEKTYLHWLENIRHWCISRQLWWGHRIPA  
WYHKETGEIYVDHEPPKDIENWEQDPDVLDTWFSALWPFSTMGWPD TDSPDYKRYPTD  
VLVTGYDIIFFWVSRMIFQGLEFTGKRPFKDVLIHGLVRDAQGRKMSKSLGNGVDPMDVI  
DQYGADALRYFLATGSSPGQDLRFSTEKVEATWNFANKIWNASRFALMNMGGMTYEELDL  
SGEKTVADHWILTRLNETIETVTKLAEKYEFGERGRTLNF IWDDLCDWYIEMAKLPLYG  
DDEAAKKTTRSVLAYVLDNTMRLLLHFPMPFITEE IWQNLPEGESITVAPWPQVRPELSN  
EEAAEEMRMLVDIIRAVRNVRAEVNTPPSKPIALYIKTKDEHVRAALLKNRAYLERFCNP  
SELLIDTNVPAPDKAMTAVVTGAELIMPLEGLINIEEIKRLEKELDKWNKEVERVEKKL  
ANEGFLAKAPAHVVEEERRKRQDYIEKREAVKARLAE LKR

>P07118

MEKTYNPQDIEQPLYEHWEKQGYFKPNGDESQESFCIMIPPNVTGSLHMGHAFQQTIMD  
TMIRYQRMQGNLWQVGTDHAGIATQMVVERKIAAEEGKTRHDYGREAFIDKIWEWKAE  
SGGTITRQMRRLGNSVDWERERFTMDEGLSNAVKEVVFVRLYKEDLIYRGKRLVNWDPKLR  
TAISDLEVENRESKGSMMHIRYPLADGAKTADGKDYLVVATTRPETLLGDTGVAVNPEDP  
RYKDLIGKYVILPLVNRRIPIVGDHADMEKGTGCVKITPAHDFNDYEVGKRHALPMINI  
LTFDGDIRESAQVFDTKGNE SDVYSSEIPA EFKLERFAARKAVVAVDALGLLEEIKPH  
DLTVPYGDRGGVVI EPMLTDQWYVRADV LAKPAVEAVENGDIQFVPKQYENMYFSWMRDI  
QDWCISRQLWWGHRIPAWYDEAGNVYVGRNEDEVKRNNGADVVL RQDEVDLDTWFS SA  
LWTFSTLGWPENTDALRQFHPT SVMVSGFDI IFFWIARMIMTMHF IKDENGKQPVPFHT  
VYMTGLIRDDEGQKMSKSKGNVIDPLDMVDGISLPELLEKRTGNMMQPQLADKIRKRTEK  
QFPNGIEPHGTDALRFTLAALASTGRDINWDMKRLEGYRNF CNKLWNASRFVLMNTEGQD  
CGFNGGEMTSLADRWILA EFNQTIKAYREALDSFRFDIAAGILYEF' TWNQFCDWYLELT  
KPVMMNGGTEAELRGTRHTLVTVLEGLLRLAHP IIPFITETI WQRVKVLCGITADT IMLQP  
FPQYDASQVDEAALADTEWLKQAI VAVRNIRAEMNIAPGKPLELLLRGCSADAERRV NEN  
RGFLQTLARLESITVLPADDKGPVSVTKI IDGAELLIPMAGLINKEDELARLAKEVAKIE  
GEISRIENKLANEGFVARAPEAVIAKEREKLEGYAEAKAKLIEQQAVIAAL

>P96142

MDLPKAYDPKSVEPKWAEKWAKNPFVANPKSGKPPFVIFMPPPNVTGSLHMGHALDNSLQ  
DALIRYKMRMGFEAVWLP GTDHAGIATQVVVERLLLKEGKTRHDLGREKFLERVWQWKEE  
SGGTILKQLKRLGASADWSREAF TMD EKRSRAVRYAFSRYHEGLAYRAPRLVNWCP RCE  
TTLSDLEVETEPTPGKLYTLRYEVEGGGFIEIATVRPETV FADQAI AVHPEDERYRHLLG  
KRARIPLTEVWIPILADPAVEKDFGTGALKVTPAHDPLDYEIGERHGLKPVSVINLEGRM  
EGERVPEALRGLDRFEARRKAVELFREAGHLVKEEDYTIALATCSRCTPIEYAI FPPQWW  
LRMRPLAEVVLKGLRRGDI AFVPERWKKVNMDWLENVKDWNISRQLWWGHQIPAWYCEDC  
QAVNVPRPERYLEDPTSCEACGSPRLKRDEVDVDTWFSALWPLSTLGWPEETEDLKAFY  
PGDVLVTGYDILFLVWSRMEVSGYHFMGERPFKTVLLHGLVLDEKQKMSKSKGNVIDPL  
EMVERYGADALRFALIYLATGGQDIRLDRWLEMARNFANKLYNAARFVLLSREGFQAKE  
DTPTLADR FMRSRLSRGVEEITALYEALDLAQAAREVYELVWSEFCDWYLEAAK PALKAG  
NAHTLRTL EEVLA VLLKLLHPMPFLTSELYQAL TGKEELALEAWPEPGGRDEEAERAFE  
ALKQAVTAVRALKAEAGLPPAQEVRVYLEGETAPVEENLEVFRFLSRADLLPERPAKALV  
KAMPRVTARMPLEGLLDVEEWRRRQEKRLKELLALAEERSQRKLASPGFREKAPKEVVEAE  
EARLKENLEQAERIREALSQIG

>P19966

MANKGPAYGMSRDVQSKIEKKYDDELEDRLVEWIVAQC GSSVGRPDGRGLGFQVWLKNGI  
VLSQLVNSLYPDGSKPVKIPDSPTMVFQMEQIAQFLKAAEDYGVVK TDMFQTVDLFEA  
KDMAAVQRTLVALGSLAVTKNDGHYHGDPNWFMKKAQEHKREFSESQ LKEGKNI IGLQMG

TNKGASQAGMSYGRPRQIIS

>Q27084

MKFLLVVLGFIGFLKDGITVGGESMLRGVYQDKFYQGTYPQNKNDNWLARATLIGKGGWS  
NFKFLFLSPGGELYGVLNDKIYKGTPTTHDNDNMWGRAKKIGNGGWNQFQFLFFDPNGYL  
YAVSKDKLYKASPPQSDTDNWIARATEIGSGGWSGFKFLFFHPNGYLYAVHGQQFYKALP  
PVSNDQDNWLARATKIGQGGWDTFKFLFFSSVGTFLFGVQGGKIFYEDYPPSYAHDNWLARAK  
LIGNGGWDDFRFLFF

>P26354

MSGITLPSLTVNLQSAGMAVHGHPSAPGSTQLPPLHQLNISSQPSSQPPQPSLQYSEPAQ  
STAASDDMDSVDVDRTKHPSGIVPTLQNIIVSTVNLGCKLDLKNIALHARNAEYNPKRFAAV  
IMRIREPKTTALIFASGKMVCTGAKSEEASRLAARKYARI IQKLGFAAKFLDFKIQNIVG  
SCDVRFP IRLEGLAFAHNHYCSYEPELFPGLIYRMVQPKIVLLIFVSGKIVLTGAKVREE  
IYEAFENIYPVLTEYKKT

>P32085

MNLNSPAVSM LGGDTPAHGGPNSVLGGQGPSSILTGHPNSVMGPNSILGPGSVLNPQSI  
QPMQSQQMHSLOGSSMQMHSHLANSNLNLNINPASVGPDRNPGSVMHHNLDINPPSVAYQ  
NLTVPMTPPLAYSVYDRDAL THQAPASNIAATMVPATPASQLDIPMPALQNIIVSTVNLGVQ  
LDLKKIALHARNAEYNPKRFAAVIMRIREPRTTALIFSSGKMVCTGAKSEEASRLAARKY  
ARIVQKLG FQAKFTEFMVQNMVGS CDVRFPIQLEGLCITHSQFSTYEPELFPGLIYRMVK  
PRVLLIFVSGKVVITGAKTKRDIDEAFGQIYPI LKGFKK

>P20227

MDQMLSPNFSIPSIGTPLHQMEADQQIVANPVYHPPAVSQPDSLMPAPGSSSVQHQQQQQ  
QSDASGGSGLFGHEPSLPLAHKQM QSYP SASYQQQQQQQLQSQAPGGGGSTPQSMMQP  
QTPQSMMAHMPMSERSVGGSGAGGGDALSNIHQTMGPSTPMTPATPGSADPGIVPQLQ  
NIVSTVNLCKLDLKKIALHARNAEYNPKRFAAVIMRIREPRTTALIFSSGKMVCTGAKS  
EDDSRLAARKYARI IQKLGFP AKFLDFKIQNMVGS CDVKFP IRLEGLVLTHCNFSSYEPE  
LFPGLIYRMVRPRIVLLIFVSGKVVL TGAKVRQEIYDAFDKIFPILKKFKKQS

>P52653

MSTPGDFSLSPFILGGAVDPRSMSQLGNICHADY MSTSTESQERSLNNPN DTHPEIVNVV  
STFQLGVKLELRKIVQKARNAEYNPKRFAGAIMRIS SPKSTALIFQTGKIVCTGTRSIEE  
SKIASKKYAKI IKKIGYPIHYSNFMVQNIIVGSCDVKFQIALRTLVD SYLAF CQYEPEVFP  
GLVYRMASPKVTLVLFSTGKVVL TGAKDEESLN LAYKNIYPI LLANRKEDISNQ

>Q27850

MSSDKTSQQTFLKLPNNSVAQSN SIDQNKNKNILSTIETMDKSI SEDLYPKLQNIIVSTV  
NLSTKLDLQKIALRARNAEYNPKRFAAVIMRLRDPKTTALIFASGKMVCTGAKTEEDSNR  
AARKYAKI IQKIGFPVQFKDFKIQNIVGSTDVKFP INLDHLEQDHKKFVQYEPEIFPGKI  
YREFNTKIVLLIFVSGKIVLTGAKTRENINKAFQKIYWVLYNYQKKDYRGANLHNQNLNI  
KPSIKN

>P27100

MLTEGLSIDAKGGGRFGAHLQLPARGRGPVVMVAQE IFGVNP FMTEVLAWLASEGFVGLC  
PDLYWRHGPGEI EFDPNDEVQRARALGMFRDYKLE DG VADLRATVAYAASQPFCDGGVAVI  
GYCLGGALAYEVA AEGFAQC CVGYGVGF EKRLERARLVKTPSMFHMGTNDHFVTAEARQ  
LITNAFEANPAIALHWYDAGHSFARASSPNFSPEATR TANARTLEMLKRMKPIGTIGQ

>Q5EU90

MSCPASPSAAVVSAGALCLCVATVLLATGSNPALSTASTRSPTSLVRGVDRGLMRPTTA  
AALTTMREVPQMAEGFSGEATSAAAAAGPQWAAPLVAAAASSALALWWAAARRSVRRPLAA  
LAELPTAVTHLAPPAMFTTTAKVIQPKIRGFICTTTHPIGCEKRVQEEIAYARHPPTS  
PGPKRVLVIGCSTGYGLSTRITAAFGYQAATLGVFLAGPPTKGRPAAAAGWYNTVAFKAA  
LEAGLYARSLNGDAFDSTTKARTVEAIKRDLGTVDLVVYSIAAPKRTDPATGVLHKACLK  
PIGATYTNRTVNTDKAEVTDVSIEPASPEE IADTVKVMGGEDWELWIQALSEAGVLAEGA  
KTVAYSYIGPEMTWPVYWSGTIGEAKKDVEKAAKRITQQYGC PAYPVVAKALVTQASSAI  
PVVPLYICLLYRVMKEKGTHEGCIEQMVRLLTTKLYPEN GAPIVDEAGRVRVDDWEMAED  
VQQAVKDLWSQVSTANLKD ISDFAGYQTEFLRLFGFGIDGVDYDQPVDVEADLPSAAQQ

>P0ADA1

MMNFNNVFRWHL PFLFLVLLTFRAAAAADTLLIILGDSL SAGYRMSASAAWPALLNDKWQSK  
TSVNNASISGDT SQQLARLPALLKQHQP RWVLVELGGNDGLRGFQPQQTEQTLRQILQD  
VKAANAEP LLMQIRLPANYGRRYNEAFSAIYPKLAKEFDVPLLPFFMEEVYLK PQWMQDD  
GIHPNRDAQPFIADWMAKQLQPLVNHDS

>P27136

MLSDGVEITSRSGGRFGAYLGKPTTDSAPIVVIAQEIFGITPFIRETVEWLVGAGFGCVC  
PDLYWRQAPNIELDANVPSEREQALALFRDFDMEAGVNDLSCAIEYARALPFSNGRVAVV  
GYCLGGALAFDVAARSLADCSIGYYGVGLEKKVSLVPAITRPAMFHMGT KDHYVTEEARS  
ILEEHFGRNKNLSLHWYPVGHSFARSSSPNFDQAATTVANARTLELLAMLKDPS

>P24557

MEALGFLKLEVNPMVTVALSVALLALLKWYSTSAFSRLEKLG LRHPKPSPIGNLTFFR  
QGFWESQME LRKLYGPLCGYYLGRRMFI VISEPDMIKQVLVENFSNF'TNRMASGLEFKSV  
ADSVLFLRDKRWEEVRGALMSAFSPEKLNEMVPLISQACDLLLAHLKRYAESGDAFDIQR  
CYCNYTTDVVASVPFGTPVDSWQAPEDPFVKHCKRFFEF CIPRPILVLLLSFPSIMVPLA  
RILPNKNRDELNGFFNKLIRNVIALRDQQAEEERRRDFLQMVLDARHSASPMGVQDFDIV  
RDVFSSTGCKPNPSRQHQPSPMARPLTVDEIVGQAFIFLIAGYEIITNTLSFATYLLATN  
PDCQEKLRLREVDVFKEKHMAPEFCSLEEGLPYLDMVIAETLRMYPPAFRFTREAAQDCEV  
LGQRIPAGAVLEMAVGALHHDPEHWSPETFNPERFTAEARQQHRPFTYLPFGAGPRSCL  
GVRLGLLEVKLTLHLVHLKFRFQACPETQVPLQLESKSALGPKNGVYIKIVSR

>P45741

MSKVKGFIYKPLMVMLALLLVVVSPAGAGAAHSDASSDITLKVAIYPYVDPARFQAAVL  
DQWQRQEPGVKLEFTDWDYSADPPDDLDFVFLDSIFLSHFVDAGYLLPFGSQDIDQAED  
VLPFALQGAKRNGEVYGLPQILCTNLLFYRKGD LKIGQVDNIYELYKKGITSHSEQIPPP  
QNKGLLINMAGGTTKASMYLEALIDVTGQYTEYDLLPPLDPLNDKVIRGLRLLINMAGEK  
PSQYVPEDGDAYVRASWFAQSGRAFIGYSESMRMGDYAEQVRFKPISSAGQDIPLFY  
SDVSVNSKTAHPELAKKLANVMASADTVEQALRPQADGQYPQYLLPARHQVYEALMQDY  
PIYSELAQIVNKPSNRVFRGLGPEVRTWLKDAKQVLPALGLTDVSSSLAS

>P39594

MTRISREMMKELLSVYFIMGSNNTKADPVTVVQKALKGGATLYQFREKGGDALTEGARIK  
FAEKAQAACREAGVPPFIVNDDVELALNLKADGIHIGQEDANAKEVRAAIGDMILGVS AHT  
MSEVKQAEEDGADYVGLGPIYPTETKKDTRAVQGVSLIEAVRRQGISIPIVGIGGITIDN  
AAPVIQAGADGVSMISAISSQAEDPESAARKFREEIQTYKTGR

>Q9V429

MMILLRDSTNLHFHLQADLDGQLTKASGKLVVLDFFATWCGPCKMISPKLVELSTQFADN  
VVVLKVDVDECEDIAMEYNISSMPTFVFLKNGVKVEEFAGANAKRLEDVIKANI

>P0AA25

MSDKIIHLTDDSFDTDLKADGAILVDFWAEWCGPCKMIAPILDEIADEYQGKLTVAKLN  
IDQNPGTAPKYGIRGIPTLLLFKNGEVAATKVGALSKGQLKEFLDANLA

>P47788

MKPPAACAGDALDVAAPCSAVNYLRWDLSAQQIGELTTELIEQTKRVYDRVGTQELQDVS  
YENTLKALADVEVSYTVQRNILDFFPQHVSPCKDIRTASTEADKKLSEFDVEMSMRQDVYQ  
RIVWLQEKVQKDSLREPEAARYLERLIKLGRRNGLHLPKETQEKIKSISKKKLSLLCIDFNK  
NLNEDTTFLPVTTREELGGLPEDFLNSLEKTEDEKLVTLKYPHYFPLLKKCHVPETRRKV  
EEAFNCRCKEENCAILRELVRLRAQKSSLLGFSTHADVLEMMAKTSQVVATFLDELAQ  
KLLKPLGEQERAVILELKAECTKRGLDFDGRINAWDMRYMNVQVEETRYRVDQNLKKEYF  
PMQVVTRGLLGIYQELLGLTFHLEEGAAVWHEDVMLYSVRDAASGKVIKGFYLDLYPREG  
KYGHAACFGLQPGCLRQDGSRQIAIAAMVANFTKPTPDAPSLQHDEVETYFHEFGHVMH  
QLCSQAEFAMFSGTHVERDFVEAPSQMLENWWAEPELLRMSQHYRTGSAIPQELLEKLI  
KSRQANTGLFNLRQIVLAKVDQALHTQTAADPAEYARLCQEILGVPATPGTNMPATFGH  
LAGGYDAQYYGYLWSEVYSADMFHTRFKQEGILSGKVGMDYRSCILRPGGSEDASVMLKL  
FLGRDPKQDAFLLSKGLQVEGCEPPAS

>P31142

MSTTWVFGADWLAEHIDDPEIQIIDARMASPGQEDRNVAQEYLNHIGAVFFDIEALSD  
HTSPLPHMLPRPETFAVAMRELGVNQDKHLIVYDEGNLFSAPRAWMLRFTFGVEKVSILG  
GGLAGWQRDDLLLEEGAVELPEGEFNAAFNPEAVVKVTDVLLASHENTAQIIDARPAARF  
NAEVDEPRPGLRRGHIPGALNVPWTELVREGELKTTDELDAIFFGRGVSYDKPIIVSCGS  
GVTAAVVLLALATLDVPNVKLYDGAWSEWGARADLPVEPVK

>P00586

MVHQVLYRALVSTKWLAESVRAGKVGPLRVLDASWYSPGTREARKEYLERHVPGASFFD  
IEECRDKASPYEVMPLSEAGFADYVGSGLGISNDTHVVVYDGGDLGSFYAPRVWMMFRVFG  
HRTVSVLNGGFRNWLKEGHPVTSEPSRPEPAIFKATLNRSLKTYEQVLENLESKRFLV  
DSRAQGRYLGTPPEPDAVGLDSGHIRGSVNMPFMMNFLTEDGFESPEELRAMFEAKKVDL  
TKPLIATCRKGVTAACHIALAAYLCCGKPDVAIYDGSWFEFWHRAPPETWVSQKGGKA

>Q9BSI4

MATPLVAGPAALRFAAAASWQVVRGRCVEHFPRVLEFLRSLRAVAPGLVRYRHHHERLCMG  
LKAKVVVELILQGRPWAQVLKALNHHFPESGPIVRDPKATKQDLRKILEAQETFYQQVKQ  
LSEAPVDLASKLQELEQEYGEFPLAAMEKLLFEYLCQLEKALPTPQAQQQLQDVLSSWMPG  
VSITSSLAWRQYGVDMGWLLPECSVTDSVNLAEPMEQNPPQQQLALHNPLPKAKPGTHL  
PQGPSRTHPEPLAGRHFNLAPLGRRRVQSQWASTRGHKKERPTVMLFPFRNLGSPTQVI  
SKPESKEEHAIYADLAMGTRAASTGKSKSPCQTLGGRALKENPVDLPATEQKENCLDCY  
MDPLRLLSLLPPRARKPVCPPSLCSSLVITIGDLVLDSDDEEENGQEGEKESLENYQKTKFDT  
LIPTLCEYLPSPGHGAIPVSSCDCRDSRPL

>P79065

MFPLGSVVEVITGERGFVRYAGEVENRKGVYVGLLELLPEFAEFGKNRGVVDGREYFKTKN  
NEKTGIFVPPFDKCKLASSISSSPKIDGTAASIGMGFPMPSPNLQSSIPRLTNVSSSN  
LSMNTISSSTALTPTEKILQKRIEDLLYERQNHQQQLEEVLATVDQLQSLVTNFNDQQDEV

DELRRERITLKEERIQQMRNEASQRRFEFKTTIECLEESSNRAIETYENRIAELEAQLEMY  
MSGKSEDDLLFSLQQRDYALNQVEILQERVDTLMKQKANSSTANEKLSHMESSPTLTN  
ASFESPKRGKGSNDLPENHPQRRQTLEFYEIEIEVLRKVEKLQALSDEKDFYISKLEKS  
LDRNDTTPVPSDEKLSNYAAEKENLVSRISELEHTIEQLTINNERDNERMSPAEFEELETT  
QEVEENDSDSHDDEETWCEVCETNNHSLQECPTVFGSTDEA

>P58502

MKKSIALVLSIVLLAALFAVPASAGEQNTIRVIVSVDKAKFNPHEVLGIGGHIVYQFKLI  
PAVVVDVPANAVGKLLKMPGVEKVEFDHQAVLLGKPSWLGGGSTQPAQTIPWGIERVKAP  
SVWSITDGSVSVIQVAVLDTGVDYDHPDLAANIAWCVSTLRGKVSTKLRDCADQNGHGTH  
VIGTIAALNNDIGVVGAVPGVQIYSVRVLDARGSGSYSDIAIGIEQAILGPDGVADKGDG  
GIIAGDPDDDAAEVISMSLGGPADDSSYLYDMI IQAYNAGIVIVAASGNAGAPSPSYPAAY  
PEVIAVGAIDSNDNIASFNSRQPEVSAPGVDILSTYPDDSYETLMGTSMATPHVSGVVAL  
IQAAYYQKYGKILPVGTFDDISKNTVRGILHITADDLGPTGWDADYGYGVVRAALAVQAA  
LG

>O60235

MYRPARVTSTSRFLNPNVVCFIVVAGVVILAVTIALLVYFLAFDQKSYFYRSSFQLLNVE  
YNSQLNSPATQEYRTLSGRIESLITKTFKESNLRNQFIRAHVAKLRQDGSVVRADVVMKF  
QFTRNNNGASMKSRIESVLRQMLNNSGNLEINPSTEITSLTDQAAANWLINCEGAGPDLI  
TLSEQRILGGTEAEESWPWQVSLRLNNAHHCGLINNMWILTAACHFRSNSNPRDWIA  
TSGISTTFPKLRMRVRNLIHNNYKSATHENDIALVRLENSVTFTKDIHSVCLPAATQNI  
PPGSTAYVTGWGAQEYAGHTVPELRQGVRIISNDVCNAPHSYNGAILSGMLCAGVPQGG  
VDACQGDSSGGLVQEDSRRLWFIVGIVSWGDCGLPDKPGVYTRVTAYLDWIRQQTGI

>P06612

MGKALVIVESPAKAKTINKYLGSDYVVKSSVGHIRDLPSTGSAAKKSADSTSTKTAKKPK  
KDERGALVNRMGVDPWHNWEAHYEVLPGKEKVVSELKQLAEKADHIYLATDLREGEAIA  
WHLREVIGDDARYSRVVFNEITKNAIRQAFNKPGEINIDRVNAQQARRFMDRVVGYMVS  
PLLWKKIARGLSAGRVQSVAVRLVVEREREIKAFVPEEFWEVDASTTTPSGEALALQVTH  
QNDKPFPRVNKEQTQAAVSLLEKARYSVLEREDKPTTSKPGAPFITSTLQQAASRLGFG  
VKKTMMAQRLYEAGYITYMRTDSTNLSQDAVNMVRYISDNFGKKYLPESPNQYASKEN  
SQEAHEAIRPSDVNVMAESLKDMEADAQKLYQLIWRQFVACQMTPAKYDSTTLTVGAGDF  
RLKARGRILRFDGWTKVMPALRKGDDEDRILPAVNKGDALTLVELTPAQHF'TKPPARFSEA  
SLVKELEKRGIGRPSTYASIIISTIQDRGYVRVENRRFYAEKMGEIVTDRLEENFRELMMY  
DFTAQMENS LDQVANHEAEWKAVLDHFFSDF'TQQLDKAEKDPEEGMRPNQMVLT SIDCP  
TCGRKMGIRTASTGVFLGCSGYALPPKERCKTTINLVPENEVLNVLEGEDAETNALRAKR  
RCPKCGTAMDSYLIDPKRKLHVCGMNP'TCDGYEIEEGEFRIKGYDGPIVECEKCGSEMHL  
KMGRFGKYMACTNEECKNTRKILRNGEVAPPKEDPVPLPELPC'EKSDAYFVLRDGAAGVF  
LAANTFPKSRETRAPLVEELYRFRDRLEPEKLRYLADAPQQDPEGNKTMVRF SRKTKQQYV  
SSEKDGKATGWSAFYVDGKWVEGKK

>P07799

MSSSDSDSVSLSI RRRQRRGSSKRISMKESDEESDSSSENHPLSESLNKKSKSESEDEDDIP  
IRKRRASSKKNMSNSSSKKRAKVMGNGGLKNGKKTAVVKEEEDFNEIAKPSPKHKRVSKA  
NGSKNGAKSAVKKEESD'TDSDVPLRAVSTVSLTPYKSELPSGASTTQNRSPNDEEDED  
YKWWTSENIDDTQKWT'TLEHNGVIFAPPYEPLPKNVKLIYDGNPVNLPPEAEVAGFYAA  
MLETDHAKNPVFQDNFFRDFLKVCDCECNFNHNIKEFSKCDFTQMFHHFEQKREEKKSMPK  
EQKKAIKQKKDEEEEKYKWCILDGRKEKVGNFRIEPPGLFRGRGSHPKTGS'LKRRVYPEQ  
ITINIGEGVPVPEPLPGHQWAEVKHDNTV'TWLATWHENINNNVKYVFLAAGSSLKGQSDL

KKYEKSRKLDYIDDIRKGYRKDLKSELTVRQRGTAMYLIIDVFALRAGNEKGEDEADTV  
GCCSLRYEHVTLKPPRTTVVDFLKGDSIRYYNEVEVDPQVFKNLKIFKRPPKKEGDLIFD  
RLSTNSLNKYLTSMDGLSAKVFRTYNASYTMAEELKMKPNLTLADKILFYNRANRTVA  
ILCNHQRSVTKNHVDQMERFAERIKALQYQRMRLRKMLNLEPKLAKSKPELLAKEEGIT  
DSWIVKHHETLYELEKEKIKKKFDRENEKLAAEDPKSVLPESELEVRLKAADELKALDA  
ELKSKKVDPRSSMEQLEKRLNKLNERINVMRTQMIDKDENKTALGTSKINYIDPRLTY  
SFSKREDVPIEKLFSKTIRDKFNWAADTPPDWKW

>P34185

MPKLVIVESPTKARTIRNYLPKDYRVEASMGHVRDLPOQSASDIPTTELKGEKWSNLGVDVE  
NNFAPLYIVPKDKKIVKTLKDALKDADELILATDEDREGESISWHLLQLLQPRVPTKRM  
VFHEITQEAIQAALKNCRDVDQRLVHAQETRRILDRLVGYTSLPWLKKAIAWGLSAGRVQ  
SVAVRLLVQRERARRAFRQGSYWDLKAQLTVEAGQFEAKLWTLAQRLATGNDFFDESTGQ  
IIAGRQVCLLDQOEAEALRDRLQTPWQVKSLEEKPTTRKPAPPFTTSTLQQESNRKLRL  
SARETMVAQSLYERGFITYMRTDSVHLSQQAIEAARSCVEQMYGKNYLSQPQRQFTTKS  
KNAQEAHEAIRPAGNTFRLPQETGLSGAEFALYDLIWKRTIASQMAEARQTMLSVLEVD  
NAEFRASGKRIDFPGFRRAYVEGSDDPDALEDREILLPALKVGDPRPTCQELAAIGHETQ  
PPARYTEASLVKMLENEGIRPSTYASIIIGTIVDRGYAQLVSNLTPFTTAFVATALLEQ  
HFPDLVDTSFSARMEQSLDDISNGEVDWLPYLSQFYRGDRGLEEQVKLRESEIDPAAART  
VALEGLPAKVRIGRFGAYLEAEADGEPIKANLPKELTPADLDVQRVETLLRQKTEGPDQL  
GTHPETDEPIYLLTGAYGPYVQLGAATEEKPKPKRASLPKGMLETISLEQAVGLLSLPR  
TLGHEPETGRRIQAGLGRFGPYVVCDDLGGGKDYRSLKADDDVLTIDLDRALELLAQPKK  
SRGRGKEPIREVGLHPDDQAPIQIFEGPYGLYLKHGKVNASLPEDEKPETISLETAVAAL  
AAKAGQAKAKGRRSTGTPKSGETKARTTKTKTKTTTRRTTSR

>P41511

MNSIQVKNEPMLASFASTSTNGKAKRSKAPSLFSGSEVSSDDDEEKPLAKRPKVEDSDSD  
APLTSTVSSQNGVQKRSGSSMNDNDSDSDSDAPLTALVKKSNGSDDDEDDDDDDDEG  
DDDDEEDDDDDDDDDDKPLSKSSKSNRKPPTMSITGSGEKKWDVLIHKGPRFPDPYQPL  
PKDVKLYDGRPVDLPWQTEEIAMFYAVKLETQHAQNAIFNRNFFDDFKTDLKYPYPRDG  
TQIKSFDKLDFRDMYNYWRSKDAELERKKALAPSARKREIEERKAEETKWKICLVDGVE  
QRVGNVNVPEPGLFLGRGAHPKAGKVKRRI SPGDITINHSADHPAPQPAGMGDWAEVVE  
KKDVTWLAYWKENINGQYKYVFLDATSNFKTNSDREKFEKARKLDTVVQKIRRVDNKNL  
SKVRHERQIATIVWLIIDNFSLRAGNEKGEDEAEITYGVC SLRCEHAQIKMPDTHLEFLGK  
DSMKFEEDLKITNPDVFKNIAMFLKSNMGKDKSGNYVRKPSDPIFCAPESGSGKMQLQ  
PNSVNQFLSKYMKGLSAKVFRTYNASVTFQGLLEQTEEWLKS RPNAAEREINQTNLRLAY  
NEANRQVAAILCNHQKTVNPMLLNRNLERTQDKIFQIRYEIMKEQQKILTFHKVSELKKEF  
KVKEHPFMKQFDKIMQKQDLDAEKVKQYEEQMI SDKSKLESTFKRQQSELQYQLEQKGL  
TGDDGTPKKGKAKNVEEEVRSSIKGFKDKKQVDEELKALNETAKRLEKERKTNKSQATS  
CNFVSSAKKILSKYEMIKKQEAELVNKNNTSDVALSTSKLNYIDPRITLAWLKEWDRLS  
DLGQGAAPKKKVKKEEEEENDIKPKKDAKGAASKKRAAKTGLANSTGDSEKMEGLQVM  
NISQFFANALQKKFKWAASGDDGRDISAKWVFKDAQSKMRKLD SAERKGGKGGMAAMT  
DAADSKEAQPKVNCVLKQTSADRKMSKPIKAVDKTEESDDDLSSDSSDDEDKPLAAVV

>P41512

MSEDHVQNSQIEAVFRVND SHKHKKDK EHRHKEHKKDKDREKSKHNNSEHRDPSEKHKH  
DKHKNNDKHREKDG EKHRERDGEKHRDKNGEKHRDGEKHKEKDI EKHKVEKHRVKDGEK  
HKEKDVEKHKEKDVEKHRDGEKHKHRDKDREKKEEKMKSSSGGVKVKKENGFS SPVRVK  
DEPEDQGFYVSPKENKAMKRPREDDEDYKPKKIKSEDDKKGKRRKQEEEDIKPKKSKAK  
GNEEGVKKKVKKEEEEKWKWEEERHRDGIKWKFL EHKGPVFAPPYEPVDPNVKIFYDG



NLVKLSPKAAEEVATFFAKMLDHEYTTKDI FRKNFFKDWKKEMTTDERNLITNLSKCDFNA  
MSLYFKEQSEARKNMTKEEKLK IKAENERLLQEYGYCIMDNHKERIANFRIEPPGLFRGR  
GDHPKMGKLLKRIMPEDI I INCSKDSKIPVAPAGHKWKEVRHDGKVTWLVSWTENIQGSI  
KYIMLNPSRRIKGEKDWQKYETARRLKMCVEKIRNTYKEDWKSSEMKVQRRAVALYFIDK  
LALRAGNEKEEGETADTVGCCSLRVEHINL FQELDGQEFVVEFD FPGKDSIRYYNKVPVE  
KRVFKNLQLFMENKQPDDDLFDRLN T SILNKHLQDLMEGLTAKVFRTYNASITLQQQLDE  
LTNSDDNVPAILSYNRRANRAVAILCNHQRAPPKTFEKSMMNLQGKIDAKKDQLADARRE  
FKSAKADAKVRRDEKTKKLVESKKKAVQR IEEQLMKLEVQATDREENKQIALGTSKLNYL  
DPRISVAWCKKYGVPIEKIYNKTQRKNLLGPSIWQTTT SNFNAEQRCFS

>P04786

MTIADASKVNHELSSDDDDVPLSQTLKKRKVASMN SASLQDEAEPYDSDEAISKISKKK  
TKKIKTEPVQSSSLPSPPAKKSATSKPKKIKKEDGDVKVKTTKKEEQENEKKKREEEEE  
DKKAKEEEEEYKWEKENEDDTIKWVTLKHNGVIFPPPYQPLPSHIKLYYDGKPVLDLPPQ  
AAEVAGFFAALLESDHAKNPV FQKNFFNDFLQVLKESGGPLNGIEIKEFSRCDFTKMFY  
FQLQKEQKQLTSQEKKQIRLEREKFEEDYKFCELDGRREQVGNFKVEPPDLFRGRGAHP  
KTGKLRVNPEDIVLNL SKDAPVPPAPEGHKWEIRHDNTVQWLAMWRENIFNSFKYVR  
LAANSSLKGQSDYKKEKARQLKSYIDAIRRDYTRNLKSKVMLERQKAVAIYLIDV FALR  
AGGEKSEDEADTVGCCSLRYEHVTLKPPNTVIFDFLGKDSIRFYQEVEVDKQVFNLTIF  
KRPPKQPGHQLFDRLDPSILNKYLQNYMPGLTAKVFRTYNASKTMQDQLDLIPNKG SVAE  
KILKYNAANRTVAAILCNHQRTVTKGHAQTVEKANNRIQELEWQKIRCKRAILQLDKDLLK  
KEPKYFEEIDDLTKEDEATIHKRIIDREIEKYQRKFVRENDKRKFEKEELLPESQLKEWL  
EKVDEKKQEFEKELKTGEVELKSSWNSVEK IKAQVEKLEQRIQTSSIQLKDKKEENSQVSL  
GTSKINYIDPRLSVVFCCKKYDVP I EKI FTKTLREKFKWAIESVDENWRF

>P10410

MKFSFVYGLTGFLAATSSALPSEILSTGYERSALEKRGDGYLIMCKNCDPNTGSCDWKQN  
WNTCVGIGANVHWMVTGGSTDGKQGCATI WEGSGCVGRSTTMCCPANTCCNINTGFYIRS  
YRRVE

>Q38710

MAMPSSSLSSQIPTAAHHLTANAQSI PHFSTTLNAGSSASKRRSLYL RWGKGSNKIIACV  
GEGGATSVPYQSAEKNDLSLSSSTLVKREFPPGFWKDDLIDSLTSSHKVAASDEKRIETLI  
SEIKNMFRCMGYGETNPSAYDTAWVARIPAVDGSNDPHFPETV EWI LQNQLKDG SWGEGF  
YFLAYDRILATLACIITLTLWRTGETQVQKGI EFFRTQAGKMEDEADSHRPSGF EIVFPA  
MLKEAKILGLDLPYDL PFLKQIIEKREAKLKRIP TDVLYALPTLLYSLEGLQEIVDWQK  
IMKLQSKDGSFLS SPASTAAVFMRTGNKKCLDFLNFVLKKG NHVPCHYPLDLFERLWAV  
DTVERL GIDRHFKEEIKEALDYVYSHWDERGIGWARENPVPDIDDTAMGLRILRLHGYNV  
SSDVLKTFRDENGEFFCFLGQTQRGVTDMLNVNRC SHVSFPGETIMEEAKLCTERYLRNA  
LENVD AFDKWAFKKNIRGEVEYALKYPWHKSMRLEARSYIENYGPDDVWLGKTVYMPY  
ISNEKYLELAKLDFNKVQSIHQTELODLRRWWKSSGFTDLNFTRE RVTEIYFSPASFIFE  
PEFSKREVVYTKTSNFTVILDDLYDAHGSLDDLKLFTE SVKRWDL SLVDQMPQMKICFV  
GFYNTFN DIAKEGRERQGRDVLGYIQNVWKVQLEAYTKEAEWSEAKYVPSFNEYIENASV  
SIALGTVVLI SALFTGEVLTDEVL SKIDRESRFLQLMGLTGRLVNDTKTYQAERGQGEVA  
SAIQCYMKDHPKISEEEALQHVYSVMENALEELNREFVNNKIPDIYKRLVFETARIMQLF  
YMQGDGLT LSHDMEIKEHVKNCLFQPVA

>Q9CID5

MTEKDWI IQYDKKEVGRKRSYGQESLMSLGNGLGLRGAPLWSTCSDNHYPGLYVAGVFNR  
TSTEVAGHDVINEDMVNPNPQLIKVYIDGELVDFEASVEKQATIDFKNALQIERYQVKL

AKGNLTLVTTKFVDPINFHDFGFVGEIIADFSCKLR IETFTDGSVLNQNVERYRAFD SKE  
FEVTKISKGLLVAKTRTSEIELAIASKSFLNGLA FPKIDSENDEILAE AIEIDLQKNQEV  
QFDKTI VIASSYESKNPVEFVLT ELSATSVSKI QENNTNYWEKVWSDADIVIESDHEDLQ  
RMVRMNI FHIRQAAQHGANQFLDASVGS RGLTGEGYRGHIFWDEIFVLPYAAANE PETAR  
DLLLYRINRLTAAQENAKVDGEGKAMFPWQSG LIGDEQSQFVHLN TVNNEWEPD NSRRQR  
HVSLAIVYNLWIYSQLTEDESILTDGGLDLI IETTKFWLNKAELGDDGRYHIDGVMGPDE  
YHEAYPGQEGGICDNAYTNLMLTWQLNWL TELSEKGF EIPKELLEKAQKVRKKLYLDIDE  
NGVIAQYAKYFELKEVDFAAEYAKYGD IHRIDRLMKAEGISPDEYQVAKQADTLMLIYNL  
GQEHVTKLVKQLAYELPENWLKVN RDYLLARTVHGSTTSRPFVAGIDVKLGDFDEALDFL  
ITAIGSDYYDIQGGTTAEGVHIGVMGETLEVIQNEFAGLSLREGQFAIAPYLPKSWTKLK  
FNQIFRGTKEIL IENGQLLLTASADLLTKVYDDEVQLKAGVQTKFDLK

>Q44315

MRTPVSTYRLQIRKGFTLFDAAKTVPYLHSLGVDWVYLS PVLTAEQGSDHGYDVTDP SAV  
DPERGGPEGLAAVSKAARAAGMGV LIDIVPNHVG VATPAQNPWW SLLKEGRQSR YAEAF  
DVDWDLAGGRIRLPVLGSDDDLDQLEIRDGELRYDHRFP LAEGTYAEGDAPRDV HARQH  
YELIGWRRADNELNYRRFFAVNTLAGVRVEIPAVFDEAHQEVVRWFREDLADGLRIDHPD  
GLADPEGYLKRLREVTGGAYLLIEKILEPGEQLPASFECEGTTGYDALADVDRVLVDPRG  
QEPLDRLDASLRGGEPADYQDMIRGTRRITDGI LHSEILRLARLVPGDANVSIDAGADA  
LAEIIAAFPVYR TYLPEGAEVLKEACELAAARRPELDQAIQALQPLLLD TDLELARRFQQ  
TSGMVMAGVEDTAFFRYNRLGTLTEVGADPTEFAVEPDEFHARLARRQAEPLSM TTLS  
THDTRKSEDTRARISVISEVAGDWEKALNRLRDLAPLPDGPLSALLWQAIAGAWPASRER  
LQYYALKAAREAGNSTNWTDPAPAFEEK LKAAVDAVFDNPAVQAEVEALVELLEPYGASN  
SLAAKLVQLTMPGVDPVYQGFTEFWDRSLTDPDNRRPFSFDDRRAALEQLDAGDLPASFTD  
ERTKLLVTSRALRLRRDRPELFTGYRPV LASGPAAGHLLAFDRGTAAAPGALTLATRLPY  
GLEQSGGWRDTAVELNTAMKDEL TGAGFGPGAVKIADIFRSFPVALLVPQTGGES

>P80429

MKLLLLSALLGCLATAYAAPAEGIVKWCVKSEQELRKCHDLAAKVAEFSCVRKDG SFECI  
QAIKGG EADAITLDGGDIYTAGLTNYGLQPI IAEDYGEDSDTCYAVAVAKKGTAFGFKT  
LRGKKSCHTGLGKSAGWNIPIGTLVTESQIRWAGIEDRPVESAVSDFFNASCAPGATMGS  
KLCQLCKGDCSRSHKEPYDYAGAFQCLKDGAGDVAFIKPLAVPAAEKASYELLCKDGTR  
ASIDSYKTCHLARVPAHAVVSRKDP ELANRIYNKLVAVKDFNLFSSDG YAAKNLMFKDSA  
QKLVQLPTTTDSFLYLGA EYMSTIRSLKKSQATGASSRAIKWCAVGHAEKGKCDTWTINS  
FADGESKISQDAPTVEECIKKIMRKEADAI AVDGGEVYTAGKCGLVPVMVEQYDADLCS  
APGEASSYAVAVAKKGSGLTWKTLKGKRSCHTGLGRTAGWNIPMGLIHQETNDCDFTKY  
FSKGCAPGSEVGS PFCAQCKGSGKARGGDEDRCKARSEEQYYGYTGAFRCLVEDAGDVAF  
IKHTIVPESTDGNGPDWAKDLKSSDFELL CQDGTTPVTKFSECHLAKVPAHAVITRPET  
RGDVVSILLELQAKFGSSGSDSSFRMFQSSVEKNLLFKDSTKCLQEIPKGT KYQDFLGKE  
YMIAMQSLRKCS DSTSDLEKACTFHSCQQKE

>P02789

MKLILCTVLSLGI AAVCF AAPPKSVIRWCTISSPEEKKNLRLDLTQQERISLTCVQKAT  
YLDICAIANNEADAI SLDGGQAFEAGLAPYKLP IAAEVYEHTEGSTTSYAVAVVKKG  
TEFTVNDLQGKTSCHTGLGRSAGWNIPIGTLLHRGAI EWEGIESGSVEQAVAKFFSASCV  
PGATIEQKLCRQCKGDPKTKCARNAPYSGYSGAFHCLKDGKGDVAFVKHTTVNENAPDQK  
DEYELLCLDGSRQPVDNYKTCNWARVA AHAVVARDDNKVEDIWSFLSKAQSDFGVDTKSD  
FHLFGPPGKKDPVLKDLLFKDSA IMLKRVPSLMDSQLYLGFEYYS AIQSMRKDQLTPSPR  
ENRIQWCAVGKDEKSKCDRWSVVSNGDV ECTVVDETKDCI IKIMKGEADAV ALDGGGLVYT  
AGVCGLVPVMAERYDDESQCSKTDERPASYFAVAVARKDSNVNWN NLKGGKKSCHTAVGRT

AGWVIPMGLIHNRTGTCNFDEYFSEGCAPGSPNSRLCQLCQSGGIPPEKCVASSHEKY  
FGYTGALRCLVEKGDVAFIQHSTVEENTGGKNKADWAKNLQMDDFELLCTDGRANVMDY  
RECNLAEVPTHAVVVRPEKANKIRDLLERQEKRFVNGSEKSKFMMFESQNKDLLFKDLT  
KCLFKVREGTTYKEFLGDKFYTVISSLKTCNPSDILQMCSFLEGK

>P12346

MRFVAVGALLACAALGLCLAVPDKTVKCAVSEHENTKCI SFRDHMKTVLPADGPRRLACVK  
KTSYQDCIKAIISGGEADAITLDGGWVYDAGLTPNNLKPVAAEFYGSLEHPQTHYLAVAVV  
KKGTDQFQLNQLQGKKSCHTGLGRSAGWIIP IGLLFCNLPEPRKPLEKAVASFFSGSCVPC  
ADPVAFPQLCQLCPGCGCSPTQPPFFGYVGAFAKCLRDGGGDVAFVKHTTIFEVLPQKADR  
QYELLCLDNTRKPVQYEDCYLARIPSHAVVARNGDGKEDLIWEILKVAQEHFGKSKD  
FQLFGSPLGKDLLFKDSAFGLLRVPPRMDYRLYLGHSYVTAIRNOREGVCPEGSIDSAPV  
KWCALSHQERAKCDEWSVSSNGQIECESAESTEDCIDKIVNGEADAMSLDGGHAYIAGQC  
GLVPVMAENYDISSCTNPQSDVFPKGYAVAVVKASDSSINWNNLKGKKSCHTGVDRTAG  
WNIPMGLLFSRINHCKFDEFFSQGCAPGYKKNSTLCDL CIGPAKCAPNNREGYNGYTGA  
FQCLVEKGDVAFVKHQTVLENTNGKNTAAWAKDLKQEDFQLLCPDGTKKPVTEFATCHLAQ  
APNHVVVSRKEKAARVSTVLTAQKDLFWKGDKCTGNFCLFRSSTKDLLFRDDTKCLTKL  
PEGTTYEYELGAEYLQAVGNIRKCSTSRLLLEACTFHKS

>P02788

MKLVFLVLLFLGALGLCLAGRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDS  
PIQCIQAI AENRADAVTL DGGFIYEAGLAPYKLRPVAAEVYGTERRQPRTHYYAVAVVKKG  
GSFQLNELQGLKSCHTGLRRTAGWNVPIGTLRPFLNWTGPPEPIEAAVARFFSASCVPGA  
DKGQFPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLRDGAGDVAFIRESTVFEDLSDE  
AERDEYELLCPDNTRKPVDFKDKCHLARVP SHAVVARSVNGKEDAIWNLLRQAQEKFGKD  
KSPKFQLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSYFTAIQNLKSEEEVAAR  
RARVVWCAVGEQELRKCQNSGLSEGSVTCSSASTTEDCIALVLKGEADAMSLDGGYVYT  
AGKCGLPVLAENYKSQQSSDPDPCVDRPVEGYLAVAVVRRSDTSLTWNSVKGKKSCHT  
AVDRTAGWNI PMGLLFNQTGSCKFDEYFSQSCAPGSDPRSNL CALCIGDEQGENKCVNS  
NERYYGYTGAFRCLAENAGDVAFVKDVTVLQNTDGNNEAWAKDLKLADFALLCLDGKRR  
PVTEARSCHLAMAPNHAVVSRMDKVERLKQVLLHQAKFGRNGSDCPDKFCLFQSETKNL  
LFNDNTECLARLHGKTTYEKYLGPPYVAGITNLKCKSTSPILLEACEFLRK

>Q23270

MTENVNSSGSDSAIKSEDKEEVTVIQEGQAKVGFHGPVVFYNPVQEFNRDLTVTVLRQFSAD  
HQKWAEQKQLKTEEEP KKKKNLAINEDGKIRILDALSASGLRALRFSKEVPNVGFI  
MA NDFS DNAVASIQENVKLNVEDIVEAHFGDAVMTMMEHRGIDKRFHVDLDPYGTASTFL  
DSAVQCVA DRGILMVTCTDMAVLCGNTPEACYNKYDAVTTRMKCCHEVGLRILLRAIDSA  
ANRYTRYIEPLVSI SVDFYVRVFRVHTGAFQAKQSGTKVGTVLVCSGCHSMEPLVLLKR  
GEGNQSKYSIPTVRHSISGPGNRCIHCLLPLHQIGPIYLAPIHSPFVTSLLERLKSTP  
EAERLGTGRLQGVLT MVNEELDDVLYEHNQMANVVKVSVPKSQSVRSAILNAGFKVSG  
SHCNPRAIKTNAPMHLWDIYRQVAKDTSVDREKRLAKESAGYHILGQPI TNTVNF TLHP  
GAIEQAKKENLVRVFCNKGNWGPQKAKGSVNSTKAGFQLTEHKE

>P81554

MSMELFEVHEGKAKVLVPAKTIYDSPVFNPRMAPNRDVVLLLNVLKPKIVLDALSAT  
GIRGIRFALETPAEIIMNDINELAYELMKNVLLNFKGT LKENAKRAIFEGEKTIVINN  
DDANRLMAEKHRYFHFIDLDPFGSPMEFLDTALRSVVRKGI LGVTATDGAPLCGAHPKAC  
LRKYLAVPLRGELCHEVGTRILVGV IARYAAKYDLGMEVLLAYYKDHYFRAFVKLKDGA  
KGDETLENLGYVYFDEKTRFEVEKSF LSTRPNAYGPLWLGLPKNEKVVGEMLELLVSGF

EVANYREVLKLLHMLHEELDIPLFYDTHALGKRLKIEPKKLGEI IKELKSMGYEATRTHF  
SPTGIKTNAPYEVFVEVMRKN

>P06560

MTSNLPTVLESIVEGRRGHLEEIRARIAHVDDALPKSTRSLFDSLQGRGGARFIMEC  
KSASPSLGMIREHYQPGEIARVYSRYASGISVLCPEPDRFGGDYDHLATVAATSHLPVLCK  
DFIIDPVQVHAARYFGADAILLMLSVLDDEEYAALAAEAARFDLDILTEVIDEEVARAI  
KLGAKIFGVNHRNLHDLSDIDLRSRRLSKLIPADAVLVSESGVRDTETVRQLGGHNSAFL  
VGSQLTSEQENVDLAARELVYGNKVCGLTSPSAAQTARAAGAVYGGLI FEEASPRNVSRE  
TLQKI IAAEPNLRVAVSRRTSGYKDLLVDGIFAVQIHAPLQDSVEAEKALIAAVREEVG  
PQVQVWRAISMSSPLGAEVAAAVEGDVDKLIILDAHEGGSGEVFDWATVPAAVKAKSLLAG  
GISPDNAAQALAVGCAGLDINSGEYYPAGAGTWAGAKDAGALLKIFATISTFHY

>P00909

MQTVLAKIVADKAIWVEARKQQQPLASFOQNEVQPSTRHFYDALQGARTAFILECKKASPS  
KGVIRDDDFDPARIAAIYKHYASAI SVLTDEKYFQGSFNFLPIVSQIAPQPILCKDFIIDP  
YQIYLARYYQADACLMLSVLDDDQYRQLAAVAHSLEMVLTTEVSNEEEQERAIALGAKV  
VGINNRLRDLSDIDLNRTRELAPKLGHNVTVISESGINTYAQVRELSHFANGFLIGSALM  
AHDDLHAAVRRVLLGENKVCGLTRGQDAKAAAYDAGAIYGGLI FVATSPRCVNVEQAQEV  
AAAPLQYVGVFRNHDIADVVDKAKVLSLAAVQLHGNEEQLYIDTLREALPAHVAIWKALS  
VGETLPAREFQHVDKYVLDNGQGGSGQRFDWSSLLNGQSLGNVLLAGGLGADNCVEAAQTG  
CAGLDFNSAVESQPGIKDARLLASVFQTLRAY

>P57855

MTQAFPSILQKIIQDKTTWIAEKQAQLPLASFOQDLERSDRDFYQAMQQGSKQRPSYILE  
CKKASPSKGLIRAAFDLTEIAEVYQHYATVISVLTDEKYFQGHFADIAQVRQRTQPILC  
KDFILSEYQVYLARYAQADAILLMLSVLNDERYTQLATLAHQLMGVLTETSNEAEFARA  
LALKAKVIGVNNRNLHDLSDVDIQRVAQITQHYADQIPPETKIISESGIYQHQQIRDLRHV  
ADGFLIGSSLMQHTDLNHAVRSLLFGEHKVCGLTRPQDVRAVYQQGALYGGLI FVTHSKR  
CISLRQAQELVTQAPLRFVGVFQDQSI AFICHLATQLRLHAVQLHGNESEHFIRQLRDEL  
PVNCEIWRACIESSTSPCQIVENKNIDRYIFDSKTHQQRGGTGKTFDWQLIPHHLKPK  
SMLAGGITPENIPLALAQGCLGLDLNSGLETYPGVKSHQKVVAFAQLR

>Q06121

MPRYLKGLKDVVQLSLRRPSFRASRQRP IISLNERILEFNKRNITAI IAEYKRKSPSGL  
DVERDPIEYSKFMERYAVGLSILTEEKYFNGSYETLRK IASSVSIPILMKDFIVKESQID  
DAYNLGADTVLLIVKILTERELESLEAYRSYGMELPIEINDENDLDIALRIGARFIGIN  
SRDLETLEINKENQRKLI SMIPSNVVKVAESGISERNEIEELRKLGVNAFLIGSSLMRNP  
EKIKEFIL

>P22098

MKMTDFNTQQANNLSEHVSKKEAEMA EVLAKIVRDKYQWVAERKASQHLSTFQSDLLPSD  
RSFYDALSGDKTVFITECKKASPSKGLIRNDFLDYIASVYNNYADAI SVLTDEKYFQGS  
FDFLPQVRRQVKQPVLCKDFMVDTYQVYLARHYGADAVLLMLSVLNDEEYKALEEAAHSL  
NMGILTEVSNEEELHRAVQLGARVIGINNRLRDLTTDLNRTKALAPTIRKLAPNATVIS  
ESGIYTHQQRDLAEYADGFLIGSSLM AEDNLELAVRKVTLGENKVCGLTHPDDAAKAYQ  
AGAVFGGLIFVEKSKRAVDFESARLTMSGAPLNYGVVFQNHVDVYVASIVTSLGLKAVQL  
HGLEDQEYVNQLKTELPGVEIWKAYGVADTKPSLLADNIDRHLLDAQVGTQTGGTGHV  
DWSLIGDPSQIMLAGGLSPENAQQAAKLGCLGLDLNSGVE SAPGKKDSQKLQAAFHAIRN

Y

>P16525

MARYDLVDRLNNTTFRQMEQELAIFAAHLEQHKLLVARVFSLEPEVKKEDEHNPLNRIEVKQ  
HLGNDAQSLALRHFRLHF IQQOSENRSSKAAVRLPGVLCYQVDNLSQAALVSHIQHINKL  
KTTFEHIVTVESELPTAARFEWVHRHLPGLITLNAYRTLTVLHDPATLRFGWANKHI IKN  
LHRDEVLAQLEKSLKSPRSVAPWTREEWQRKLEREYQDIAALPQNAKLIKRPVKVQPIA  
RVWYKGDQKQVQHACPTPLIALINRDNGAGVPDVGELLLNYDADNVQHRYKPPQAQPLRLII  
PRLHLYVAD

>P59368

MKVAIVFLSLLVLAFASESIEENREEFPVEESARCGDINAACKEDCDCCGYTTACDCYWS  
KSCKCREAAIIVIYTAPKKKLTCT

>Q8N427

MASKKREVQLQTVINNQSLWDEMLQNKGLTVIDVYQAWCGPCRAMQPLFRKLLKNELNEDE  
ILHFAVAEADNIVTLQPFDRKCEPVFLFSVNGKII EKIQGANAPLVNKKVINLIDEERKI  
AAGEMARPQYPEIPLVDSSEVSEESPCESVQELYSIAI IKPDAVISKKVLEIKRKITKA  
GFIIIEAEHKTVLTEEQVVFYSRIADQCDFEEFVFSFMTSGLSYILVVSQGSKHNPPEET  
EPQTDTEPNERSEDQPEVEAQVTPGMMKNKQDSLQEYLERQHLAQLCDIEEDAANVAKFM  
DAFFPDFKMKMSMKLEKTLALLRPNLFHERKDDVLRRIKDEDFKILEQRQVVLSEKEAQA  
LCKEYENEDYFNKLIENMTSGPSLALVLLRDNGLQYWKQLLGPRTVEEAIEYFPESLCAQ  
FAMDSLVPVNLQYGSDSLTAEREIQHFFPLQSTLGLIKPHATSEQREQILKIVKEAGFDL  
TQVKMFLTPEQIEKIYPKVTGKDFYKDLLEMLSVGSPSMVILTKWNAVAEWRRMLMGPTD  
PEEAKLLSPDSIRAQFGISKLNIVHGASNAYEAKEVVNRLFEDPEEN

>P22515

MSSNNSGLSAAGEIDESLYSRQLYVLGKEAMLKMQTSNVLILGLKGLGVEIAKNVVLAVG  
KSMTVFDPPEPVLADLSTQFFLTKEDIGQKRGDVTRAKLAELNAYVPVNVLDLDDVTQL  
SQFQVVVATDTVSLEDKVKINEFCHSSGIRFISSETRGLFGNTFVDLGDFTVLDPTGEE  
PRTGMVSDIEPDGTVTMLDDNRHGLEEDGNFVRFSEVEGLDKLNDGTLFKVEVLGPFAPRI  
GSVKEYGEYKKGIFTEVKVPRKISFKSLKQQLSNPEFVFSDFAKFDRAAQLHLGFQALH  
QFAVRHNGELPRTMNEDEDANELIKLVTDL SVQQPEVLGEGVDVNEDLIKELSYQARGDIP  
GVVAFFGGLVAQEVLKACSGKFTPLKQFMFYDSLESPLDPKNFPRNEKTTQPVNSRYDNQ  
IAVFGLDFQKKIANSKVFLVGS GAIGCEMLKNWALLGLGSGSDGYIVVTDNDSIEKSNLN  
RQFLFRPKDVGKNKSEVAEAVCAMNPD LGKINAKIDKVGPETEEIFNDSFWE SLDFVT  
NALDNVDARTYVDRRCVFYRKPLLESGLTGTGNTQVIIPRLTESYSSSRDPPEKSIPLC  
TLRSFPNKIDHTIAWAKSLFQGYFTDSAENVNMYLTQPNFVEQTLKQSGDVKGVLSESISD  
SLSSKPHNFEDCIKWARLEFEKKFNHDIKQLLFNFPKDAKTSNGEPPFWGAKRAPTPLEF  
DIYNNDFHFVAVAGASLRAYNYGIKSDDSNSKPNVDEYKSVIDHMIPEFTPNANLKIQV  
NDDDPDPNANAANGSDEIDQLVSSLPDPSTLAGFKLEPVDFEKDDDTNHHIEFITACSNC  
RAQNYFIETADRQKTKFIAGRIIPAIATTTSLVTGLVNLELYKLIDNKTDIEQYKNGFVN  
LALPFFGFSEPIASPKGEYNNKKYDKIWRDFDIKGDIKLSDLIEHFEEKDEGLEITMLSYG  
VSLLYASFFPPKLLKERLNLPIITQLVKLVTKKDI PAHVSTMILEICADDKEGEDVEVPFI  
TIHL

>Q02053

MSSSPLSKRRVSGPDPKPGSNCSPAQSALSEVSSVPTNGMAKNGSEADIDESLYSRQLY  
VLGHEAMKMLQTSVSVLVSGLRGLGVEIAKNIILGGVKAVTLHDQGTQWADLSSQFYLRE  
EDIGKNRAEVSQPRLAELNSYVPVTAYTGPLVEDFLSSQVQVVLTNSPLEAQLRVGEFCH  
SRGIKLVVADTRGLFGQLFCDFGEEMVLTDSNGEQPLSAMVSMVTKDNPGVVTCLEEARH

GFETGDFVSFSEVQGMQLNGCQPMIEIKVLGPYTFSSICDTSNFSDYIRGGIVSQVKVPKK  
ISFKSLPASLVEPDFVMTDFAKYSRPAQLHIGFQALHQFCALHNQPPRPRNEEDATELVG  
LAQAVNARSPPSVKQNSLDEDLIRKLAYVAAGDLAPINAFIGGLAAQEVKACSGKFMPI  
MQWLYFDALECLPEDKEALTEEKCLPRQNRDYGQVAVFGSDFQEKLSKQKYFLVGAGAIG  
CELLKNFAMIGLGCGEVGVVTDMDTIEKSNLNRQFLFRPWDVTKLKSDTAAAAVRQMN  
PVIQVTSHQNRVGPDTERIYDDDFQNLGDVANALDNIDARMYMDRRCVYRKP LLES GT  
LGTGKNVQVVI PFLTESYSSSQDPPEKSIPIC TLKNFPNAIEHTLQWARDEFEGFLFKQPA  
ENVNQYLTD SKFVERTLR LAGTQPLEVLEAVQRSLVLRPQTWGD CVTWACHHWHTQYCN  
NIRQLLHNFPPDQLTSSGAPFWSGPKRCPHPLTFD VNNTLHLDYVMAAANLFAQTYGLTG  
SQDRAAVASLLQSVQVPEFTPKSGVKIHVSDQELQSANASVDDSRLEELKATLPSPKLP  
GFKMYPIDFEKDDDSNFHMDFIVAASNLAENYDISPADRHKSKLIAGKIIPAIATTTAA  
VVGLVLCLELYKVQGHQQLDSYKNGFLNLALPFFGFSEPLAAPRHQYYNQEWTLWDRFEV  
QGLQPNGEEMTLKQFLDYFKTEHKLEITMLSQGVSMLYSFFMPAAK LKERLDQPMTEIVS  
RVSKRKLGRHVRALVLELCCNDESGEDVEVPYVRYTIR

>P20973

MLPRKREIVAGEVEDLQKKTRAGEGEVTTREEGDAAMAGRGNEIDEDLHSRQLAVYGRETM  
KRLFSGSNVLVSLGQGLGAEIAKNLVLAGVKS VTLHDDGNVELWDLSSNFFLSENDVGQNR  
AQACVQKLQELNNAVLVSALTGDLTKEHLSKQAVVFTDISLDKAI EFDDYCHSQPPIA  
FIKSEVRGLFGSVFCDFGPEFTVLDVDGEEPTGIVASISNDNPALVSCVDDERLEFQDG  
DLVV FSEVHGMTELNDGKPRKVKNARPY SFFLEEDTSSFGAYVRGGIVTQVKPPKVIKFK  
PLKEAMSEPGEFMSDFSKFERPPLLHLAFQALDKFRTELSRFPVAGSTDDVQRVIEYAI  
SINDTLGDRKLEEDKLLHHFASGSRAVLNPMAMFGGIVGQEVVKACSGKFHPLYQFF  
YFDSVESL PVDPLEPGDLKPKNSRYDAQISVFGSKLQNKLEEAKIFMVGSGALGCEFLKN  
LALMGISCSQNGNLTLTDDDVI EKSNLSRQFLFRDWNIGQPKSTVAATAAMVINPKLHVE  
ALQNRASPETENVFNDAFWENLDAVNNALDNVTARMYIDSR CVYFQKPLLES GTLGAKCN  
TQMVI PHLTENYGASRDPPEKQAPMCTVHSFPHNIDHCLTWARSEFEGLLEKTPTEVNAF  
LSNPTTYISAARTAGDAQARDQLERVIECLDRDKCETFQDSITWARLKFEDYFSNRVKQL  
TFTFPEDSMTSSGAPFWSAPKRFRPVEFSSSDQSLSF ILAAA ILRAETFGIPIPEWAK  
TPNKLAAEAVDKVI VPDFQPKQGVKIVTHEKATSLSSASVDDAAVIEELIAKLEEVSKTL  
PSGFHMNPIQFEKDDDTNFHMDVIAGFANMRARNYSIPEVDK LKAKFIAGRIIPAIATST  
AMATGLVLCLELYKALAGGHKVEDYRNTFANLAIP LFSIAEPVPPKTIKHQELSWTVWDRW  
TVTGNITLRELLEWLKEKGLNAYSISCGTSLLYNSMFPRHKERLDRKVVDVAREVAKMEV  
PSYRRHLDVVVACEDDDDNDVDIPLVSVYFR

>Q93009

MNHQQQQQQKAGEQQLSEPEDMEMEAGDTDDPPRITQNPVINGNVALSDGHNTAEEDME  
DDTSWRSEATFQFTVERFSRLSESVLSPPCFVRNLPWKIMVMPRFYPDRPHQKSVGFFLQ  
CNAESDSTSWSCHAQAVLKIINYRDDEKSF SRRISHLFFHKENDWGF SNFMAWSEVTDPE  
KGFIDDDKVTFEVFVQADAPHGVAWDSKKHTGYVGLKNQGATCYMNSLLQTLFFTNQLRK  
AVYMMPTEGDSSKSVPLALQRV FYELQHSDKPVGT KKLTKSFGWETLDSFMQHDVQELC  
RVLLDNVENKMKGTCEVTIPKLF RGMVSYIQCKEVDYRS DRREDYDIQLS IKGKKN I  
FESFVDYVAVEQLDGDNKYDAGEHGLQEA EKGVKFLTLPPVLHLQLMRFMYPDQTDQNIK  
INDRFEFPEQLPLDEF LQKTDPKDPANYILHAVLVHSGDNHGGHYVVYLNPKGDGKWKCF  
DDD VVSRC TKEEAIEHNYGGHDDDL SVRHCTNAYMLVY IRESKLSEVLQAVTDHDIPQQ L  
VERLQEEKRIE AQKRKERQEAHLYMQVQIVAEDQFCGHQGNMYDEEKVKYTVFKVLKNS  
SLAEFVQSLSQTMGFPPDQIRLWPMQARSNGTKRPAML DNEADGNKTMIELSDNENPWTI  
FLETVDPELAASGATLPKFDKDHDVMLFLKMYDPKTRSLNYCGHIYTPISCKIRDLLPVM  
CDRAGFIQDTS LILYEEVKPNLTERIQDYDVSLDKALDELMDGDIIVFQKDDPENDNSEL  
PTAKEYFRDLYHRVDVIFCDKTI PNDPGFVVTL SNRMNYFQVAKTVAQRLNTDPMLLQFF

KSQGYRDGPGNPLRHNYEGTLRDLLOFFKPRQPCKLYYQQLKMKITDFENRRSFKCIWLN  
SQFREEEITLYPDKHGCVRDLLLEECKKAVELGEKASGKLRLLLEIVSYKIGVHQEDELLE  
CLSPATSRTRFRIEIEIPLDQVDIDKENEMLVTVAHFHKEVFGTFGIPFLLRHQGEHFREV  
MKRIQSLLDIQEKEFEKFKFAIVMTGRHQYINEDEYEVNPKDFEPQPGNMSHPRPWLGLD  
HFNKAPKRSRYTYLEKAIKIHN

>Q6P5E4

MRLLIALLALPCLFSLAEANSKAITTSLTTKWFSAPLLLEASEFLAEDSQEKFWSFVEATQ  
NIGSSDHHDTDHSYDAVLEAAFRFLSPLQQNLLKFCLSLRSYSASIQAFQQIAVDEPPP  
EGCKSFLSVHGKQTCDLDTLESLLLTAADRPKPLLFKGDHRYPSNPESEPVVILYSEIGH  
EEFSNIHHQLISKSNEGKINYVFRHYISNPSKEPVYLSGYGVELAIKSTYEKAKDDTQVK  
GTEVNATVIGESDPIDEVQGFVFGKLRRELYPALEGQLKEFRKHLVESTNEMAPLKVWQLQ  
DLSFQTAARILAASGALSVMKDISQNFPTKARAITKTAVSAQLRAEVEENQKYFKGTI  
GLQPQDSALFINGLHIDLDTQDIFSLFDTLRNEARVMEGLHRLGIEGLSLHNLKLNLIQP  
SETDYAVDIRSPAISWVNNLEVDSTRYNSWPSLQELLRPTFFPGVIRQIRKNLHNMVFIID  
PVHETTAELISIAEMFLSNHIPLRIGFIFVVNDSQDQDAGVAVLRAINYVAQEVGD  
YHAFQTLTQIYNKVRTGETVKVEHVSVLEKKYPYEVNSILGIDSAYDQNRKEARGYYE  
QTGVGPLPVVLFNGMPFEKEQLDPDELETITMHKILETTTTFFQRAVYLGELSHDQDVVEY  
IMNQPNVPRINSRILTAKREYLDLTASNPFYVDDFARFSAALDSRGKTAAIANSMNYLTK  
KGMSSKEIYDDSFIRPVTFWIVGDFDPSGRQLLYDAIKHQKTSNNVRISMINNPSQEIS  
DSSTPIFRAIWAALQTQASSAKNFITKMAKEETAELAAAGVDIAEFSVGGMDVSLFKEV  
FESSRMDFILSHALYCRDVLKLLKKGQRVVISNGRIIGPLEDNELFNQDDFHLENIILKT  
SGQKIKSHIQQLRVEEDVASDLVMKVDALLSAQPKGEARIEYQFFEDKHSAILKPKKEGE  
TYDVAVAVVDPVTREARLAPLLLVLTLQINMNLRVFMNCQSKLSDMPLKSFYRYVLEPE  
ISFTADSSFAKGP IAKFLDMPQSPFLTLNLNTPESWVQSVRTPYDLNIIYLEEVD SIVA  
AEYELEYLLEGHICYDITTGQPPRGLQFTLGT SANPTIVDTIVMANLGYFQLKANPGAWI  
LRLRKGRSDDIYRIYSHDGTDSPPDANDVVVILNFKSKIKVKVQKKADMANEDLLSDG  
TNENESGFWDSFKWGFSGQKAEVVKQDKDDIINIFSVASGHLYERFLRIMMLSVLKNTKT  
PVKFWFLKNYLSPTFKFIPYMAKKYNFQYELVQYKWPRLHQTEKQRIIWGYKILFLD  
VLFPLVVDKFLFVDADQIVRTDLKELRDFNLDGAPYGYTPFCDSRREMDGYRFWKSGYWA  
SHLAGRKYHISALYVVDLKKFRKIAAGDRLRGYQGLSQDPNSLSNLDQDLPNMIHQVP  
IKSLPQEWLWCETWCDASKKRAKTIDL CNPMTKEPKLEAAVRIVPEWQDYDQEI KQLQ  
TLFQEEKELGTLHTEETQEGSQKHEEL

>Q09332

MLRAVALCVSVVLIALYTPSTSGESSQSYPIITTLINAKWTQTPLYLEIAEYLADEQAGLFW  
DYVSGVTKLDTVLNEYDTESSQYNAALELVKSHVSSPQLPLLRLLVSMHSLTPRIQTHFQ  
LAEELRSSGSCQSFTFAQVGSSELACSFNELQKKLEVPLAKDSLSDASVVTYSFDHIFPGSE  
NNTRTVVLYGDLGSSQFRTYHKLLEKEANAGRIRYILRHQLAKKDKRPVRLSGYGVLEHL  
KSTYEKSDDDAPKPEAGSTSDEDLANESDVQGFDFKVLKQKHP TLKRALDQLRQRLQGN  
DEIAQLKAWEFQDLGLQAAAAIAEIQGDETLQILQYTAHNF PMLARTLLAHKVTDGLRAE  
VKHNTEAFGRSLNVAPPD GALFINGLFFDADTMDLYSLIETLRSEMRVLESLSHNNVRGS  
LASSLLALDLTASSKKEFAIDIRD TAVQWVNDIENDVQYRRWPSSVMDLLRPTFPGLRN  
IRKNVFNVLVVDALQPTARSVIKLSESFVIHQAPIRLGLVFDARDANEDNLADYVAITC  
AYNYVSQKKDARAALSFLTDIYAAVGETKVVTKKDIVKQLTKEFTSLSFAKAEFFLEEDS  
TYDYGRELAAEFIQRLGFGDKGQPQALLNGVPMP SNVVTADSDFEAAIFTEIMTHTSNLQ  
KAVYKGELTDNDVAIDYLMNQPHVMPRLNQRILSQEDVKYLDINGVAYKNLGNVGVNLRL  
SNRDMTATLMDNLKYFGGKSTELIGRASLQFLT IWVFADLETDQGRDLLTHALDYVQSG  
ESVRVAFIPNTESSASSRRNLNRLVWAAMQSLPPTQATEQVLKWLKPKPEKIEIPTQLE  
DILGSTELHLKMLRVYSQRVLGLNKSQR LVI GNRLYGLPLSSDESFD SADFALLARFSSL

QYSDKVRQVLKESAQDVNEEFNSDTLLKLYASLLPRQTKTRFKLPTDLKTDHVSVKLPPK  
QENLPHFDVAAVLDPASRAAQKLTPIILILLRQVLNQCQLNLYLIPVVPQHSDMPVKNFYRYV  
VEPEVQFEANGGRSDGPLAKFSGLPANPLLTQQQLQVPENWLVEAVRAVYDLDNIKLTDIG  
GPVHSEFDLEYLLEGHCFDAASGAPPRGLQLVLGTQSQPTLVDTIVMANLGYFQLKANP  
GAWSLRLREGKSADIYAIISHIEGTNTHHSAGSSEVQVLITSLRSHVVKLRVSKKPGMQQA  
ELLSDDNEQAAQSGMWNSIASSFGGGSANQAATDEDETETINIFSVASGHLYERLLRIMMV  
SLLKHTKSPVKFWFLKNYLSPQFTDFLPHMASEYNFYELVQYKWPRLHQQTEKQRTIW  
GYKILFLDVLFPNLVRKIIIFVDADAIVRTDIKELYDMDLGGAPYAYTPFCDSRKEMEGFR  
FWKQGYWRSHLMGRRYHISALYVVDLKRFRKIAAGDRLRGQYQALSQDPNSLSNLDQDLP  
NNMIHQVAIKSLPDDWLWCQTWCSDSNFKTAKVIDLCNNPQTKEAKLTAAQRIVPEWKDY  
DAELKTLMSRIEDHENSRSRDSAVDDSVDDSVDEVTTVTPSHEPKHGEL

>Q09140

MRWGFWFIAIATLITICYAAKPLDVKIAATFNAPSFSALIAESLYQEKKEGFIWYLNHLSD  
LLDAENTTEKELYINVVNSLKREYVLSDEELSSLQFSLGLFSGAPKLQAFSSIVQSRSCD  
CDTWLQLDEESQVCFSDLPKDSPLFSKLYSKNPLDYEVVKTSA TGIPYAVVVTSEFERDLI  
PFHELYYKLALLEGKCNVIRYSPSSSKLNSKLYVKGFTHVSLKRTDYLVDDREFPRE  
KGDNPASFTSSRNKRSNERLFGMTSDSLQTVTPDKIAILDLLATQS IASSTDMLTAFREL  
TQDFPIYAHYLSIQPDVSNLDIEELNQFQSQYVPEGINTIWLNGLSLDLEETDAFSILSL  
IKKEKDMFDRFEALGIKSSKVLDIVTNEAFANEDSDFKFKVCFHCQDDIEDWKAIHWVNEI  
ESNPKYDNWPKSIQILLKPIYPGQLHMLGKQLHTVIYPIFPSSPSSLPLLSSELIQFSRRP  
SPVQVTGMVCAANDDDEFAQTVCCKSFFYISKESGTD SALKFLYKCLNSDSSADLYSLLEEH  
LPLSEHDDDTLANLKKDLSSFFDHYSKSNVWNR LGIDSSASEVIVNGRIISHDENYD  
RSMYGIFLEDIPEVQIAVAEGKISEDDNLLDFILRDASLTRNPLVYPSAKSSIKSIDIKR  
VLENVGSLNHEDILLIGSSNAKYSFWLVADFNEKEGLEILSLLADLLSENKDANLMLIQE  
GKNHVVPPLFAKLLSSPKRSSKHLQEILNSSLDPSSGVVNDMDKALKFLKKS KAVVKELG  
LTGECKSALLLNGRMICSFVDSLNTADLKMLMQMEYDNYLSKLSNIAGSSRRLKNSRAI  
SFLSSYLKTLSTPMSTSSPTKEEKLFP RDFIYNKLG VGNATFETDDFSKAYYQFVAVLD  
PLSKDSQKWSAILEAVSKLNGVGVRIHFNPQQTLSSELPLTRFYRYSISAEPEFDALGHLE  
ESYVEFDNL PADTLLTMDIEARDAWTVMQKDVIDL FNIKLEHTSEAEALDSHTAIYELK  
NILVQGYSQEEFRKSPPRGMQLKLG NLTNSHVTD TIVLSNLGYFQLKANPGVWVWLEPMDG  
RSSQFYEILSLNKKNSYKDPQVIVDSFEGVTLNPMVRRKPGFESADIMDEDLSSHKFFDK  
IKKSLSFFNFKRKEASINIFSVASGHLYERFLYIMTKSVIEHTDKKVKFWFIENFLSPSF  
KSSIPAI AKKYNFEY EYITYNWP HWRKQEEKQREIWGYKILFLDVLFPLELHKVIYVDA  
DQIVRADLQELMDMDLHGAPYGYTPMCD SREEMEGFRFWKKGYWKKFLRGLKYHISALYV  
VDLDRFRKMGAGDLLRRQYQLLSADPNLSNLDQDLPNHLQHLIPIYSLPQDWLWCETWC  
SDESLKTAKTIDL CQNPLTKEKKLDRARRQVSEWTSYDNEIASVLQTASSQSDKEFEED  
NNSSPDEL

>Q9RC92

MWQQAIGDALGITARNLKKFGDRFP HVSDGSNKYVLNDNTDWT DGFWSGILWLCYEYTG  
EQYREGAVRTVASFRERLDRFENLDHHDIGFLYSLSAKAQWIVEKDESARKLALDAADV  
MRRWRADAGIIQAWGPKGDPENGGRIIDCLLNLPLLLWAGEQTGDPEYRRVAEAHALKS  
RRFLVRGDDSSYHTFYFDPENGN AIRGGTHQGN TDGSTWTRGQAWGIYGFALNSRYLGNA  
DLLETAKRMARHFLARVPEDGVVYWFDFEVPQEPSSYRDSSASAITACGLLEIASQLDES  
PERQRFIDAAKTTVTALRDGYAERDDGEAEGFIRRGSYHVRGGISPDDYTIWGDYYYLEA  
LLRLERGVGTGYWYERGR

>P12295

MANELTWHHDVLAEEKQQPYFLNTLQTVASERQSGVTIYPPQKDFVNAFRFTELGDVKVVI



LGQDPYHGPQAHGLAFSVRPGIAIPPSLLNMYKELENTIPGFTRPNHGYLESWARQGV  
LLNTVLTVRAGQAHSHASLGWETFTDKVISLINQHREGVVFLWGSQAQKKGAIIDKQRH  
HVLKAPHPSPLSAHRGFFGFCNHFVLANQWLEQRGETPIDWMPVLPAAESE

>P13051

MIGQKTLYSFFSPSPARKRHAPSPEPAVQGTGVAGVPEESGDAAAIPAKKAPAGQEEP  
PPSSPLSAEQLDRIQRNKAAALLRLAARNVPVGFGEVSWKKHLSGEFGKPYFIKLMGFVAE  
ERKHYTVYPPPHQVFTWTQMCDIKDVKVILGQDPYHGNQAHGLCFVQRPVPPPPSLE  
NIYKELSTDIEDFVHPGHGDLGSAWAKQGVLLLNNAVLTVRAHQANSHKERGWEQFTDAVVS  
WLNQNSNGLVFLWGSYAQKKGSAIDRKRHHVLTQTAHPSPLSVYRGGFFGCRHFSKTNEL  
QKSGKKPIDWKEL

>P07024

MKLLQRGVALALLTTFTLASETALAYEQDKTYKITVLTNDHGHGFWRNEYGEYGLAAQK  
TLVDGIRKEVAEAGGSVLLLSGGDINTGVPESDLQDAEPDFRGMNLVGYDAMAIGNHEFD  
NPLTVLRQQEKWAKFPLLSANIYQKSTGERLFPKPFKQDLKIAVIGLTTDDTAKIGN  
PEYFTDIEFRKPADEAKLVIQELQQTEKPDIIAATHMGHYDNGEHGSNAPGDVEMARAL  
PAGSLAMIVGGHSQDPVCMMAENKQVDYVPGTPCKPDQNGIWIWQAHEWGKYVGRADF  
EFRNGEMKMVNYQLIPVNLKKKVTWEDGKSERVLYTPEIAENQQMISLLSPFQNKGAQL  
EVKIGETNGRLEGRDKVRFVQTNMGRLLILAAQMDRTGADFVMSGGGIRDSIEAGDISY  
KNVLKVQPFQNVVYADMTGKEVIDYLTAVAQMKPDSGAYPQFANVSFVAKDGKLNLDKI  
KGEPVDPKTYRMATLNFNATGGDGYPRLDNPKGYVNTGFIDAEVLKAYIQKSSPLDVS  
YEPKGEVSWQ

>Q05320

MGVTGILQLPRDRFKRTSFFLWVILFQRTFSIPLGVIHNSTLQVSDVDKLVCRDKLSST  
NQLRSVGLNLEGNVATDVP SATKRWGFVSGVPPKVVNYEAGEWAENCYNLEIKKPDGSE  
CLPAAPDGIRGFPRCRYVHKVSGTGPCAGDFAFHKEGAFFLYDRLASTVIYRGTTFAGV  
VAFLILPQAKKDFSSHPLREPVNATEDPSSGYYSTTIRYQATGFGTNETEYLFVNDLT  
YVQLESRFTFPQFLQLNETIYTSGKRSNTTGKLIWKNPEIDTTIGEWAFWETKKNLTK  
IRSEELSFTTVVSNAGAKNISGQSPARTSSDPGTNTTTEDHKIMASENSSAMVQVHSQ  
AVSHLTTLATISTSPQSLTTKPGPDNSTHNTPVYKLDISEATQVEQHRRRTDNDSTASDT  
PSATTAAGPPKAENTNTSKSTDFLDPATTTSPQNHSETAGNMNTHHQTGEESSASSGKLG  
LITNTIAGVAGLITGRRTRREAIVNAQPKCNPNLHYWTTQDEGAAIGLAWIPYFGPAE  
GIYIEGLMHNQDGLICGLRQLANETTQALQLFLRATTELRTFSILNRKAIDFLLQRWGGT  
CHILGPDCIEPHDWTKNITDKIDQIIHDFVDKTLDPQGDNDNWWTGWRQWIPAGIGVTG  
VIIAVIALFCICKFVF

>Q70PR7

MAPQMEKVSEELILPSSPTPQSLKCYKISHLDQLLLLTCHIPFILFYPNPLDSNLDPAQTS  
QHLKQSLSKVLTHFYPLAGRINVNSSVDCNDSGVPPFVEARVQAQLSQAIQNVVELEKLDQ  
YLPAAYPGGKIEVNEDVPLAVKISFFECGGTAIGVNLCHKIADVLSLATFLNAWTATCR  
GETEIVLPNFDLAARHFPPVDNTPSELVDPDENVMKRFVFDKEKIGALRAQASSASEEK  
NFSRVQLVVAYIWKHVIVTRAKYGAKNKFVVVQAVNLRSRMNPPLPHYAMGNIATLLFA  
AVDAEWDKDFPDLIGPLRTSLEKTEDDHHELLKGMTCLYELEPQELLSFTSWCRLGFYD  
LDFGWGKPLSACTTTFPKRNAALLMDTRSGDGVVAVLWMAEDEMAMLPVELLSLVDSDF  
K

>P60244

PAPQTSIELFLIVDHSYAKYNSNSSKITTTLKARVNIMNAIYSSLNLVITLSGIEMWSA

ADLITVQSSSRNTLKLFWASWRETDLLKRTSNDNAQLLTATNFNGNTVGLAYLKTMCNSKY  
SVGLIQDHSIAIPLLMVAVTMAHELGHNLGMNHDGAGCSCATCIMAPVLSGPAKSFSDCSK  
HDYQSFLTIIHKPQCLLN

>P34179

QQNLPQRYIELVVVADRRVFMKYNSDLNIRTRVHEIVNIINGFYRSLNIDVSLVNLEIW  
SGQDPLTIQSSSSNTLNSEGLWREKVLLNKKKKDNAQLLTAIEFKCETLGKAYLNSMCNP  
RSSVGIVKDHSPINLLVAVTMAHELGHNLGMEHDGKDCLRGASLCIMRPGLTPGRSYEFS  
DDSMGYQKFLNQYKPKCILNKP

>P82942

TNTPEQDRYLQAEKYIEFYVIVDNRMRYRYNYDKPAIKIRVYEMINAVNTKFRPLKIHIA  
LIGLEIWSNEDKFEVKPAASVTLKSFREWRQTVLLPRKRNDNAQLLTGINLNGTAVGIAY  
PGSLCTQRSVFFVQDYNRRMSLVASTMTHELGHNLGIHHDEASCICIPGPCIMLKKRTAP  
AFQFSSCSIRDYQEYLLRDRPQCILNKPSTDIVSPAICGNYFVEEGEECDCGSPAACQS  
ACCDAAATCKFNGAGAECRAAKHDCDLPELCTGQSAECPDLSLQRNGHPCQNNQGYCYNGK  
CPTLTNQCIALLGPHFTVSPKGCFDLNMRGDDGSFCRMEDGTKIPCAAADVCKGRLYCTE  
KNTMSCLIPPNDGIMAEPGTCGDMVCSKGCQVVDVQTAY

>P84907

SPRYIELVVVADHGMFKKYNSNLNIRKVVHEMLNTVNGFYRSMNVDAASLVNLEVWSKKD  
LIKVEKDSSKTLTSFGEWRELDLPRISHDHAQLLTVIFLDEETIGIAYTAGMCDLSQMV  
AWGQDYVAVSMAHELGHNLGMRHDGNQCHCNAPSCIMADTLKGLSFEFSDCSQNQYQTY  
LTKHNPQCILNKP

>Q14FJ4

MIQVLLVTICLAVFPFQGSSTLKSNGVNDYEVVNPQKITGLPVGAFKQPEKKYEDAVQY  
EFEVNGEPVVLHLEKNKGLFSEDYSETHYSPDGSEITTNPPVEDHCYHGRVQNDADSTA  
SISTCNGLKGGFTLRGETYLIIEPLKVPDSESHAVYKYEADAKKDEAPKMGVTLTNWESD  
EPIKKASHLVATSEQQHFHPRYVQLVIVADHSMVTKNNNDLTALTWTWIIHQIVNDMIVMYR  
ILNIHITLANVEIWSSGDLIAVTSSAPTTLRSFGEWRRARNLVNRI THDNAQLITAVHLDN  
LIGYGYLGTMCDPQSSVAITEDHSTDHLVVAATMAHEMGNLGMNHDGNQCNCGAAGCIM  
SAIISQYRSYQFSDCSMNEYRNYITTHNPPCILNQALRTDTVSTPVSENELLQNSVNPY  
DPVTCQPKKEDCESGPCDCKFLKEGTICKMARGDNMHDYCNGKTCDCPRNPYKGEHD  
PMEWPAPAKGSVLM

>Q08831

MKHPYEEFPTGSKSPYNMSRGAHPGAVLLSPQSSAINKNNPNSGNSGNNQGNSSVTANVLS  
PQSHSMLNDMLDQQSFMLDTAGTRAQPLQQQQQQQQQQASLPSLNIQTVSSTAAGSA  
IVSPMMQSPKALQSTLSSTSMYLDSEFQRSPNNILGIPSQSGSIPLPQSRQSQSQSQKQ  
DPNMGTFNSQDINQLCSWISMLNSSQONTVMDNILSILNDDVLKYTKLKIETLTNTPFIS  
PPLPAIASPIPNRDDTQILNIDSVFSSSPITNDPENTDNLQYQNSWPQPHSIPISQPIYD  
NITDASQRSKSAEPHVNSPNIIPVQKQFNNGNSTKYKKLPSENPNYLSHSLSSSHSFFQ  
PKKRSNMGNEYNSHHHSHLHPLHNTTSYFSNTSRPSGTDLNKSNQNVFNNTITHPNAGP  
TSATSTSTSSNGNTPLSSNSMNPKSLTDPKLLKNIPMWLKSRLHKEYSDALSGTPWIEL  
IYLDDEETLEKKGVLLALGARRKLLKAFGIVIDYKERDLIDRSAY

>O64393

MTMAARLMLVAALLCAAAAAATAQQATNVRATYHYRPAQNNWDLGAPAVSAYCATWDAS  
KPLSWRSKYGWTAFCGPAGAHGQAACGKCLRVTNPATGAQITARIVDQCANGGLDLDWDT

VFTKIDTNGIGYQQGHLNVNYQFVDCRD

>P09615

MDISYIFVICLMALCSGGSSLSQVEGKQKSGRGRGSMWWGIAKVGEPNITPIMYMDPAI  
HSTLRRKQRRLLVRDNPVGLGALVKGANLAISECQHQFRNRRWNCSTRNFSRGKNLFGKIV  
DRGCRETSFIYAITSAAVTHSIARACSEGTIESCTCDYSHQSRSPQANHQAQSVAGVRDW  
EWGGCSDNIGFGFKFSREFVDTGERGRNLREKMNLNHNEAGRAHVQAEMRQECKCHGMSG  
SCTVKTCWMRLANFRVIGDNLKARFDGATRQVVTNSLRATNALAPVSPNAAGSNVGSNG  
LIIPQSGLVYGEERMLNDHMPDILLENSHPISKIHHPNMPSPNLPPQAGQRGGRNGRR  
QGRKHNRHYHFQLNPHNPEHKPPGSKDLVYLEPSPSFCEKNLRQGILGTHGRQCNETSLGV  
DGCGLMCCGRGYRRDEVVVVERCACTFHWCCVCKLCKRTKKVIYTCL

>Q86Y38

MVAAPCARRLARRSHSALLAALTVLLLQTLVVWNFSSLDGAGERRGGAAVGGGEQPPPA  
PAPRRERRDLPAEPAAARGGGGGGGGGGGGRGPQARARGGGPGEPRGQQPASRGALPARA  
LDPHPSPLITLETQDGYFSHRPKEKVRTDSMNENSVPKDFENVDNSNFAPRTQKQKHQPE  
LAKKPPSRQKELLKRKLEQQEKKGHTFPKGKPGEVLPDRAAANSSHGKDVSRRPPHAR  
KTGGSSPETKYDQPPKCDISGKEAISALSRAKSKHCRQEIGETYCRHKLGLLMPEKVTRF  
CPLEGKANKNVQWDEDSVEYMPANPVRIAFVLVVHGRASRQLQRMFKAIYHKDHFYYIHV  
DKRSNYLHRQVLQVSRQYSNVRVTPWRMATIWGGASLLSTYLQSMRDLEMTDWPWDFFI  
NLSAADYPVRTNDQLVAFLSRYRDMNFKSHGRDNARFIRKQGLDRLFLCDAHMWRLGD  
RRIPEGIAVDGGSDWFLNRRFVEYVTFSTDDLVTMCMQFYSYTLLPAESFFHTVLENSP  
HCDTMDVNNLRITNWNRLGCKCQYKHIVDWCGCSPNDFKQDFHRFQQTARPTFFARKF  
EAVVNQEIIGQLDYLYGNYPAGTPGLRSYWENVYDEPDGIHSLSDVTLTLYHSFARLGL  
RRAETSHTDGENSCRYPPMGHPASVHLYFLADRFGGFLIKHHATNLAVSKLETLETWVM  
PKKVFKIASPPSDFGRLQFSEVGTDWDAKERLFRNFGGLLGPMDEPVMQKWKGPVNTV  
TVIWDVPVNVIAATYDILIESTAEFTHYKPLNPLRPGVWTVKILHHWVPVAETKFLVA  
PLTFSNRQPIKPEEALKLHNGPLRNAYMEQSFQSLNPNVLSLPINPAQVEQARRNAASTGT  
ALEGLWDSLVLGGMWTAMDICATGPTACPVMTCSQTAWSSFSPPDKSELGAVKPDGRLR

>P29417

MIPNITQLKTAALVMLFAGQALSGPVEESRQASESIDAKFKAHGKYLGNIAHQTLNNGNP  
KTPAIIKANFGQLSPENSMKWDATEPSQGQFSFAGSDYFVEFAETNGKLIRGHTLVWHSQ  
LPSWVSSITDKTTLTDVMKNHITVMKQYKGLYAWDVVNEIFEEDGTLRDSVFSRVLGE  
DFVRIAFETAREADPEAKLYINDYNLDSATSACLQGMVSHVKKWIAAGVPIDGIGSQTHL  
GAGAGAAASGALNALASAGTEEVAVTELDIAGATSTDYVDVNAACLDQPKCVGITVWVVA  
DPDSWRADESPLLFDA SYNPKAYNVSQLLSRQHAFDLYLKLGNL LLSRLHSD

>P21514

MNSCDFRVFLQEFGTTVHLSLPGSVSEKERLLKLLMQGMSVTEISQYRNRSAKTISHQK  
KQLFEKLGIQSDITFWRDIFFOYNPEIISATGSNSHRYINDNHYHHIVTPEAISLALNH  
EFKPWIQPVFCAQTGVLTCGEVLVRWEHPQTGIIPPDQFIPLAESSGLIVIMTRQLMKQT  
ADILMPVKHLLPDNFHIGINVSAGCFLAAGFEKECLNLVNKLGNDKIKLVLELTERNPIP  
VTPEARAI FDSLHQHNITFALDDFGTYATYRYLQAFPVDFIKIDKSFVQMASVDEISGH  
IVDNIVELARKPGLSIVAEGVETQEQADLMIGKGVHFLQGYLYSPPVPGNKFISEWVMKA  
GG

>P0AB24

MTINFRRNALQLSVAALFSSAFMANAADVPQVKVTVTDKQCEPMTITVNAGKTQFIIQNH  
SQKALEWEILKGMVVEERENIAPGFSQKMTANLQPGEYDMTCGLLTNPKGKLVKGEAT

AADAAQSDALLSLGGAITAYKAYVMAETTQLVTDTKAFTDAIKAGDIEKAKALYAPTRQHY  
ERIEPIAELFSDLDGSDIDAREDDYEQKAADPKFTGFHRLEKALFGDNTTKGMDQYAEQLY  
TDVVDLQKRISELAFFPSKVVGGAAGLIEEVAASKISGEEDRYSHDLDLWDFQANVEGSQK  
IVDLLRPQLQKANPELLAKVDANFKKVDITILAKYRTKDGFEYDKLTDADRNLKGPITA  
LAEDLAQLRGLGLD

>O34816

MLTYQVKQGDTLNSIAADFRI STAALLQANPSLQAGLTAGQSIVIPGLPDPYTIPYHIAV  
SIGAKTLTSLNNRVMKTYPIAVGKILTQTPTGEFYI INRQRNPGGPFQAYWLSLSKQHY  
GIHGTNNPASIGKAVSKGCIRMHNKDVIELASIVPNGTRVTINR

>O31851

MHRLLLMLTALGVAGCGQKKPPDPNVRVPEKKVVETSAFGHHVQLVNRREGKAVGFIEI  
KESDDEGLDIHISANSLRPGASLGFHIYEKGCVRPDFESAGGPFNPLNKEHGFNNPMGH  
HAGDLPNLEVGADGKVDVIMNAPDTSLLKKGSKLNILDEDGSAFI IHEQADDYLTNPSGNS  
GARIVCGALLGNNEKQ

>P15273

MNLSLSDLHRQVSRLVQQESGDCTGKLRGNVAANKETTFQGLTIASGARESEKVFQTVL  
SHVANIVLTQEDTAKLLQSTVKHNLNYYELRSVGNNGNSVLVSLRSDQMTLQDAKVLLEAA  
LRQESGARGHVSSHSHSVLHAPGTPVREGLRSHLDPRTPLPPRERPHTSGHHGAGEARA  
TAPSTVSPYGPPEARAEISSRLTTLRNTLAPATNDPRYLQACGGKLNRFRIQCCRQTAV  
RADLNANYIQVGNTRTIACQYPLQSQLESHFRMLAENRTPVLAVLASSSEIANQRFGMPD  
YFRQSGTYGSITVESKMTQQVGLGDGIMADMYTLTIREAGQKTI SVPVVHVGNWPDQTAV  
SSEVTKALASLVDQTAETKRNYESKGS SAVADDSKLRPVIHCRAGVGRTAQLIGAMCMN  
DSRNSQLSVEDMVSQMRVQRNGIMVQKDEQLDVLIKLAEGQGRPLLNS

>P46952

MERRLGVRRAWVKENRGSFQPPVCNKLHQEQKLVFMVGGPNTRKDYHIEEGEEVFYQLEG  
DMVLRVLEQGKHRDVIRQGEIFLLPARVPHSPQRQFANTVGLVVERRRLETELDGLRYV  
GDTMDVLFKWFYCKDLGTQLAPIIQEFFSSEQYRTGKPIPDQLLKEPPFPLSTRSIMEP  
MSLDAWLDSHHRELQAGTPLSLFGDTYETQVIAYGQSSSEGLRQNVVWLVWQLEGSSVVT  
MGGRRSLAPDDSLVLVLAGTSYAWERTQGSVALSVTQDPACKKPLG

>A8K2U0

MWAQLLLGMLALSPAIAEELPNYLVTLPARLNFPSVQKVCCLDLSPGYSDVKFTVTLETKD  
KTQKLLLEYSGLKRRHLHCISFLVPPPAGGTEEVATIRVSGVGNISFEKKKVLIQRQGN  
GTFVQTDKPLYTPGQQVYFRIVTMDSNFVVPVNDKYSMVELQDPNSNRIAQWLEVVEQGI  
VDLSFQLAPEAMLGTYTVAVAEGKTFGTFVVEEYVLPKFKVEVVEPKELSTVQESFLVKI  
CCRYTYGKPMLGAVQVSVQCANTYWYREVEREQLPDKCRNLSGQTDKTCGFSAPVDMAT  
FDLIGYAYSHQINIVATVVEEGTGVEANATQNIYISPMGSMTFEDTSNHYHPNFPFSGK  
IRVRGHDDSFLKNHLVFLVIYGTNGTFNQTLVTDNNGLAPFTLETSGWNGTDVSLGKFKQ  
MEDLVYNPEQVPRYQNAYLHLRPFYSTTRSFLGIHRLNGLPKCGQPQEVLDVYIDPAD  
ASPDQEI SFSYYLIGKGLVMEGQKHLNSKKKGLKASFSLSLTFTSRLAPDPSLVIYAI F  
PSGGVVADKI QFSVEMCFDNQVSLGFSPSQQLPGAEEVELQLQAAPGSLCALRAVDES VLL  
LRPDRELSNRSVYGMFPFWYGHYPYQVAEYDQCPVSGPWDFPQPLIDPMPQGHSSQRSII  
WRPSFSEGTDLFSFFRDVGLKILSNAKIKKPVDCSHRSPEYSTAMGAGGGHPEAFESSTP  
LHQAEDSQVRQYLPETWLWDLFP IGNISGKEAVHVTVPDAITEWKAMSFCTSSRGRFGLSP  
TVGLTAFKPFVVDLTL PYSVVRGESFRLTATIFNYLKDCIRVQTDLAKSHEYQLESWADS  
QTSSCLCADEAKTHHNITAVKLGHINFITISTKILDSNEPCGGQKGFVQKGRSDTLIKP

VLVKPEGVLVEKTHSSLLCPKGVASESVSLELVPDIVPDSTKAYVTVLGDIMGTALQNL  
DGLVQMPSCGGEQNMVLFAP I IYVLQYLEKAGLLTEE IRSRAVGFLE IGYQKELMYKHSN  
GSYSAFGERDGNNGNTWLTAFVTKCFGQAQKFIFIDPKNIQDALKWMAGNQLPSGCYANVG  
NLLHTAMKGGVDDEVSLTAYVTAALLEMGKDVDDPMVSQGLWCLKNSATSTTNLYTQALL  
AYIFSLAGEMDIRNILLKQLDQQA I I SGESIYWSQKPTPSSNASPWSEPAAVDVELTAYA  
LLAQLTKPSLTQKEIAKATSIVAWLAKQRNAYGGFSSTQDTVVALQALAKYATTAYVPSE  
EINLVVKSTENFQRTFNIQSVNRLVFQODTLPNVPGMYTLEASGQGCYVQTVLRYNILP  
PTNMKTFSLSVEIGKARCEQPTSPRSLTLTIHTSYVGSRSSSNMAIVEVKMLSGFSPMEG  
TNQLLLQOPLVKKVEFGTDLNIYLDELIKNTQTYTFTISQSVLVTNLKPATIKVYDYLL  
PDEQATIQYSDPCE

>P83408

DLVPLEDKVTILGMTAKLALSADDPGFHNFHQRTDQQTTSHSSVLEIMLPFQDESEAN  
KMKYVNFKFYFNLD FMTWGVTKVTYIGQPTGGLLMDNNEAVHFDQAWADTAHTWKLDDIQ  
KDMYSQQDTGVWIMKNQIT

>P07107

MSQAEFDKAAEEVKHLKTKPADEEMLF IYSHYKQATVGDINTERPGMLDFKKGKAKWDAWN  
ELKGTSKEDAMKAYIDKVEELKKKYGI

>P32316

MTISNLLKQVRVYAPYLKKVKEAHEL I PLFKNGQYLGWSGFTGVGTPKAVPEALIDHVEK  
NNLQGKLRFNLFV GASAGPEENRWA EHDMI IKRAPHQVVKPIAKA INQGR I EFFDKHLSM  
FPQDLTYGFYTRERKDNKILDYTIIEATAIKEDGSIVPGPSVGGSPFITVSDKVIIEVN  
TATPSFEGIHDI DMPVNPFRKPYPYLKVDDKCGVDSIPVDPEKVVAIVESTM RDQVPPN  
TPSDDMSRAIAGHLVEFFRNEVKHGRLPENLLPLQSGIGNIANAVIEGLAGA QFKHLTVW  
TEVLQDSFLDLFENGSLDYATATSVRLTEKGFDRAFANWENFKHRLCLRSQVVSNNPEMI  
RRLGVIAMNTPVEVDIYAHANSTNVNGSRMLNGLGGSADFLRNAKLSIMHAPSARPTKVD  
PTGISTIVPMASHVDQTEHDL DILVTDQGLADLRGLSPKERAREI INKCAHPDYQALLTD  
YLDRAEHYAKKHNLHEPHMLKNAFKFHTNLAEKGMTKVDSWEPVD

>P31224

MPNFFIDRPIFAWVIA I IIMLAGGLAILKLPVAQYPTIAPPAVTISASYPGADAKTVQDT  
VTQVIEQNMNGIDNLMYSSNSDSTGTVQITLTFESGTDADIAQVQVQNKQLQ LAMPLLPQ  
EVQQQGVSV EKSSSFLMVVGVINTDGTMTQEDI SDYVAANMKDAISRTSGVGDVQLFGS  
QYAMRIWMNPNELNKFQ LTPVDVITAIKAQNAQVAAGQLGGTPPVKGQQLNAS I IAQTRL  
TSTEEFGKILLKVNQDGSRVLLRDVAKIELGGENYDIIAEFNGQPASGLGIKLATGANAL  
DTAAAIRAELAKMEPFPSGLKIVYPYDTTPFVKISIEHVVKTLVEAI I LVFLVMYLF LQ  
NFRATLIPTI AVPVVLLGTFAVLAAF GFSINTLTMFGMVLAI GLLVDDAIVVVENVERVM  
AEEGLPPKEATR KSMGQIQGALVGIAMVLSAVFVPMAFFGGSTGAIYRQFSITIVSAMAL  
SVLVALIILTPALCATMLKPIAKGDHGEKKGFFGWFNRMFEKSTHHYTD SVGGILRSTGR  
YLVLVLI IIVVGMAYLFVRLPSSFLPDEDQGVFMTMVQLPAGATQERTQKVLNEVTHYLLT  
KEKNVESVFAVNGFGFAGRGQNTGIAFVSLKDWADRPGEENKVEAITMRATRAFSQIKD  
AMVFAFNLP AIVELGTATGFDFELIDQAGLGHEKLTQARNQLLAEAAKHPDMLT SVRPNG  
LEDTPQFKIDIDQEKAQALGVSINDINTLGA AWGGSYVNDF IDRGRVKKVYVMSEAKYR  
MLPDDIGDWYVRAADGQMVFFSAFSSSRWEYGSRLERYNGLPSMEILGQAAPGKSTGEA  
MELMEQLASKLPTGVGYDWTGMSYQERLSGNQAPSLYAI SLIVVFLCLAALYESWSIPFS  
VMLVVPLGVIGALLAATFRGLTNDVYFQVGLLTTIGLSAKNA I LIVEFAKDLMDKEGKGL  
IEATLDAVRMRLRPILMTSLAFILGVMP LVI STGAGSGAQNAVGTGVMGGMVTATVLAIF  
FVPVFFVVRRRFRSRKNEDIEHSHTVDHH

>Q9NR19

MGLPEERVRSGSGSRGQEEAGAGGRARSWSPPPEVSRSAHVPSLQRYRELHRRSVVEEPRE  
FWGDIAKEFYWKTPCPGPFLLRYNFDVTKGKIFIEWMKGATTNICYNVLDNRVHEKKLGDK  
VAFYWEGNEPGETTQITYHQQLLVQVCQFSNVLKQGIQKGDRAIYMPMIPELVVAMLAC  
ARIGALHSIVFAGFSSESLCERILDSSCSLLITTDAYRGEKLVNLKELADEALQKCQEK  
GFPVRCCIVVKHLGRAELGMDSTSQSPPIKRSCPDVQISWNQGIDLWWHELMQEAGDEC  
EPEWCDAEDPLFILYTSGSTGKPKGVVHTVGGYMLYVATTFKYVDFHAEDVFWCTADIG  
WITGHSYVTYGPLANGATSVLFEGIPTYPDVNRLWSIVDKYKVTKFYTAPTAIRLLMKFG  
DEPVTKHSRASLQVLGTVGEPINPEAWLWYHRVVGAQRCPIVDTFWQTETGGHMLTPLPG  
ATPMKPGSATFPFFGVAPAILNESGEELEGEAEGYLVFKQPWPGIMRTVYGNHERFETTY  
FKKFPGYVVTGDGCQRDQDGYWITGRIDDMLNVSGHLLSTAEEVESALVEHEAVAEAAV  
GHPHPVKGECLYCFVTLCDGHTFSPKLTTELKQIREKIGPIATPDYIQNAPGLPKTRSG  
KIMRRVLRKIAQNDHDLGDMSTVADPSVISHLFSHRCLTIQ

>P18281

MNPELQSAIGQGAALKHAETVDKSAPQIENVTVKKVDRSSFLEEVAKPHELKHAETVDKS  
GPAIPEDVHVKKVDRGAFLSEIEKAAKQ

>Q76CA2

MKRNILALVVVVALISQSRPAESAGGTIIATLSKIPLSTLASALNTALETGASVASAAAA  
ATSSDYSVTCVIEVENWTKHLMKYPVVQIANSGLLTVAKNVLPAEIQSFAMRKAWGANG  
VYGTVSWVLGQTNRRVVIMWSAPYNFDFYSNWLAVGMSRPGGLAVPSSRSTWFDLMYYGNS  
NADISFCTRILPTVSTQSI SRTLSGKSEGSMNNIHKARVRATVKPIKTMDLASSILTKL  
EALAGANGKRAIQQELARRAEEKQRKRKALDEMLK

>P37167

MSGIAVSDDCVQKFNELKLGHQHRYVTFKMNASNTEVVVEHVGGPNATYEDFKSQLPERD  
CRYAIFDYEFQVDGGQRNKITFILWAPDSAPIKSKMMYTSTKDSIKKKLVGIQVEVQATD  
AAEISEDAVSERAKKDVK

>P84142

MAIVRAHLKIYGRVQGVGFRWSMQREARKLGVNGWVRNLPDGSVEAVLEGDEERVEALIG  
WAHQGPPLARVTRVEVKWEQPKGEKGFRIVG

>Q9NRN7

MVFPKRFCLVPSMEGVRWAFSCGTWLP SRAEWLLAVRSIQPEEKERIGQFVFARDAKAA  
MAGRLMIRKLVAEKLNIPWNHIRLQRTAKGKPVLAKDSSNPYPNPNFNISHQGDYAVLAA  
EPELVQVIDIMKTSFPGRSIPEFFHIMKRKFTNKEWETIRSFKDEWTQLDMFYRNWALK  
ESFIKAIGVGLGFELQRLEFDLSPLNLDIGQVYKETRLFLDGEEEKEWAFEEKIDEHHF  
VAVALRKP DGSRHQDVPSQDDSKPTQRQFTILNFNDLMSSAVPMTPEDP SFWDCFCFTEE  
IPIRNGTKS

>P0A1A3

MQAATVVINRRALRHNLQRLRELAPASKLVAVVKANAYGHGLETARTLPDADAFGVARL  
EEALRLRAGGITQPILLLEGFFDAADLPTISAQCLHTAVHNQEQLAALAEVLAEPVTWV  
MKLDTGMHRLGVRPEEAFAFYQRLTHCKNVRQPVNI VSHFARADEPECGATEHQLDIFNA  
FCQKPGQRSIAASGGILLWPQSHFDWARPGIILYGVSPLEHKPWGPDFGFQPVMSLTSS  
LIAVRDHKAGEPVGYGGTWWSERDTRLGVVAMGYGDYPRAPSGTPVLVNGREVPVGR  
VAMDMICVDLGPNAQDNAGDPVVLWGEGLPVERIAEMTKVSAYELITRLTSRVAMKYID

>P06191

MTRPIQASLDLQVMKQNLAIIVRRAAPEARVWSVVKANAYGHGIERVWSALGATDGFAMLN  
LEEAITLRERGWKGPILMLEGFFHAQDLEAYDTYRLTTCIHSNWQLKALQNARLNAPLDI  
YVKVNSGMNRLGFPQPERAQTWVQQLRAMRNVGEMTLMASHFAQADHPEGIGIEMRRIALAT  
EGLQCAYSLSNSAATLWHPQAHYDWRPGIILYGASPSGQWRDIADTGLKPVMTLSSSEII  
GVQTL SAGERVGYGGGYSVTQEQRIGIVAAGYADGYPRHAPTGTPVLVDGIRTRTVGTVS  
MDMLAVDLTPCPQAGIGTPVELWGKEIKVDDVASAAGTLGYELLCAVAPRVFPVTT

>P70473

MALRGVRVLELAGLAPGPFCEMILADFGAEVVLVDRLGSVNHPSHLARGKRSLALDLKRS  
PGA AVLRRMCARADVLLLEPFRCGVMEKQLQGPETLRQDNPKLIYARLSGFGQSGIFSKVA  
GHDINYVALSGVLSKIGRSGENYPPLNLLADFGGGGLMCTLGILLALFERTRSGLGQVI  
DANMVEGTAYLSTFLWKTQAMGLWAQPRGQNLDDGGAPFYTTYKTADGEFMAVGAIEPQF  
YTL LLLKGLGLESEELPSQMSIEDWPEMKKKFAADV FARKTKAEWCQIFDGTDACVTPVLT  
EEALHHQHNRERGSFITDEEQHACPRPAPQLSRTPAVPSAKRDPVGEHTVEVLKDYGFS  
QEEIHQLHSDRIIESNKLLKANL

>P95896

MGIKLPTLEDLREISKQFNLDLEDEELKSFLQLLKLQLESYERLDSLDPDYTPRVKYQRTL  
GRPPMKEENPYGALVWITSIKGKEEGKLGKGRICIKDNVMIAGIPMLNGSKMLEGFVPHM  
DATVVSRI LDEAGEIVAKTTCEDL CFSGGSHTSYPWPVLNPRNPEYMAGGSSSGSAVAVA  
SGYCDMAVGGDQGG SIRIPSSWVG IYGLKPTHGLVPYTGAFSIEPTLDHLGPMANTVKDV  
ALLLEVIAGRDELDSRQPD SLPPPPVKPYSKLIDGDVKDMKVGIVKEGFNWSNSEKDVDE  
LVLD SAKKLEDYGIKVEDT SIPLHRMGLDIWTP IAIEGATATMILGSGVGVGRKGLFETQ  
IADFFGNSLKSRRARDLPNTVKGVLMGLYLMIKMYNNRYYAKARNLSIVLKEAYDSALRKY  
DALIMPTTPMKAMRYKSEPGFDEYFIMALGMINNTAPFDVTGHPAMNIPVGYSNGLPVGL  
MIIGRHFEEDKVLKLANVFERIKK

>P0AE18

MAISIKTPEDIEKMRVAGRLAAEVLEMIEPYVKPGVSTGELDRICNDYIVNEQHAVSACL  
GYHGYPKSVCSISINEVVCHGIPDDAKLLKDGDIVNIDVTVIKDFHGDTSKMFIVGKPTI  
MGERLCRITQESLYLALRMVKPGINLREIGAAIQKFVEAEGFSVVREYCGHGIGRGFHEE  
PQVLHYDSRETNVVLKPGMTFTIEPMVNAGKKEIRTMKDGWTVKTKDRSLSAQYEHTIVV  
TDNGCEILT LRKDDTIPAIISHDE

>P22108

MIEENLKQKIHDKFVAAKKNHGLKVTHAESKLLKDPQTTTQYWVTFAPSLALKPDANKNS  
DSKAEDPFANPDEELVVTEDLNGDGEYKLLLNKFPVPEHSLLVTSFVKDQRSALTPSDL  
MTAYNVLC SLQGDKDDVT CERYLVFYNCGPHSGSSQDHLHLQIMQMPEKFI PFQDVLN  
GKDHFLPTFNAEPLQDDKVSFAHFVLP LPESSDQVDEDLLAMCYVSLMQRALTFQDWTN  
ESPELTKSYNVL LTKKWICVVP RSHAKSGPPLMLNINSTGYCGMILVKDREKLENLTEDP  
HLVDKSL LQCGFPNTAGQKPTEYHY

>073942

MDGYALFYLVGALRDGSVYRYSRNYVVIWYSSNKDYLERVIVSKLRILGFHNVRVYQYKR  
GAYRVRISSKQLFHILVNQFEHPLSTSSRKTWPPTPQRVKDGPLALQIEYVKGFVDAEGS  
VIKSSKGVQVDVSQQIMEPLKFLAQVLEKVGKVTGIYLGSDGVWRLRIASLASLRRFAH  
YIGFRHPCKSKKLNELLGRPLPGPSKLGKIGGGAPQGVPEAA

>P79886

MVQYRELVIALLILLSTTVPEVHSRSLSDRGRRDWMVYPDALASYIYEAVNTVSPRAAQF  
LLDVSQTTVVSGARNLLIRETTKITILVEQMVEKIRSIWNGKLG

>Q42460

MASSKLLSLALFLVLLTHANSATETSFNFPNFHTDDKLILQGNATISSKGQLQLTGVGSN  
ELPRVDSLGRAFYSDPIQIKDSNNVASFNTNFTFIIRAKNQSISAYGLAFALVPVNSPPQ  
KKQEFGLGIFNTNNPEPNARTVAVVFNTFKNRIDFDKNFKPYVNENCDFHKYNGEKTQVQ  
ITYDSSNNDLRVFLHFTVSQVKCSVSATVHLEKEVDEWVSVGFSATSGLTEDTETETHDVL  
SWSFSSKFRNKLSNILLNNIL

>P27254

MINEATLAESIRRLRQGERATLAQAMTLVESRHRHQALSTQLLDAIMPYCGNTLRLGVT  
GTPGAGKSTFLEAFGMLLIREGLKVAVIAVDPSSPVTGGSILGDKTRMNDLARAEEAFIR  
PVPSSGHLGGASQRAREMLLCEAAGYDVVIVETVGVGQSETEVARMVDCFISLQIAGGG  
DDLQGIKKGLMEVADLIVINKDDGDNHTNVAIARHMYESALHILRRKYDEWQPRVLTCSA  
LEKRGIDEIWHAIIDFKTALTASGRLQQVRQQQSVEWLRKQTEEEVLNHLFANEDFDRYY  
RQTL LAVKNNTLSPRTGLRQLSEFIQTQYFD

>P15770

METYAVFGNPIAHSKSPFIHQQFAQQLNIEHPYGRVLAPINDFINTLNAFFSAGGKGANV  
TVPFKEEAFARADELTERAALAGAVNTLMRLEDGRLLGDNTDGVGLLSDLERLSFIRPGL  
RILLIGAGGASRGVLLPLLSLDCAVTITNRTVSRAEELAKLFAHTGSIQALSMDELEGHE  
FDLIINATSSGISGDIPAIPSSLIHPGIYCYDMFYQKGTTPFLAWCEQRGSKRNADGLGM  
LVAQAHAFLLLWHGVLPDVEPVIKQLQEELSA

>P15848

MGPRGAASLPRGPGPRLLLLPVVLPLLLLLLLAPP GSGAGASRPPHLVFL LADDLGWNDV  
GFHGSRI RTPHLDALAAGGVLLDNYYTQPLCTPSRSQLLTGRYQIR TGLQHQI IWPCQS  
CVPLDEKLLPQLLKEAGYTTMVGKWHLGMYRKECLPTRRGFDTYFGYLLGSEDYYSHER  
CTLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRAIALITNHPPEKPLFLYLALQS  
VHEPLQVPEEYLPYDFIQDKNRHHYAGMVSLMDEAVGNVTAALKSSGLWNNTVFIFSTD  
NGGQTLAGGNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISDWLPTLVKL  
ARGHTNGTKPLDGFVWKTISEGSPSPRIELLNIDPNFVDS SPCPRNSMAPAKDDSSLP  
EYSAFNTSVHAAIRHGWNKLLTGYPGCGYWFPPPSQYNVSEIPSSDPPTKTLWLFDIDRD  
PEERHDL SREYPHIVTKLLSRLQFYHKHSVPVYFPAQDPRCDPKATGVWGPWM

>P0A006

MDKKTIIYFICTGNSCRSQMAEGWGKEILGEGWNVYSAGIETHGVNPKAIEAMKEVDIDIS  
NHTSDLIDNDILKQSDLVVTLCSADANNCPILPPNVKKEHWGFDDPAGKEWSEFQVRDE  
IKLAIEKFKLR

>P07584

MQCAVLLVLLGVVAASPIIPEAARALYYNDGMFEGDIKLRAGRQPARVGAAILGDEYLWS  
GGVIPYTFAGVSGADQSAILS SGMQELEEKTCIRFVPRTTESDYVEIFTSGSGCWSYVGRI  
SGAQQVSLQANGCVYHGTIIHELMHAIGFYHEHTRMDRDNYVTINYQNVDP SMTSNFDID  
TYSRYVGEDYQYYSIMHYGKYSFSIQWGVLETIVPLQNGIDLTPYDKAHMLQTDANQIN  
NLYTNECSLRH

>P80356



MKTFLIFALLAMAATMATAQFDPSEQYQPYPEQQQPILQQQQMLLQQQQMLLQQQPLLQ  
VLQQQLNPCRQFLVQQCSPVAVVPFLRSQILQQSSCQVMRQQCCRQLEQIPEQLRCPAIH  
SVVQAIIMQQQQFFQPQMQQQFFQPQMQQVTQGIFQPQMQQVTQGIFQPQLQQVTQGIFQ  
PQMQQQIEGMRAFALQALPAMCDVYVPPHCPVATAPLGGF

>Q63764

MKGFIDDANYSVGLLDEGTNLGNVIDNYVYEHTLTGKNAFFVGD LGKIVKKHSQWQNVVA  
QIKPFYMKCNSTPAVLEILAALGTGFACSTKNEMALVQELGVSPENI IYTSPCKQASQI  
KYAAKVGVMIMTCDNEVELKKIARNHPNAKVL LHIATEDNIGGEDGNMKFGTTLKNCRHL  
LECAKELDVQIIGVKFHISSACKEYQVYVHALSDARCVFDMAGEFGFTMNMLDIGGGFTG  
TEIQLEEVNHVISPLLDIYFPEGSGIQI ISEPGSYVSSAFTLAVNI IAKKVVENDKLSS  
GVEKNGSDEPAFVYVMNDGVYGSFASKLSEDLNTVPEVHKYKEDEPLFTSSLWGPSCDE  
LDQIVESCLLPELSVGDWLIIFDNMGADSLHGSAFSDTQRPAIYFMMSLSDWYEMQDAGI  
TSDAMMKNFFFAPSCIQLSQEDNFSTEA

>Q8KU07

MILVVGGTGTIGSEVVRLLEAKLPFKALVRDAAKARELNARGVQTAAGDLREPR TLPAA  
LGGVDKVFVVTPLVPDQVQMRAALITAAKTAGVKHFVMSTGIGAAPDSPVQIGRWLGENQ  
QQVQESGMAWTFVQPGFFMQNLLMYAQAI REKGEFYMPLGEGKVS WIDARDIAAVAVQAL  
TKPGHENQAYPVTGPQALS GAEEVAAAALSAAAGRPVRYVAITLEQAKQAMTGMMPESLAD  
AMNELYALAPPDYLAGVLDTVPKVTGRPARTFAEF AKAHAAAFGAA

>Q9FAW5

MKLVVINGTTPRKFGTRV VAKYIADQFEGELYDLAIEELPLYNGEESQRDLEAVKKL KTL  
VKAADGVVLTCTPEYHNAMSGALKNSLDYLSSEF IHKPVALLAVAGGGKGINALNSMHA  
SLAGVYANAIPKQVVLDGLHVQD GELGEDAKPLIHDVVKELKAYMSVYKEVKKQLGVE

>P83052

SVVVDTNGQPVSNGADAYYLVPVSHGHAGLALAKIGNEAEPRAVVLDPHHRPGLPVR FES  
PLRINIKESYFLNIKFGPSSSDSGVWDVIQQDP IGLAVKVTDTKSLLGPFKVEKEGEGY  
KIVYYPERGQTGLDIGLVHRNDKYLLAVKDGEP CVFKIRKATDE

>Q00972

MILTSVLGSGPRSGSSLWPLLGSSLSLRV RSTSATDTHHVELARERSKTVTSFY NQSAID  
VVAEKPSVRLTPTMMLYSGRSQDGSLLKSGRYLQQELPVR IAHRIKGFRLPF IIGCNP  
TILHVHEL YIRAFQKLTDFPP IKDQADEAQYQQLV RQLDDHKDVVTL LAEGLRESRKH I  
EDEKLVRYFLDKTLT SRLGIRMLATHHLALHEDKPDFVGI ICTRLSPKK IIEKWVDFARR  
LCEHKYGNAPRVR INGHVAARFPFIPMPLDY ILPELLKNAMRATMESHLDTPYNVPDVVI  
TIANNDVDLIIRISDRGGGIAHKDLDRVMDYHFTTAEASTQDPRISPLFGH LDMHSGGQS  
GPMHGFGFGLPTSRAYA EYLGGSLLQLQSLQGI GTDVYLRRLRHIDGREESFRI

>P0C1Y0

MSNKL VKEKRVDQADLAWLTDPEVYEVNTIPPHSDHESFQSQEEL EEGKSSLVQSLDGDW  
LIDYAENGQGPVNFYAEDFDDSNFKSVKVPGNLELQGFQGPQYVNVQYPWDGSEEIFPPQ  
IPSKNPLASVRYFDLDEAFWDKEVSLKFDGAATAIYVWLN GHFVGYGEDSF TPFSEFMVT  
KFLKKENRLAVALYKYSSASWLEDQDFWRMSGLFRSVTLQAKPR LHLEDLKL TASTLDN  
YQKGKLEVEANIAYR LPNASF KLEVRDSEGDLVAEKLGP IRSEQLEFTLADLPVAAWSAE  
KPNLYQVRLYLYQAGSLLEVSRQEVGFRNFELKD GIMYLNQQRIVFKGANRHEFD SKLGR  
AITEEDMIWDIKTMKRSNINAVRCSHYPNQSLFYRLCDKYGLYVIDEANLESHGTWEKVG  
GHEDPSFNVPDGDQHWLGASLSRVKNMMARDKNHAS ILIWSLGNESYAGTVFAQMADYVR

KADPTRVQHYEGVTHNRKFDATQIESRMYAPAKVIEEYLTKNPAKPFISVEYAHAMGNS  
VGDLAAYTALEKYPHYQGGFIWDWIDQGLEKDGHLLYGGDFDDRPTDYEFNGLVFADR  
TESPKLANVKALYANLKLEVKDQQLFLKNDNLFTNSSSYFLTSLLVDGKLTYSRPLTF  
GLEPGESGTFALPWPEVADEKGEVVYRVTAHLKEDLPWADEGFTVAEAEVEVAQKLPEFKP  
EGRPDLVSDYNLGLKGNFQILFSKVKGWVSLKYAGREYLKRLPEFTFWRALTDNDRG  
AGYGYDLARWENAGKYARLKDISEVKEEDSVLVKTAFTLPVALKGDLTVTYEVDGRGKIA  
VTADFPGAEEAGLLPAFGLNLALPKELTDYRYYGLGPNESYPDRLEGNYLGIYQGAVKKN  
FSPYRPQETGNRSKVRWYQLFDEKGGLEFTANGADLNLSALPYSAAQIEAADHAFELTNN  
YTWVRALSAQMGVGGDDSWGQKVHPEFCLDAQKARQLRLVIQPLLLK

>P81182

MSFDLTTTDFVIKTVSLSARYSWTTSQKGATLNITYNDKNFVLSSSLQLSTRASNITFQA  
TTPFEGFQNSFIEIKYDIDNREELLASRVSVDDHSYSFVGGYIEDKLAVFKWNLNSPLT  
GWTDAKFVAKIDLSSSENKNLEISLEKEGDLKAIIVSGKFIGSTLDFNLRTPFRLNMFNV  
FGSLNRSKRSLEMMNDAGQASLAGNFNSLRFNMKTPFERAEQISWEVTKTGEGSYKAE  
WRRNDNYATFTIEKDVSKQSFDLNIKSEFRGWEILALTGRLDQETKQAYLSGAINEQKIT  
VTGSGSITNKIKFSMTIETPYENYRQVKAQLNYAKRKNAIKLEASSSSDFHLLWSRSGS  
GLEAHLIVPNSRQNTESISNLTPQTQKITITISRFEPIRDYLYQYHVNLGQNEITADHIK  
LNGHEVFKMDFERNAPEQKVHLEIHTHVAERHTTIFHREGFSKLNFLFKREVPQYGEKH  
FKVDITGSGALPQKALDIVVENTFREPACTINARVEVDRTGARKKIMLEVSPRQSRVYI  
FNLEYIADLESPQHGDFTLKITTPNNSPWQNISGNWNVEDPNDAITFTVGNVTYNAK GK  
LTLRESTMILSSTDP SAENIYLQWKFERNGDTKDYFLKLGKRSRYGMLKLTGTITDIAHV  
DIEGGFKAGPFMPNEFLFTSMWGKSNVVTGEGTFDYGNHGHSHRLVKFERNAERKSASF  
EWSATSNIPOYNSVSVSGNYDFNHKVVI FVVINADGRESKIDINIADINPTSSRNTAMIS  
IPLLGPFTKRELTIVSHDFSHPNRKSISAVAKFGRSESF INAKWNRSDGFDLEGNIEAK  
SRFLGDFLINVRDMSNIADAHAEVDYLRTTTDGDKKEFKLNWTRKSTDDHLENEMVFDS  
NFETLSHARAYANADYGGIFKLLSGLDWDKISLTLLEVRKNKISGILTTPEGFETLEI  
DLQYKLTGKDKSVKATYQRGDRKASFNMEMSTKGGKGSFKVDLTTPEFVKNLHIDGQY  
ENKVAQINYQRNDIQMNFNGKANIKSSKASFDISFTPPSGQNIRIAASYDVQDFIDGTGD  
EEKELASLSLEFEGNSMDFSLHGFRNDRLYVMIHGTSSFAVLKMFHLKLDSELNTEARD  
GTFELTFNDFKFNVS NHFERRANNGYFRSKIESTLTPLPALII GLGREGQERIIITIGY  
EDKEITFSVKGNFLSGFSKVDIPSIGYEGVEYDVEDYSFPGDNHLQIKVEIDLNENGQ  
EVEATFFLDSEGIKARLSSAVLGDHSLRVRRSVAPDGFYAEAGLDDYNLKLRRGGFKNEDT  
ARGVQLEGEVFGKRFLIDTLFQSEKRYSEGKLIHTPFHGMKMGGLFTWSNQNKIMA  
HAELHLPSYTTPTITIGEISLIDLKKNINGYVTLDVAGEEFTLKCENLAGSSISQGYTGSLEF  
YTTIPCCITCCGDR

>O33843

MKKFPEGFLWGVATASYQIEGSPLADGAGMSIWHTFSTPGNVKNGDTGDVACDHYNRWK  
EDIEIIEKIGAKAYRFSISWPRILPEGTGKVNQGLDFYNRIDTLLEKNITPFITITYHW  
DLPFSLQLKGGWANRDIADWFAEYSRVLFFENFGDRVKHWITLNEPWVVAIVGHLYGVHAP  
GMKDIYVAFHTVHNLLRAHAKSVKVFRETVDKDGKIGIVFNNGYFEPASEREEDIRAARFM  
HQFNYPFLFLNPIYRGEYPLDLVLEFAREYLPRNYEDDMEEIKQEIFVGLNYSGHMVKY  
DPNSPARVSFVERNLPKTAMGWEIVPEGIYWILKGVKEEYNPQEVYITENGAAFDDVSE  
GGKVHDQNRIDYLRHIEQVWRAIQDGVPLKGYFVWSSLDNFEWAEGYSKRFGIVYVDYN  
TQKRIIKDSGYWYSNGIKNGLTD

>P22806

MNDRFRRELQVIEEQGLTRKLRFLSTGNESEVVMNGKFLFLFSSNNYLGLATDSRLKKA  
TEGISKYGTGAGSRLTTGNFDIHEQLESEIADFKKTEAAIVFSSGYLANVGVISSVMKA

GDTIFSDAWNHASIIDGCRLSKAKTIVYEHADMVDLERKLRQSHGDGLKFIVTDGVFVSM  
GDIAPLPKIVELAKEKEYKAYIMIDDAHATGVLGNDGCGTADYFGLKDEIDF'TVGTLSKAIG  
AEGGFVSTSSIAKNYLLNARSFIFQTALSPSAIEAAREGISIIQNEPERRKQLLKNQY  
LRLKLEESGFVMKEGETPIISLIIGGSHEAMQFSAKLLDEGVFIPAIRPPTVPGSSRLR  
ITVMATHTIEQLDMVISKIKKIGKEMGIV

>O08498

MLKKIKISLILALGLTSLQAFGQENPDVKIEKLDKNLYVYTTYNTFNGTKYAANAVYLV  
DKGVVVIDCPWGEDKFKSFTDEIYKKGKVKVIMNIATHSHDDRAGGLEFYFGKIGAKTYST  
KMTDSILAKENKPRAQYTFDNNKSFYVGVKSEFQVYYPGKGTADNVVWFPEKVLVGGC  
I IKSADSKDLGYIGEAYVNDWTQSVHNIQQKFSGAQYVAVGHDDWKDQRSIQHTLDLINE  
YQQKQKASN

>P30043

MAVKKIAIFGATGQTGLTTLAQAVQAGYEVTVLVRDSSRLPSEGPRPAHVVGDLQAAD  
VDKTVAGQDAVIVLLGTRNDLSPPTVMSEGARNIVAAMKAHGVDKVVACTSAFLLWDPTK  
VPPRLQAVTDDHIRMHKVLRESGLKYVAVMPPHIGDQPLTGAYTVTLDGRGPRVISKHD  
LGHFMLRCLTTDEYDGHSTYPSHQYQ

>P20293

MSSPGTESAGKSLQYRVDHLLSAVESELQAGSEKGDPTERELRVGLEESELWLRFKELTN  
EMIVTKNGRRMFPVLKVNVSGLDPNAMYSFLLDFVTADNHRWKYVNGEWWPGGKPEPQAP  
SCVYIHPDSPNFGAHWMKAPVSFSKVKLTNKLNGGGQIMLNSLHKYEPRIHIVRVGGPQR  
MITSHCFPETQFIAVTAYQNEEITALKIKYNPFAKAFLLDAKERNDHKDVMEEPDCQQPG  
YSQWGLVPGAGTLCPASSHPQFGGSLSLPSTHGCERYPALRNHRSSPYPSPYHRNSS  
PTYADNSSACLQSHDNWSSLGVPGHSTMLPVSHNASPPTGSSQYPSLWSVSNGTITP  
GSQTAGVSNGLGAQFFRGSAPAHYTPLTHTVSAATSSSSGSPMYEGAATVTDISDSQYDTA  
QSLLIASWTPVSPPSM

>P56552

QDKCKKVYENYPVSKCQLANQCNYDCKLDKHARSGECFYDEKRNLCICDYCEY

>Q07469

MPQQSMQASLIDPIAEIERSNCKIAHLRLGLVFTSDNNERALQDSGLYSPDSEDSSVDIA  
GRRFHSGTLNGSSIVYVKTGSPSVNMATTLQILLVRFNIHGVIIYFGNAGSLDKKTMVPGD  
VSVPPQAVAFVTVVWVWKKFGSEKGLVFGDFNYPENGENLLGTVEYEKIKMFPSEAPKEV  
FWLPITKSWYNAATEALKDMKLRKCYSDCLPGKPKVVFVFGSKSSTSDFYVRNKAYGDFLN  
DNFDAKTADTASASVALTSLSNEKLFVVFQGVSNVAGETSSNSRVSYLASYNFLAATKF  
INSIPTRLACE

>Q91J26

MENHVSLKVVSPALYYAIQDLRAHTNPNFLKNQKMKPLSPGHYIIQPSANSKVRSLITKQQ  
HPRKVTLPNCNCHFTIHHECNRGFSHRGTYYSPPSGNKFRGIRECTESTVYETPMVREIRAN  
LSTEDTNPILQPPESVLESSQVLDRANDNRIEQDIDWT'PFLEGLEKETRDILG

>P25938

AGDAAAGKTLYDASCASCHGMQAQGGMFPKLAGLTSERIKTTLVAFKSGDTATLKKKEGL  
GGPMSAIMAPNAAGLSEQDMDNLSAYIATLK

>Q45234

MKRTMIVVTTLLLGAGAVMAQQEVAVQQDNLMRSQARSLYTVILKMTKGDIPYDQKAADE  
AIANLETDVAKIAKTFEVNPKQDVVNATY GASP K V W K N K A D F D S K I P P V Q K A I A Q V K G K I  
TDVASLKAAYTAINDRCTDCHETYRLK L K

>P00139

AGEVEKREGMMKQIGGAMGLAAISKGEKPFADTVKAAVTTIGTNAKAFPEQFPAGTET  
GSAAAPAIWENFEDFKAKAAKLGT DADIVLANLPGDQAGVATAMKTLGADCGTCHQTYRL  
K K

>P0ABE5

MENKYSRLQISIHVLVFLLVIAAYCAMEFRGFFPRSDRPLINMIHVSCGISILVLMVVR  
LLRLKYTPPIIPKPKPMMTGLAHLGHLVLYLLFIALPVI GLVMMYNRGNPWF AFGLTMP  
YASEANFERVDSLKSWHETLANLGYFVIGLHAAAAALAHHYFWKDNTLLRMMPRKRS

>P05805

FSQPF SRPSSRVVNGEDAVPYSWSWQVSLQYEKDGAFHHTCGGSLIAPDWVVTAGHCIST  
SRTYQVVLGEYDRSVLEGSEQVIPINAGDLFVHPLWNSNCVACGNDIALVKLSRSAQLGD  
KVQLANLPPAGDILPNEAPCYISGWGRLYTGGPLPKLQQLLPVVDYEHCSQDWWGIT  
VKKTMVCAGGDRSGCNGDSGGPLNCPAADGSWQVHGVTSFVSAFGCNTIKKPTVFTRVS  
AFIDWIDETIASN

>P43155

MLAFAARTVVKPLGFLKPFSLMKASSRFKAHQDALPRLPVPPLQQSLDHYLKALQPIVSE  
EEWAHTKQLVDEFQASGGVGERLQKGLERRARKTENWLSEWWLKTAYLQYRQPVIYSSP  
GVMLPKQDFVDLQGLRFAAKLIEGVLDKVMIDNETLPVEYLGKPLCMNQYYQILSSC  
RVPGPKQD TVSNFSKTKKPPTHITVWHNYQFFELDVYHSDGTPLTADQIFVQLEKIWNSS  
LQTNKEPVGILTSNHRNSWAKAYNTLIKDKVNRDSVRSIQKSI FTVCLDATMPRVSE  
RSHVAGQMLHGGGSR LNSGNRWF DKT LQFIVAEDGSCGLVYEHAAAEGFP IVTLLDYVIE  
YTKKPELV RSPMVP L PMPKLR FNITPEIKSDIEKAKQNL SIMIQDLDITVMVFHFGK  
FPKSEKLS PDAFIQMALQLAYYRIYQACATYESASLRMFHLGR TDTIR SASMDSLTFVK  
AMDDSSVTEHQVELLRKAVQAHRGYTDRAIRGEAFDRHLLGLKLQAI EDLV SMPDIFMD  
TSYAIAMHFHLSTS QVPAKTDCVMFFGPVVPDGYGVCYNPMEAHINFSL SAYNSCAETNA  
ARLAHYLEKALLDMRALLQSHPRAKL

>O24144

MATNGRHQEVGHKSL LQSDALYQYILETSVYPREPEPMKELREITAKHPWNLMTTSAD  
EG QFLSMLIKLINAKNTMEIGVFTGYSLLATAMALPDDGKILAMDINRENYEIGLPVIEKAG  
LAHKIEFKEGPALPVLQMI EDGKYHGSYDFIFVDADKDNLYNHYKRLIDLVKIGGLIGY  
DNTLWNGSVVAPPDAPLRKYVRYRDFVLELNKALAADSRIEICQLPVG DGITLCRRIS

>Q8WVQ1

MPVQLSEHPEWNE SMHSLRISVGGLPVLASMTKAADPRFRPRWKVILTFFVGAAI L WLLC  
SHRPAPGRPPTHNAHNWRLGQAPANWYNDTYPLSPPQRT PAGIRYRIAVIADLDTESRAQ  
EENTWFSYLKKGYLTLSDSGDKVAVEWDKDHGVLESHLAEKGRGMELSDLIVFNGKLYSV  
DDRTGVVYQIEGSKAVPWVILSDGDGTVEKGFKAEWLAVKDERLYVGG LGKEWTTTGDV  
VNENPEWVKVVGKGSVDHENWVSNYNALRAAAGIQPPGYLIHESACWSDTLQRWFFLPR  
RASQERYSEKDDERKGANLLLSASPDFGDI AVSHVGAVVPTHGFS SFKFI PNTDDQIIVA  
LKSEEDSGRVASY IMAFTLDGRFLLPETKIGSVKYEGIEFI

>Q9DEX3

MKFLYLFLFAVFAWTSDAIVRIPLKKFRSIRRTLSDSGLNVEQLLAGTNSLQHNQGFPS  
NAPTPELTKNYMDAQYYGEIGLGTVPVQMFVTVVFDTGSSNLWLPSIHCSFTDIACLLHHKY  
NGAKSSTYVKNNGTEFAIQYGSGLSGYLSQDSCTIGDIVVEKQLFGEAIKQPGVAFIAAK  
FDGILGMAYPRISVDGVPPVFDMMMSQKKVEQNVFSFYLNRPDTEPGGELLLGGTDPKY  
YTGDFNYVPVTRQAYWQIHMDGMSIGSQLTLCKDGCEAIVDTGTSLITGPPAEVRALQKA  
IGAIPLIQGEYMIDCKKVPTLPTISFNVGGKTYSLTGEQYVLKESQGGKTICLSGLMGL  
IPPPAGPLWILGDVFIGQYYTVFDRESNRVGFAKST

>Q28960

MSSNTRVALVTGANKGIGFAIVRDLCRQFAGDVVLTARDVARGQAAVKQLQAEGLSPRFH  
QLDIIDLQSIKALCDFLRKEYGGLDVLVNNAAIAFQLDNPTPFHIQAEELTMKTNFMGTRN  
VCTELLPLIKPQGRVVNVSSTEGVRALNECSPELQQKFKSETITEEELVGLMKNKFVEDTK  
NGVHRKEGWSSTYGVTKIGVSVLSRIYARKLREQRAGDKILLNACCPGWVRTDMGGPKA  
PKSPEVGAETPVYLALLPSDAEGPHGQFVTDKVVVEWGVPPESYPWVNA

>P80364

DTAPLEKSHCLSQGLSGLLSLGLKFRDSSWTLKKEELSRGVSQFGLDFSDADVNLKLFSD  
FEKKAAVEAAFKHLDKTGDGVVTVVEDIKGVYSAKVVKGEATEEEILKKFLNMFESSTSV  
GKVTKEFLDYYSGLSK

>P31043

MLGILVVLCLIPAADVTENKILVAQRPLLIVANRTATLVCNYTYNGTGKEFRASLHKGTD  
SAVEVCFISWNMTKINSNSNKEFNCRGIHDKDKVIFNLWNMSASQTDIYFCKIEAMYPPP  
YVYNEKSNGTVIHVRETPIQTQEPESATSYWVMVAVTGLLGFYSMLITAVFIIYRQKSKR  
NRYRQSDYMNMTPRHPPHQKNGKGYPSYAPTRDYTAYRSWQP

>Q16878

MEQTEVLKPRTLADLIRILHQLFAGDEVNVEEVQAIMEAYESDPTWAMYAKFDQYRYTR  
NLVDQNGKFNLMILCWGEGHGSSIHDTNSHCFLKMLQGNLKETLFAWPKKSNEMVKK  
SERVLRENQAYINDSIGLHRVENISHTEPVSLHLYSPPFDTCHAFDQRTGHKNKVTMT  
FHSKFGIRTPNATSGSLENN

>Q9NR00

MKAKRSHQAIIMSTSLRVSPSIHGYPHFDASRKKAVGNIFENTDQESLERLFRNSGDKKA  
EERAKIIFAIDQDVEEKTRALMALKKRTKDKLQFLKLRKYSIKVH

>P31105

MDTYSVFTTKWKQLTGVDLTLYKEAQMRRRLTSLYEKKGFSFKDFAAALEKDQALLNET  
LDRMTINVSEFYRNYKRWEVLETAILPLIKTSRPLKIWSAACSTGEEPYTLAMLLDQQKG  
LPGYQILATDIDEKALEKAKKGVYQERSLQEVPLSVKDRYFTQANRSEYEVKTEIKKNIT  
FKKHNLADRYEQDFDLIVCRNVFIYFTESAKEELYLKMAHSLKKNVLFVVGSTEQIFNP  
EKFGLVPADTFFYQKR

>Q9H0W9

MACAEFSFHVPSLEELAGVMQKGLKDNFADVQVSVVDCPDLTKEPFTFPVKGICGKTRIA  
EVGGVPYLLPLVNQKKVYDLNKIAKEIKLPGAFILGAGAGPFQTLGFNSEFMPVIQTESE  
HKPPVNGSYFAHVNPADGGCLLEKYSEKCHDFQCALLANLFASEGQPGKVIKAKRRTG  
PLNFVTCMRETLEKHYGNKPIGMGGTFIIQKGVKSHIMPAEFSSCPLNSDEEVNKLWHF  
YEMKAPLVCLPVFVSRDPGFDLRLLEHTHFFSRHGEGGHYHYDTPDIVEYLYFLPAEFL  
YRIDQPKETHSIGRD

>P32738

MPILEKAPQKMPVKASSWEELDLPKLPVPPPLQQTLATYQLQCMQHLVPEEQFRKSQAIVKR  
FGAPGGLGETLQEKLLERQEKATANVWSEYWLNDMYLNNRLALPVNSSPAVIFARQHFQDT  
NDQLRFAACLI SGVLSYKTL L DSHSLPTDWAKGQLSGQPLCMKQYYR L FSSYR L PGHTQD  
TLVAQKSSIMPEPEHVIVACCNQFFVLDVVINFRRLSEGD L FTQLR K IVKMASNE DERLP  
PIGL L TSDGRSEWAKARTVLLK D STNRDSLDMI ER C ICLVCLDGP GTGELSDTHRALQLL  
HGGGCSLNGANRWYDKSLQFVVGRDGT CGVVCEHSPFDGIVLVQCTEHL L KHM MTSNKKL  
VRADSVSEL P APRRLRLKCS PETQGH LASSAEK LQRIVKNLDFIVYKFDNYGKTFIKKQK  
YSPDGF IQVALQLAYYR L YQRLVPTYESASIRRFQEGRVDNIRSATPEALAFVQAMTDHK  
AAMPASEKLQLLQTAMQAHKQYTVMAITGMAIDNHL LALRELARDLCKEPPEMFMD ETYL  
MSNRFV L STSQVPTT MEMFCCYGPVVPNGNGACYNPQPEAITFCISSFH SCKETSSVEFA  
EAVGASLVDMRDLCSSRQPADSKPPAPKEKARGPSQAKQS

>Q9P126

MQDEDEGYITLNIKTRKPALISVGSASSSWVRMALILLILCVGMVVGLVALGIWSVMQRN  
YLQGENENRTGT LQQ LAKRFCQYVVKQSELKGT FKGHKCSPCDTNWRYYGDSYGFRRHN  
LTWEESKQYCTDMNATLLKIDNRNIVEYIKARTHLIRWVGLSRQKSNEVWKWEDG SVISE  
NMF EFL EDGKGNMNCAYFHNGKMHP TFCENKHYLMCERKAGMTKVDQLP

>Q9UYT0

MKFKKVVVGGTFDRLHLGHKALLRKA FEV GKIVYIGLTSDDMVKNKPYAEKILPYERRLK  
DLIEFLEVNNFRRYRIKINNAIGFTTIRSL EAI VVSEETYKGALLVNRAREEVGLRPL  
EIIIVIPIIKSKLGDKISSSLIRAGLIDPFGNPIKRE

>P29930

MSDETTVGGGEAPAEKDDARHAMKMAKKKAAREKIMATKTDEKGLIIVNTGKGKSTAGF  
GMIFRHHIAHGMPCAVVQFIK GAMATGERELIEKHFGDVCQFYTLGEGFTWETQDRARDVA  
MAEKAWEKAKELIRDERN SMLLDEINIALRYDYIDVAEVVRFLKEEKPHMTHVVLTRN  
AKEDLIEVADLVTEMELIKHPFRSGIKAQQGVEF

>Q58407

MVKITILSPEGRSCSVWSLKNEIEKLGAKCDIFLLSSPENLMSHDFKLETDLIHSRCGIG  
DYFDRLTLYSQFINALEVEGCRFINPIKTLYLTSDFKCIKLLAKNKIKTPKTALIRDY  
EDAVKFI EKYNLRFVVIKNSFSKCGLKVFMARNYDELKQLTKNAIWEGKLIQEFIDFKE  
NDLYRDMRILVVDGEVVG YRRVSRDFRTNLYLGNVVEKLNIDE E L E LALKCADLSEAV  
ILGVDILPTKDNYYVIELNSSPGTKGFRDIGINADKKIAEALVRYAKS

>Q58540

MITLCNRFTEYKCGNVAIVVDVLRAS T TIT TLLSFIDEVYIT TSTSKKENAIYIGERKGR  
KIEGFDFGNSPTEILANKDI IKERYENGEKVILTTTNGTRVLKSLDAEHIFIGAI VNAKY  
VAKAVEDFEDVSLVPC HRENNFAIDDFIGCGVIAKYLNGEFDEFIKAAL E LTKHDWMSLI  
LNSSSAENLKNLGYEKDVTFAILENSIDAVGIYKKDKSKVVRFK

>P32113

MATNTKMETFVITGMTCANCSARIEKELNEQPGVMSATVNLATEKASVKYTD T TTERLIK  
SVENIGYGAILYDEAHKQKIAEEKQTYLRKMKFDLIFSAILTLPLMLAMIAMMLGSHGPI  
VSFFHLSLVQLL FALPVQFYVGWRFYKGAYHALKTKAPNMDVLVAIGTSAAFALSIYNGF  
FPSHSHDL YFESSMIITLILLGKYLEHTAKSKTGDAIKQMMSLQTKTAQVLRDGKEETI  
AIDEVMIDDILVIRPGEQVPTDGR I IAGTSALDESMLTGESVPVEKKEKDMVFGGTINTN

GLIQIQVVSQIGKDTVLAQIIQMVEDAQGSKAPIQQIADKISGIFVPIVLFALVTLVLTG  
WLTGDWQLALLHSVSVLVIACPCALGLATPTAIMVGTGVGAHNGILIKGGEALEGAAHLN  
SIIIDKTGTITQGRPEVTDVIGPKEIISLIFYSLEHASEHPLGKAI VAYGAKVGAKTQPIT  
DFVAHPGAGISGTINGVHYFAGTRKRLAEMNLSFDEFQEQALELEQAGKTMFLANEEQV  
LGMIAVADQIKEDAKQAIEQLQKQKGVDFVMVTGDNQRAAQAIKQVVIDSDHIFA EVLPE  
EKANYVEKLQKAGKKVGMVGDGINDAPALRLADVGIAMGSGTDI AMETADVTLMNSHLTS  
INQMISLSAATLKKIKQNLFWAFIYNTIGIPFAAFGFLNPIIAGGAMAFSSISVLLNSLS  
LNRKTIK

>P14306

MNQAI DFAQASIDSYKKHGILEDDVIHDTSFQPSGILAVEYSSSAPVAMGNTLPTEKARSK  
PQFQFTFNKQMQKSVQANAYVPPQDDDLFTLVMTDPDAPSKTDHKWSEFCHLVECDLKL  
NEATHETSGATEFFFASEFNTKGSNTLIEYMGPPKGS GPHRYVFLLYKQPKGVDSKFS  
KIKDRPNWGYGTPATGVGKWAKENNLQLVASNFFYAETK

>P06504

MSKAGTKITFFEDKNFQGRHYSDCDCADFHMYLSRCNSIRVEGGTWAVYERP NFAGYMY  
ILPRGEYPEYQHWMGLNDRLLSSCRAVHLSSGGQYKLQIFEKGDFNGQM HETTEDCPSIME  
QFHMREVHSCKVLEGAWIFYELPNYRGRQYLLDKKEYRKPVDWGAASPAVQSFRRI VE

>Q8VHL5

MAQRSGKITLYEGKHFTGRKLEVFVGDNDNFQDQGF MNRVNSIRVESGAWVCFDHPDFRGQ  
QFILEHGDYPEFFRWNGHNDHMGSCRVPVGMHGEHFRIDIFEGCNFTGQCLEFVEDCPFLQ  
SRGWAKSCVNAIKVYGDGAWVLYEENYRGRMYVLERGDYRCFSDWGAHSARVQSLRRVL  
NFF

>O54310

MRGKVKWFDSKKG YGFITKDEGGDV FVHWSAIEMEGFKTLKEGQVVEFEIQEGKKGPQAA  
HVKVVE

>P67966

MPNWGGGKCGVCQKAVYFAEEVQCEGSSFHKSCFLCMVCKKNLDSTTVAVHGD E IYCKS  
CYGKKYGPKYGYGMGAGTLSTDKGESLGIKYEEGQSHRPTNPNASRMAQKVGGSDGCPR  
CGQAVYAAEKVIGAGKSWHKSCFRCAKCGKSLESTTLADKDGEIYCKGCYAKNFGPKGFG  
FGQGAGALIHSQ

>P24059

MHLHLRIGICLVLA VASSSSSALAADAGHGADLAKRWCASCHVVANGQAVASADVPSFASV  
ARRPDFSSEKLAFFLLDPHPKMP SFPLSRTEAGDIAAYIGSLRP

>P00136

ADAPGDDYVISAPEGMKAKPKGDKPGALQKTVPFPHTKHATVECVQCHHTLEADGGAVKK  
CTTSGCHDSLEFRDKANAKDIKLVENAFHTQCIDCHKALKKDKKPTGPTACGKCHTTN

>P00149

MKLRIATIAGLVVLGSGFAVAQTVDVIAQRKAILKQMG EATKPIAAMLKGEAKFDQAVVQK  
SLAAIADDSKKLPALFPADSKTGGDTAALPKIWEDKAKFDDLFAKLAAAATAAQGTIKDE  
ASLKANIGGV LGNCKSCHDDFRAKKS

>P44859

MQFSKMHGLGNDVVDGVTQNVFFTPETIRRLANRHCGIGFDQLLIVEAPYDPELDFHY  
RIFNADGSEVSQCGNGARCFARFVTLKGLTNKKDISVSTQKGNMVLTVKDDNQIRVNMGE  
PIWEPAKIPFTANKFEKNYILRTDIQTVLTCGAVSMGNPHCVVQDDIQTANVEQLGPLLE  
SHERFPERVNAGFMQIINKEHIKLRVYERGAGETQACGSGACAAVAVGIMQGLLNNNVQV  
DLPGGSLMIEWNGVGHPLYMTGEATHIYDGFITL

>P07862

MTDKIAVLLGGTSAEREVSLNSGAAVLAGLREGGIDAYPVDPKVDVTQLKSMGFQKVF I  
ALHGRGGEDGTLQGMLELMGLPYTGSVGMASALSMDKLRSKLLWQGAGLPVAPWVALTRA  
EFEKGLSDKQLAEISALGLPVIVKPSREGSSVGMKVVVAENALQDALRLAFQHDEEVLIE  
KWLSGPEFTVAAILGEEILPSIRIQPSGTFYDYEAKEYLSDETQYFCPAGLEASQEANLQAL  
VLKAWTTLGCKGWGRIDVMLDSDGQFYLLLEANTSPGMTSHSLVPMARQAGMSFSQLVVR  
ILELAD

>P0A6K3

MSVLQVLHIPDERLRKVAKPVEEVNAEIQRIVDDMFETMYAEEGIGLAATQVDIHQRIIV  
IDVSENDRERLVLINPELLEKSGETGIEEGCLSIPEQRALVPRAEKVKIRALDRDGKPF E  
LEADGLLAICIQHMDHLVGKLFMDYLSPLKQQRIRQKVEKLDRLKARA

>P05465

MNQPTSRSGLTTFTV I I IGLLALFLLIGGIWLATLGGSIYYI IAGVLLLIVAWQLYKRAS  
TALWFYAALMLGTI IWSVWEVGTDFWALAPRLDILGILGLWLLVPAVTRGINNLGSSKVA  
LSSTLAI AIVLMVYSIFNDPQE INGEIKTPQETAQAVPGVAESDWPAYGRTQAGVRYSP  
LKQINDQNVKDLKVAWTLRTGDLKTDNDSGETTNQVTP I K I GNNMFICTAHQQLIAIDPA  
TGKEKWRFPKLTDKSFQHLTCRGMVYDANNTTEFATSLQSKSSSTQCPRKVFVFN  
DGRLVAVNADTGKACTDFGQNGQVNLQEFMPYAYPGGYNPTSPGIVTGSTVVIAGSVTDN  
YSNKEPSGVIIRGYDVNTGKLLWVFDTGAADPNAMPGEGETTFVHNSPNAWAPLAYDAKLDI  
VYVPTGVGTPDIWGGDRTELKERYANSMLAINASTGKLVWNFQTTHHDLWMDVPSQPSL  
ADIKNKAGQTVPAIYVLTKTGNFVLDLRRNGQP IVPVTEKPVPPQTVKRGPTKGEFYSKT  
QPFSDLNLAPQDKLTDKMDWGATMLDQLMCRVVSFKRLNYDGIYTPPSENGTLVFPGNLGV  
FEWGGMSVNPDRQVAVMNP IGLPFVSRLIPADPNRAQTAKGAGTEQGVQPMYGVYPYVEI  
SAFLSPLGLPCKQPAWGYVAGVDLKTHEVVWKKRIGTIRDSLPNLFQLPAVKIGVPGLGG  
SISTAGNVMFVGATQDNYLRAFNVNTNGKKLWEARLPAGGQATPMTYE INKQYVVMAGG  
HGSFGTKMGDYLVAAYALPDNK

>Q9DGH6

EAGEECDGAPANPCCDAATCKLRPGAQCAEGLCCDQCRFMKEGTICRMARGDDMDDYCN  
GISAGCPRNPFHA

>Q09163

MIATGALLRVLLLLLAFGHSTYGAECDPPCDPQYGFCEADNVCRCHVGWEGPLCDKCVTA  
PGCVNGVCKEPWQCICKDGDWKGKFC EIDVRACTSTPCANNGTCVDLEKQYECSTPGFS  
GKDCQHAKGPCVINGSPCQHGGACVDDEGQASHASCLCPPGFSGNFCEIVAATNSCTPNP  
CENDGVCTDIGGDFRCRCPAGFVDKTC SRPVSNCASGPCQNGGTCLQHTQVSFECLCKPP  
FMGPTCAKKGASPVQVTHLPSGYGLTYRLTPGVHELVPVQQPEQHILKVS MKELNKSTPL  
LTEGQAICFTILGLVLTSLVVLGTVAIVFLNK CETWVSNLRYNHTFRKKKNNLLQYNSGEE  
LAVNIIFPEKIDMTTFNKEAGDEEI

>Q57366

MTKLSGQELHAELSRRAFLSYTAAV GALGLCGTSLLAQGARA EGLANGEVMSGCHWGVFK



ARVENGRAVAFEPWDKDPAPSHQLPGVLDSIYSPTRIKYPMVRREFLEKGVNADRSTRGN  
GDFVRVTWDEALDLVARELKRQVESYGPSTGTFGGSYGWKSPGRLHNCQVLMRRALNLAGG  
FVNSSGDYSTAAAQIIMPHVMGTLEVYEQQTAWPVVVENTDLMVFWAADPMKTNEIGWVI  
PDHGAYAGMKALKEKTRVICINPVRTETADYFGADVVSPPQTDVALMLGMAHTLYSED  
LHDKDFLENCTTGFDLFAAYLTGESDGTPKTAEWAAEICGLPAEQIRELARSFVAGRTML  
AAGWSIQRMHHGEQAHWMLVTLASMIQIIGLPGGGFGLSYHYSNGGSPTSDBGALGGISD  
GGKAVEGAAWLSESGATSIPCARVVDMLLNPGGEFQFNGATATYPDVKLAYWAGGNPFAH  
HQDRNRMLKAWEKLETFIVQDFQWTATARHADIVLPATTSYERNDIESVGDYSNRAILLAM  
KKVVDPLYEARSDYDIFAALAERLGKGAEFTEGRDEMGWISSFYEA AVKQAEFKNVAMPS  
FEDFWSEGIVEFPITEGANFVRYADRFREDPLFNPLGTPSGLIEIYSKNIEKMGYDDCPAH  
PTWMEPAERLGGAGAKYPLHV VASHPKSRLHSQNLNGTSLRDLYAVAGHEPCLINPADAAA  
RGIADGDVLRVFNDRGQILVGAKVSDAVMPGAIQIYEGGWYDPLDPSEEGTLDKYGDVNV  
LSLDVGTSKLAQGNCGQTILADVEKYAGAPVTVTVFDTPKGA

>P13123

MVKVKFKYKGEKEVDTSKIKKVWRVGMVVSFTYDDNGKTGRGAVSEKDAPKELLDMLAR  
AEREKK

>Q9XZT6

MAEAASCARKGTKYAEQTQPFVTLIEGNIGSGKTTYLNHFKEYKNDICLLTEPVEKWRNV  
NGVNLELEMYKDPKKWAMPFQSYVTLTMLQSHTAPTNNKLLKIMERSIFSARYCFVENMRR  
NGSLEQGMINTLEEWYKFIEESIHVQADLIYLRTSPEVAYERIRQRARSEESCVPLKYL  
QELHELHEDWLIHQRRPQCKVVLVDADLNLENIGTEYQRSESSIFDAISSNQPPSPVLV  
SPSKRQRVAR

>P56709

MRYLELAQLYQKLEKTTMKLIKTRLVADFLKKVPDDHLEFIPYLILGEVFPPEWDERELGV  
GEKLLIKAVAMATGIDAKEIEESVKDTGDLGESIALAVKKKKQKSFFSQPLTIKRVYQTL  
VKVAETTGEQSQDKKVKYLADLFMDAEPLEAKYLARTILGTMRTGVAEGLLRDAIAMAFH  
VKVELVERAYMLTSDFGYVAKIAKLEGNEGLAKVQVQLGKPIKPMLAQQAASIRDALLEM  
GGAEAFEIKYD GARVQVHKDGSKIIVYSRRL ENVTRAIPEIVEALKEAIIPEKAIVEGEL  
VAIGENGRPLPFQYVLRFRFRKHNIIEEMMEKIPLELNLFDVLYVDGQSLIDTKFIDRRRT  
LEEIIKQNEKIKVAENLITKKVEEAEAFYKRALEMGHEGLMAKRLDAVYEPGNRGKKWLK  
IKPTMENLDLVIIGAEWGEGRRAHLFGSFI LGAYDPETGEFLEVGVKVGSGFTDDDLVEFT  
KMLKPLIIKEEGKRVWLQPKVVIIEVTYQEIQKSPKYRSGFALRFPRFVALRDDKGPEDAD  
TIERIAQLYELQEKMKGKVES

>P61875

MILDVDYITEEGKPVIRLFKKENGKFKIEHDRTFRPYIYALLRDDSKIEEVKKITGERHG  
KIVRIVDVEKVEKKFLGKPIVWKLYLEHPQDVPTIREKVR EHPAVVDIFEYDIPFAKRY  
LIDKGLIPMEGEEELKILAFDIETLYHEGEEFGKGPIMISYADENEAKVITWKNIDLPI  
VEVVS SEREMIKRFLRIIREKDPDIIVTYNGDSFDFPYLAKRAEKLGIKLTIGRDGSEPK  
MQRIGDMTAVEVKGRIHFDLYHVITRTINLPTYTLEAVYEAIFGKPK EKVYADEIAKAW  
SGENL ERVAKYSMEDAKATYELGKEFLPMEIQLSRLVGQPLWDVSRSS'TGNLVEWFLLRK  
AYERNEVAPNKPSEEEYQRRRESYTGGFVKEPEKGLWENIVYLD FRALYPSIIITHNVS  
PDTLNLEGCKNYDIAPQVGHKFCCKDIPGFI PSLLGHLLEERQKIKTKMKETQDPIEKILL  
DYRQKAIKLLANSFYGYGYAKARWYCKECAESVTAWGRKYIELVWKELEEKFGFKVLYI  
DTDGLYATIPGGESEEIKKKALEFVKYINSKLPGLLELEYEGFYKRGFFVTKKRYAVIDE  
EGKVITRGLEIVRRDWSEIAKETQARVLETILKHGDVEEAVRIVKEVIQKLANYEIPPEK  
LAIYEQITRPLHEYKAIGPHVAVAKKLAAGVKIKPGMVI GYIVLRGDGPISNRAILAE

YDPKKHKYDAEYYIENQVLPVLRILEGFGYRKEDLRYQKTRQVGLT SWLNKKS

>P12833

MLISLIAALAHNNLIGKDNLI PWHL PADLRHFKA VTLGKP VVMGRRTFESIGRPLPGRRN  
VVVSRNPQWQAEQVEVAPSLDAALALLTDC EEAMI IGGGQLYAEALPRADRLYLTYIDAQ  
LNGDTHFPDYLSL GWQELERSTHPADDKNSYACEFVTL SRQR

>Q08426

MAEYTRLHNALALIRLRNPPVNAISTTLLRDIKEGLQKAGRDHTIKAIVICGAEGKFSAG  
ADIRGFSAPRTFGLILGHVVDEIQRNEKPVVAAIQGM AFGGLELALGCHYRIAHADAQV  
GLPEVTLGLLPGARGTQLLPRLTGVPAAALDLITSGRRILADEALKLGI LDKVVNSDPVEE  
AIRFAQRVSDQPLESRRLCNKPIQSLPNMDSIFSEALLKMRRQH PGCLAQEACVRAVQAA  
VQYPYEVGIIKKEEELFLYLLQSQARALQYAFFAERKANKWSTPSGASWKTASARPVSSV  
GVVGLGTMGRGIVISFARARIPVIGVDSKQNLATANKMITSVLEKEASKMQQSGHPWSG  
PKPRLTSSVKELGGVDLVIEAVFEEMSLKKQVFAELSAVCKPEAF LCTNTSALD VDEIAS  
STDRPHLVIGTHFFSPA HVMKLLLEVIPSQYSSPTT IATVMNLSKKIKKIGVVVGNCFGFV  
GNRMLNPYYNQAYFLLEEGSKPEEVDQVLEEF GFKMGPFVRVSDLAGLDV GWSRKGQGLT  
GPTLLPGTPARKRGNRRYCPIDVLC ELGRFGQKTGKGWYQYDKPLGR IHKPDPWLSTFL  
SRYRKP HHIEPRTISQDEILERCLYSLINEAFRILGEGIAASPEHIDVVYLHG YGCARHK  
GGPMFYASTVGLPTVLEK LQKYRQNPDI PQLEPSDY LKKLASQGNPPLKEWQSLAGSPS  
SKL

>P33171

MARAKFERTKPHANIGTIGHVDHGKTTLTAAITTVLAKAGMAKARAYADIDAAP EEKARG  
ITINTAHVEYETGNRHYAHVDCPGHADYVKNMITGAAQMDGAILLVSAADGMPQ TREHI  
LLAKQVGPVNIIVVFLNKEDMVDDAE LLELVELEVRELLSSYDFPGDDIP IVAGSALQALE  
AIQGGASGQKGDNPWVDKILKLMEEVDAYIPTPEREVD RPFMAVEDVFTITGRGTVATG  
RIERGSVKVGETIEIVGLRDTRSTTVTG VEMFQKTLDEGLAGDNVGLLLRGIQKTDIERG  
MVLAKPGSITPHTKFESEVYVLKKEEGGRHTPFFFPGYR PQFYVRTT DVTGAI SDF TADDG  
SAAEMVIPGDRIKMTVELINPIAIEQGMRF AIREGGRTIGAGVVSKILQ

>P04418

MTRINLTLVSELADQHLMAEYRELPRVFGAVRKHVANGKRVRDFKISPTF ILGAGHVTFE  
YDKLEFLRKRQIELIAECLKRGFN IKDTTVQDISDIPQEF RGDYIPHEASIAISQARLDE  
KIAQRPTWYKYYGKAIYA

>P0A0L2

MKKTAF TLLLFIALTLTTSPLVNGSEKSEE INEKDLRKKSELQGTALGNLQIYYNEKA  
KTENKESH DQFLQHTILFKGFFFTDHSWYNDLLVDFD SKDIVDKYK GKKVDLYGAYYGYQC  
AGGTPNKTACMYGGVTLHDNRLTEEKKVP INLWLDGKQNTVPLETVKTNKKNVTVQELD  
LQARRYLOEKYNLYNSDVFDGKVQRGLIVFHTSTEPSVNYDLFGAQQYSNTLLRIYRDN  
KTINSENMHIDIYLYTS

>P53695

MGIKGLLGLLKPMQKSSHVEEFSGKTLGVDGYVWLHKAVFTCAHELAFNKETDKYLKYAI  
HQALMLQYYGVKPLIVFDGGPLPCKASTEQKRKERRQEA FELGKKLWDEGKKSQAIMQFS  
RCVDVTPEMAWKLI IALREHGIESIVAPYEADAQLVYLEKENI IDGIITEDSDMLVFGAQ  
TVLFKMDGFGNCITIRRN DIANAQDLNLRLP IEKLRHMAIFSGCDYTDGVAGMGLKTALR  
YLQKYPEPRAAIRAMRLDKSLKVPVSFEKEFALADLAFRHRQRYVYCPKDKTLVHLSPPERE  
LSVHEDAFIGSFFDNQLAIDIAEGRSNPITKCAF DIKDSMSQSF TKTITISKRKGISKT

DISNFFMKSIPPSKRPTKSTSLIDVTNVKVQORTH LANDISSEKQSIKSANEKAYVTPKSN  
SLKPGFGKSLSDISNSATKNENVPFLPPRTGVSKYFKLQKNTEKEIDEQVPSQSNNTTPT  
SAKSDSASPQNWFSSFSYQTPNSASPPFSSLSHTLPISALAKIGHDALNRKNHASLPSRR  
IVYKPPSSPSTPISMNPRPKGILSLQQYKFR

>P10933

MAAAVTAAVSLPYSNSTSLPIRTSIVAPERLIVFKKVSLLNNVSI SGRVGTIRAQVTTEAPA  
KVVKHSKKQDENIVVNKFKPKPEYVGRCLLNTKITGDDAPGETWHMVFSTEGEVVPYREGQ  
SIGIVPDGIDKNGKPHKLRLYSIASSAIGDFGDSKTVSLCVKRLVYTNDAGEVVKGVCSN  
FLCDLKPGEVKITGPVKGEMLMKDPNATVIMLGTGTGIAPFRSFLWKMFFEKHEDYQF  
NGLAWLFLGVPTSSSLLYKEEFKMKKEKAPENFRLDFAVSREQVNDKGEKMYIQTRMAQY  
AEELWELLKKDNTFVYMCGLKGMKGGIDDIMVSLAAKDGIDWIEYKRTLKKAEQWNVEVY

>Q44532

MSNLNVERVLSVHHWNTLFSFKTTRNPSLRFENGQFVMIGLEVDGRPLMRAYSIASPNY  
EEHLEFFSIVKQNGPLTSRLQHLKEGDELMVSRKPTGTLVTSDDLPGKHYMLSTGTGLA  
PFMSLIQDPEVYERFEKVVLIHGVRQVNELAYQQFITEHLPQSEYFGEAVKEKLIYYPTV  
TRESFHNQRLTDLMRSGKLFEDIGLPPINPQDDRAMICGSPSMLDESCEVLDDGFGLKIS  
PRMGEPGDYLIERAFVEK

>Q45560

MAYVITEPCIGTKDASCVEVCPVDCIHEGEDQYYIDPDVICIDGACEAVCPVSAIYHEDF  
VPEEWKSYIQKNRDFFKK

>P00324

MAKIGLFFGSNTGKTRKVAKSIKKRFDDTMSDALNVNRVSAEDFAQYQFLILGTPTLGE  
GELPGLSSDCENESWEEFLPKIEGLDFSGKTVALFGLGDQVGYPENYLDALGELYSFFKD  
RGAKIVGSWSTDGYEFESSEAVVDGKFFVGLALDLNQSCKTDERVAAWLAQIAPEFGLSL

>P38866

MTVNDKKRLAII GGGPGGLAAARVFSQSLPNFEIEIFVKDYDIGGVWHYEQKSDGRVMY  
DHLETNISKKLMQFSGFPFEENVPLYPSTRRIWEYLKAYYKTFIANKDAISIHFSSTEVY  
LKKKNSQWEITSKDELRTTKSDFDFVIVASGHYSVPKLPNTIAGLDLWFDNKGAFHSKDF  
KNCEFAREKVVIVVGNSSGQDIANQLTTVAKKVYNSIKEPASNQLKAKLIE TVQTIDSA  
DWKNRSVTLSDGRVLQNDIYIIFATGYYSFPFIEPSVRLEVLGEGVTGDKHSSVNLHNL  
WEHMIYVKDPTLSFILTPQLVIPFPLSELQAAIMVEVFCKSLPITTTFDNACGTHNFPK  
GKDLEYYAELQELLNSIPRRVGHFEPVVWDDRLIDLNRNSSYTDKEERNVLLAEHAQALKK  
KKAPYFLPAPHT

>O05783

MRPYIIAIVGSGPSAFFAAASLLKAADTTEDLDMAVDMLEMLPTPWGLVRSVAPDHPKI  
KSISKQFEKTAEDPRFRFFGNVVVGEHVQPGELESERYDAVIYAVGAQSDRMLNIPGEDLP  
GSIAAVDFVGVYNAHPHFQVSPDLSGARAVVIGNGNVALDVARILLTDPDVLARTDIAD  
HALESRLPRGIEVVIVGRRGPLQAAFTTLELRELADLDGVDVVIDPAELDGI TDEDAAA  
VGKVKQNIKVLRGYADREPRPGHRRMVFRFLTSPIEIKGKRKVERIVLGRNELVSDGSG  
RVAAKDTGEREELPAQLVVRVSVGYRGVPTPGLPFDDQSGTIPNVGGRINGSPNEYVVGWI  
KRGPTGVI GTNKKDAQD TVDTLIKNLGNAKEGAECKSFPEDHADQVADWLAARQPKLVTS  
AHWQVIDAFERAAGEPHGRPRVKLASLAELLRIGLG

>Q56691

MNNTIETILAHRSIRKFTAVPITDEQRQTIIQAGLAASSSSMLQVVSIVRVTDSEKRNEL  
AQFAGNQAYVESAAEFLVFCIDYQRHATINPDVQADFTELTLIGAVDSGIMAQNCLLAAE  
SMGLGGVYIGGLRNSAAQVDELLGLPENSAVLFMGCLGHPDQNPQVVKPRLPAHVVHENQ  
YQELNLDDIQSYDQTMQAYYASRTSNQKLSTWSQEVTKGLAGESRPHILPYLNSKGLAKR

>Q9HHB6

MSKITVKSPPGRVNLIGEHTDYTYGYVMPMAIDLTYTIITAKEYDKVQLYSEHFNEEKTFTL  
DNLTKEGSWIDYVKGVLWVLIQEGYKIGGLKGGKITGDLPLGAGLSSSASFVGIILEVLNQ  
LYNLNIDPLKALLAKKAENEFVGVPCGILDQFAVVFVGGKDNVIFLDTQTLQYIYIPFPK  
DVSVLVYFTGVKRELASSEYAERKRIAEESLRILGKESSEKVEKDLGKLPPLHRKFFSY  
IVRENARVLEVRDALKEGDIKVGKILTTAHWDLAENYRVSCHEELDFVKKAMELGAYGA  
RLTGAGFGGSAIALVDKDKAKTIGDAILREYLAKFSWKAKYFVVKPSDGVGV

>Q96C23

MASVTRAVFGELPSGGTVEKFLQSQDILLRVDIISWGCTITALEVKDRQGRASDVVLGFA  
ELEGYLQKQPYFGAVIGRVANRIAKGTFKVDGKEYHLAINKEPNSLHGGVVRGFDKVLWTP  
RVLSNGVQFSRISPDEEGYPGELKVWVYTYTLDGGELIVNYRAQASQATPVNLTNHSYFN  
LAGQASPNINDHEVTIEADTYLPVDETLIPTGEVAPVQGTAFDLRKPVELGKHLQDFHLN  
GFDHNFCLKGSKEKHFCARVHHAASGRVLEVYTTQPGVQFYTGNFLDGTLKGNKAVYPK  
HSGFCLETQNWPDVAVNQPRFPVLLRPGEEYDHTTWFKFSVA

>P10868

MSSSAASPLFAPGEDCGPAWRAAPAAAYDTSHTLQILGKPVMERWETPYMHSLAAAAASR  
GGRVLEVGFGMAIAASRVQQAPEKEHWIIECNDGVFQRLQNWALKQPHKVVPKGLWEEE  
APTLPDGHFDGILYDTPLESEETWHTHQFNFIKTHAFRLLKPGGILTYCNLTWSGELMKS  
KYTDITAMFEETQVPALLEAGFQRENICTEVMALVPPADCRYAFAFPQMITPLVTKH

>P35574

MGNSFDGVLILLKYFKSSRSQNGHSSKQIRILLNEMEKLEKTLFRLEQGFELQFRLGP  
TLQKGPVTVFTNYFPGETFNREKFRSLEWENPTEREDSDKYCKLNLQSGSFQYYFLQ  
GNEKSGGGYIVVDPILRVGADNHMLHLDCVTLQTFLLAKCLGPFDEWESRLRVAKESGYNM  
IHFTPLQTLGLSRSCYSLADQLELNPDFSFRPHKKYTWSVDVGLVEKLLKREWNVLCITDVV  
YNHTAANSKWIQEHPECAYNLVNSPHLKPAPWVLDLALWHFSCDVAEGKYKNRGPALIE  
DHHLNLCIRKVIWEDIFPKLHLWEFFQVDVYKAVEKFRGLLTQETWRVIKSDPKQHLKIQ  
DPEYRRFGCTVDMNIALATFIPHDNGPAAIEECCNWFRRKIEELNSEKHQLMNYHQEQAV  
NCLLGNVFIYERLAGHGPKLGPVTRKYPLVTRYFTFPFEEMPVSTEETMIHLPNKACFFMA  
HNGWVMGDDPLRNFAEPGSDVYLRRELICWGDSVKLRYGTPEDCPYLWAHMRKYTEIIA  
TYFQGVRLDNCHSTPLHVAEYMLDAARKLQPNLYVVAELFTGSEDLDNIFVTRLGISSLI  
REAMSAYNSHEEGRLVYRYGGEPVGSFVQPCLRPLMPAIAHALFMDITHDNECPVHRSV  
YDALPSTTIVSMACCASGSTRGYDELVPHQISVVSEERFYTKWNPEALPSNAGEVNFQSG  
IIAARCAINKLHQELGAKGFIQVYVDQVDEDIVAVTRHSPSIHQSFVAVSRTAFRNPKTS  
FYSKDVPQMCIPGKIEEVVLEARTIERNISPYRKDENSINGMPNITVEIREHIQLNESRI  
VKQAGVTTKGPNEYIQEIEFENLSPGSVIFRVSLDPAHQVAVGILRNHLTQFSAHFKAG  
SLAVDNSDPILKIPFASIASKLTLAEINQILYRCESEEQEDGGGCYDIPNWSSLKYAGLQ  
GLMSVLAIEIRPKNDLGHFPFCDNLRSGDWMIDYVSGRLISRSGTIAEVGKWLQAMFFYLKQ  
IPRYLIPCYFDAILIGAYTTLLDIAWKQMSFVQGTGSTFVKHLSLGSVQMCVGVKFPVSLP  
LLSPSLTDVPYRLNEITKEKEQCCVSLAAGLPHFSSGIFRCWGRDFTFIALRGLLLITGRY  
LEARNIILAFAGTLRHGLIPNLLGEGTYARYNCRDAVWWWLQCIQDYCKMVPNGLDILKC  
PVSRYMPTDSDAPLPAGTLDQPLFDVIEQAMQRHMQGIQFRERNAGPQIDRNMKDEGFTV  
IAGVNEETGFVYGGNRFNCGTWMKMGESDRARNRGIIPATPRDGSAAVEIVGLCKSTVRWL

LELSKKNIFPYHEVRVKRHGKVVTVSYEEWNRKIQDNFEKRFHVSEDPSASNEEHPNLVH  
KRGYIKDSYGASSPWCYDQLRPNFTIAMVVAPELFTA EKAWKALEIAEKLLGLPLGMKTL  
DPDDMVYCGIYDNALDNDNYNLAKGFNYHQPEWLWPVGYFLRAKLYFSKLM DRET NART  
IFLVKNVLSRHVHLERSPWKGLPELTNENGQYCPFSCETQAWSIATILETLYDL

>P19803

MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQELDKDDESLRKYKEALLGRVA  
VSADPNVNVVVTRLTLVCS TAPGPLELDLTG DLESFKKQSFVLKEGVEYRIKISFRVNR  
EIVSGMKYIQHTYRKGVKIDKTDYMVGSYGPRAEYEF LTPMEEAPK GMLARGSYNIKSR  
FTDDDRTDHLSWEWNLTIKKEWKD

>P42212

MSKGEELFTGVVPILVELDGDVNGHKFSVSGEGEGDATY GKLTLKFICTTGKLPVPWPTL  
VTTFSYGVQCFSRYPDHMKQHDFFKSAMPEGYVQERTIFFKDDGNYKTRAEVKFEGDTLV  
NRIELK GIDFKEDGNILGHKLEYNYN SHNVYIMADKQKNGIKVNFKIRHNI EDG SVQLAD  
HYQONTPIGDGPVLLPDNHYLSTQSALS KDPNEKRDMVLL E FVTAAGITHGMDELYK

>P34802

MASVTLGSWIVVHHNHHHPSSILTKSRSRSCPITLTKPISFRSKRTVSSSSSIVSSSVV  
TKEDNLRQSEPFSSDFMSYIITKAELVNKALDSAVPLREPLKIH EAMRYSLLAGGKRVRP  
VLCIAACELVGGEESTAMPAACAVEMIHTMSLIHDDLPCMDNDDLRRGKPTNHKVFGE DV  
AVLAGDALLSFAFEHLASATSSDVVSPVRVVRAVGELAKAIGTEGLVAGQVVDISSEGLD  
LNDVGLEHLEFIHLHKTAALLEASAVLGAIVGGGS DDEIERLRKFARCIGLLFQVVDIIL  
DVTKSSKELGKTAGKDLIADKLTYPKIMGLEKSREFAEKL NREARDQLLGFSDK VAPLL  
ALANYIAYRQN

>P56532

MAPLTAAEVSSLLAELGPHAETQEKK EALGVSAYRALFGAKPEYINLFSKLQGLTIDNVF  
IKYYGGTLVTTNRNVNKQOFLSGEP IFVDFFKKMQKLLHHIFPIAGIHAL

>Q9GTW9

MFSIDL IQQIK EWKRGSTLPICLGCDVGGSGLRVRLSDFHDSAKYVDLGHAKAQKTAELL  
KVLEDLQQKILQVEPTTVCLGAAI AVAGPIKNNTVILTNWKGP AEERTLSITQLPKGLFP  
KDRSYFLNDLEAGAYGVIAAYEQSILEENFVQLFTDRAPTGPILAKGRTAVLAMG SGLGA  
ALVTRTPLLKNPLVLPTELGH LQIAPNMATHKYFQDEQELIQHISDHYYGGKLDPEYEDI  
CSGRGLQLAFQFYHKKLTGEVLPLEQIDAGDVAKKAIAGEKDAYNALRAHYIFYLRAAKA  
IATSLSCESC VLSLDNQVKNHPFVMKIAKELEEEFYEFIRPDWMTSVRVYSQKSILNFNI  
LGT DYM AHAIANKPQ

>Q92990

MAVEELQSI IKRCQILEEQDFKEEDFGLFQLAGQRCIEEGHTDQ LLEIQNEKNKVI IKN  
MGWNLVGPVVRCLLCKDKEDSKRKVYFLIFDLLVKLCNPKELLLGLLELIEEPSGKQISQ  
SILLLLQPLQTVIQKLHNKAYSIGLALSTLWNQLSLLPVPYSKEQIQMDDYGLCQCCKAL  
IEFTKPFVVEVIDNKENSL ENEKLD ELLKFCFKSLKCP LLTAQFFEQSEEGNDPFRYF  
ASEIIGFLSAIGHFPFKMIFNHGRKKRTWNYLEFE EENKQLADSMASLAYLVFVQGIHI  
DQLPMVLSPLYLLQFNMGHIEVFLQRTEESVISKGLELLENSLLRIEDNSLLYQYLEIKS  
FLTVPQGLVKVMTLCP IETLRKKS LAMLQLYINKLDSQGKYTLFRCLLNTSNHSGVEAFI  
IQNIKNQIDMSLKRTRNNKWF TGPQLISLLDLVLF LPEGAETDLLQNSDRIMASL NLLRY  
LVIKDNENDNQ TGLWTELGNIE NFKPLHIGLNMSKAHYEAEIKNSQEAQKSKDLCSIT  
VSGEEIPNMPPEMQLKVLHSA LFTFDLIESV LARVEELIEIKTKSTSEENIGIK

>P0AC84

MNLNSIPAFDDNYIWVLNDEAGRCLIVDPGDAEPVLNAIAANNWQPEAIFLTHHHHDHVG  
GVKELVEKFPQIVVYGPQETQDKGTTQVVKDGETAFVLGHEFSVIATPGHTLGHICYFSK  
PYLFCGDTLFSGGCGRLFEGTASQMYQSLKKSALPDDTLVCCAHEYTLNMMKFALSILP  
HDLSINDYYRKVKELRAKNQITLPVILKNERQINVFLRTEDIDLINVINEETLLQQPEER  
FAWLRSKKDRF

>P08194

MLSIFKPAHPKARLPAAEIDPTYRRLRWQIFLGIFFGYAAYYLVRKNFALAMPYLVEQGF  
SRGDLGFALSGISIAYGFSKFIGMSVSDRSNPRVFLPAGLILAAVMLFMGFVPWATSSI  
AVMFVLLFLCGWFQGMGWPPCGRTMVHWSQKERRGIVSVWNCANVGGGIPPLFLFLGM  
AWFNDWHAALYMPAFCAILVALFAFAMMRDTPQSCGLPPIEEYKNDYPDDYNEKAEQELT  
AKQIFMQYVLPNKLLWYIAIANVFVYLLRYGILDWSPTYLKEVKHFALDKSSWAYFLYEY  
AGIPGTLFLCGWMSDKVFRGNRGATGVFFMTLVTIATIVYWMNPAGNPVTDMICMIVIGFL  
IYGPVMLIGLHALELAPKKAAGTAAGFTGLFGYLGGSVAASAIVGYTVDFFGWDGGFMVM  
IGGSILAVILLIVVMIGEKRREHQLLQERNNG

>Q03460

MSNSLSLTF TALNNPQINAI SNPNARLRPLARVTRCSATCVERKRWLGTKLRSGGGLERI  
QLWESGGLGRLPKLRVAVKSSFS AVDPKPMGLYDPAFDKDCSGVGFVAELNGQSSRKTVT  
DALEMLVRMTHRAGACCEANTGDGAGILVALPHGFYQEVVDFQLPPQGNVAVGMFFLPKS  
DSRRKESKNIFTKVAESLGHKVLGWRVPTDNTGLGKSAQLTEPVIEQVFLTPSSDSKVD  
LEKQMYILRKL SMVSI TSALNLQSDGITDFYICSLSSRTVIYKQQLTPAQLGEYYYADLG  
NERFTSYMALIHSRFS TNTFP SWDRAQPFRVLGHNGEINTLRGNVNWIKAREGLLKCKEL  
GLSENDLKKFLPIVDANSSDSGCFDGVLEFLLHSGKSLPEAVMMMIPEAWQNDKNMDPQR  
KAFYEYYSALMEPWDGPALISFTDGHYLGATLDRNGLRPGRFYVTHSGRVIMASEVGVVD  
IPPEDVCRKGRNLNPGMMLLVDFEKQIVVNDALKEQYSLARPYGDWLEKQKIELKDIIDS  
VHESDIVPPTISGVPLSNDVD MENMGIQGLLAPLKAFGYSVESLEILLPLMAKDGV EA  
LGSMDNDTPLAVMSNREKLTFFEYFKQMF AQVTNPPIDPIREKIVTSMRCMVGPEGLTET  
TEEQCHRLSLKGPLLSTKEMEAIKMNYRGWR SKVIDITYSKERGTKGLEEALDRICTEA  
HNAISEGYTTLVLSDRAFSKKHVAVSSLLAVGAVHQHLVKTLERTRVALMVE SAEPRE VH  
HFCTLVGFGADAI CPYLAIEAIWRLQVDGKIPPKASGDFNSKDELVKKYFKASTYGM MKV  
LAKMGI STLAS YKGAQIF EALGLSSEVIEKCFAGTPSRVEGATFEMLAQDALHLHELAFP  
SRIFSPGSAEAVALPNPGDYHWRKGGEVHLNDPLAIAKLQEAARTNSV DAYKQYSKTIHE  
LNKACNLRGLLKFKDAASKVPISEVEPASEIVKRFC TGAMSYGSI SLEAHTALATAMNTI  
GGKSNTGEGGEQPSRMEPLADGSRNPKRS AIKQVASGRFGVSSYYLTNADELQIKMAQGA  
KPEGGELPGHKVIGDIAITRNSTAGVGLISPPPHHD IYSIEDLAQLIHDLKNANPAARI  
SVKLVSEAGVGVIASGVVKGHAHVLI SGHDGGTGASRWTG IKSAGLPWELGLAETHQTL  
VANDLRGRTTLQTDGQLKTGRDVAIAALLGAE EYGFSTAPLITLGCIMMRKCHKNTCPVG  
IATQDPVLREKFAGEPEHV INFFFVMAEEMREIMS QLGFR TVNEMVGRSDMLEVDKEVVK  
GNAKLENIDL SLLL RPAAELRPEAAQYCVQKQDHGLDMALDNKLI SLSNAALEKGLPVYI  
ETPICNTNRAVG TMSHEVT KRYNLAGLPADTIHIQFTGSAGQSF GAFLCPGITLELEGD  
SNDYIGKGLSGGKVVVYPPKGSNFDPKDNILIGNVALYGATRGEAYFNGMAAERFCVRNS  
GALAVVEGVGDHGEYMTGGTVVVLGKTGRNFAAGMSGG IAYVLDVDGTFQSRCNLELVD  
LDKVEEEEDIITL RMLIQQHQRHTNSLLAKEVLVDFENLLPKFVKVFPREYKRV LASMKS  
DAASKDAVERAAEDVDEQDDEAQAVEKDAFEELKKLATASLNEKPSEAPKRPSQVTD AVK  
HRGFVAYEREGVQYRDPNVR LNDWNEVMMETKPGPLLKTQSARCMDCGTPFCHQENSGCP  
LGNKIPEFNELVYQNRWQEALERLLETNNFPEFTGRVCPAPCEGSCVLGIENPVSIKNI  
ECAIIDKAFEEGWMIPRPVKRTGKRVAIVGSGPSGLAAADQLNKMGHIVTVFERADRIG

GLMMYGVPMKTDKVDIVQRRVNLMAEEGINFVVNANIGLDPLYSLERLREENDAIVLAV  
GATKPRDLVPVPGRELSGVHFAMEFLHANTKSLLDNLQDGNYSIAKGGKVVVIGGGDTGT  
DCIGTSIRHGCTAVVNLELLPQPPPTRAPGNPWPQWPRIFRVDYGHQEAETKFGKDPRTY  
EVLTKRFVGDENGVVKGLEVVVVCWEKDETGKQFKEIEGSEEIIEADLVLLAMGFLGPE  
ATIAEKLGVVERDNRSNFKADYGRFSTSVDFVFAAGDCRRGQSLVVWAISEGRQAAAQVDS  
YLTNEDHGIDGNQDEFVKRQQDLNKKHSHKHTVMT

>Q8T1C6

MNENSIFVSIISYRDSECQWTIKNLIELAKYKENIFIGVCLQYSMNDDSDNKCFQFNFEE  
EYGNQIRIIRMNHTEAKGPCYARALVQQQLFKGKYYLQIDSHMRVFKDWDIEMINQLL  
QCKKPNDDNGGMVIDEKAILTCYPMGYKLPNLIPTHRFPILLVASGFGENDGFLRLGGKI  
VSKKLIIEPCSSFLWVSGFSFSRSDIINSVPYDPNLQYLFFGEEISMSARLFTHGYNFYSP  
TKTLIFHLWNRDYRSTFRENNLSLEIQKLEENSKRLLILFNQNNNNINDNDDNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNNNSSSSSSSSNNNNNNNNNNNNSSSTNNNNNNNNNNDDG  
IKIELKYNLKGKIKSLDDYSNYCGVDFKNKTINNKGKFGGYEERETFFMNEIMEYVIKSQ  
IGI

>P04547

MKIAIINMGNVINFKTVPSSSETIYLFKVISEMGLNVDIISLKNGVYTKSFDEVDVNDYD  
RLIVVNSSINFFGGKPNLAILSAQKFMAYKYSKIYYLFTDIRLPFSQSWPNVKNRPWAYL  
YTEEELLIKSPIKVISQGINLDIAKAAHKKVDNVIIEFEYFPIEQYKIHMNDFQLSKPTKK  
TLDVIYGGSFRRSQRESKMVEFLFDTGLNIEFFGNAREKQFKNPKYPWTKAPVFTGKIPM  
NMVSEKNSQAI AALIIGDKNYNDNFITLRVWETMASDAVMLIDEEFDTKHRIINDARFYV  
NNRAELIDRVNELKHSVLRKEMLSIQHDILNKTRAKKAEWQDAFKKAIDL

>Q9LX31

MATTNSLHHHHHSSPSYTHHRNNLHCQSHFGPTSLSLKQPTSAATFSLICSASTSSSTT  
AVSAVSTTNASATTAETATIFDVLNHLVNQNFRADEETRLLIQISGEAAVKRGYVFF  
SEVKTISPEDLQAIDNLWIKHSDGRFGYSVQRKIWLKVKKDFTRFFVKVEWMKLLDTEVV  
QYNYRAFPDEFKWEINDETPLGHLPLTNALRGTQLLKCVLSHPAFATADDNSGETEDELN  
RGVAVAKEQAGVGADKRVFKTNYSF

>Q54450

MAFSVNYDSSFGGYSIHDYLGQWASTFGDVNHTNGNVTDANSGGFYGGSLSGSQYAISS  
ANQVTAFAVAGGNLTYTLFNEPAHTLYGQLDLSLFGDGLSGGDTSPYSIQVPDVSFGGLNL  
SSLQAQGHGQVHVQVYGLMSGDTGALETALNGILDDYGLSVNSTFDQVAAATAVGVQHA  
DSPELLAA

>P31101

MFCFQCQETAKNTGCTVKGMCGKPEETANLQDLLIFVLRGIAIYGEKLELQPDNSDD  
FVLQGLFATITNANWDDARFEAMI SEGLARRDKLRNAFLAVYKAKNGKDFSEPLPEAATW  
TGDSTAFAEKAKSVGILATENEDVRSRELLIIGLKGVAAYAEHAAVLGFRKTEIDEFML  
EALASTTKDLSVDEMVALVMKAGMAVTTMALLDEANTTTYGNPEITQVNIIGVGNPIL  
ISGHDLKDMAELLKQTEGTGVDVYTHGEMLPANYYPAFKKYPHFVGNYGGSWWQQNPEFE  
SFNGPILLTTNCLVPLKENTYLDRLYTTGVVGYEGAKHIADRPAGGAKDFSALIAQAKK  
CPPPVEIETGSI VGGFAHQVLALADKVVEAVKSGAIKRFVVMAGCDGRQKRSRYYTEVA  
ENLPKDTVILTACAKYRYNKNLGDIGGIPRVL DAGQCND SYSLAVIALKLEVFGLDD  
INDLPVSYDIAWYEQKAVAVLLALLFLGVKGIRLGP TLPAFLSPNVAKVLVENFNKPIG  
TVQDDIAAMMAGK

>Q70I53

MAIGYVWNTLYGWVDTGTGSLAAANLTARMQPI SHH LAHPD TKRRFHELVCASGQIEHLT  
PIAAVAATDADILRAHSAAHLENMKRVSNLPTGGDTGDGITMMGNGGLEIARLSAGGAVE  
LTRRVATGELSAGYALVNPPGHHAPHNAAMGFCIFNNTSVAAGYARAVLGMERVAI LDWD  
VHHGNGTQDIWVNDPSVLTITISLHQHLCFPPDSGYSTERGAGNGHGYNINVPLPPGSGNAA  
YLHAMDQVVLHALRAYRQLIIVGSGFDASMLDPLARMMVTADGFRQMARRTIDCAADIC  
DGRIVFVQEGGYSPHYLPFCGLAVIEELTGVRSLPDPYHEFLAGMGGNTLLDAERAAIEE  
IVPLLADIR

>Q9R257

MLGMIRNSLFGSVETWPVQVLSTGGKEDVSYEERACEGGKFATVEVTDKPVDEALREAMP  
KIMKYVGGTNDKGVGMGMTVPVSVFAVFPNEDGSLQKCLKVWFRIPNQFQGSPPAPSDES  
KIEEREGITVYSTQFGGYAKEADYVAHATQLRRTTLEGTPTYQGDVYYCAGYDPPMKPYG  
RRNEVWLVKA

>P84155

MSLAVEAVKDFLLKLQDDICEALEAEDGQATFVEDKWTREGGGGGRTRVMVDGAVIEKGG  
VNFVSHVYKGLPMSSTERHPDIAGCNFEAMGVSLVIHPKNPHVPTSHANVRLFVAEREGK  
EPVWVWFGGGFDLTPYYAVEEDCRDFHQVAQDLCKPFGADVYARFKGWCDEYFFIPYRNEA  
RGIGGLFFDDLNEWPFKCFEFVQAVGKGYMDAYIPVNRKNTPYTEQQVEFQEFRRGR  
YAEFNLVIDRGTKFGLQSGGRTESILISLPPRARWGYNWQPEPGTPEARLTFYFLTKRQW  
V

>P23871

MRQTKTGILLANLGTDPAPTPEAVKRYLKQFLSDRRVVDTSRLLWVPLLRGVILPLRSPR  
VAKLYASVWMEGGSPMLVYSRQQQALAQRLPEMPVALGMSYGSPSLESASVDELLAEHVD  
HIVVLPLYPQFSCSTVGAVWDELARILARKRSIPGISFIRDYADNHDYINALANSVRASF  
AKHGEPDLLLLSYHGIPQRYADEGDDYPQRCRTTRELASALGMAPEKVMMTFQSRFGRE  
PWLMPYTDETLKMGEKGVGHIQVMCPGFAADCLEETLEEIAEQNREVFLGAGGKKYIYIP  
ALNATPEHIEMMANLVAAAYR

>P0A576

MQFDVAVLLLSFGGPEGPEQVRPFLENVTRGRGVPAERLDAVAEHYLFHGGVSPINGINRT  
LIAELEAQQELPVYFGNPNWEPYVEDAVTAMRDNGVRRAAVFATSAWSGYSSCTQYVEDI  
ARARRAAGRDAPELVKLRPYFDHPLFVEMFADAITAAAATVRGDARLVFTAHSIPTAADR  
RCGPNLYSRQVAYATRLVAAAAGYCDFDLAWQSRSGPPQVPWLEPDVTDQLTGLAGAGIN  
AVIVCPIGFVADHIEVVWDLDELRLQAEAAAGIAYARASTPNADPRFARLARGLIDELRY  
GRIPARVSGPDPVPGCLSSINGQPCRPPHCVASVSPARPSAGSP

>P27686

PFDIPEPYVWDESFVYFDNLDDEHKGLFKGVFNCAADMSSAGNLKHLIDVTTHFRNEE  
AMMDAAKYENVVPHKQMHKDFLAKLGGLKAPLDQGTIDYAKDWLVQHIKTDFKYKGL

>P22761

GFEVPEPFKWDSEFQVYFDKLDDEHKQIFNAIFALGGGNNADNLKMKMIDVTANHFADDEEA  
MMLASAAAYKSEHPGHKKKHEDFLAVIRGLSAPVPNDKLLYAKDWLVNHIKGTDFTYKGL

>P10371

MIIPALDLIDGTVVRLHQGDYQKQRDYGNLPLRLQDYAAQGAEVLHLVDLTGAKDPAKR  
QIPLIKTLVAGVNVVQVGGGRSEEDVAALLEAGVARVVVGSTAVKSDMVKGWFERFG



ADALVLALDVRIDEQGNKQVAVSGWQENSGVSLEQLVETYLVPVGLKHVLCCTDISRDGTLA  
GSNVSLYEEVCARYPQVAFQSSGGIGDIDDVAALRGTGVRGVIVGRALLEGKFTVKEAIA  
CWQNA

>Q9X0C7

MLVVPAILDFRGKVARMIKGRKENTIFYEKDPVELVEKLIIEEGFTLIHVVDLSNAIENSG  
ENLPVLEKLSEFAEHIQIGGGIRSLDYAEKLRKLGYYRRQIVSSKVLDPFLKSLREIDV  
EPVFSLDTRGGRVAFKGLWLAEEEIDPVSLKRLKEYGLEEIVHTEIEKDGTLEHDFSLT  
KKIAIEAEVKVLAAGGISENSLKTAKVHTETNGLLKGVIVGRAFLLEGILTVEVMKRYA  
R

>P09985

MNINKPLEILGHVSWLWASSPLHRNWPVSLFAINVLPAIRANQYVLLTRDNYPVAYCSWA  
NLSLENEIKYLNDVTSLSVAEDWTSGDRKWFIDWIAFPFGDNGALYKMRKKFPDELFLAIR  
VDPKTHVGVSEFHGGKIDKHLANKIFKQYHHELITEVKNKTDFFINRLRGN

>Q9M1W4

MTGNSFNSMKDFLKQTTGGYAVIDGGLATEFERHGADLNDPLWSAKCLVTSPLIHTVHLD  
YLEAGADIISASQYQATIQGFQFEAKGFSREESSELLKKSVEIATEARNSYDKCGTSSSM  
DKILKRPILVAASVGSYGAYLADGSEYSGIYGDSITLKLKDFHRRRLQVLAESGADLI  
AFETIPNKIEAQAFADLLEEGDVKIPGWFSFNSKDGVMVSGDSIKECISIAENCEKVVA  
VGINCTPPRFIEGLVLEIEKVTSKPILVYPNSGESYDADRKEWVENTGVGDEDFVSYVEK  
WMDAGVSLGGCCRTTPTTIRAIHKRLVNRRSL

>Q01984

MASFMRSLFSDHSRYVESFRRFLNNSTEHQCMQEFMDKKLPGLIARIGETKAEIKILSIG  
GGAGEIDLQILSKVQAQYPGICINNEVVEPNAEQIVKYKELVAKTSMENIKFAWHKETS  
SEYQKRVEEDEEPPKWDFIHMIQMLYYVKDIPATLKFHGLLAANAKILILVSGTSGW  
EKLWKYGFRLPRDDLQYVTSSDLAQILDDLGIKYECDLLSTMDITDCFIDGNENGDL  
LWDFLTETCNFIKTAPLDLKEEIMKDLQEPFVSVKKEGKVLFNNNLSFIVVEANV

>P37352

MKGTIFAVALNHRSQLDAWQEAQQSPKAPPKTAVWFIKPRNTVIGCGEPIPFQGENL  
LSGATVALIVGKTATKVREEDAAEYIAGYALANDVSLPEESFYRPAIKAKCRDGFCEIGE  
TVALSNVDNLTIIYTEINGRPADHWNTSDLQRNAAQLLSALSEFATLNPGDAILLGTTPQAR  
VEIQPGDRVRVLAEGFPPLNPPVDEREVTTRKSFPTLPHPHGTLFALGLNYADHASELE  
FKPPEEPLVFLKAPNTLTGDNQTSVRPNNIEYMHYEAELVVVIGKQARNVSEADAMDYVA  
GYTVCNDYAIRDYLENYYRPNLRVKSRLDGLTPMLSTIVPKEAIPDPHNLTLRTFVNGELR  
QQGTTADLIFSVPFLIAYLSEFMTLNPMDIATGTPKGLSDVGDEVVVEVEGVGRVLNRI  
VSEETAK

>Q9BUP3

MAETEALSKLREDFRMQNKSVFILGASGETGRVLLKEILEQGLFSKVTLIGRRKLTDFDEE  
AYKNNVQEVVDFEKLDDYASAFQGHVDFCCLGTTTRGKAGAEFVVRDRDYVLKSAELAK  
AGGCKHFNLLSSKGADKSSNFLYLQVKGEVEAKVEELKFDYRYSVFRPGVLLCDRQESRPG  
EWLVRKFFGSLPDSWARGHSVPVTVVRAMLNNVVRPRDKQMELENKAIHDLGKAHGS  
KP

>Q8U8Z6

MPGNNSAKGTATGNATALWRNAQLATLNPAMDGIGAVENAVIAVRNGRIAFAGPESDLPD

DLSTADETTDCGGRWITPALIDCHTHLVFGGNRAMEFEMRLNGATYEEIAKAGGGIVSSV  
RDTRALSDEVLVQAALPRLDTLLSEGVSTIEIKSGYGLDIETELKMLRVARRLETLRPVR  
IVTSYLAAHATPADYKGRNADYITDVVLPGLEKAHAEGGLADAVDGFCEGIAFSVKEIDRV  
FAAAQQRGLPVKLAHQLSNLGGAELAASYNALSADHLEYLDETGAALAKAGTVAVLLP  
GAFYALREKQLPPVQALRDAGAEIALATDCNPGTSPLTSLLLTMMNGATLFRMTVEECLT  
ATTRNAAKALGLLAETGTLEAGKSADFAIWDIERPAELVYRIGFNPLHARIFKGGQKVSP

>Q09756

MSLHDAYHWPSTRTPSRKGSNIKLNKTLQDHLDELEEQFTIPTPELLHRVTDRFVSELYKGL  
TTNPGDVPMPVTWIIGTPDGNEHGSYLALDLGGTNLRVCAVEVQNGKFDITQSKYRLPQ  
ELKVGTTREALFDYIADCIKKFVVEVHPGKSQNLEIGFTFSYPCVQRSINDASLVAWTKGF  
DIDGVEGESVGPLLSAALKRVGCNNVRLNAILSDTTGTLVASNYASPGTEIGVIFGTGCN  
ACYIEKFSEIPKLHKYDFPEDMNMIIINCEWCDFDNQHVLPRTKYDVAIDEEsprpGLQT  
YEKMIAGCYLGDILRRILLDLYEQGALFNGQDVTKIRDPLAMDTSVLSAIEVDPFENLDE  
TQTLFEETYGLKTTEEERQFIRRACELIGTRSARLSACGVCALVRKMNKPSMIVGTDGSV  
YNLYPRFKDRLAQAFKIDILGEEIGSKVVTIPAEDGSGVGAALVSALEAKGKALTSIDILAE  
HLKN

>P0AEV9

MTDVLLCVGNSMMGDDGAGPLLAEKCAAAPKGNWVVIDGGSAPENDIVAIRELRPTRLLI  
VDATDMGLNPGEIRIIDPDDIAEMFMMTTHNMPLNYLIDQLKEDIGEVIIFLGIQPDIVGF  
YYPMTQPIKDAVETVYQRLEGWEGNGGFAQLAVEEEE

>P16968

PTSVAVDQGSMSNSPGEWCWPGMGYPVYPPRCRALVKSQCAGGQVVESIQKDCCRQIA  
AIGDEWICIGALGSMRGSMYKELGVALADDKATVAEVFPGCRTEVMDRAVASLPAVCNQY  
IPNTNGTDGVCYWLSSYYQPPRQMSSR

>P01083

MWMKTVFWGLLVFMLVATTMAVEYGARSHNSGPWSWCNPATGYKVSALTGCRAMVKLQCV  
GSQVPEAVLRDCCQQLADINNEWCRCDLSSMLRSVYQELGVREGKEVLPGCRKEVMKLT  
AASVPEVCKVIPNPSGDRAGVCYGDWAAYPDV

>P82469

SSGPCCDRCRCTKSEPPQCQCQDVRLNSCHSACEACVCSHSMPLCSCLDITHFCHPECK  
SSGDDED

>P0C054

MRNFDSLPLYRSAIGFDRLFNHLENNQSQSNGGYPPYNVELVDENHYRIAIAVAGFAESE  
LEITAQDNLLVVKGHAHADEQKERTYLYQGIAERNFERKFQLAENIHVRGANLVNGLLYID  
LERVEPEAKKPRRIEIN

>P82977

MSSVVKKPLGGNTDTGDHNNQKTEWPELVGKSVEEAKKVILQDKSEAQIVVLPVGTIVTM  
EYRIDRVRLFVDSLKDIAQVPRVG

>P16100

MSTPKIIYTLTDEAPALATYSLLPIIKAFTGSSGIAVETRDISLAGRLIATFPEYLTDTQ  
KISDDLAEELGLATTPDANI IKLPNISASVPQLKAAIKELQQQGYKLPDYPEEPKTDTEK  
DVKARYDKIKGSAVNPVLRREGNSDRRAPLSVKNYARKHPHKMGAWSADSKSHVAHMDNGD

FYGSEKAALIGAPGSVKIELIAKDGSSSTVLKAKTSVQAGEIIDSSVMSKNALRNFIAAEI  
EDAKKQGVLLSVHLKATMMKVSDPIMFGQIVSEFYKDALTKHAEVLKQIGFDVNNIGIDL  
YARIKTLPEAKQKEIEADIQAVYAQRPQLAMVNSDKGITNLHVPDVIDASMPAMIRDS  
GKMWGPDPGKLHDTKAVIPDRCYAGVYQVVIEDCKQHGAFDPTTMGSVNPVGLMAQKAEFY  
GSHDKTFQIPADGVVRVTDESGKLLLEQSV EAGDIWRMCQAKDAPIQDWVKLAVNRARAT  
NTPAVFWLDPARAHDAQVIKVERYLKDYDTSGLDIRILSPVEATRFSLARIREGKDTIS  
VTGNVLRDYLTDLFPIMELGTSAKMLSIVPLMSGGLFETGAGGSAPKHVQQFLEEGYLR  
WDSLGEFLALAAASLEHLGNAYKNPKALVLA STLDQATGKILDNNKSPARKVGEIDNRGSH  
FYLALYWAQALAAQTEDKELQAQFTGIAKALTDNETKIVGELAAAQGKPVDIAGYYHPNT  
DLTSKAIRPSATFNAAALAPLA

>P56537

MAVRASFENNCEIGCFAKLTNTYCLVAIGGSENFYSVFEGELSDTIPVVHASIAGCRIIG  
RMCVGNRHGLLVPNNTTDQELQHIRNSLPDTVQIRRVEERLSALGNVTTTCNDYVALVHPD  
LDRETEEILADVLKVEVFRQTVADQVLVGSYCVFSNQGGLVHPKTSIEDQDELSLLQVP  
LVAGTVNRGSEVIAAGMVNDWCAFCGLDTTSTELSVVESVFKLNEAQPSTIATSMRDSL  
IDSLT

>Q9QZ85

MGQLFSSPKSDENNDLPSSFTGYFKKFNTGRKIIISQEIILNLIELMRKGNIQLTNSAISD  
ALKEIDSSVLNVAVTGETGSGKSSFINTLRGIGNEEGAAKTGVVEVTMERHPYKHPNIP  
NVVFWDLPGIGSTNFPPNTYLEKMKFYEYDFFIISATRFKKNDDIDAKAISMMKKEFYF  
VRTKVDSDITNEADGKQPTFDKEKVLQDIRLNCVNTFRENGIAEPPIFLLSNKNVCHYDF  
PVLMDKLI SDLPYKRHNFMVSLPNITDSVIEKKRQFLKQRIWLEGFAADLVNIIPSLTF  
LLDSDLETLLKSMKFYRTVFGVDETSLQRLARDWEIEVDQVEAMIKSPA VFKPTDEETIQ  
ERLSRYIQEFCLANGYLLPKNSFLKEIFYLKYYFLDMVTEDAKTLLKEICLRN

>P12342

MEPSLLMWRFFVFI VVPGCVTEACHDDPPSLRNAMFKVFRYEVGTMINCDCKTGFRRVSA  
VMRCVGDSSHS AWENRCFCNSTSPAKNQVKQVTPAPEEHREKKHTDAQNQQTQPPEEADLP  
GHCEPPPWEHEREPLKRVYHFTLGQTVHYQCAQGFALQTS PAESTCMMINGELRWTRP  
RLKCI REGEHGQASDDAEPQESTEAPPGSGTFLPTRMAGTTNFQKPTDEIATLDTFIFTT  
EYQI AVAGCTLLLASILLLSCLTWQRKWKKNRRTI

>P14784

MAAPALSWRLPLLILLPLATSWASAAVNGTSQFTCFYNSRANISCVWSQD GALQDTSCQ  
VHAWPDRRRWNQTCELLPVSQASWACNLILGAPDSQKLTTVDIVTLRVLCREGRWRVMA  
IQDFKPFENRLMAPISLQVVHVETHRCNISWEISQASHYFERHLEFEARTLSPGHTWEE  
APLLTLKQKQEWICLETLPDTQYEFQVRVKPLQGEFTTWSPWSQPLAFRTKPAALGKDT  
IPWLGHLLVLGSLGAFGFIILVYLLINCRNTGPWLKVKLCNTPDPSKFFS QLSSEHGGDV  
QKWLSSPFPSSSFSPGGLAPEISPLEVLERDKVTQLLLQQDKVPEPASLSSNHSLSCT  
NQGYFFFHLPDALEIEACQVYFTYDPYSEEDPDEGVAGAPTGSSPQPLQPLSGEDDAYCT  
FPSRDDLLLFSPSLGGSPSTAPGGSGAGEERMPPSLQERVPRDWDQPPLGPPTPGVP  
DLVDFQPPPVLVREAGEEVPDAGPREGVSPFWSRPPGQGEFRALNARLPLNTDAYLSLQ  
ELQGQDPHTLV

>P21327

MSDILQELLRVSEKAANIARACRQQETLFLQLLIEEKKEGEKNKKFAVDFKTLADVLVQEV  
IKENMENKFPGLGKKIFGEE SNEFTNDLGEKIMRLGPTEETVALLSKVLNGNKLASEA  
LAKVVHQDVFFSDPALDSVEINIPQDILGIWVDPIDSTYQYIKGSADITPNQGI FPSGLQ

CVTVLIGVYDIQTGVPLMGVINQPFVVSQDLHTRRWKGCYWGLSYLGTNIHSLPPVSTR  
SNSEAQSQGTQNPSSSEGSFRFSVVIISTSEKETIKGALSHVCGERIFRAAGAGYKSLCVIL  
GLADIYIFSEDTTFKWDSCAAHAILRAMGGGMVDLKECLERNPDTGLDLPQLVYHVGNEG  
AAGVDQWANKGLIAYRSEKQLETFLSRLLOHLAPVATHT

>P80065

MDTYHFLPSRDLEHASSYTTPRPDSPETRHEPDPDRSKTNRRPIKIVSSVLLSTLILSFVI  
FLLVNPVQVVRVKVSKNSNGEDRNKASKSPEMLGPPSRGVSQGVSEKSFQATAEPSY  
PWTNDMLSWQRTSFHFQPOENWMNDPNGPLFHMGWYHLFYQYNPDSAIWGNITWGHAI SR  
DLINWLHLPPFAMQPDQWYDINGVWTGSATVLPDGKIVMLYTGDTDDLQVQNLAYPANLS  
DPLLLDWIKYPDNPVMPFPPIGISTDFRDPTTAWIGRDGKWRITIGSKVNKTGISLKYT  
TDFITYELLDNLLHAVPGTGMWECVDFYFVSVTGSNGLDTSVNGPVGKHVLSLDDDRH  
DYYALGTYDPINDKWTDPNPELDVIGLRLDYGKYASKTFYDQDKERRLLWGWIGETDS  
ESADLLKGWASVQSIPTVVFDKKTGTNILQWPVKEVESLRSRSYEIDDVELKPGSLVPL  
KISSAAQLDIVASFVDEEAFKGTYEADASYNCTASEGAAGRGIILGPFILVLADDPLSE  
LTPVYFYIAKGV DGNKTYFCADQSRSSSTASDV DKEVYGS DVPVLHGESLSMRLLDVHSI  
VESFAQGGRTVITSRVYPTRAIYSAARVFLFNATGVSVTASVKAWQMASATLKPFPFDQ  
L

>Q93Y52

MALAIRSSLRAAAMGRKAFRQAVPVRVAPAQRVRSVTTASAEITAYSVEEKGPKDSLEYR  
MFFKQGAKEVSCWHEIPLYAGDGHLHYICEIPKETSAKMEVATDEPRTPIKQDVKKGKLR  
FYYPYNINWNYGMLPQTWEDPGHTDATLGAAGDNDPVDVVEIGAAAAKRGVYKVKPVGVL  
AMIDDGELDWKVI AISADDPKAALCNDVEDVEKHFPGEIQKVLEWFRDYKIPDGK PANKF  
GYDNKCMNKEFTLNVIKETHEAYVKLKS GARANSEELSLI

>Q949J1

MSFYRGTAHPWHDLHPGNDAPNFVSCVIEIPRGSKVKYELDKDTGLCFVDRILYSSVVY  
PHNYGFVPKTLCEDGDPLDVLVLMQEPVVP MCF LRAKPIGVMQMLDQGERDDKLI AVHAD  
DPEYKGFDTDISQLPPHRLAEIKRFFEDYKKNEHKEVVVDDFLGAEAEAKKVKDSL NMYQE  
HYVPRKLRNVYE

>P0C0L9

MGLKWTDSREIGEALYDAYPDLDPKTVRFTDMHQWICDLEDFDDDPQASNEKILEAILLV  
WLDEAE

>O88310

MTQLGFLLFIMVATRGC SAAEENLDTNRWGN SFFSSLPRSCKEIKQEHTKAQDGLYFLRT  
KNGVIYQTFCDMTTAGGGWTLVASVHENNRGKCTVGDRWSSQQGNRADYPEGDGNWANY  
NTFGSAAEATSDDYKNPGYFDIQAENLGIWHV PNK SPLHNWRKSSLLRYRTFTGFLQHLG  
HNLFGLYKKYPVKYGEKWCWTDNGPALPVVYDFGDARKTASYSPSGQREFTAGYVQFRV  
FNNERAASALCAGVRVTGCNTEHHCIGGGGFFPEGNPVQC GDFASFWDWGYGTHNGYSSS  
RKITEAAVLLFYR

>Q9XYQ1

MTTKQTVSLFIWLPESKQKTLFISTKNHTQFELNNIIFDVTLS TELPDKEPNAIITKRTH  
PVGKMADEMRYEKDHPKVL FLESSAIHDMMS SREEINALLIKNNIPIPNSFSVK SKEEV  
IQLLQSKQLILPFIKVPEN AQGTFNAHQMKIVLEQEGIDD IHFPCLCQHYINHNNKIVKV  
FCIGNTLKWQTRTSLPNVHRCGIKSVDFNQHLEDILSWPEGVIDKQDIENSANRFGSK  
ILEDPILLNLTSEAEMRDLAYKVR CALGVQLCGIDFIKENEQGNPLVVDVNVFPSYGGKV

DFDWFVEKVALCYTEVAKI

>Q9HXB1

MNGVSRLLSLALLGAALHWAPAQAEEQPRLFELLGQPGYKATWHAMFKGESDVPKWVSDA  
SGPSSPSTSLLEGQPYVLANSCKPHDCGNRLLVAFRQKSAAYGLQVSLPDEPAEVMQ  
TPSKYATYRWYGEPSRQVRELLMKQLESDPNWK

>P23354

MSLQAITVTLNPAIDQTIQLDRLQPGAVHRASSVRNDAGGKGINVAACLADWGSQVAALG  
VLGVGNAGVFEALFRERGITDHCHRVAAGDTRTNLKLVEAQVNETTDINLPGLQLGQAHLQ  
GVADHLAPLLRAGLPVVLSSGLPAGLPEDSWAQLQAQASAAGARVLLDTSGAPLVAALAA  
APVAMPYAVKPNRHELEAWTGHPLGDHAALTAAHALIARGIQLVVISMGTEGALFVQRD  
QQLIARPPRLAQSSVAGDAMVAGLAAAALLDDATELEQCARLATAFMSCRLESGDARRI  
TPEGVRDAAAAVVIGAVP

>Q58999

MCDIMEIKKF IETIKGTKLFTAYNTNVDAIKYLKDEDVQKLVDEFNHKDI IERMEEYPRI  
IEEPLDFVARLVHSIKTGKPAEVP IKDDKKLHEWFDR IKYDEERMGGQAGIVSNLMATLQ  
IDKIIVYTPFLSKKQAEFVDYDNLVPLVNGNLVLLKVVREAYRDDP IKINRIFEFKKG  
LKFKNLNGEEITAKQSTRFIVASRPEALRIEIKDDVRKFLPKIGEAVDCAFLSGYQAIKEE  
YRDGKTAKYYFERAEEDIKLLKKNKNIKTHLEFASISNIEIRKMVVDYILSNVESVGMDE  
TEIANVLHILGYDELSNNILKDSFIEDVIEGAKILLDKFKNLEVVQVHTIYYILFVCRAD  
NPLSKEELEECLEFSTILASTKAKLGNIRAIDDLHEGLKIPHNKYGDLLKEIAEKFNDDN  
YKIALSPSRYVEKPKSTVGLGDTISSGAFVYYVSLLNKKRMS

>P29622

MHLIDYLLLLLVGLLALSHGQLHVEHDGESCNSSSHQILETGEGSPSLKIAPANADFAF  
RFYYLIASETPGKNIFFSPLSISAAAYAMLSLGACSHSRSQILEGLGFNLTELSESDVHRG  
FQHLLHTLNLPGHGLETRVGSALFLSHNLKFLAKFLNDTMAVYEAKLFHTNFYDVTGTIQ  
LINDHVKKETRGIIVDLVSELKGDVLMVLVNYIYFKALWEKPFISSRTPPKDFYVDENTT  
VRVPMMLQDQEHHWYLDHRYLPCSVLRMDYKGDATVFFILPNQGMREIEEVLTPEMLMR  
WNNLLRKRNFYKKELEHLPKFSISGSYVLDQILPRLGFTDLFSKWADLSGITKQKLEAS  
KSFHKATLDVDEAGTEAAAATSFAIKFFSAQTNRHILRFNRPFLLVIFSTSTQSVLFLGK  
VVDPTKP

>P51541

MVDQATLDKLEAGFKKLQEASDCKSLKHLTKDVFDSIKNKKTGMGATLLDVIQSGVEN  
LDSGVGIYAPDAESYRTFGPLFDP IIDDYHGGFKLTDKHPPKEWGDINTLVLDLDPGGQFI  
ISTRVRCGRSLQGYFPNCLTAEQYKEMEKEVSSSTLSSMEDELKGTYYPLTGMSKATQQQ  
LIDDHFLFKEGDRFLQTANACRYWPTGRGIFHNDAKTFLLVWVNEEDHLRIISMQKGGDLK  
TVYKRLVTAVDNIESKLPFSHDDRFGFLTFCTNLGTTMRASVHIQLPKLAKDRKVLEDI  
ASKFNLQVRGTRGEHTESEGGVYDISNKRRLGLTEYQAVREMQDGILEMIMEKAAA

>P35507

MASSSRPKTDVLVGGRYKLVREIGFGSFGHVYLAIDL TNHEQVAVKLESENTRQPRLLHE  
KELYNFLQGGVGIPQIRWYGOETDYNVLMVMDLLGPSLEDLFNFCRRFSMKTVMMLADQM  
ISRIEYVHSRNL IHRDIKPDNFMGTGPQWKLLFLVDFGLAKKYRDNRTGQHIPHRSGKS  
FIGTPFCASISAHLGIEQSRDDMESIGYVLMYFNRSGLPWQGLKAATLKQKCEKISEMK  
MTTPVDVLCKGFPIEFAMILYKYLRLSFEEAPDYRYLRQLFRLLFRKLSYQHDYAFDWIV  
LKQKAEQQASSSSGEGQAQTPTGKSDNTKSEMKHS

>P20425

MMEKSKPNVVFVLGGPGSGKGTQCANIVRDFGWVHLSAGDLLRQEQQSGSKDGEMIATMI  
KNGEIVPSIVTVKLLKNAIDANQGKNFLVDGFPNEENMNSWEENMKDFVDTKFVLFDFC  
PEEVMTQRLKRGESSGRSDDNIESIKKRFNTFNVQTKLVIDHYNKFDKVKIIPANRDVN  
EVYNDVENLFSMGF

>P00516

MSELEEDFAKILMLKEERIKELEKRLSEKEEEEIQELKRKLHKCQSVLPVVPSTHIGPRTR  
AQGISAEPPQTYRSFHDLRQAFRKFTKSERSKDLIKEAILDNDFMKNLELSQIQEIVDCMY  
PVEYKGDSCIIEKGDVGLVYVVMEDGKVEVTKGKLVCTMGPGKVFGEALAILYNCTRAT  
VKTLVNVKLAIDRQCFQTIMMRTGLIKHTEYMEFLKSVPTFQSLPEEILSKLADVLEET  
HYENGEYIIRQGARGDTFFIISKGVNVTREDSNEDPVFLRTLKGDWFGKALQGEDV  
RTANVIAAEAVTCLVIDRDSFKHLIGGLDDVSNKAYEDAEAKAKYEAEEAFFANLKLSD  
NIIDTLGVGGFGRVELVQLKSEESKTFAMKILKRRHIVDTRQQEHIRSEKQIMQGAHSDF  
IVRLYRTFKDSKYLYLMEACLGGELWTILRDRGSFEDSTTRFYTACVVEAFAYLHSGKI  
IYRDLKPENLILDHRGYAKLVDFGFAKIGFGKKTWTFCTPEYVAPEIILNKGHDISAD  
YWSLGILMYELLTGSPFSGPDPMKTYNIIIRGIDMIEFPKIAKNAANLIKKLCRDNPS  
ERLGNLKNVVDIQKHKWFEGFNWEGLRKGTLTTPPIIPSVASPTDTSNFDSPEDNDEPP  
PDDNSGWDIDF

>P31006

MGSPRPVVLSPSGAGKSTLLKLLQEHSSIFGFSVSHTRDPRPGEENGKDYFVTREV  
MQRDIAAGDFIEHAEFSGNLYGTSKAAVRAVQAMNRCVLDVLDLQGVNRNKKTDLQPIYI  
FVQPPSLDVLEQLRQRNTETEEESLAKRLAAAKADMESSEKPEGLFDLIIINDSLKAYWA  
LKEALSEEIKKAQATGHS

>O00142

MLLWPLRGWAARALRCFGPGSRGSPASGPGPRRVQRRAWPPDKEQEKEKKSVCVEGNIA  
SGKTTCLEFFSNATDVEVLTEPVSKWRNVGRHNPGLMYHDASRWGLTLQTYVQLTMLDR  
HTRPQVSSVRLMERSIHSARYIFVENLYRSGKMPEVDYVVLSEWFDWILRNMDVSVDLIV  
YLRTNPETCYQLRKKRCREEEKVIPLEYLEAIIHHLHEEWLIKGLSFPMAAPVLVIEADHH  
HMERMLELFEQNRDRILTPENRKHCP

>Q25297

MATTYEEFSAKLDRLGEEFNRMQEQNAKFFADKPDESTLSPEMKEHYEKFERMIKEHTE  
KFNKMMHEHSEHFKQKFAELLEQQKAAQYPSK

>Q70KY3

MKTFTSALALVVGMLAPGAVVAAPPSTPAQRDLVELREARQEGGKDLRPREPTCNTPSNR  
ACWSDGFDINTDYEVSPTDGTQSYVFNLTVEVDNWMGPDGVVKEKVMLINGNIMGPNIV  
ANWGDTEVTVINNLTNGTSHWHGHIHQDNLHDGANGVTECPIPPKGQRTRYRWRAR  
QYGTSWYHSHFSAQYGNVGTIQINGPASLPYDIDLGVFPITDYYYRAADDLVHFTQNN  
APPFSDNVLINGTAVNPNTGEGQYANVTLTPGKRHLRLILNTSTENHFQVSLVNHTMTVI  
AADMVPVNAMTVDSLFLAVGQRYDVVIDASRAPDNYWFNVTFGGQAACGGS LNPHPAIF  
HYAGAPGGLPTDEGTPVDHQCLDLDVLRPVVPRVNSFVKRPDNTLPVALDLTGTPL  
FVWKVNGSDINVDWGKPIIDYILTGNTPVSDNIVQVDAVDQWYWLIENTPEGPFSLP  
HPMHLHGHDFLVLGRSPDVPAASQQRFFVDPVAVDLARLNGDNPPRRDTTMLPAGGWLLLA  
FRTDNPGAWLFHCHIAHWVSGGLSVDFLERPADLRQRISQEDDDFNRCDEWRAYWPTN  
PYPKIDSGLKRRRWVEESEWLVLR

>P33687

ATVPLTMDGLDLQKVAGMWHSMAMAASDISLLDSETAPLRVYVQELRPTPRDNLEIILRK  
WEDNRCVEKKVLAEKTECAAKFNINYLDENELIVLDTDYENYLLFFCLEENADAPDQNLVCQ  
CLTRTLKADNEVMEKFDRALQTLPVHVRLFFDPTQVAEQCRI

>Q01767

MGEAARHPDGDGDFSDVGNLHAQDVHQALEQHMLVDGYDLVLDLDDASSGVWLVDVAVTQKRYL  
DLFSFFASAPLGINPPSIVEDPAFMRELAVAAVNKPSNPDLYSVPYARFVKTFARVLGDP  
RLRRLFFVDGGALAVENALKAALDWAQKLGLAEPDTRDLQVLHLERSFHGRSGYTMSLT  
NTEPSKTRARFPKFGWPRISSPALQHPPAEHTGANQEAERRALEAAREAFAAAADGMIACFI  
AEP IQEGEGDNHLSAEFLQAMQRLCHENDALFVLDEVQSGCGITGTAWAYQQGLQPDLV  
AFGKKTQVCGVMGGGRIDEVPENVFAVSSRISSTWGGNLADMVRATRRLLETIERTQVFDT  
VVQRGKYFRDGLIEDLAARHPSVVTNARGRGLMCAVDLDPDTRTRNEVLRRLMYTEHQVIALP  
CGGRSLRFRPALTIAEHEIDQALQALASSVTPVAESV

>P84331

GRYTVQNQWGGSSAPWNDAGLWILGSRGNQNVMAVDVNSSDGGANLNGTMTYSGEGPIGF  
KGARRGESNVYDVENQWGGSSAPWHAGGQFVIGSRSGQGVLAVNITSSDGGKTLTGMTY  
EREGPIGFKGTQSGD TYNVENQWGGSSAPWNKAGI WALGDRSGQAMIAMDVSSSDGGKT  
LEGTMQYKGEPIGFRGKLSGANNYSVENQWGGSSAPWNAAGDWLIGDRHNQNI TAVKVS  
SDNDGKNLDGTCTYEREGPIGFKGVATS

>P16270

MALYRTKELVSLVSI MFVLLATNIEALS FNFPKITPGNTAITLQGNAKILANGVLALTNS  
TQIPPTTTTFPSTGRALYSTPVPLWDSATGNVASFVTSFSFVILNPSGRVPTDGLVFFIAP  
PDTEIPNNSQSQYLGVVDSKTSINRFVGLFEDLYANSFDPYMRHIGIDINSLISTKTVRY  
NFVSGSLTKVTIIYDPSNLTAVITYENGQISTISQNVDLKAVLPKDVSVGF SATSTIA  
VSHNIHSWSFTSNLEATTGNIVSQV

>P47967

MSSFSTQTPYPNLAVPFFFTSIPNGLYPSKSI V ISGVVLSDAKRFQINLR CGGDI AFHLNP  
RFDENAVVRNTQINNSWGPEERSLPGSMPFSRGRFSVWILCEGHCFKVAVDGQHICEYS  
HRLMNLDPDINTLEVAGDIQLTHVET

>P07264

MVYTPSKGPRTLYDKVFDHVVHQDENG SFLLYIDRHLVHEVTSPQAFEGLENAGRKVRR  
VDCTLATVDHNIPTESRKNFKSLDTFIKQTD SRLQVKTLENNVKQFGVPYFGMSDARQGI  
VHTIGPEEGFTLPGTTVVCGDSHTSTHGAFGSLAFGIGTSEVEHV L ATQTIIQAKSKNMR  
ITVNGKLSPGITSKDLILYIIIGLIGTAGGTGCVIEFAGEAIEALSMEARMSMCNMAIEAG  
ARAGMIKPDETTFYTKGRPLAPKGAWEKAVAYWKT LKTDEGAKFDHEINIEAVDVIPT  
ITWGTSPQDALPITGSVPDPKNVTDPIKKS GMERALAYMGLEPNTPLKSIKVDKVF IGSC  
TNGRIEDLRSAAAVVRGQKLASNIKLAMVVP GSGLVKKQAEAEGLDKIFQEAGFEWREAG  
CSICLGMNPDILDAYERCASTSNRNFEGRQGALS RTHLMSPAMAAAAGIAGHFVDIREFE  
YKDQDQSSPKVEVTSEDEKELESAAAYDHAEPVQPEDAPQDIANDELKDI PVKSDDTPAKP  
SSSGMKPFLTLEGISAPLDKANVDTDAIIPKQFLKTIKRTGLKKGLFYEWFRKDDQ GKD  
QETDFVLNVEPWREAEILVVVTGDNF GCGSSREHAPWALKDFGIKSI IAPSYGDI FYNNSF  
KNGLLP IRLDQQIIIDKLIP IANKGGKLCVDLPNQKILDS DGNVLVDHFEIEPFRKHCLV  
NGLDDIGITLQKEEYISRYEALRREKYSFLEGGSKLLKFDNVPKRKAVTTTFDKVHQDW

>P0A8P1

MRLVQLSRHSIAFPSPGALREPNGLLALGGDLSPARLLMAYQRGIFPWFSPGDPILWWS  
PDPRAVLWPESLHISRSMKRFHKRSPYRVTMNYAFGQVIEGCASDREEGTWITRGVVEAY  
HRLHELGHASIEVWREDELVGGMYGVAQGTFLFCGESMFSRMENASKTALLVFCEEFIGH  
GGKLIDCQVLNDHTASLGACEIPRRDYLNLYLNQMRLGRLPNNFWVPRCLFSPQE

>Q09751

MASTTDMSTYKLNHTMIRVKDLKSLKFYTEVFGMKLIDQWVFEENEFSLSFLAFDGPGA  
LNHGVERSKREGILELTYNFGTEKKEGVPVYINGNTEPKRFGHICFTVDNIESACAYLES  
KGVSFKKKLSDGKMKHIAFALDPDNYWIELVSQSETKPKANISNFRFNHTMVRVKDPEPS  
IAFYEKLGMKVIDKADHPNGKFTNYFLAYPSDLPRHDREGLLELTHNWGTEKESGPVYHN  
GNDGDEKGYGHVCI SVDNINAACSKFEAEGLPFKKKLT DGRMKDIAFLLDPDNYWVEVIE  
QK

>P17573

MVSKTFFLAAALNVVGTLAQAPTAVLNGNEVISGVLEKQVDTFKGIPFADPPVGDRLRFKH  
PQPFTGSYQGLKANDFSSACMQLDPGNAISLLDKVVGLGKIIPDNLRGPLYDMAQGSVSM  
NEDCLYLNVFRPAGTKPDAKLPVMVWIYGGAFVFGSSASYPGNGYVKESVEMGQPVVVVS  
INYRTGPGYGLGGDAITAEGNTNAGLHDQRKGLEWVSDNIANFGGDPDKVMIFGESAGAM  
SVAHQLVAYGGDNTYNGKQLFHSAILQSGGPLPYFDSTSVGPESAYSRFQYAGCDASAG  
DNETLACLRSKSSDVLHSAQNSYDLKDLFGLLPQFLGFGPRPDGNIIPDAAAYELYSRGY  
AKVPYITGNQEDEGTILAPVAINATTTPHVKKWLKYICSEASDASLDRVLSLYPGSWSEG  
APFRTGILNALTPQFKRIAAIFTDLLFQSPRRVMLNATKDVNRWTYLATQLHNLVPPFLGT  
FHGSDLLFQYYVDLGPSSAYRRYFISFANHHPNVGTNLKQWDMYTDSGKEMLIHMIGN  
SMRTDDFRIEGISNFESDVTFLFG

>Q93MW7

MRLSRRAATASALLLTPALALFGASAAVSAPRIQATDYVALGDSYSSGVGAGSYDSSSGS  
CKRSTKSYPALWAASHTGTRFNFTACSGARTGDVLAKQLTPVNSGTDLVSITIGNDAGF  
ADTMTTCNLQGESACLARIAKARAYIQQTLPAQLDQVYDAIDSRAPAAQVVVLGYPRFYK  
LGGSCAVGLSEKSRAAINAAADDINAVTAKRAADHGFAFGDVNTTFAGHELCSGAPWLHS  
VTLPVENSYPHTANGQSKGYLPVLNSAT

>Q01584

MKGLVLSFALVALSALCVYGDVPIQPDFQEDKILGKWYIGLASNSNWFQSKKQQLKMCY  
TVITPTADGNLDVVATFPKLDRCCKSMTYIKTEQPGRFLSKSPRYGSDHVIRVVESNYD  
EYTLMHTIKTKGNEVNTIVSLFGRRKTLSPELLDKFQQFAKEQGLTDDNILILPQTDSCM  
SEV

>Q58663

MRDTMEILRTENIVKYFGEFKALDGVSISVNKGDVTLIIGPNGSGKSTLINVITGFLKAD  
EGRVYFENKIDITNKEPAELYHYGIVRTFQTPQPLKEMTVLENLLIGEINPGESPLNSLFY  
KKWIPKEEEMVEKAFKILEFLKLSHLYDRKAGELSGGQMKLVEIGRALMTNPKMIVMDEP  
IAGVAPGLAHDIFNHVLELKAKGITFLIIEHRLDIVLNYIDHLYVMFNGQIIAEGRGEEE  
IKNVLSDPKVVEIYIGE

>P83428

ATTGCSCPQCIIFDPI CASSYKNGRRGFSSGCHMRCYNRCHGTDYFQISKGSKCI

>P32099



MSTLRLLISDSYDPWFNLAVEECIFRQMPATQRVLFVLRNADTVVIGRAQNPWKECNTRR  
MEEDNVRLARRSSGGGAVFHDLGNTCFTFMAGKPEYDKTISTSIVLNALNALGVSAEASG  
RNDLVVKTVEGDRKVSAYSARETKDRGFHHGTLNADLSRLANYLNPDKKKLAAKGITS  
VRSRVTNLTELPGITHEQVCEAITEAFFAHYGERVEAEIISPKNKTPDLNFAETTFARQS  
SWEWNFGQAPAFSHLLDERFTWGGVELHFDVEKGHITRAQVFTDSLNPAPLEALAGRLQG  
CLYRADMLQOECEALLVDFPEQEKELRELSAWMAGAVR

>P27652

MTSKVYDPEQRKRMITGQPQWARCKQMNVLDSFINYYDSEKHAENAVIFLHGNAASSYLW  
RHVVPHIEPVARCIIPDLIGMGKSGKSGNGSYRLLDHYKYLTAWFELNLPKKIIFVGH  
WGACLAHFHYSYEHQDKIKAIVHAESVVDVIESWDEWPDIEEDIALIKSEEKGMVLENNF  
FVETMLPSKIMRKLEPEEFAAYLEPFKEKGEVRRPTLSWPREIPLVKGGKPDVVQIVRNY  
NAYLRASDDLPKMFIESDPGFFSNAIVEGAKKFPNTEFVKVKGHLHFSQEDAPDEMGKYIK  
SFVERVLKNEQ

>P0C5S4

MNTDVLNQQKIEELSAEIGSDNVPVLLDIFLGEMDSYIGTLTELQSEQLLYLKEISHAL  
KSSAASFGADRLCERAIAIDKKAKANQLQEQGMETSEMLALLHITRDAYRSWTN

>P03706

MVEINNQRKAFLDMLAWSEGTDNGRQKTRNHGYDVIVGGELFTDYSDHPRKLVTLNPKLK  
STGAGRYQLLSRWWDAYRKQLGLKDFSPKSDAVALQQIKERGALPMIDRDIRQAIDRC  
SNIWASLPGAGYQFEHKADSLIAKFKEAGGTVREIDV

>P11376

KVFSKCELAHKLKAQEMDGGYSLANWVCMAEYESNFNTRAFNGKNANGSSDYGLFQLN  
NKWWCKDNKRSSSNACNIMCSKLLDENIDDDISCAKRVVRDPKMSAWKAWVKHCKDKDL  
SEYLASCNL

>Q91159

MLFFGFLAFLSAVPGTEGEIIPRCELVKILREHGFEGFEGTTIADWICLVQHESDYNTE  
AYNNNGPSRDYGIQINSKYWCNDGKTSGAVDGHISCSSELMTNDLEDDIKCAKKIARDA  
HGLTPWYGWKNHCEGRDLSSYVKGK

>Q9FG67

MASSLLTSSVMIPTTGSTVVGRSVLPFQSSLSLRLTHSYKNPALFISCCSSVSKNAATS  
STDLPVVERWPEYIPNKLDPGNYVRFDTTLRDGEQSPGSLTPPQKLEIARQLAKLRV  
DIMEVGFPGSSEEELETIKTIKTVGNEVDEETGYVPVICAIARCKHRDIEATWEALKYA  
KRPRILVFTSTSDIHMKYKLLKKTQEEVIEMAVSSIRFAKSLGFNDIQFGCEDGGRSDKDF  
LCKILGEAIAKAGVTVVITIGDTVGINMPHEYGELVTYLKANTPGIDDVVAVHCHNDLGLA  
TANSIAGIRAGARQVEVTINGIGERSGNASLEEVVMALKCRGAYVINGVYTKIDTRQIMA  
TSKMQEYTGlyVQAHKPIVGANCFVHESGIHQDGIKLNKRSYIEILSPEDIGIVKSQNSG  
LVLGKLSGRHAVKDRLKELGYELDDEKLNVAVSLFRDLTKNKKRITDADLKALVTSSDEI  
SLEKLNANGGLKSNGYIPVPQVSSNV

>P0ACH5

MSRRNTDAITIHSILDWIEDNLESPLSLEKVSERSGYSKWHLQRMFKKETGHSLGQYIRS  
RKMTEIAQKLKESNEPILYLAERYGFESQQTLTRTFKNYFDVPPHKYRMTNMQGESRFLH  
PLNHYS

>P42450

MTEQELLSAQTDADNAGTDSTERVDAGGMQVAKVLYDFVTEAVLPRVGVDAEKFWSGFAAI  
ARDLTPRNRELLARRDELQMLIDDYHRNNSGTIDQEAYEDFLKEIGYLVEEPEAAEIRTQ  
NVDTEISSSTAGPQLVVPILNARFALNAANARWGSLYDALYGTNAIPETDGAEKGKEYNPV  
RGQKVIEWGREFLDSVVPDGDASHADVEKYNITDGLKLAHIGDSVYRLKNRESYRGFTGN  
FLDPEAILLETNGLHIELQIDPVHPIGKADKTGLKDIVLESAITTIMDFEDSVAAVDAED  
KTLGYSNWFGLNTGELKEEMSKNGRIFTRELNKDRVYIGRNGTELVLHGRSLLFVRNVGH  
LMQNPSILIDGEEIFEGIMDAVLTTVCAIPGIAPQNKMRNSRKGSIYIVKPKQHGPPEEVA  
FTNELFGRVEDLLDLPRHTLKVGVMDERRTSVNLSDASIMEVADRLAFINTGFLDRTGDE  
IHTSMEAGAMVRKADMQTAPWKQAYENNNVDAGIQRGLPGKAQIGKGMWAMTELMAEMLE  
KKIGQPREGANTAWVPSPTGATLHATHYHLVDVFKVQDELRAAGRRDSLNRNLTIPAPN  
TNWSEEEKKEEMDNQCQSILGYVVRWVEHGVGCSKVPDIHDIDLMDRATLRISQMLAN  
WIRHDVVSKEQVLESLEMAVVDKQAGDEAYRDMAPNYDASLAFQAAKDLIFEGTKSP  
SGYTEPILHARRREFKAKN

>P37330

MSQTIITQSRRLRIDANFKRFVDEEVLPGTGLDAAAFWRNFDEIVHDLAPENRQLLAERDRI  
QAALDEWHRSNPGPVKDKAAYKSFLRELGLVLPQPERVTVEITGIDSEITSQAGPQLVVP  
AMNARYALNAANARWGSLYDALYGSDIIPQEGAMVSGYDPQRGEQVIWVRRFLDESPLP  
ENGSYQDVVAFKVVVKQLRIQLKNGKETTLPQAFVGYRGDAAAPTCILLKNNGLHIEL  
QIDANGRIGKDDPAHINDVIVEAAISTILDCEDSVAAVDAEDKILLYRNLLGLMQGTLQE  
KMEKNGRQIVRKLNDDRHYTAADGSEISLHGRSLLFIRNVGHLMTIPVIWDSEGNEIPEG  
ILDGVMTGAIALYDLKVQKNSRTGVSIVKPKMHGPEVAFANKLFTRIEETMLGMAPNTL  
KMGIMDEERTSLNLRSCIAQARNRVAFINTGFLDRTGDEMHSVMEAGPMLRKNQMKSTP  
WIKAYERNNVLSGLFCGLRGKAQIGKGMWAMPDLMDMYSQKGDQLRAGANTAWVPSPTA  
ATLHALHYHQTNVQSVQANIAQTEFNAEFEPLLDLDTIPVAENANWSAQEIQQELEDNNV  
QGILGYVVRWVEQGIGCSKVPDIHNVALMEDRATLRISSQHIANWLRHGILTKEQVQASL  
ENMAKVVDQONAGDPAYRPMAGNFANSCAFKAASDLIFLGVKQPNGYTEPLLHAWRLREK  
ESH

>P64819

MTKPTSAGQADDALVRLARERFDLDPQVRRRLARPPVPSLEPPYGLRVAQLTDAEMLAEWM  
NRPHLAAAWAYDWPASRWRQHLNAQLEGTYSLPLIGSWHGTGGYLELYWAAKDLISHYY  
DADPYDLGLHAAIADLSKVNRFVGFPLLLPRIVASVFANEPRCRRIMFDPDHRNTATRRLC  
EWAGCKFLGEHDTTNRMALYALEAPTAA

>O54873

MCEVFRRLPGTAPGSSPPAPATHRLRLGRELVRVRRFMIFCRFWAKMATNDAVLKRLEQK  
GAEADQIIIEYLKQQVALLKEKAVLQATLREEKKLRVENAKLKKEIEELKQELIQAEIQNG  
VKQIPVPVQSDTPVQASSAVSTSVIQSTSVSTISCSIKEHSGGGGEEKVKEKTDKKGEK  
KEKKLQSAAPSADSKPVDVSRDLRIGRIVTVKKHPDADSLYVEEVDVGEAAPRTVISGL  
VNHVPLDQMQRNMVLLCNLKPAMRGILSQAMVMCASSPEKVEILAPPNGSVPGDRITF  
DAFPGEPAKELNPKKKIWEQIQPDLHTNAECVATYKGSPPFEVKGKVCRAQTMANSQIK

>Q84424

MVPPTINTGKNITTEAVLTLNGLQIKLHKVVGESRDDIVAKMKDLAMDHDFPRLPGN  
PVSIERKDFEKLKQNKYVVSEKTDGIRFMMFFTRVFGFKVCTIIDRAMTVYLLPFKNI  
VLFQGSIFDGELCVDIVEKKFAFVLFDAVVVSGVTVSQMDLASRFFAMKRSLEKFNKVE  
DPAILRYKEWIPLEHTTIKDHLLKANAITYHTDGLIIMSVDPEVIYGRNFNLFKLPKPGTH  
HTIDFIIMSDEGTIGIFDPNLRKNVPGKLDGYYNKGSIVECGFADGTWKYIQGRSDKNQ

ANDRLTYEKTLLNIEENITIDELLDLDFKWE

>O50048

MVKSTMSAILVLALHLFVLHLQYSEVQSLANTS AHDFSYLEFVYDANDTELEGT YDYIIV  
GGGTAGCPLAATLSANYSVLVLERGTLPT EYPNLLTSDGFIYNLQQEDDGQTPVERFVSG  
DGIDNVRGRVLGGTSMINAGVYVRANTSFFNQ TGI EWMDLVNKTYDWVEDTIVFKPDFQ  
FWQNLGTAFLEVGILPDNGFSLDHLEGTRLTG STFDNNGTRHASDELLNKGDPNNLRVA  
VHAAVEKII FSSDSSGVT AIGVIYTD SNGTTHQAFVRGDGEVILSAGPIGSPQLLLLLSGV  
GLESYLTSLNISVVASHPYVGQYIYDNPRNF INILPPNPIEASTVTVLGITSDFYQCSIS  
SLPFSTAPFGFFPNPTYPLPNTTFAHIVNKVPGPLSHGTVLLQSTSDVRVAPNVTFNYY S  
NTTDLAHCVSGMKKIGEFLLSSDALKPYKVEDLPGIEGFDILGIPLPENQTDDAAFETFCR  
EAVASYWHYHGGCLVGEVLD DDFRVTGINALRVVDGSTFPSTPASHPQGFYLMMLGRYMG T  
KILQERLASEEALHKSTFEPKILESLESALSFAFES

>P82597

MSEQYPVLSGAEPFYAENGPVGVLLVHGFTGT PHSMRPLAEAYAKAGYTVCLPRLKGHGT  
HYEDMERTTFHDWVASVEEGYGWLKQRCQTI FVTGLSMGGTTLTYLAEHHPDICGIVP IN  
AAVDIPAIAAGMTGGGELPRYLD SIGSDLKNPDVKELAYEKTPTASLLQLARLMAQTKAK  
LDRIVCPALIFVSD EDHVPPGNADIIFQGISSTEKEIVRLRNSYHVATLDYDQPMI IER  
SLEFFAKHAG

>P26935

MSLRIGVIGTGAIGKEHINRITNKLSGAEI VAVTDVNQEAQKVVEQYQLNATVYPNDDS  
LLADENVDAVLVTSWGAHESV LKAIKAQKYVFCEKPLATTAEGCMRIVEEEIKVGRRL  
VQVGFMRRYDSGYVQLKEALDNHVNGEPLMIHCAHRNPTVGDNYTTDMAVVDTLVHEIDV  
LHWLVNDDYESVQVIYPKKSKNALPHLKD PQIVVIE TKGGIVINAEIYVNCKYGYDIQCE  
IVGEDGI IKLPEPSSISLRKEGRFSTDILMDWQRRFVAAYDVEIQDFIDSIQKKGEVSGP  
TAWDGYIAAVTTDACVKAQESGQKEKVELKEKPEFYQSFTTVQN

>Q9HBH9

MVQKKPAELQGFHRSFKGQNP FELAFSLDQPDHGDSDFGLQCSARPDMPASQP IDIPDAK  
KRGKKKKRGRATDSFSGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKIEKQPG  
HIRSRV FREVEMLYQCQGHRNVLELIEFFEEEDRFYLVFEKMRGGSILSHIHKRRHFNEL  
EASVVVQDVASALDFLHNKGIAHRDLK PENILCEHPNQVSPVKICDFDLGSGIKLNGDCS  
PISTPELLTPCGSAEYMAPEVVEAFSEEASIYDKRCDLWSLGVILYILLSGYPPFVGRGC  
SDCGWDRGEACPACQNMLFESI QEGKYEFPDKDWAHISCAAKDLISKLLVRDAKQRLSAA  
QVLQHPVWQGCAPENTLPTPMVLQRNSCAKDLTSFAAEAIAMNRQLAQHDEDLAE EEAAG  
QGQPVLVRATSRCLQLSPPSQSKLAQRRQRASLSSAPVVLVGDHA

>P32173

MNLMTTITGVVLAGGKARRMGGVDKGLLELNGKPLWQH VADALMTQLSHVVVNANRHQEI  
YQASGLKVIEDSLADYPGPLAGMLSVMQQEAGEWFLFCPCDTPYIPPDLAARLNHQRKDA  
PVVWVHDGERDHPTIALVNRAIEPLLL EYLQAGERRVMVFMRLAGGHAVDFSDHKDAFVN  
VNTPEELARWQEKR

>P34948

MSSEKLFRIQCGYQNYDWGKIGSSSAVAQFVHNSDPSITIDETKPYAELWMGTHPSVPSK  
AIDLNNQTLRDLVTAKPQEYLGESII TKFGSSKELPFLFKVLSIEKVLSIQAHDPDKKLG A  
QLHAADPKNYPDDNHKPEMAIAVTFEGFCGFKPLDQLAKTLATVP ELNEIGQELVDEF  
ISGIKLP AEVGSQDDVNNRKL LQKVFGKLMNTDDDDVIKQQTAKLLERTDREPQVFKDIDS

RLPELIQRLNKQFPNDIGLFCGCLLLNHVGLNKGEAMFLQAKDPHAYISGDIIECMAASD  
NVVRAGFTPKFKDVKNLVEMLTYSYESVEKQKMPLQEFPRSKGDAVKSPLYDPPIAEFSV  
LQTI FDKSKGGKQVIEGLNGPSIVIATNGKGTIQITGDDSTKQKIDTGYVFFVAPGSSIE  
LTADSANQDQDFTTYRAFVEA

>P83417

YLDVKQLANYLLCIGNGQVFNGRKTQCQIGCRAVCQQPGCSGYKECEQIPNIRLHKYRCHC  
NEA

>Q8IXL7

MSAFNLLHLVTKSQPVALRACGLPSGSCRDKKNCKVVFSSQQLRKRRLTPLQYHVTQEKGT  
ESAFEGEYTHHKDPGIYKCVVCGTPLFKSETKFDSSGSGWPSFHDVINSEAITFTDDFSYG  
MHRVETSCSQCGAHLGHIFDDGPRPTGKRYCINSAALSFTPADSSGTAEGGSGVASPAQA  
DKAEL

>P80246

MPAPCNCIETNVCICDTGCSGEGCRCGDACKCSGADCKCSGCKVVCKCSGRCECGKCTG  
PSTCKCAPGCCK

>P13640

MDPNCSCAAAGVSTCASSCKCKECKCTSCCKSCCSCPVGCAKCAQGCICKGASEKCS  
CA

>P25240

MKFKADQTSQKLRGGYYTPQNLADYVTKWVLSKNPKTILEPSCGDGVFIQAIANNGYNSN  
IELFCFELFDTEASKALERCKLNNFSNATITEGDFLWANECLKKNKQIFDGALGNPPFI  
RYQFLERNFQEQALVFEHLDLKFTKHTNAWVPFLLSSLALLKQGRIGMVIPSEISHVM  
HAQSLRSYLGHVCSKIVIIDPKEIWFEDTLQGAVILLAEKKQYPDEASQGVGIVSVSGFE  
FLQEDPNVLFNDTAGINGETVEGKWKATLSIDELQLIKRVIAHPDVRKFKDIAKVDVGR  
YCDGANNYFLVDNETVKLYKLERFAHPMFGRSQHCPGIIYDEKQHIENQEKGLPTNFLYI  
DEEFEYLSKSVKNYIKLGEVEEYHKRYKCRIRKPWFVPSVYSTEIGMLKRCHDAPRLIH  
NRVRAYTTDTAYRVSSTVTSTENLVCSFLNPITVITAELEGLFYGGGVLELVPSEIEKLY  
ILIVEGLEHNVEELNLLIKDQGIERVIRQQGSLILGTLGFTQEENEKLVEIGRSLEIEGY  
VSRV

>P25201

MIKTTEHIVNNSIERDYSKSI SLEHRKKFAQFFTPFPPIAYAMAKWILGNKQLKTVLEPAF  
GLGVFSRAILSQQKEINIKAFEVDETI FENAKKEYFDDFENVNILLQDYMYNDWKNKYDGI  
ICNPPYFKFHVDYDNKNILKEIETNLKCKLNGFTNLYTLFLLKSIHQLSQNGRCAYIIPSE  
FLNSDYGLVKTYLIKSKTLRHIIVIDFEENVFDDALTTASII LCANDNITDKVQFNNIQ  
SLQDLSKIDEIINKYPNFLETEQTYNFSDLNPEIKWKAYYQKQNSIKFKNLVPFSTYAKV  
VRGIATGSNEYFTFNLSKAKEFNIDEQYLLPCICSAKDAKTSFFTKQDFEELKKS DKS V F  
LFNAQNSTDKNISSYIQGESEEINKRFLTASRTPWYSLENRKPAPIWVSVFNRSGLRFI  
RNEANISNLT SYHCI IQNKQVVSEIDIDL LFAYLLTDTAKQIFEDNSRQYGNGLQKFEPN  
DLNKGMMMLDLGLLDKQTSDEILNLYKEYKYLI LDNKNNGDEIINKIDKILTDKYSEKKHWA

>P00472

MARNATNKLHLKAKKSKSDEFYTYCDIENELQYYREHFSDKVVYCNCDDPRVSNFFKYF  
AVNFDNLGLKLLIASCYVENKEGFSSEAAKNGFYEYHKENGKLLVFDDISVSSFCGDG  
DFRSSESIDLKKS DIVVTNPPFSLFREYLDQLIKYDKKFLIIANVNSITYKEVFNLIKE

NKIWLGVHLGRGVSGFIVPEHYELYGTEARIDSNGNRIISPNNCLWLTNLDVFI RHKDLPLTRKYFGNESSYPKYDNYDAINVNKTKDIPLDYNGVMGVPITFLHKFNPEQFELIKFRKGVDEKDL SINGKCPYFRILIKNKRLQK

>Q99551

MQSLSLGQTSISKGLNYLTIMAPGNLWHMRNNFLFGSRCWMTRFSAENIFKSVSFRLFGVKCHNTDSEPLKNEDLLKNLLTMGVDIDMARKRQPGVFRMITNEQDLKMFLLSKGASKEV IASIIISRYPRAITRTPENLSKRWDLWRKIVTSDLEIVNILERSPESFFRSNNNLNLENNI KFLYSVGLTRKCLCRLLTNAPRTFSNSLDLNKQMV EFLQAAGLSLGHNDPADFVRKIIFK NPFILIQSTKRVKANIEFLRSTFNLNSEE LVLICGPGAEILDLSNDYARRSYANIKEKL FSLGCTEEEVQKFVLSYDPVIFLAEKKFN DKIDCLMEENISISQI IENPRVLDSSISTLK SRIKELVNAGCNLSTLNITLLSWSKKRYEAKLKKLSRFA

>P14871

MRFIGSKVNLDDNIQEVI EENVKDDAHV FMDLFSGTGIVGENFKKDYQVLSNDSLYFSYI LKAKAIENNSIPNFSSELK KIGIKEPLHYLENEEFEISHEFFLTHNYS PYMGCERMYFTVE NASRIDFIRLTLNRWKNE SLINEL EFAYLLAILIEAVPFI SNISGTYGAYLKHWDKRALG KKLKRLTDIGNNHYANKTYNEDANSLIEKVYGDILYIDPPYNGRQYISNYH LLETIALYD YPEIYGKTGLRPYVESKSLYQKKEVGNAFNHLIEKANFRHILVSYSS EGLLLEEEIESI LKSHGLPETYRIYKMPYRKYKSKHKQEASELHEYIFYIQKDIALTNSVKSNKKEV GKHK TNSYIKSPLNYVGGKHKLLNQIVPLFPDKIDTFVDLFSGGFN VGINVNANKI IATDINTY VVEVLDTMKKTSVEEVIAHIERRIEEYGLSKSNEEGFKAFRNYYNKTKKPLDLYTLICYS FNYQFRFNNNQEYNNPFGRERSQFSPALKKKLVLFIEALHEKNVQFVCSEFEHFNFSQLD QNDLVYCDPPYLITTSYNDGNRGFKDWNRLQEI KLLDILDHLNSKGVYFALS NVLSHKG LENELLLLEWSKKYNIHHLQHSYSNSSSHNTTRGESQEV LITNYTNYTK

>P05102

MIEIKDKQLTGLRFIDLFAGLGGFRLALESCGAECVYSNEWDKYAQEVYEMNFGEKPEGD ITQVNEKTIPDHILCAGFP CQAFSISGKQKGFEDSRGTLFFDIARIVREKKPKVVF MEN VKNFASHDNGNTLEVVKNTMNELDYSFHAKVLNALDYGIPQKRERIYMICFRNDLNIQNF QFPKPFELNTFVKDLLLPDSEVEHLVIDRKDLVMTNQEIEQTTPKTVRLGIVGKGGQGER IYSTRGIAITLSAYGGGIFAKTGGYLVNGKTRK LHPRECARVMGYPDSYK VHPSTSQAYK QFGNSVVINVLQYIAYNIGSSLNFKPY

>P49914

MAAAAVSSAKRSLRGELKQRLRAMSAEERLRQSRVLSQKVIAHSEYQKSKRISIFLSMQD EIEETEEIKDIFQRGKICFIPRYRFQSNHMDMVRIESPEEISLLPKTSWNIPQPGEGDVR EEALSTGGDLIFMPGLGFDKHGNRLGRGKGYDAYLKRCLQH QEVKPYTLALAFKEQIC LQVQVNVNENDMKVDEVLYEDSSTA

>P05103

MATEGGLEARGAIFTRSEMVD FILDLAGYTEDQPLHEKRLLLEPSFGGGDFLLPIIQRLLS AWRAARPNGTEVDDLGDAIRAVELHHD TFRSTYAAVVALLKREGLSANAATALADRWLSQ GDFLLAPLEGQFDFVVG NPPYVRPELIPAPLLAEYRSRYQTM YDRADIYIPFIERSLTAL SAGGNLGFICADRWMKNRYGGPLRSLVAERFHLKVYVDMVDTPAFHSDVIAYPAITIISR EGGGATRIAHRPSIDRATLTTLAGLLSAPTLPK DAGPVRELARVTNGAERGCWSLLTRWR LFAVWRARSHCSKRLGARFGIGVATGADKAFIGDFESLDVEPDRKLP LVTTKDIMTG EVQ WRGQGVINPFAESGGLVDLGEYPRLRRYLEARRDVIAGRHC AKKAPANWYRTIDRITPAL AARP KLLIPDIKGESHIVFEGGELYPSHNLYYVTSDDWDLRALQAVLLSAVSRLFVATYS TKMRGGFLRFQAQYLRIRIPRWADVPEPLRRELAEEAAIKRDVQACNRAVFRLYGLSHEE

RSALGGNGE

>P00474

MTEAATQLPISLNLVDSIREAANSTLDETLRSLKLGQFMSSSAVSELMANLFESYVGEHE  
ILDAGAGVGSLLTAAAFVQONATLNGAKSISSTCYEISEVMVYNLIQVLDLCKIRAMEFEVNW  
QQKIIIESDFIQASVEQLLIENYSPKYNKAILNPPYLKIAAKGRERALLQKVGIEASNLYS  
AFVALAIKQLKSGGELVAITPRSFNGPYFNDFRKQMLDECSLNKIHVFNRSRKSFAKADN  
VLQENIIYHLTKGETQRKVTVYSSTCANDINPTIFEVPPFDEIVKSNNDLFIHIVTNEQ  
ERELANKAGGLPCSLSDLGIQVSTGKVVDFRTRENLSMEYISNSVPLIFPQHLQRCSIVW  
PITKAKKPNALIVNEATNNLMVPNGIYVLTTRRLTAKEEKRRIVASIIYYPDIANVDTVGF  
NKINYFHANGKPLDISLAKGLWVFLNSTLIDKYFRQMNGHTQVNATDLRALRYPTREQLE  
DIANQVDFGEFEQTKIDEIINQSLQLM

>P29347

MRYIGSKKLLPEIKKMVDKHTDGSEEVFLDLFAGTNVANYFKQFYTVYSNDMLFFSYV  
NAKATIENNSKPSFSKLIQAGISSPMTYLQNLVNDETIGYYEVAYSPTGEANYLSVHNA  
KKLDIIRSQIESWKNQNLTEHEYYYYLSSLIIEALPFISNTTGTYGAFKHWDKRSLNDL  
ELQDFTIFDNSKQNKAFNEDANELVQKIKADIVYIDTPYNSRQYASNYHLLNVARNEHP  
TLKGITKIFDWNKLSDYATKGKALVAMRDLIQNINSTHIIISYNNEGIISEEDLTNIIK  
EFSVDGIVDIKKIPYRKYQSKNVSKNKEIYELLFYIQRKPFKSKNKTLNKPLNNVRSSTK  
KYIKSPLNYIGGKYKLLNQILPLFPKNINTFVDIFSGGANVGINVKAKKYIFNDMNTRIN  
EMFRYFQTQPPVKLVQQIEEKIDEWGLSKTNEAFLAFRKHYNTPNPLDLVYVLSFSYN  
YQFRFNNSMEFNPFGRNRSHFSENMRNLLNFVTKLQTLDATFTDNYFNEFDNLSN  
DFIYLDPPYLITTSYNDGKRGFSDWNNTSEMKLLNFMDYLNQHGIRFALSNTVTEHKGKT  
NQLLKDWAYSRLNVNYLDHNYNNSSHNSKSKGSQEVLIITNYETKTFNLLNTK

>P28666

MWKSRAQLCLFSVLLAFLPSASSLNGDSKYMVLVPSQLYTETPEKICLHLYHLNETVTV  
TASLVSQTGRRNLFDELVDKDLFQCVSFIIPTLNSPDEEFLYVDIKGPTHEFSKRNAV  
LVKNKESVVFVQTDKPVYKPGQSVKFRVVSMDKTLRPLNELLPPLAYIEDPKKNRIMQWRD  
IKTENGLKQMSFSLAAEPIQGPYKIVVHKQSGVKEEHSFTVMEFVLPFRFNVDLKVPAIS  
VNDEVLQVTVCGKYTYGKPVPGQVKISICHETEAGCKEVNSKLDNNGCSTQEVNITELQS  
KKRNYEVQLFHVNATVTEEGTGLEFNGYGTTKIERITNKLIIFLKADSHFRHGIPFFVKVR  
LVDIKGDPINERVFIIKAQVLGYTSTTTTDQHGLAKFSDTAGFSGSSLHIKVNHGKDS  
CYFFYCMEERYASAEHVAYAVYSLSKSYIYLVKETSSILPCNQIHTVQAHFILKGDGLVL  
KELVFFYYLVMAQGSIIQTNHHTHQVEPGEAPVKGNFDLEIPVEFSMAPMAKMLIYTIILPD  
GEVIADSVNFEIEKCLRNVLDLFSSSQSLPASQTRLQVTASQSLCGLRAVDQSVLLLK  
PEDELSPSWIYNLPGMQHNKFISSSLSEDREDCILYSSWVAEKHTDWVPHGREKDVYRY  
VEDMDLKAFTNLKIKLPKICFDSAPMSGPRGKFDLAFSSEVSGTLQKGSKRPPPEEPPR  
EDPPPDKPLAETIRKYFPETVWWDIVTVNSTGVAEVEMTVPDTITTEWKAGALCLSNDTGL  
GLSSVVPLQAFQPPFFVEVSLPYSVVRGEAFMLKATVMNYLP TSMRMSVQLEASPDFTAVP  
VGDDHDSYCLSANGRHTSSWLVTPKSLGNVNFVSVVEAQQSSEPCGSEVATVPATGRKDT  
VVKVLIVEPEGIKQEHTFNLSLFCASDAEISEKMSLVLPPTVVKDSARAHFSVMGDILSSA  
IKNTQNLHMPYGCGEQNMVLFAPNIYVLKYLDKTQQLTQKIKTKALGFLRAGYQRELN  
KHKDGSYSAFGDQNGEREGNTWLTAFVLKSFAQARAFIFIDESHI THAFTWLSQQQKDN  
CFRSSGSLFHNDIKHPVVSALSCLESSWKTIEQGRNANFVYTKALMAYAFALAGNQDKR  
NEILKSLDEEAIKEDNSIHWERPQKPRKSEHNLYKQPQASSIEVEMNAYVVLARLTAQPAP  
SPEDLTLRSRSTIMWLTKQQNSNGGFSSTQD TVVALDALSKYGAVTF SRRQKTSLVTIQST  
GSFSQKFQVENSCLLLQVPLPDIPGDYTI SVSGEGCVYAQTTLRYNMHLEKQQSALF  
RVQTVPLTCNNPKGHNSFQISLEISYTGSRPASNMVIADV KMLSGFIPLKPTVKKLERLE

HISRTEVSNNNVLVLDQVTNQTLAFSFI IQQDISVRNLQPAIVKVYDYYETDEVAYAEY  
SSPCSSDKQNV

>Q03469

MDNRP IGVMSGLGGLSVVRVIQQKLPNEEVIFVGDQGHFPYGTKDQAEVRQLALSIGAF  
LLKHDVKMMVACNTATAAALPALQAALPIPVIGVIEPGARAALAQDKKGP IGV IATTAT  
TTAGAYPATIERLAPGTPVIAKATQPMVEIVEHGQTGTAKAQEVVSEQLMTFKEHPVKTL  
IMGCTHFPFLAPEISKAVGPTVALVDPACKETVATAKSWLEQHQAAMGNHAHPNYHLYSTGN  
LPDLRAGVNWLLSGHF DLGTAQIEEGD

>Q8C854

MADADKSEAAAGDDGSQQQPAEPRRDTHPGEPKPPRSSANGVKMENDESVKEEKSDLKE  
KSTGNKKANRPHYPYKDKNSGTGEKKGNRNRVFI SNIPYDMKWQA IKDLMREKVG EVTY  
VELFKDAEGKSRGCGVVEFKDEEFVKKALETMNKYDLSGRPLNIKEDPDGENARRALQRT  
GTSFQGS HASDVGSLVNLPPSILNPNIPPEVISNLQAGRLGSTIFVANLDFKVGWKKL  
KEVFSIAGTVKRADIKEDKDGSRGMGTVTFEQAI EAVQAISMFGQFLFDRPMHVKMDD  
KSVPHEDYRSHDSKTSQLPRGLGGIGMGLGPGGQPI SASQLNITGVMGNLGP SGMGMDGP  
GFGGVNRIGGGVGFGLLEAMNSMAGFGGVGRMGELYRGAMTSSMERDFGRGDIGLSRGFG  
DSFGRLGSAMIGGFAGRIGASNMGPVGTGISGSMSTMSTVTGGMGMGLDRMSSSFDRMGP  
GIGAILERSIDVDRGFLSGPMGSGMRDRLGSKGNQIFVRNLPFDLTWQKLKEKFSQCGHV  
MFAEIKMENGKSKGCGTVRFESAESA EKACRIMNGIKISGREIDVRLDRNA

>Q769K2

MDENENSQSPAPSHQYPKETLRKRQNSVQNSGGSESSRLSRKSFKLDYRLEEDVTKSKKG  
KDGRFVNPWPTWKNVSI PNVLRWLIMEKDHSSVPGSKEELDKELPVLKPYFISDPEEAGV  
REAGLRVTWLGHATLMVEMDELILLTDPMFSSRASPSQYMGPKRFRPPCTISELPPIDA  
VLI SHNHYDHLDYGSVLALNERFGSELRWFVPLGLLDWMQKCGCENVIELDWEEENCVPG  
HDKVTFVFTPSQHWCKRTLDDNKVLWGSWSVLGPWNRFFFAGDTGYCPAFEEIGKRFGP  
FDLAAIPIGAYEPRWFMKYQHADPEDAVRIHIDVQAKRSVAIHWGTFALANEHYLEPPVK  
LNEALERYGLKSEDFFI LKHGESRYLNTDDKA FEET

>P38830

MNEMENTDPVLQDDLVSKYERELSTEQEEDTPVILTQLNEDGTTSNYFDKRKLLKIAPRST  
LQFKVGPPELVLDYCPVVE SHTGRTLDR IIPRIDRGFDHIDEWVGYKRNYFTLVSTF  
ETANCDLDTFLKSSFDLLVEDSSVESRLRVQYFAIKIKAKNDDDDTEINLVQHTAKRDKG  
PQFCPSVCPLVPSPLPKHQI IREASNVRNITKMKKYDSTFYLRHDHVNYEEYGVDSLLFS  
YPEDSIQKVARYERVQFASSISVKKPSQQNKHFSLHVILGAVVDPDTFHGENPGI PYDEL  
ALKNGSKGMFVYLQEMKTPPLIIRGRSPSNYASSQRITVTRTPSSVNSSQNSTKRKMP SMA  
QPSNESCLNARPSKRRSKVALGAPNSGASISPIKSRQSTPMEASKENEDPFFRPNKR VET  
LEHIQNKLGALKNQCPDSSLKYPSSSSRGMEGCLEKEDLVYSSSFVNMKQIELKPARSF  
EHENIFKVGSLAFKKINELPHENYDITIEKKSMEQNYLRPEIGSRSECKTSYGNELSLSN  
ISFSILPNSAENFHLETALFPATEEDVPRFTFSRILETGTSFQNYQKMDAENADR VYSKGV  
KLIASGTLPSGIFNREELFEEDSFYKY

>P46739

MKAKKYENQIYNENGRRCQRHGRR LAIADANGLNTVNAGDGKNLGTATATITTLQSCSVD  
LNLVTPNATVNRAGMLANREITKFSVGSKDCPSDTYAVWFKEIDGEGQGVAQGTTVTNKF  
YLKMTSADGTASVGDINIGTKSGKGLSGQLVGGKFDGKITVAYDSATAPADVITYDLMAA  
VYVQ

>P68739

MDLASLRAQQIELASSVIREDRDKDPPDLIAGADVGFEGGGEVTRAAMVLLKYPSELELV  
EYKVARIATTMPYIPGFLSFREYPALLAAWEMLSQKPDLVFVDGHGISHPRRLGVASHFG  
LLVDVPTIGVAKKRLCGKFEPLSSEPGALAPLMDKGEQLAWVWRSKARCNPLFIATGHRV  
SVDSALAWVQRCKMGYRLPEPTRWADAVASERPAFVRYTANQP

>Q9NPG2

MERPEPELIRQSWRAVSRSPLEHGTVLFARLFALEPDLLPLFQYNCRQFSSPEDCLSSPE  
FLDHIRKVMLVIDAAVTNVEDLSSLEEYLASLGRKHRAVGVKLSSTVGVESLLYMLEKC  
LGPFTPATRAAWSQLYGAVVQAMSRGWDGE

>O50258

MKCMDMFQTADWKTEKHVPAIECDDAVAADAFFPVTVSLGKEIAHPNTEHHIRWIRCYF  
KPEGDKFSYEVSFEFTAHEGCAKGPNEGVPVYTNHTVTFQLKIKTPGVLVASSFCNIHGL  
WESSKAVALK

>O30124

MEDEIRKAAEILAKSKHAVVFTGAGISAESGIPTRFGEGLWRKYDPEEVASISGFKRNP  
RAFWEFSMEMKDKLFAEPNPAHYAIAELERMGIKAVITQNIIDMLHQRAGSRRVLELHGS  
MDKLDCLDCHETYDWSEFVEDFNKGEIPRCRCKGSYVVKPRVVLFGPEPLPQRTLFEAIEE  
AKHCDAFMVVGSSLVVYPAAELPYIAKKAGAKMIVNAEPTMADPFDVKIIGKAGEVLP  
KIVEEVKRLRSEK

>Q687E1

AAVRASPDLLGSRGEDTASDGSVVWAKPYTFRAPPTPGQNSLQRIIVFGDMGKAERDGSN  
EFANYQPGSLNTTDRLEIDLNDYDIVFHIGDMPYANGYLSQWDQFTAQVAPISAKKPYMV  
ASGNHERDWPNTGGFFDVKDSGGEGVPAETMYYPAPENRANFWYKVDYGMFRFCVGDSE  
HDWREGTPQYKFIIECLSTVDRKHQPWLIFTAHRVLGYSSNSWYADQGSFEEPEGRESLQ  
KLWQRYRVDIAYFGHVHNYERTCPLYQSQCVDNADKTHYSGTMNGTIFVVAGGGGSHLSSY  
TTAIPKWSIFRDHDYGFTKLTAFNHSSLLFEYMKSSDGKVYDSFTIHRDYRDVLSCVHDS  
CFPTTLAS

>Q28955

MPLLVEGRRVRLPQSAGDLVRAHPPLEERARLLRGQSVQQVGPQGLLYVQQRELAVTSPK  
DGSVCILGSDATTCHIVVLRHTGNGATCLTHCDGTDTKAEVSLIMSSIKSFSHTQGRG  
LGVHLVGGFSDDRQLSQKLTHQLLSEFDRQEDDIHLVTLCVTELNDREENENHFPIIYGI  
AVNVKTAEIYRASFPDRGPEEELRAARVLTGGPMISIYDAKTEQLRIGPYSWMPFPHVDF  
WLQDDKQILENLSTSPLAEPHFVEHIRSTLMFLKKYPSPTNTLFPGNKALVYKKNEDA  
LWKEISSGET

>Q9UTK4

MFGQNNSSGFGGGTGAFGQNNQQTGGLFGSNSNTPGNTLFGSQNTSTTGFGQNTTQPLFG  
SNTNGGLFGNRNNTTTTGGTGFMSSTGMFGQSNTPAFGGTNATNPSSGGLFGSNTAN  
NNANTGTSFSGSNAGSTGFGSQGTGGGLFGSSTTPATTNAFGTSGFVSSNANAVNGTAN  
PPYAVTSEKDPQTNGTSVFSQITCMPAYRSYSFEELRLQDYNQRRFGNASSTNTTSAFG  
STPAFGASTTFFGQNLSTTNNATPFGTSNATNTTPGSGLFGGSAFGSNTTNTGFGSGT  
NNASGGLFGQNNNTTSTPSTGLFGGSTFNQKPAFSGFGSTTNTTNTGTGTGLFGSNNAT  
NTGTGQTTGGLFGGAATGTGTGFGSSTGGFGSNTMNPNSGMTGLFGFGANNTANNN  
TAPTSTFGGNNSSNFSFGANNAATKPSGFGFGSTTTTPASGGFSFGQANNAPKPAFGS  
TATTAPKPAKTGLFGGLGAGANTNTATNATGTGGSLFGNANTAGSNMFGSANSSTPGTGL



FGSTQTNNATSNTGTGLFGSNANTTNTGGSLFNKPSTTTGGLFGNTTAQQPSTTTSGLF  
GASNTNNQAQTSNFGTGLFQGSQAGQQQPLQASIDQNPYGNPLFSSSTTSQVAPTSIQE  
PIASPLTSKPTPKKAASLPQFWLSPRSHNTARLASISSFAKSAVMNSTSASGKPKSLHLF  
DSLNDVLLSADAFTPRQNIKKLVITHKISKDDILQNGVKNGNDAKSDSKVQEKAPQNEA  
DGSLKKDEHVLSDDYWMKPSIEELS KYPKEKLC SVHQF SVGRTGYGQVAFLKPV DLSGF  
EKLEDIPGKVVVFERKICAVYPVEGSSPPLGEGLNVPAAITTEKTPWPLSRETREP IKDPQ  
NPRYIQHVKRLHRIKDFEIDFNDGKWI FKVQHF SRYGLLDDEEEENDMSST SNEAGNLK  
KYDQPNLKVSGKNSDFVTHHTPGAFPND SKNKELNRHFLK VDD SAPLDDTFMSKVKLDF  
SSDSNVSERGDYDDNAKKVDEVISIEKVDGYSKENNVPLSEDDL SNSSESSNESVYSLVE  
ESDASLAADNMDIEDISEESDREELSSMRFGAQDFHGLVVTDNWRDQLNLSVQRSALIKA  
AFPESQSNANLKNRGIYYNEHDLVTDIFGNQNLDTDRPWQSLDKPGAFIPSKFHFTANG  
SCIYVLKSSDVKIRSIYDFIPTKDPNGTKLLEYQLDQTEVYLDL SGT HAASPRSSMTVKP  
LSLCSGYESIVWDLT SILFDPKNYSLPSELSSSEAREVLYQKLVRESLSEWITK TLEHET  
TTLAKEAETSEERIYILLTGNLIGQACEEAVQS QMNRLSTLIPLVNSDVDIQQEVKQOLE  
EWRKHGDLFPINKFTRLIFELLSGNTDIAEGCGTKGDEYVQSIPITKNMTWLR AFGLKL  
WYNTDISIGEAMQLYVESLQKFPEIMQKPIATSAVQGI EVYDIY LLLKAYAMGTSLEEL  
TIPESAKCSPLNYRVVWQLAIYLSKARSLCDFSDRVVDINMAEDLKPISVHSDQLTLAYA  
SQLEASQWLWSLFLVLLHLENVETRTSTIT SCLARNLRGGLGAGAVEMIEKLCIPESWLN  
EAKALYARYVGDHLNELYFLQEAALYEDAHKVLLD TLAPQAVISGNKTQLKKALEGFNGQ  
TDGLASWRFGQIYSDYLDLLEGNFDANQELKLF TLRKISVALKELNATNLLQKAALHKI  
SRFVNALCNEESLTD AICNLPLPLADSLANLQNISVQF

>P38446

MGICGKLGVAALVALIVGCSPVQSQVPPTELSPSISVHLLLGNPSGATPTKLTDPNYLM  
VKNQYALSYNNSKGTANWVAWQLNSSWLGN AERQDNFRPKTLPAGWVRVTPSMYSGSGY  
DRGHIAPSADRTKTTEDNAATFLMTNMMPQTPDMNRNTWGNLEDYCRELVSQ GKELYIVA  
GPNGSLGKPLKGVTVPKSTWKIVVVL DSPGSGLEGITANTRVIAVNI PNDPELNNDWRA  
YKVSVDLESLTGYDFLSNVSPNIQTSIESKVDN

>P0A780

MKPAARRRARECAVQALYSWQLSQNDIADVEYQFLAEQDVKDVDVLYFRELLAGVATNTA  
YLDGLMKPYLSRLLLEELGQVEKAVLR IALYELSKRSDVPYKVAINEAIELAKSFGAEDSH  
KFVNGVLDKAAPVIRPNKK

>P83433

QAPNYSTASYNVAVKINLFLSTNNKLYIHDTGVRVAVYLAGMKVYLAANPTASSQTFNSD  
TLVYILD TGINEPNYYINLY

>Q06ZW0

MKTL LLA VAVVAFVCLGSADQLGLGRQQIDWGQQA VGLPHGFCIQCNRK TWSNCSIGHR  
CLPYHMTCYTLYKPDENGEMK WAVKGCARMCP TAKSGERVK CCTGASCNSD

>P60237

RICHSQMSSQPPTTTFCRVNSCYRRTL RDPHDPRTIIVRGCGCPRMKPGTKLECCTSDK  
CNV

>Q9Y6K5

MDLYSTPAAALDRFVARRLQPRKEFVEKARRALGALAAALRERGGRLGAAAPRVLKT VKG  
GSSGRGTALKGGCDSELVIFLDCFKSYVDQRARRAEILSEMRASLESWWQNPV PGLRLTF  
PEQSVPGALQFRLT SVDL EDWMDVSLVPAFNVLGQAGSGVKPKPQVYSTLLNSGCQGGEH

AACFTELRRNFVNIRPAKLKNI LLLVKHWYHQVCLQGLWKETLPPVYALELLTIFAWEQG  
CKKDAFSLAEGRLTVLGLIQQHQLCVFWTVNYGFEDPAVGQFLQRQLKRPRPVILDPAD  
PTWDLGNGAAWHWDLAQAASCYDHPCFLRGMGDPVQSWKGPGLPRAGCSGLGHP IQLD  
PNQKTPENSKSLNAVYPRAGSKPPSCPAPGPTGAASIVPSVPGMALDLSQIPTKELDRFI  
QDHLKPSPPQFQEQVKAIDIILRCLHENCVHKASRVSKGGSFGRGTDLRDGDVELIIFL  
NCFTDYKDQGPRAEILDEMRAHVESWWQDQVPSLSLQFPEQNVPEALQFQLVSTALKSW  
TDVSLLPADFVAVGQLSSGTKPNPQVYSRLLTSGCQEGEHKACFAELRRNFMNIRPVKLN  
LILLVKHWYRQVAAQNKGKGPAPASLPPAYALELLTIFAWEQGCRQDCFNMAQGFRTVLG  
LVQQHQQLCVYWTVNYSTEDPAMRMHLLGQLRKPRPLVLDPADPTWNVGHGSWELLAQEA  
AALGMQACFLSRDGTSPQWDVMPALLYQTPAGDLDFISEFLQPNRQFLAQVNKAVDTI  
CSFLKENCFRNSPIKVIKVVKGGSSAKGTALRGRSDADLVVFLSFCFSQFTEQGNKRAEII  
SEIRAQLEACQQRQFEVVKFEVSKWENPRVLSFSLTSQTMLDQSVDFDVLPAFDALGQLV  
SGSRPSSQVYVDLIHSYSNAGEYSTCFTELQRDFIISRPTKLSLIRLVKHWYQQCTKIS  
KGRGSLPPQHGLELLTVYAWEQGKDSQFNMAEGFRTVLELVTQYRQLCIYWTINYNAKD  
KTVGDFLQQLQKPRPIILDPADPTGNLGHNARWDLAKEAAACTSALCCMGRNGIPIQP  
WPVKA AV

>P80045

YYEAPPDGRHLLLQPAPAAPAVAPAPASWPHQQRQALDEFAAAAAAAAADAQFQDEEED  
GRRV

>P0AA16

MQENYKILVVDDMRLRALLERYLTEQGFQVRSVANAEQMDRLLTRESFHLMLDLMLPG  
EDGLSICRRLRSQSNPMPIMVTAKEEVDRIVGLIEGADDYIPKPFNPRELLARIRAVL  
RRQANELPGAPSQEEAVIAFGKFKLNLGTREMFREDEPMPPLTSGEFAVLKALVSHPREPL  
SRDKLMNLARGREYSAMERSIDVQISRLRRMVEEDPAHPRYIQTVWGLGYVFPDGSKA

>Q9FK25

MGSTAETQLTPVQVTDDEAALFAMQLASASVLPMAKLSALELDLLEIMAKNGSPMSPTI  
ASKLPKTNPEAPVMLDRILRLTSSVLTCSNRKLSGDGVERIYGLGPVCKYLTKNEDGV  
SIAALCLMNQDKVLMESWYHLKDAILDGGIPFNKAYGMSAFYHGTDPFRNKVFNNGMSN  
HSTITMKKILETYKGFEGLTSLVDVGGGIGATLKMIVSKYPNLKGINFDLPHVIEDAPSH  
PGIEHVGGDMFVSVPKGDAIFMKWICHOWSDEHCVKFLKNCYESLPEDGKVILAECILPE  
TPDSSLSTKQVVHVDCIMLAHNPGGKERTEKEFEALAKASGFKGIKVVCDAFGVNLI ELL  
KKL

>P83467

AYAQWVIIIIHNVSQDVKIKNLKASWGKLLHADGDKDAEVSASNYEGKII

>Q26417

MEALSDLACREIKMESHSPQDSKDLNVKPVKLERLGMSSSPRLTIDCGDTGRSPVPSHM  
EPPGARVPYPMHLYPYAYSNPMYGEALPAPDRHLPPTQQHPMFQPQLGPMTSERP  
HSNGIDPPRKQRRERTTFTRAQLDVLETLSRTRYPDIFMREEVAMKINLPESRVQVWFK  
NRRAKCRQQQQQQNGPNSNNTTNKPRPAKKTTPPTPRENDAPT'TTSSDTPPFKASPSV  
SSSMPNNNSIWSPASIAQPMSDHLAANMSNNSCMQHSYTMPNAQPAAGYTAQGYQSPY  
FGAGLDYLSHMPQFPFSINHMAASAMNNGPMTTMSQLPPPHAHMPMGAMSSAECIDG  
KEQPQWKFSL

>P82604

MKNMPENHNPQANAWTAEFPPPEMSYVVFAQIGIQSKSLDHAAEHLGMMKKSFDLRTGPKH

VDRALHQGADGYQDSIFLAYWDEPETFKSWVADPEVQKWWSGKKIDENSPIGYWSEVTTI  
PIDHFETLHSGENYDNGVSHFVPIKHTEVHEHYWGAMRDRMPVSASSDLESPLGLQLPEPI  
VRESFGKRLKVTAPDNICLIRTAQNWSKCGSGERETYIGLVEPTLIKANTFLRENASETG  
CISSKLVYEQTHDGEIVDKSCVIGYYLSMGHLERWTHDHPHKAICYGTFYEMLRHDFKT  
ELALWHEVSVLQSKDIELIYVNCHPSTGFLPFFFEVTEIQEPLLKSPSVRIQ

>P31228

MDTVRIAVVGAGVMGLSTAVCISKMVPGCSITVIVSDKFTPETTSVAAAGMLIPPTYPDTP  
IQKQKQWFKETFDHLFAIVNSAEAEADAGVILVSGWQIFQSIPTEEVPYWADVVLGFRKMT  
KDELKKFPQHVFHGAFTTLKCEGPAYLPWLQKRKVGNGGLILTRRIEDLWELHPSFDIVV  
NCSGLGSRQLAGDSKIFPVRGQVLKVQAPWVKHFIRDSSGLTYIYPGVSNTLGGTRQKG  
DWNLSPDAEISKEILSRCCALEPSLRGAYDLREKVGLRPTRPSVRLEKELLAQDSRRLPV  
VHHYGHGSGGIAMHWGTALEATRLVNECVQVLRTPAPKSKL

>P20474

MRTLWIMAVLLVGVESLIEFAKMILEETKRLPFPYTTYGCYCGWGGQGPKDADRCC  
FVHDCCYGKLSNCKPKTDRYSSSRKSGVVICGEGTPCEKQICECDKAAAVCFRENLRITYK  
KRYMAYPDLCKKPAEKC

>P14418

SLIQFETLIMKVAKKSGMFWYSNYGCYCGWGGQGRPQDATDRCCFVHDCCYKVTGCDPK  
MDVYSFSEENDIVCGDDPCKKEICECDRAAAICFRDNLTLYNDKKYWAFGAKNCPQEE  
SEPC

>Q3C2C1

MKTFLILAMAVALAKAQSTDEITNLVQFGKLVMLGNIGYTEGLEVDGYGCFGKGGKGT  
PVDATDRCCFVHDNDCYQAVEEGKCWSVETYGTTYWYDQSTSGSCSIRCWEEDYNSLVP  
RKACKAAICECDRKAQQCFADNRPTFNRKYLNYAKDTC

>Q9PVF4

MRTLWILAVLLVSDVGSFMNLWKMIMVMTGKEATKNYGMGCNCGPMKRGKPKDATDQCC  
ADHDCCYKKLTDKDPKKESSYSYKFEKGEILCGETNPCLNQACECDKAVATCFRDNLDTYN  
KKQQFNTGIFCSKAKAC

>Q8C0L6

MAFPGRVLLVVGSGIAGLGAAQKLCSHRAAPHLRVLEATASAGGRIRSERCFGGVVELGA  
HWIHGPSQDNVVFQLAAEFGLLGEKELSEENQLVDTGGHVALPSMIWSSSGTSSVLELMT  
EMARLFYGLIERTREFLNESETPMASVGEFLKKEISQQVASWTEDEDEDTRKRKLAILNTF  
FNIECCVSGTHSMDLVALAPFGEYTVLPGLDCILAGGYQGLTDRILASLPKDTVAFDKPV  
KTIHWNGSFQEAAPFGETFPVLVECEDGARLPAHHVIVTVPLGFLKEHQDTFFEPPLPAK  
KAEAIKKLGFGTNNKIFLEFEFPFWEPCQFIQVWEDTSPLQDTALSQDTWFKKLIGF  
LVQPSFESSHVLGFIAGLESEFMETLSDEEVLLSLTQVLRRTGNPQLPAKSVRRSQW  
HSAPYTRGSYSYVAVGSTGDDLDLMAQPLPEDGTGTQLQVLFAGEATHRTFYSTTHGALL  
SGWREADRLVSLWDSQVEQSRPRL

>P51874

MVRGARKAIAVGVAVAVACGLQKHLNFVPGPRHAAPVAAAAASMMMAFAFADEIGDAAK  
KLGDAYSFAKEVDWNNGIFLQAPGKQPLEALKAIDKMIEMGAAADPKLLKDAAEAHHK  
AIGSISGPNVTSRADWAVNAIIGRVVASVPKAKVMAVYDSVTAITDPGVPAYMKSILVN  
GPDAEKAYQGFLEFKDVVEKNQVATASAPAVVPSGDKIGEAAKALSDASYPFIKDIDWLS

DIYLKPLPGKTAPETLKAIDKMIVMGAKMDGNLLKAAAEAHHKAIGSIDATGVTSAADYE  
AVNAAIGRLVASVPKTTVMDVYNSMAGVVDSSVPPNNLFSKVNPLDAVAAAKGFYTFKDVV  
EASQR

>P56255

MNFLSEQLLAHLNKEQQEAVRTTEGPLLIMAGAGSGKTRVLTHRIAYLMAEKHVAPWNIL  
AITFTNKAAREMRERVQSLGGAEDVWISTFHSMCVRI LRRI DRIGINRNF SILDPTD  
QLSVMKTILKEKNIDPKKFEPTILGTISAANKNELLPEQFAKRASTYYEKVVSDVYQEY  
QQRLLRNHSLDFDDLIMTTIQLFDRVPDVLHYYQYKFQYIHIDEYQDTNRAQYTLVKKLA  
ERFQNICAVGDADQSIYRWGADIQNILSFERDYPNAKVILLEQNYRSTKRILQAANEVI  
EHNVNRKPKRIWTENPEGKPILYYEAMNEADEAQFVAGRIREAVERGERRYRDFAVLYRT  
NAQSRVMEEMLLKANIPYQIVGGLKFYDRKEIKDILAYLRVIANPDDDL SLLRI INVPKR  
GIGASTIDKLVRYAADHEL SLEALGELEMIGLGAKAAGALAAFRSQLEQWTQLQEYVSV  
TELVEEVLDKSGYREMLKAERTIEAQSRLENLDEF LSVTKHFENVSDDKSLIAFLTDLAL  
ISDLDEL DGT EQAAEGDAVMLMTLHAAKGLEFPVVF LIGMEEGIFPHNRSLEDDDEMEEE  
RRLAYVGITRAEEELVLTSAQMRTLFGNIQMDPPSRFLNEIPAHLLETASRRQAGASRPA  
VSRPQASGAVGSWKVGD RANHRKWGIGTVVSVRGGGDDQELDIAFPSPIGIKRLLAKFAP  
IEKV

>P06776

MSTLFLIGIHEIEKSQTI VQNEHYFDRVIELQDLDSL MVALYKDRVSPFPNVHNFETGVS  
IVLYDPSKFLQLSVRQLDVLFKRFFPSFNISAIDHTREENLQRLECVRENSICRNRITRI  
NHWMYHHHDDTPDGINKNSYGT VNGNSVPTQACEANIY TLLLHLNDSKAQH LRKASV PRL  
IRNIEFMSFLSDPIEKISQEGSHYWNILSTWDFCALSLSTQELIWCGF TLIKKLSKDAKV  
LIADNKL LLLLFTLESSYHQVNKFHNRHAIDVMQATWRLCTYLLKDNVPQTLLL CMAAI  
GHDVGHPGTNNQLLCNCESEVAQNFKNVSILENFHREL FQQLLSEHWPQLLSISKKKFDF  
ISEAILATDMALHSQYEDRLMHENPMKQITLISLIIKAADISNVTRT L S ISARWAYLITL  
EFNDCALLET FHK AHRPEQDCFGDSYKNVDSPKEDLESIQNILVNVTD PDDI IKDHPHIP  
NGQIFFINTFAEVFFNALSQKFSGLKFLSDNVKINKEYWMKHKKPKQ

>P33164

MTTPQEDGFLRLKIASKEKIARDIWSFELTDPQGAPLPPFEAGANLTVAVPNGSRRTYSL  
CNDSQERNRYVIAVKRDSNGRGGSSISFIDDTSEGD AVEVSLPRNEFP LDKRAKSFILVAG  
GIGITPMLSMARQLRAEGLRSFRLYYLTRDPEGTAFFDELTSDEWRSDVKIHHDHGDPTK  
AFDFWSVF EKSKPAQH VYCCGPQALMDTVRDMTGHWP SGT VHFESFGATNTNARENTPFT  
VRLSRSGTSFEIPANRSILEVLRDANVRVPSSCESGTCG SCKTALCSGEADHRDMVLRDD  
EKGTQIMVCVSRAKSAELVLDL

>P52718

MLFRSLLSTAVLAVSLCTDNASAAKHGRFGQKARDAMNIAKRSANAVKHS LKIPVEDYQF  
LNNKTKPYRVE SLPDVHFDLGEMYSGLVPIEKGNVSRSLFFVFQPTIGEPVDEITIWLN  
GPGCSSLEAFLQENGRFVWQPGTYQPVENPYSWVNL TNVLWVDQPVGTGFS LGVPTATSE  
EEIAEDFVKFFKNWQQIFGIKNFKIYVTGESYAGRYVPYISAAFLDQNDTEHFNLKGALA  
YDPCIGQFDYVQEEAPVVPFVQKNNALFNFNASFLAELES IHEQC GYKDFIDQYLVPAS  
GVQPPKAMNWS DPTCDVYDIVNNAVLDPNCFNPYEINEMCPI LWDVLGFPT EVDYLPAG  
ASIYFDRADV KRAMHAPNITWSECSVESVFGDGGPEQEGDY SANPIEHVLPQVIEGTN  
RVLIGNGDYDMVIL TNGTLLSIQNMTWNGKLGFD TAPSTP INIDIPDLMYNEVFIENGYD  
PQGGQGVMIQH YERGLMWAETFSQSGHMQPQFQPRVSYRHLEWLLGRRD TL

>Q44238

MNKLAVLVYAEHIATLQKRTREI IERENLDGVVVFHSGQAKRQFLDDMYYPFKVNPQFKAWL  
PVIDNPHCWIVANGTDKPKLIFYRPFVDFWHKVPDEPNYEWADYFDIELLVKPDQVEKLLP  
YDKARFAYIGEYLEVAQALGFELMNEPVMNFYHYHRAKYTQYELACMREANKIAVQGHK  
AARDAFFQGKSEFEIQAYLLATQHSENDNAYGNIVALNENCAILHYTHFDRVAPATHRS  
FLIDAGANFNNGYAADITRITYDFTGEGEFAELVATMKQHQIALCNQLAPGKLYGELHLDCH  
QRVAQTLSDFNIVDLADEIVAKGITSTFFPHGLGHHIIGLQVHDVGGFMADEQGAHQEPP  
EGHPFLRCTRKIEANQVFTIEPGLYFIDSLGDLAATDNNQHINWDKVAELKPFGGIRIE  
DNIIVHEDSLENMTRELRLRALTTHSLRGLSAPQFSINDPAVMSEYSYPSEPLSYEEEEIKK  
STFIVHVRTRRILVRRRTLSPILIAVTPMPAITAGLM

>Q9X4A7

MVLPNFKENLEKYAKLLVTNGINVQPGHTVALSIDVEQAELAHLLVKEAYALGAAEVIVQ  
WSDDTINRERFLHAEMNRIIEVPAYKKAEMEYLLEKKASRLGVRSSDPDAFNGVAPERLS  
AHAKAIGAAFKPMQVATQSNKVSWTVAAAAGKEWAKKVFPNASSDEEAVDLLWNQIFKTC  
RVYEKDPVRAWKEHADRLDAKARILNEAQFSALHYTAPGTDLTLGLPKNHVWESAGAINA  
QGESFLPNMPTTEEVFTAPDFRRAYGYVSSTKPLSYNGNIEGKVTFKDGEIVDITADQG  
EKVMKNLVFNNGARALGECALVPDSSPISQSGITFFNTLFDENASNHLAIGAAAYATSVE  
GGADMTEEELKAAGLNRSDVHVDFIIGSNQMNIDGIIHHDGSRVPIFRNGDWVI

>P08967

MSLVPKKSIDDAVVKGKKVLIRVDFNVPVKNGEITNDFRIRLSALPTIQKVLKEGGSCILM  
SHLGRPKGAKMSDPKPAKSVRGYEEAATLRPVAARLSELLGQKVEFAPDCLDAASYAAKL  
KGGDVLLENVRFYAEESKKEEERDAMAKVLAAYGDVYVSDAFGTAHRDSADMTGIPKV  
LGAGYAGYLMEKEINYFAQVLNPPRPLVAIVGGAKVSDKIQLLDNMLGRINYLVIGGAM  
AYTFQKAQGHAIIGISMCEEDKLDLAKSLLKKAQERNVEVLLPVDHVCNKEFQGVDAPLVT  
KDVEIPEGYMALDIGPKTIKIYEDVIAKCKSTIWNPGMGVFEPCYSKGTFAVAKAMGNG  
TQKNGLMSIIGGGDTASAAELSGEAKNMSHVSTGGGASLELLEGGKSLPGVTVLTKDAKA  
PAAAAAAGGDCPCGSGCAAVPAAATATVSMVLASP

>P30967

MNDRADFVVPDITTRKNVGLSHDANDFTLPQPLDRYSAEDHATWATLYQRQCKLLPGRAC  
DEFMEGLERLEVDADRVPDFNKLNQKLMAATGWKIVAVPGLIPDDVFFEHLANRRFPVTW  
WLREPHQLDYLQEPDVFHDLFGHVPLLINPVFADYLEAYGKGGVKAKALGALPMLARLYW  
YTVEFGLINTPAGMRIYGAGILSSKSESIYCLDSASPNRVGF'DLMRIMNTRYRIDTFQKT  
YFVIDSFKQLF'DATAPDFAPLYLQLADAQPWGAGDVAPDDLVLNAGDRQGWADTEDV

>P0C2Y0

MQAPSVHQHVAFTEEIGDLPDGSSYMIRVPENWNGVLIIRDLDLVSGTSNSNAARYETMLK  
EGFAVAGTARHPLRQWQYDPAHEIENLNHVLDTFEENYGSPEVVIQYGCSSGAHVSLAVA  
EDFSDRVDGSVALAAHTPVWIMNSFLDGFSLQSLIGEYYVEAGHGPLSDLAITKLPNDG  
SSNSSGHGMEGDLPAAWRNAFTAANATPEGRARMALAFALGQWSPWLADNTPQPDLDDE  
AIADSVYESAMRLAGSPGGEARIMFENAARGQQLSWNNDDIDYADFWENSNPAMKSAVQEL  
YDTAGLDLQSDIETVNSQPRIEASQYALDYWNTPGRNVIIGDPEVPVLRRLHMIQDYQIPYS  
LVQGYSDLI SENNDDLYRTAFVQSTGHCNFTAEESSAAIEVMMQRLDTGEWPSTEPDDL  
NAIAEASNTGTEARFMALDGWEIPEYNRTWKPE

>P17157

MSSSSQFKQLEKLGNGTYATVYKGLNKTTGVYVALKEVKLDSEEGTPSTAIRESISLMKEL  
KHENIVRLYDVIHTENKLTLVFEFMDNDLKKYMSRSTVGNTPRGLLELNLVKYFQWQLLQG  
LAFCHENKILHRDLKPNLLINKRGQLKLGDFGLARAFGIPVNTFSSEVVTLWYRAPDVL

MGSRTYSTSIDIWSCGCILAEMITGKPLFPGTNDEEQLKLIFDIMGTPNESLWPSVTKLP  
KYNPNIQORPPRDLRQVLQPHTKEPLDGNLMDFLHGLLQLNPDMLSAKQALHHPWFAEY  
YHHAS

>Q9NRX4

MAVADLALIPDVIDSDGVFKYVLIIRVHSAPRSGAPAAESKEIVRGYKWAHEYHADIYDKV  
SGDMQKQGCDCCECLGGGRISHQSQDKKIHVYGYSMAYGPAQHAISTEKIKAKYPDYEVTW  
ANDGY

>P59083

LAAADLAQIPDVIDSDGVFKKWAHEYHADIYDKGLDCECLGGGRSVTWADDGY

>O00085

MGFLAIVLSVALLFRSTSGTPLGPRGKHSDCNSVDHGYQCFPELSHKWGLYAPYFSLQDE  
SPFPLDVPEDCHITFVQVLARHGARSPTHSKTKAYAATIAAIQKSATAFPKGKYAFLQSYN  
YSLDSEELTPFGRNQLRDLGAQFYERYNALTRHINPFVRATDASRVHESAEKFVEGFQTA  
RQDDHHANPHQPSPRVDVAIPEGSAYNNTLEHSLCTAFESSTVGDDAVANFTAVFAPAIA  
QRLEADLPGVQLSTDDVNLMMAMPFETVSLTDDAHTLSPFCDLFTATEWTQYNYLLSLD  
KYYGYGGGNPLGPVQGVGWANELMARLTRAPVHDHTCVNNTLDASPATFPLNATLYADF  
HDSNLVSIWFALGLYNGTAPLSQTSVESVSQTDGYAAAATVPFAARAYVEMMQCRAEKEP  
LVRVVLVNDRVMLHGCPTDKLGRCKRDAFVAGLSFAQAGGNWADCF

>P36623

MTTEAAPNLLVLRHGESEWNKLNLF TGWKDPALSETGIKEAKLGGERLKSRYKFDIAF  
TSALQRAQKTCQIILEEVGEPNLETIKSEKLNERYYGDLQGLNKDDARKKWGAEQVQIWR  
RSYDIAPPNGESLKDTAERVLPHYKSTIVPHILKGEKVLIAAHGNSLRALIMDLEGLTGD  
QIVKRELATGVP IVYHLDKDGKYVSKELIDN

>Q29081

MAPLGSVPRLVLLFSGKRKDGKDFVTEALQSR LGADVCAILRLSGPLKEQYAEHGLDFQ  
RLLDASTYKESYRKDMIRWGQEKRQADPGFFCRKIVEGVSQPIWLVS DTRRLSDIQWFQE  
TYGAVTQTVP

>O14156

MSIRFLKRLRAPLYIQNAYCSKNYFYRSFIQYSPSNGPYLKISMNKAPQSLGLCTARGD  
SPTNQDRMAYGYLNNLKDTTNRDSPFFYGLFDGHHGGTECFEFLSTNLGKI IENQDLNDE  
KILKEVHVSVGGYMAGLKPPFSLRTVLQSRDEDLLWRARLYYSFLQADM DYLTNYARPSPD  
SAVPGAVGTVAIITSKNNLSYWESDSYI IHLAHVGDTRALLCDSRTGRAHRLTFQHHPAD  
VEEARLRRYNMGFSRDSFGQKRFAWVANTRSF GDGYKLLKLGVAEPQLTSIHS LRDDW  
SFLTLLSDGITDVVSDDEVVDI IKLSESPQDAANNI IRYAQNVGAVDDITCLVVR LPGWK  
KRTINDFTKNLRLEKSAYHPRRS

>P19405

MKKFPKLLPIAVLSSIAFSSLASGSVPEASAEKKGQDEIKNVIVLIGDGMGVSYS  
AYRYLKDNKTKVVEPTAFDQYLVGQQTTPDDPEQNVTD SAAAAATAMSAGIKTYNNAIA  
VDNDGSEAKTVLEAAKEK GKATGLVATSEITHATPASFGSHDHSRKNMNSIADDYFDEM  
V  
NGKHKIDVLLGGGKSNFDRKDRNLIKEFKKAGYSYVDDRK DMLKNKDSQVLGLFADGGLP  
KKIDRTKDI PSLKDMTNTAIKKLNKDKDGGFFLMVEGSQIDWAGHDNDIVGAMSEMEDFEQ  
AYKAAIDFAKKDKHTLVVATADHSTGGYSIGADSIYNWFSEPIKAAKRTPDFMAEKIADG  
ADVEKTLKTYIDQKLLALTKAEIQSV EEAASKEVLDIDNAIENIFNKRSH TGWTGGHT

GEDVPVYAYGPSSETFAGQIDNTEIAKNVFKALQYNIKINDK

>P19406

MKKMSLFQNMKSKLLPIAAVSVLTAGIFAGAELOQTEKASAKKQDKAEIRNVIVMIGDGM  
GTPYIRAYRSMKNNGDTPNPKLTFEFDRLNLGMMTHPDDPDYNIITDSAAAGTALATGVK  
TYNNAIGVDKNGKVKVSVLEEAKQQGKSTGLVATSEINHATPAAYGAHNE SRKNMDQIAN  
SYMDDKIKGKHKIDVLLGGGKSYFNRKRNRLTKEFKQAGYSYVTTKQALKKNKDQQVLGL  
FADGGLAKALDRDSTPSLKDMTVSAIDRLNQNKKGFFLMVEGSQIDWAAHDNDTVGAMS  
EVKDFEQAYKAAIEFAKKDKHTLVIATADHTTGGFTIGANGEKNWHAEPILSAKKTPEFM  
AKKI SEGKPVKVDLARYANLKV TSEEIKSVEAAAQADKSKGASKAIKIFNTRSNSGWTS  
TDHTGEEVPVYAYGPGKEKFRGLINNTDQANIIFKILKTGK

>P48147

MLSFQYDPVYRDETAVQDYHGHKICDPYAWLEDPDSEQTKAFVEAQNKITVPPFLEQCP  
IRGLYKERMTELYDYPKYSCHFVKKRYFYFYNTGLQNRVLYVQDSLEGEARVFLDPN  
ILSDDGTVALRGYAFSEDEYFAYGLSASGSDWVTIKFMKVDGAKELPDVLERVKFSCMA  
WTHDGKGMFYNSYPQQDGKSDGTETSTNLHQKLYYHVLGTDQSEDILCAEFDPDEPK  
WMGGAELSDDGRYVLLSIREGCDPVNRLWYCDLQQESSGIAGILKWKLIIDNFEGEYD  
YVTNEGTVFTFKTNRQSPNYRVINIDFWDPEESKWKVLVPEHEKDVLEWIA CVRSN  
FLVLCYLHDVKNILQLHDLTTGALLKTFPLDVGSI VGYSGQKDKTEIFYQFTSFLSPGI  
IYHCDLTKEELEPRVFREVTVKGIDASDYQTVQIFYP SKDGTKIPMFIVHKKGIKLDG  
SHPAFLYGYGGFNISITPNYSVSRILIFVRHMGGILAVANIRGGGEYGETWHKGGILAN  
KQNCFFDFQCAA EYLIKEGYTSPKRLTINGGSNGLLVAACANQRPD LFGCVIAQVGM  
DMLKFHKYTI GHAWTTDYGCSDSKQHF EWLVKYSPLHNVKLPEADDIQYPSMLLL  
LTADHDDRVP LHS LKF IATLQYIVGRSRKQSNPLLIHVDTKAGHGAGKPTAKV  
IEEVSDMFAFIARCLNVDWIP

>P22259

MRVNNGLTPQELEAYGISDVHDIVYNPSYDLLYQEELDPSLTGYERGLTNLGAVAVDTG  
IFTGRSPKDKYIVRDDTTRDTFWWADKKGKNDNKPLSPETWQHLKGLVTRQLSGKRLF  
VDAFCGANPDTRL SVRFITEVAWQAHFVKNMFI RPSDEELAGFKPDFIVMNGAKCTNP  
QWKEQGLNSEN FVAFNLTERMQLIGGTWYGGEMKKGMFSMMNYLLPLKGIASMHCSAN  
VGEKGDVAVFFGLSGTGKTTLSTDPKRRLIGDDEHGWDGDFVNFEGGCYAKTIKLSKE  
AEPEIYNAIRR DALLENTVREDGTIDFDDGSKTENTRVSYP IYHIDNIVKPVSKAGH  
ATKVI FLTADAFGVLPPVSRLTADQTQYHFLSGFTAKLAGTERGIT EPTPTFSACFG  
AAFLSLHPTQYAEVLVKRMQAAGAQA YLVNTGWNGTGKRISIKDTRAIIDAILNGSLD  
NAETFTLPMFNLAIPTELPGVDTKILDPRNTYASPEQWQEKAETLAKLFI DNFDKYTD  
TPAGAALVAAGPKL

>Q9AGJ6

MTSATIPGLDTAPT KHQGLLAWVQEVAELTQPDRVVFADGSDEEYERLCAHLVEAGTFQK  
LNPEKQPN SYLALSDPSDVARVESRTFICTEREIDAGPTNNWMDPAEMRGIMTDLYRGS  
M RGRTLYVVVFCMGPLDAEDPKLGVEITDSEYVVVSMRTMTRMGRAALDKLGDDGFFV  
KALHSIGAPLEPGQKDVPWPCNDTKYITHFPETREIWSFGSGYGNALLGKKCYSLRIAS  
AMA HDEGWLAEHMLILKLI SPENKAYFIAAAFP SACGKTNLAMLQPTIEGWRAETV  
GDDIAWMRF GKDGRLYATNPEFGFFGVAPGTNWS SNP NAMKTI AAGNTVFTNVAKT  
DDGDVWWEGLE GDPQHLIDWKNDWTPESGEKAAHPNSRYCTPISQCPTLAP EWDDP  
QGVPI SA I LFGGRRKTTVPLITEARDWQHGVFIGATL GSEQTAAAEKVGTVRRDPM  
AML PFLGYNVGDYFAHWINVGN ADESKLPKVFFVNWFRRGDDGRFLWPGFGENS  
RVLKWAVERIEHKADGKSTPIGIVPTAADLDLEGLDVPADVDEALAVKPEEWRAEL  
PLIEEFVFEFVGEKLP TGLKDEFDALKERLG

>A5U654

MTSTGPETSETPGATTQRHGFGIDVGGSGIKGGIVDLDTGQLIGDRIKLLTPQPATPLAV  
AKTIAEVVNGFGWRGPLGVTYPGVVTHGVVRTAANVDKSWIGTNARDTIGAEELGGQQVTI  
LNDADAAGLAETRYGAGKNNPGLVLLTFGTGIGSAVIHNGTLIPNTEFGHLEVGGKEAE  
ERAASSVKEKNDWYTPKWAKQVIRVLI A IENAIWPD LFIAGGGISRKADKWVPLEN RTP  
VVPAALQNTAGIVGAAMASVADTTH

>Q9ZP19

APIQAPEISKCVVPPADLPPGAVVDNCCPPVASNIVDYKLPVAVTTMKVRPAAHTMDKDAI  
AKFAKAVELMKALPADDPRNFYQQALVHCAYCNGGYDQVNFDPQEIQVHNSWLFFPFHRW  
YLYFYERILGKLIGDPSFGLPFWNWDNPGGMVLPDFLNDSTSSLYDSNRNQSHLPPVVVD  
LGYNGADTDVTDQQRITDNLALMYKQMVVNAGTAEFLGKAYRAGDAPSPGAGSIETSPH  
IPIHRWVGDPRTNNE DMGNFY SAGRDI AFYCHHSNVDRMWTIWQQLAGKPRKRDYTDSD  
WLNATFLFYDENGQAVKVRIGDSLNDQKMGYKYAKTPLPWLDSPVPTKKKGGYASKSKA  
PFVASVFPVTLDKVVQVKVARPKKSRSAEKEAE EEEILLIVGIEVEIDKYAKFDVYLND S  
DDPSGGKDKAEYAGSFAHLPHKHKGMKKIRTTLSLGLNEPLEDLGAEDDDTILVTLAPKV  
GGGVVSVDNVKVVYGS

>P07013

MTNRLVLSGTVCRAPLRKVS P SGIPHCQFVLEHR SVQEEAGFHRQAWCQMPVIVSGHENQ  
AITHSITVGSRITVQGFISCHKAKNGLSKMVLHAEQIELIDSGD

>P85142

VNVLGGIEYSINNATLCSVGF SVRVFN YAEGAVRGLTQGNACMGRGDSGGSWFTL FERQY  
GL

>P77243

MSAQINNIRPEFDREIVDIVDYVMNYEISSKVAYDTAHYCLLDTLGCGLAELEYPACKKL  
LGP IVPGT VVPNGVRVPGTQFQLDPVQAAFNIGAMIRWLD FNDTWLAAEWGHPSDNLGGI  
LATADWLSRNASVASGKAPLTMKQVLTAMIKAHEIQGCIALENSFN RVGLDHVLLVKVAST  
AVVAEMLGLTREEILNAVSLAWVDGQSLR TYRHAPNTGTRKSWAAGDATSRAVRLALMAK  
TGEMGYPSALTAPVWGFYDVSFKGESFRFQRPYGSYVMENVLFKISFPAEFHSQTAVEAA  
MTLYEQMQAAGKTAADIEKVTIRTHEACIRIIDKKGPLN NPADR DHC IQYMVAIPLLFGR  
LTAADYEDNVAQDKRIDALREKINCFEDPAFTADYHDPEKRAIANAITLEF'TDGTRFEV  
VVEYPIGHARRRQDGIPKLVDFKINLARQFPTRQQQRILEVSLDRARLEQMPVNEYLDL  
YVI

>P15369

MKFTTAAVLSALVSAEIAFAAPGGNGFARRQARRQARAAGLKASPFQRVNAKEATVESNW  
GGAILIGSDFD TVSATANVPSASGGSSAAGTAWVGIDGDTCTAILQTGFWDYGDGTYDA  
WYEWYPEVSDDFSGITISEGDSIQMSVTATS D TSGSATLENLTTGQKVSKSFSNESSGSL  
CRTNAEFIIEDFEECNSNGSDCEFPVFAFSPAVEFTDCSVTSDGESVSLDDAQITQV I I  
NNQDVTDCSVSGTTVSCSYV

>P37272

MSVALLWVVSPCDVSNGTGFLVSVREGNRIFDSSGRRNLACNERIKRGGGKQRWSFGSYL  
GGAQTGSGRKF SVRS AIVATPAGEMTMSSERMVYDVVLRQAALVKRQLRSTDEL DVKKDI  
PIPGTLGLLSEAYDR CSEVCAEYAKTFYLGTM LMPERRKAIWAIYVWCRRTDELVDGPN  
ASHITPAALDRWEDRLEDVFSGRPFDM LDAALSDTVSKFPVDIQPF RDMI EGMRMDLRKS  
R YRNFD ELYLYCYVYVAGTVGLMSVPIMGIAPESKATTESVYNAALALGIANQLTNI LRDV



GEDARRGRVYLPQDELAQAGLSDEDIFAGRVTDKWRIFMKKQIQRARKFFDEAEKGVTEL  
SAASRWPVLAASLLLYRRILDEIEANDYNNFTKRAYVSKPKKLIALPIAYAKSLVPSTRT

>P26599

MDGIVPDIIVGTRKGSDELSTCVTNGPFIMSSNSASAANGNDSKKFKGDSRSAGVPSRV  
IHIRKLPIDVTEGEVISLGLPFGKVTNLLMLKGNQAFIEMNTEEAANTMVNYTSTVTPV  
LRGQPIYIQFSNHKELKTDSSPNQARAQAALQAVNSVQSGNLALAASAAAVDAGMAMAGQ  
SPVLRRIIVENLFYPVTLQVHQLHIFSKFGTVLKIITFTKNNQFQALLQYADPVSAQHAKLS  
LDGQNIYNACCTLRIDFSKLTSLNVKYNNDKSRDYTRPDLPSGDSQPSLDQTMAAAFGLS  
VNVHVALAIPSAIAIPGLAGAGNSVLLVSNLNPVRTVTPQSLFIFLFGV  
YGDVQRVKILFNKKENALVQADGNQAQLAMSHLNGHKLHGKPIRITLSKHQNVQLPREG  
QEDQGLTKDYGNSPLHRFKKPGSKNFQNIFFPSATLHLSNIPPSVSEEDLKVLFSSNGGV  
VKGFKFFQKDRKMALIQMGSVEEAVQALIDLHNHDLGENHHLRVSFSTI

>P0A7D1

MTIKLIVGLANPGAAYAATRHAGAWFVDLLAERLRAPLREEAKFFGYTSRVTLGGEDVR  
LLVPTTFMNLSGKAVAAMASFFRINPDEILVAHDELDPGGVAKFKLGGHGHNGLKDI  
ISKLGNNPNFHRLRIGIGHPGDKNKVGVFLGKPPVSEQKLIIDEAIDEAARCTEMWFTDG  
LTKATNRLHAFKAQ

>P0A0E0

MSELSNDNIFLNVNVNSQNEAIEKAGKALVDSGAVTDAYIQVVSTFMGNGLAIPHGTDD

>P05458

MPRSTWFKALLLLVALWAPLSQAETGWQPIQETIRKSDKDNRYQAIRLDNGMVLLVSD  
PQAVKLSLALVVPVGSLEDPEAYQGLAHYLEHMSLMGSKKYPQADSLAEYLKMHGGSHNA  
STAPYRTAFYLEVENDALPGAVDRLADAIAEPLLDKKAERERNAVNAELTMARTRDGMR  
MAQVSAETINPAHPGSKFSGGNLETLSDKPGNPVQQALKDFHEKYYSANLMKAVIYSNKP  
LPELAKMAADTFGRVPNKEKSKPEITVPVVTDAQKGI I IHVVPALPRKVL RVEFRIDNNS  
AKFRSKTDELITYLIGNRSPGTLSDWLQKQGLVEGISANS DP IVNGNSGVLAISASLTDK  
GLANRDQVVA AIFSYLNLREK GIDKQYFDELANVLDIDFRYPSITRDMDYVEWLADTMI  
RVPVEHTLDAVNIADRYDAKAVKERLAMMTPQNARIWYISPKEPHNK TAYFVDAPYQVDK  
ISAQTFADWQKKAADIALSLPELNPYIPDDFSLIKSEKKYDHP ELIVDESNLRVVYAPSR  
YFASEPKADVSLILRNPKAMDSARNQVMFALNDYLAGLALDQLSNQASVGGISFSTNANN  
GLMVNANGYTQRLPQLFQALLEGYFSYTATEDQLEQAKSWYNQMMSAEK GKAFEQAIMP  
AQMLSQVPYFSRDERRKILPSITLKEVLAYRDALKSGARPEFMVIGNMTEAQATTLARDV  
QKQLGADGSEWCRNKDVVVDKQSVIFEKAGNSTDSALAAVFPVTGYDEYTSSAYSLLG  
QIVQPWFYNQLRTEEQLGYAVFAFPMSVGRQWGMGFLLSNDKQPSFLWERYKAFFPTAE  
AKLRAMPDEFAQIQQAVITQMLQAPQTLGEEASKLSKDFDRGNMR FDSRDKIVAQIKLL  
TPQKLADFFHQAVVEPQGMAILS QISGSQNGKAEYVHPEGWK V WENVSALQQTMPLMSEK  
NE

>Q6LU24

MEILRGSPALSEFRVNKLLERCRELDLPVSGIYA EFMHFADVSAPLNSDEQSKLASLLTY  
GPTIAEHEPTGTMLLVTPRPGTISPWSSKSTDIAQNCALGNVKRLERGTAYYVEVTADLT  
NAQLTDLKALIHDRMMEVVFTD VDSAAAALFTQAEPA PVQSVDILVGGRKALEDANLKLGL  
ALAEDEIDYLVENFTMLGRNPNDIELMMFAQANSEHCRHKIFNADWTIDGVEQEKS LFKM  
IKNTYEKNHEHVL S AYKDNAAVMEGSEVGRFFPNPESRQYNYHQEAAHILMKVETHNHPT  
AISPWP GASTGSGGEIRDEGATGLGKKPKAGLVGFTVSNL RVPGFEQPWETDFGKPRIV  
NALEIMLEGLPLGAAFNNEFGRPNLLGYFRTYEEKVTSHNGEEIRGYHKPIMIAGGMGNI

RADHVQKKEIPVGAKLIVLGGPAMNIGLGGGAASSMASGQSAEDLDFASVQRENPEMERR  
CQEVIDRCWQMGDANPIAFIHDVGGAGGISNALPELVDDGERGGKFQLRNVPNDEPGMSPL  
EIWCNESQERYVMVAVPENLAVFEAICKRERAPFAVVGATEERHLLTLEDEHFDNTPIDM  
PMDILLGKAPKMHRDAKTLKVEGQAIDRSGLIELEAATQRVLRRLPAVAEKTFLITIGDRSV  
TGLVARDQMVGPWQVPVANCAVTAASYDTHYHGEAMSMGERTPVALLDFGASARLAVGEAI  
TNIASADIGDMKRINLSANWMSAPGHPGEDAGLYEAVKAVGEELCPALGLTIPVKGDSMS  
MKTKWEQDGEQKEVTSPLSLVITAFGRVEDVRKTVTPQLRTDKGESSLILIDLGCQNR  
GATALAQVYKQLGDKPADVDNPELLKGGFFAVQALVRDEKVLAYHDRGDGGLYVTLAEMA  
FAGHTGVEVDINTSESDACDDVLAMLFNEELGAVLQVRTEDLDTVKSVLAEHGLTACSHV  
IGTVVDEDVVR.IWNGNDRVLEQSRITDLRTVWAETTYQMAMRDNPAGALQEFKAKDN  
PGLSAQLTFDINEDVAAPFIAAPFITKAPKTGASVWNAPAINLGAKPQMAILREQGVNSH  
VEMAAAFDRAGFEATDVHMSDILSGNVQLEGFNGLVACGGFSYGDVVGAGEGWAKSVL  
FN NIARDQFEAFFKRNDTFSGLVCNGCQMMSNLSELIPGSDLWPRFVRNESERFEARFSL  
VE VQKSDSLFFNEMAGSRMPIAVSHGEGRVEVRNGEHLNAIEQSGTVALRYLDNFGNVTQ  
NY PANPNGSPNGITGLTTMDGRVTIMMPHPERVFRTVANSWHPDDWNENSPWMRMFRNAR  
VNLG

>P27616

MSITKTEL DGI LPLVARGKVRDIYEVDAGTLLFVATDRISAYDVIMENS IPEKGI LLTKL  
SEFWFKFLSNDVRNHLVDIAPGKTIFDYLPKLSSEPKYKTQLEDRLSLVHKHKLIPLEVI  
VRGYITGSAWKEYVKTGTVHGLKQPQGLKESQEFPEPIFTPSTKAEQGEHDENISPAQAA  
ELVGGDL SRRVAELAVKLYSKCKDYAKEKGI I IADTKFEFGIDEKTNE I I LVDEVLT  
PDS SRFWNGASYKVGESQDSYDKQFLRDWLTANKLNGVNGVKMPQDIVDRTRAKYIEAYET  
LT GSKWSH

>P00259

MSKVYVSHDGTRELDVADGVSLMQAAVSNGIYDIVGDCGGSASCATCHVYVNEAFTDK  
VPAANEREIGMLECVTAELKPN SRLCCQIIMTPELDGIVVDVPDRQW

>Q46444

MERLIDNSHGWPGRMVWLLAACLGSAFAAQTGPAAQAAAAVQRVDGDFIRANAARTPDW  
PTIGVDYAETRYSRDLQINAANVKDLGLAWSYNLESTRGVEATPVVVDGIMYVSASWSV  
HAIDTRTGNIWITYDPQIDRSTGFKGCCDVNRGVALWKGVYVGAWDGRLIALDAATGK  
EVWHQNTFEGQKGLTITGAPRVFKGKVI I GKRGAEYGVRYITAYDAETGERKWRWFSV  
PGDPSKPFEDESMKRAARTWDPGKWEAGGGTMDWDSMTFFDAELNTMYVGTGNGSPWSH  
KVRSPKGGDNLYLASIVALDPDTGKYKWHYQETPGDNWDYTSTQPMILADIKIAGKPRKV  
ILHAPKNGFFVLDRTNGKFI SAKNFVPVNWASGYDKHGKPIGIAAARDGSKPQDAVPGP  
YGAHNWHPMSFNPQTGLVYLP AQNVPNLMDDKKWEFNQAGPGKPQSGTGWNTAKFFNAE  
PPKSKPFGRLLAWDPAQKAAWSVEHVSPWNGGTLTTAGNVVFQGTADGRLVAYHAATGE  
KLWEAPTGTGVVAAPSTYMDGRQYVSVAVGWGGVYGLAARATERQGPVTYTFVAGKA  
RMPEFVAQRTGQLLQGVKYDPAKVEAGTMLYVANCVFCHGVPGVDRGGNIPNLGYMDASY  
IENLPNFVFKGPAMVRGMPDFTGKLSGDDVESLKAFIQGTADAIRPKP

>Q6IUU3

MRRCGRHSGPPSLLLLLLLLLPPLLLSVPGAYAARLSVLYSSSDPLTLLDADTVRPAVLGS  
SSAWAVEFFASWCGHCIAFAPTWKELANDVKDWRPALNLAVLDCADETNSAVCREFNIA  
G FPTVRFFKAFSKNGTGTALPAAGANVQTLRMRLIDALESHRDTWPPACPPLEPAKLDIN  
EFFTRSKAEYLALIFEREDSYLGREVTLDLSQFHAVAVRRVLNSES DVVSKFAVTD  
FPSC YLLLLRNGSVSRVPVLVESRPFYTSYLRGLPGLTREAPPPTAAPVTPDKIAPT  
VWKFADRS KIYMADLESALHYILRVEVGKFSVLEGRQLVALKKFVAVLAKYFPGQPLVQ  
NFLHSINDW

LQKQKKKIPYSYFKAALDSRKENAVLAEKVNWIGCQGSEPHFRGFPCSLWVLFHFLLTVQ  
AHRYSEAHQPQEPADGQEVLLQAMRSYVQSFQCRDCANHFQMAAASMHQVKSPSNAVLWL  
WTSNHRVNRALSGALSEDPQFPKVQWPPRELCSACHNEVNGQVPLWDLGATLNFLLKAHFS  
PANIVRDPAPGPASRRGTQDPEASPNLVMDTLKLETGNSVLGHEQAASAASPGATALDV  
PAGKPEASGPQELNAGLSMGGASPGQGPPEHTEELLRDVQENAQQQHLSKRDTEALLLP  
EVNHLQGPLAPRRGGHSPKQLASILEGEPEALAIQGRRQWLQVLGGVVSFLDISLCVGLY  
SVSFMGLLAMYYTFRARMRTPKGHVSYPYTA

>P26374

MADNLPTEFDVVIIGTGLPESILAAACSRSGQRVLHIDSRSYGGNWSFSSGLLSWLK  
EYQONNDIGEESTVWQDLIHETEEAITLRKKDETIQHTEAFQYASQDMEDNVEEIGALQ  
KNPSLGVSNFTTEVLDSALPEESQLSYFNSDEMPAKHTQKSDTEISLEVTDVVEESVEKEK  
YCGDKTCMHTVSDKDGDKDESKSTVEDKADEPIRNRITYSQIVKEGRRFNIDLVSLLYS  
QGLLIDLLIKSDVSRYVEFKNVTRILAFREGKVEQVPCSRADVFNSKELTMVEKRMLMKF  
LTFCLEYEQHPDEYQAFRQCSFSEYLKTKKLTPLNQHFLHSIAMTSESSCTTIDGLNAT  
KNFLQCLGRFGNTPFLLPLYGQGEIPQGFRCMCAVFGGIYCLRHKVQCFVVDKESGRCKA  
IIDHFGQRINAKYFIVEDSYLSEETCSNVQYKQISRAVLITDQSILKTDLDQQTSLIVP  
PAEPGACAVRVELCSSTMTCKMKTYLVLHTCSSSKTAREDLVSVKLLFTPYTETEINE  
EELTKPRLWALYFNMRDSSGISRSSYNGLPSNVVYVCSGPDCLGNEHAVKQAEITLQEI  
FPTTEFCPPPPNPEDIIFDGDQKQPEAPGTNNVVMAKLESSEESKNLESPEKHLQN

>P0A7H3

MEGWQRAFLHSRPWSETSLMLDVFTTEESGRVRLVAKGARSKRSTLKGALQPFTPLLLRF  
GGRGEVKTLRSAAEAVSLALPLSGITLYSGLYINELLSRVLEYETRFSELFDFYLHCIOQL  
AGVTGTPEPALRRFELALLGHLGYGVNFTHCAGSGEPVDDTMTYRYREEKGFIAVVIDN  
KTFTGRQLKALNAREFPDADTLRAAKRFTRMALKPYLGGKPLKSRELFRQFMPKRRTVKTH  
YE

>Q9EP95

MKTTTCSLLICISLLQLMVPVNTDETIEIIVENKVKELLANPANYPSTVTKTLSCTSVKT  
MNRWASCPAGMTATGCACGFACGSWEIQSGDTCNCLCLLVDWTTARCCQLS

>Q8ISF8

MNSLIKENMRMMVMEGSVNGYQFKCTGEGDGNPYMGTQTMRIKVVVEGGPLPFAFDILAT  
SFMYGSKFTIKHTKGIPTDFKQSFPEGFTWERVTRYEDGGVFTVMQDTSLEDGCLVYHAK  
VTGVNFPSNGAVMQKKTGWEPNTEMLYPADGGLRGYSQMALNVDGGGYLSCSFETTYRS  
KKTVENFKMPGFHFVDHRLERLEESDKEMFVVQHEHAVAKFCDLPSKLGRL

>Q03305

MSELHALLTFPERPISQSYVPKLQHFLKSGIPATYTTLEQVAAFEHEEKNRNGDKEFRES  
TDDNKTSNTTPLHVLARSLPLDIKDEELQVMDMMNILFEYGAGWNFIDYEDKTVGDLFL  
ERNQSRESPLYRRLVEAGVSAELLLRKLNGGDVEFLDTDELIGIEPEESVQTAVDGQKEE  
SVGSDDDATAANQQVYLKTELEYKDDALITKENKDGVMMDWETKIMELASETLFPDPEAT  
NSATILNIGFGMGIIDTFIQARKPYRHYICEAHPDVLAKMKMDGWYEKDNVVIILEGRWQD  
TLNNLLDKGEVFFDGIYYDTFSEHYQDILDLYDVVVGLIKPEGVFSFFNGLGADRSLCYD  
VYKEIVEIDVATYGMKCDYTRYSLDEQLPDWNDVKRSYFNCNYYYHPRITFA

>P11916

MCAKSLLLVFGILLGLSHLSLSONWATFQQKHIINTPIINCNTIMDNNIYIVGGQCKRVN  
TFIISSATTVKAICTGVINMNVLSTTRFQLNTCTRTSITPRPCPYSSRTETNYICVKCEN

QYPVHFAGIGRCP

>O74035

MKIAGIDEAGRGPVIGPMVIAAVVVDENSLPKLEELKVRDSKKLTPKRREKLFNEILGVL  
DDYVILELPPDVIGSREGTLNEFEVENFAKALNSLKVKPDVIYADAADVDEERFARELGE  
RLNFEAEVVAKHKADDIFPVVSAASILAKVTRDRAVEKLEKEEYGEIGSGYPSDPRTRAF  
ENYYREHGEFPPIVRKGWKTLKKIAEKVESEKKAERQATLDRYFRKV

>P35398

MNEGAPGSDLETEARVPWSIMGHCLRTGQARMSATPTPAGEGARRDELFGILQILHQCI  
LSSGDFAVLTGVCCSWRQNGKPPYSQKEDKEVQTGYMNAQIEIIPCKICGDKSSGIHYGV  
ITCEGCKGFFRRSQSNATYSCPRQKNCLIDRTSRNRCQHCRLOKCLAVGMSRDAVKFGR  
MSKKQRDSLYAEVQKHRMQQQQRDHQQQPGEAEPLTPTYNISANGLTELHDDLSDNYIDGH  
TPEGSKADSAVSSFYLDIQSPDQSGLDINGIKPEPICDYTPASGFFPYCSFTNGETSPT  
VSMAELEHLAQNISKSHLETCQYLREELQQITWQTFLEEEIENYQNKQREVMWQLCAIKI  
TEAIQYVVEFAKRIDGFMELCQNDQIVLLKAGSLEVVVIRMCRAFDSQNNTVYFDGKYAS  
PDVFKSLGCEDFISFVFEFGKSLCSMHLTEDEIALFSAFVMSADRSLWQEKVKIEKLQQ  
KIQLALQHVQKNHREDGILTKLICKVSTLRALCGRHTEKLMFAKAIYPDIVRLHFPLY  
KELFTSEFEPAMQIDG

>P35640

MDTMVDFKTLPYRKGVGIVVFNREGQVWIGRRLITSSHTYAEVSKLWQFPQGGIDEGEEP  
LDAARRELYEETGMRSVNLIKEVQDWFCYDFPQELIGHVLNNQYRGQMOKWFAFQFIGET  
SEIVINSPENSNAEFDQWKWINLEVLPSIVVSFKRHVYMKVVHEFRNII

>P10726

MQSLNYEDQVLWTRWKEWKDPKAGDDLRRYMPVLYTYHVGRI SVGLPKSVHKDDLMSLGM  
LGLYDALEKFDPSRDLKFDTYASFRIRGAIIDGLRKEDWLPRTSREKTKKVEAAIEKLEQ  
RYLRNVSPAIEAEELGMTVQDVVSTMNEGFFANLLSIDEKLDHQQDDGENIQVMIRDDKNV  
PPEEKIMKDELIAQLAEKIHELSEKEQLVVSLFYKEELTLTEIGQVLNLSTSRISQIHSK  
ALFKLKNLLEKVIQ

>O00442

MAGPRVEVDGSIMEGGQILRVSTALSCLLGLPLRVQKIRAGRSTPGLRPQHLSGLEMIR  
DLCDGQLEGAEIGSTEITFTPEKIKGGIHTADTKTAGSVCLLMQVSMPCVLF AASPSELH  
LKGGTNAEMAPQIDYTMVFKPIVEKFGFIFNCDIKTRGYYPKGGGEVIVRMSPVKQLNP  
INLTERGCVTKIYGRAVAVGLPFKVAKDMAAAAVRCIRKEIRDLYVNIQPVQEPKDQAF  
GNGNGIIIIAETSTGCLFAGSSLGKRGVNADKVGIEAAEMLLANLRHGGTVDEYLDQQLI  
VFMALANGVSRIKTGPVTLHTQTAIHFAEQIAKAKFIVKKSSEDEEDAADTYIIIECQIG  
MTNPNL

>Q2PDF6

MAEKENVHPQVISSFPTPSKALKLSEKSSLKDVQTDNAAVPLVVDSETSYPEPTCEFYGG  
LGPQLPEAERFVLDPALVEEYRHKKPPFGFNGLGEVVYLRITYAREKDNGQSEVWLDTVQR  
VVTGTFEVLQHHVVNKLHCHWDAQKAKERSEDMFRRIFEMKFLPPGRGLWAMGSPICRKK  
GFAAALNNCAVSTATLEKDRVGFPLFLMDASMLGVGVGFDNAGAGSFTVPGPDDTQPTY  
KFMIIPDKREGWVESLKRLLKAHFCHTADVEFDYSKIREMGTCLKTFGGTSSGPGPLINLH  
KSIRKILVGEKGPISVTCITDIMNLIGVCTVAGNIRRSAEIAFGEADCKEFLDLKSYET  
NPHRVEYGWASNNISIFAKVGM DYSDACERVRTNGEPGFAWLSNMQAFSRMNGKPDYRDQR  
VLGGNPCLEQSLESMECLLVETFPDKHETLEDFKRTLYSALLYAKTVTLLPLHWRESNE

IMLRNRRIGCSVSGIAQFITNRGLHELKTWLEEGYDILHQYDCQISEWLCIRQSIKLTSTV  
KPSGTISLVAGATPGVHYPESCYYTRRLRMARDSPLLERLIKAGYHVEPCCVAPDVTAIV  
EFPVAAGNSIRTRDITMWEQLSLAAFMRQYWADNQVSATITTFDPETEGLHLNQALQYFQ  
YQLKGISFLPRYPMGAFKQMPYEAITKEQYEEAIRKVKEDVSLSSANAIAETVEENQQT  
CDNDRCIKL

>Q59490

MSEEISLSAEFIDRVKASVKPHWGKLGWVTYKRTYARWLPEKGRSENWDETVKRVEGNI  
NLDPRLQDSPSLELKQSLTEEAERLYKLIYGLGATPSGRNLWISGTDYQRRTGDSLNNCW  
FVAIRPQKYGDSKIVPSYLGKQEKAVSMPFSFLFDELKMGGGVGFVSARSNISQIPRVDF  
AIDLQLVVDSETSESVDASVKVAVGKNELVQDADSIYYRLPDTRREGWVLANALLIDLHFA  
QTNPDRKQKLIILDLSDIRPYGAEIHGFGGTASGPMPLISMLLDVNEVLNNKAGGRLTAVD  
AADICNLIGKAVVAGNVRRSAELALGSNDDQDFISMKQDQEKLMHHRWASNNSVAVDSAF  
SGYQPIAAGIRENGEPGIVNLDLSKNYGRIVDGYQAGIDGDVEGTNPGCEISLANGEPCN  
LFEVFPPIAAEQGWDLQEVFALAAARYAKRVTFSPYDWEISREIIQKNRRIGISMSGIQDW  
LLTRLGNRVVVTGFKDDFDPETHEAIKVPVYDKRAIKMVDQLYKAVVKADQDYSKTLGCNE  
SIKHTTVKPSGTVAKLAGASEGMHFHYGAYLIQRIRFQSDPPLLPAKACGYRTEADIYT  
ENTTCVEFPKAVGADNPNFASAGTVSIAEQFATQAFQTYWSDNAVSCITTFQDSEGDQ  
VESLLRQYRFITKSTSLLPYFGGSLQQAPKEPIDKETYEKRSQEITGNVEEVFSQLNSDV  
KDLELVDQTDCEGGACPIK

>P0A8I1

MSGTLLAFDFGTKSIGVAVGQRITGTARPLPAIKAQDGTDPWNI IERLLKEWQPDEI IVG  
LPLNMDGTEQPLTARARKFANRIHGRFGVEVKLHDERLSTVEARSGLFEQGGYRALNKGK  
VDSASAVI ILESYFEQGY

>P00926

MENAKMNSLIAQYPLVKDLVALKETTWFNPGTTS LAEGLPYVGLTEQDVQDAHARLSRFA  
PYLAKAFPETAATGGII ESELVAIPAMQKRLEKEYQQPISGQLLLKKDSHLPISGSIKAR  
GGIYEVLAHAEKLALEAGLLTLDDDYSKLLSPEFKQFFSQYSIAVGSTGNLGLSIGIMSA  
RIGFKVTVHMSADARAWKKAKLRSHGVTVVEYEQDYGVAVEEGRKAAQSDPNCFF IDDEN  
SRTLFLGYSVAGQRLKAQFAQQGRIVDADNPLFVYLP CGVGGGPGGVAFGLKLAFGDHVH  
CFFAEPHSPCMLLGVTGLHDQISVQDIGIDNLTAADGLAVGRASGFVGRAMERLLDGF  
YTLSDQTMYDMLGWLAQEEGIRLEPSALAGMAGPQRCASVSYQQMHGFSAEQLRNTTHL  
VWATGGGMVPEEEMNQYLAKGR

>P40363

MKVVKEFSVCGGRLIKLSHNSNSTKTS MNVNIYLPKHYYAQDFPRNKR IPTVFYLSGLTC  
TPDNASEKAFWQFQADKYGFAIVFPDTS PRGDEVANDPEGSWDFGQAGFYLNATQEPYA  
QHYQMYDYIHKELPQTLDSHFNKNGDVKLDLFDNVAITGHSMGGYGAICGYLKGYSGKRY  
KSCSAFAPIVNPSNVPWGQKAFKGYLGEEKAQWEAYDPCLLIKNI RHVGGDRILIHVGD  
DPFLEEHLKPELLLEAVKATSWQDYVEIKKVHGFHDSYFVSTFVPEHAEFHARNLGLI

>P39135

MKIYGIYMDRPLSQEENERFMTFISPEKREKRRFYHKEDAHRTLLGDVLRVSVISRQYQ  
LDKSDIRFSTQYEGKPCIPDLPAHFNI SHSGRWVIGAFDSQPIGIDIEKTKPISLEIAK  
RFFSKTEYSDLLAKDKDEQTDYFYHLWSMKESFIKQEGKGLSLPLDSFSVRLHQDQVSI  
ELPDSSHSPCYIKTYEVDPGYKMAVCAAHPDFPEDITMVSYEELL

>P71753

MTTARPAKARNEGQWALGHREPLNANEELKKAGNPLDVRERIENIYAKQGFDSIDKTDLR  
GRFRWWGLYTQREQYDGTWTGDDNIDKLEAKYFMMRVRCDGGALSAAALRTLQIISTEF  
ARDTADISDRQNVQYHWEVENVPEIWRRLDDVGLQTTEACGDCPRVVLGSPLAGESLDE  
VLDPTWAIIEEIVRRYIGKPDFADLPRKYKTAISGLQDVAHEINDVAFIGVNHPEHGPGLD  
LWVGGLSTNPMLAQRVGAWVPLGEVPEVWAAVTSVFRDYGRRRLRAKARLKFLIKDWGI  
AKFREVLETEYLKRPLIDGPAPEPVKHPIDHVGVRQLKNGLNAVGVAPIAGRVSPTILTA  
VADLMARAGSDRIRFTPYQKLVILDDIPDALLDDLIAGLDALGLQSRP SHWRRNLMACSGI  
EFCKLSFAETRVRAQHLVPELERRLEDINSQLDVPITVNINGCPNSCARIQIADIGFKGQ  
MIDDGHGGSVEGFQVHLGGHLGLDAGFGRKLRQHKVTSDELGDYIDRVVRNFVKHRSEGE  
RFAQWVIRAEEDDLR

>P34707

MGGSSRRQRSTSATRDRDDKRRRRQCFSSVADDEEETTSIYGVSSIFIWILATSSLILVIS  
SPSSNTSIQSSSYDRITTKHLLDNISPTFKMYTDSNMRNFDEVNHQHQEQDFNGQSKYD  
YPQFNRPMGLRWRDDQRMMEYFMSNGPVETVPVMPILTEHPPASPFGRGPSTERPTSSR  
YEYSSPSLEDIDLIDVLRSDIAGEKGTRQVAPADQYECDLQTLTEKSTVAPLTAENAR  
YEDLSKGFYNGFFESFNNNQYQKHKQQQREQIKTPTLEHPTQKAELEDDLDFEDLAQLF  
EDVSREEGQLNQLFDNKQQHPVINNVSLSEGIVYNQANLTEMQEMRDSCNQVSI STIPTT  
STAQPETLNFVNTDSQTVQWLPTEVVPNDVFPPTSNYAYIGMQNDSLQAVVSNQIDYDHS  
YQSTGQTPLSPLIIGSSGRQQQTQTSVSVTVTATATQSLFDPYHSQRHSFSDCTTDS  
TCSRLSSESPRYTSESSTGTHESRFYGLAPSSGSRYSRQSSSPRSSQSSIKIARVVPLAS  
GQRKRGRQSKDEQLASDNELPVSAFQISEMSLSELQOVVKNESLSEYQRLIRKIRRGK  
NKVAARTCRQRRTDRHDKMSHYI

>Q14493

MACRPRSPRRHQSRCDGDASPPSPARWSLGRKRRADGRRWRPEDAEAEHRGAERRPESF  
TTPEGPKPRSRCSDWASAVEEDEMTRVNKEMARYKRKLLINDFGRERKSSSGSSDSKES  
MSTVPADFETDESVMRRQKQINYGKNTIAYDRYIKEVPRHLRQPGIHPKTPNFKKYSR  
RSWDQQIKLWKVALHFWPPAEEGCDLQEIHPVDLESAESSSEPQTSSQDDFDVYSGTPT  
KVRHMDSQVEDEFDLEACLTEPLRDFSAMS

>Q29495

MSTPSVHCLKPSPLHLPSGIPGSPGRQRHTLPANEFRCCLTPEDAAGVFEIEREAFISVS  
GNCPLNLDEVQHFLTLCPESLGLWVVEGRLVAFIIGSLWDEERLTQESLALHRPRGSAH  
LHALAVHRSFRQQGKGSVLLWRYLHHVGAQPAVRRRAVLMCEDALVPFYQRFQFHPAGPCA  
IVVGS�TFTEMHC SLRGHAALRRNSDR

>Q08826

MPREFKSFGSTEKSLLSKGGHGEPSYSEIYAEPENFLEIEVHNPKTHIPNGMDSKGMFTDY  
EIIICRTNLPSFHKRVSQVRRRYSDFEFFRCLIKEISMLNHPKVMVPHLPKILLSNRFS  
NEVIEERRQGLNTWMQSVAGHPLLQSGSKVLVRFIEAEKFBVG

>P0AGD1

MKRFLAILALVVATGAQAASEKVEMNLVTSQGVGQSIGSVTITETDKGLEFSPDLKALP  
PGEHGFHIIHAKGSCQPATKDGKASAAESAGGHLDPQNTGKHEGPEGAGHLGDLPALVVNN  
DGKATDAVIAPRLKSLDEIKDKALMVHVGGDNMSDQPKPLGGGGERYACGVK

>P81926

MSIKAVCVLVGSVKGTLNFKQDAIGSCTVTGEVSGLIPGKHGFHIEHYGDLTNGCTSSGG  
HFNPFKQIHGAPEDDIRHVGD LGNITADSSGVATVNI TDRMISL TGEHSIIGRAVVHAG

EDDLGKGGHEDSKTTGHAGGRLSCGVIGINHL

>P79371

MAAQKDLWDIVIGAGIQGCFTVYHLVKHRKRILLLEQFFLPHSRGSSHGQSRIIRKAYL  
EDFYTRMMHECYQIWAQLEHEAGTQLHRQTGLLLLGGMKENQELKTIQANLSRQRVEHQCL  
SSEELKQRFPNIRLPRGEVGLLDNSGGVIYAYKALRALQDAIRQLGGIVRDGEKVVEINP  
GLLVTVKTTSRSYQAKSLVITAGPWTNQLLRPLGIEMPLQTLRINVCYWREMPGSGYVVS  
QAFPCFLWLGLCPHHIYGLPTGEYPPGLMKVSYHHGNHADPEERDCPTARTDIGDVQILSS  
FVRDHLPLDKPEPAVIESCMYTNTPDEQFILDHRHPKYDNIVIGAGFSGHGFKLAPVVGKI  
LYELSMKLTPSYDLAPFRISRFPPLGKAHL

>Q10411

MSNQSSSGSNTSDLDEESASSLVSSAASPFIIDSDLETPRPNISRASGTQLAEDGDTSSQH  
EDSSEELKRQEVGMRRHSDLSIDAKLGSSEGSTASSALPLTPRSPSNASWLLVRGGLLD  
SPILDINSVTQKSNLLNELKQVRSKLAALEHENGILSLQLSSSNKKDKNTSSVTTLTSEE  
DVSYFQKKLTNMFSAKQSEAYDLRQLLTVTEKLDKKEKDYEKIKEDVSSIKASLAE  
EQASNKSLRGEQERLEKLLVSSNKTVSTLRQTENSLRAECKTLQEKLEKCAINEEDSKLL  
EELKHNVANYSDAIVHKDKLIEDLSTRISEFDNLKSERDTLSIKNEKLEKLLRNTIGSLK  
DSRTSNSQLEEMVELKESNRTIHSQLTDAESKLSSEFEQENKSLKGSIDEYQNNLSSKDK  
MVKQVSSQLEEARSSLAHATGKLAEINSERDFQNKIKDFEKIEQDLRACLNSSNELKE  
KSALIDKKDQELNNLREQIKEQKKVSESTQSSSLQSLQRDILNEKKKHEVYESQLNELKGE  
LQTEISNSEHLSSQLSTLAAEKEAAVATNNELSESKNSLQTLCNFAEQEKLAKSVMQLKEN  
EQNFSSLDTSFKKLNESHQELENNHQITTKQLKDTSSKLQQLQLERANFEQKESTLSDEN  
NDLRTKLLKLEESNKSLIKKQEDVDSLEKNIQTLKEDLRKSEALRFKLEAKNLREVID  
NLKKGHETLEAQRNDLHSSLSDAKNTNAILSSELTKSSEDVKRLTANVETLTQDSKAMKQ  
SFTSLVNSYQISINLYHEL RDDHVNMQSOMNTLLESESKLKTDCENLTQQNMTLIDNVQK  
LMHKHVNQESKVSSELKEVNGKLSLDLKNLRSSLNVAISDNDQILTLQLAELSKNYDSLEQE  
SAQLNSGLKSLEAEKQLLHTENEELHIRLDKLTGKLIKIEESKSSDLGKKLTARQEEISNL  
KEENMSQSQAITSVKSKLDETLSSKSSLEADIEHLKNKVSEVEVERNALLASNERLMDDL  
KNNGENIASLQTEIEKKRAENDDLQSKLSVVSSEYENLLLLISSQTNKSLEDKTNQLKYIE  
KNVQKLLDEKDQRNVELEELTSKYGKLGEENAQIKDELLALRKKSKKHDLCANFVDDLK  
EKSDALEQLTNEKNELIVSLEQSNSSNEALVEERSDLANRLSDMKKSLSDSDNVI SVIRS  
DLVRVNDELDTLKKDKDSLSTQYSEVCQDRDDLDSLKGCEESFNKYAVSLRELCTKSEI  
DVPVSEILDDNFVFNAGNFSELSRLTVLSLENYLDAFNQVNFKKMELDNRLT'TTDAEFTK  
VVADLEKLQHEHDDWLIQRGDLEKALKDSEKNFLRKEAEMTENIHSLEEGKEETKKEIAE  
LSSRLEDNQLATNKLKNQLDHLNQEIRLKEVDLKEKESLIISLEESLSNQRQKESLLDA  
KNELEHMLDDTSRKNSLMEKIESINSSLDKSFELASAVEKLGALQKLHSESLSMENI  
KSQLEAKEKIQVDESTIQELDHEITASKNNYEGKLNKD KSIIRDLSENIEQLNNLLAAE  
KSAVKRLSTEKESIEILQFNRLADLEYHKSQVESELGRSKLKLASTTEELQLAENERLSL  
TTRMLDLQNQVKDLSNIKDSLSEDLRTRLSLEDSVASLQKECKIKSNTVESLQDVLTSVQ  
ARNAELEDEVSRVVDKIRRRDDRCEHLSGKLLKLSQLEEQHETFFRAEQQRMTQLGFLK  
ETVKKQEKLLKLLNLRQEQLIPRSSILVYESYIRDIEKEIIVLQERLNGIELSQQLPKGY  
FGYFFKTNRVEMEVLD SFKQVAKLQFLAGAEFIVKFKEDLEKCAAEKEKQATFDNYSE  
KVENLGKSIEALYFALNREISFRKSLALSAYSAYHNLLVRDSPKFNPD SQITYSIPVTNTK  
QSLLRSAILCVISLQRLRLLLGQRHSFCEEVIENLSCV

>O01829

MSLTADPPACTVPAAGVSSSTHKL VNGGAEKIVFKIKSSNNNEYRIAPVFGFVDPSPGSKDV  
VITRTAGAPKEDKLVVHFASAPADATDAQAAFVAVAPAGTVTIPMSATA

>O81193

MSSISINIAMPLNSLHNFERKPSKAWSTSC TAPAARLRASSSLQQEKPHQIRRS GDYQPS  
LWDFNYIQSLNTPYKEQRHFNRQAELIMQVRMLLKVMEAIQQLELIDDLQYLGLSYFFQ  
DEIKQILSSIHNPRYFHNNDLYFTALGFRILRQHGFNVSEDFVDFCKIEKCSDFNANLA  
QDTKGMQLQLYEASFLREGEDTLELARRFSTRSLREKFDEGGDEIDEDLSSWIRHSLDLP  
LHWRVQGLEARWFLDAYARRPDMNPLIFKLAKLNFNIVQATYQEELKDISRWWNSSCLAE  
KLPFVRDRIVECFFWAIAAFEHQYSYQRKMAAVIITFITIIDDVYDVYGTIEELELLTD  
MIRRWDNKSISQLPYMQVCYLALYNFVSERAYDILKDQHFNSIPYLQRSWVSLVEGYLK  
EAYWYYNGYKPSLEEYLNNAKISISAPTIISQLYFTLANSIDETAIESLYQYHNILYLSG  
TILRLADDLGTSQHELERGDVPKAIQCYMNDTNASEREAVEHVKFLIREAWKEMNTVTTA  
SDCPFTDDLVA AAAANLARA AQFIYLDGDGHGVQHSEIHQQMGGLLFQPYV

>P52847

MGTAEDVFRKDLKIIHGYPMVYAFALGWEKIEEFQSRPCDIVIPTYPKSGTTWLSEIVDM  
VLNDGNVEKCKRDVITSKVPMLEQNVPGARRSGVELLKKTPSPRIKTHLPIDLLPKSFW  
DNKCKMIYLARNKDVAVSYHFIDLMMNIQPLPGTWEEYLEKFLAGNVAYGSWFDHVKSW  
WEKREGHPILFLYYEDLKKNPKEIKKIANFLDKTLDEHTLERIVHHTSFVEMKDNPLVN  
YTHLPTEIMDHSKSPFMRKGVVDWKNYFTMTQSEKFDIYK KKLSGTTLEFCTDIQSA

>P0ADG4

MHPMLNIAVRAARKAGNLI AKNYETPDAVEASQKGSNDFVTNVDKAAEAVIIDTIRKSY  
QHTIITEESGELEGTDQDVQWVIDPLDGTTFIKRLPHFAVSI AVR IKGRTEVAVVYDPM  
RNELFTATRQGAQLNGYRLRGSTARDLDGTILATGFPFKAKQYATTYINIVGKLFNECA  
DFRRTGSAALDLAYVAAGRVDGFFEIGLRPWFDAAGELLVREAGGIVSDF'TGGHNYMLTG  
NIVAGNPRVVKAMLANMRDELS DALKR

>P68577

MEKLFKEVKLEELLENQKGSGLGKAQCAALWLQCASGGTIGCGGGAVACQNYRQFCR

>P0A840

MRILLSNDDGVHAPGIQTLAKALREFADVQV VAPDRNRSGASNSLTLESSLRTFTFENG  
IAVQMGTP TDCVYLVGNALMRPRPDIVVSGINAGPNLGDDVIYSGTVAAAMEGRHLGFPA  
LAVSLDGHKHYDTAAAVTCSILRALCKEPLRTGRILNINVPDLPLDQIKGIRVTRCGTRH  
PADQVIPQQDPRGNTLYWIGPPGGKCDAGPGTDFAAVDEGYVSI TPLHVDLTAHSAQDVV  
SDWLN SVGVGTQW

>P49588

MDSTLTASEIRQRFIDFFKRNEHTYVHSSATIPLDDPTLLFANAGMNQFKPIFLNTIDPS  
HPMAKLSRAANTQKCIRAGGKHNDLDDVGKDVYHHTFFEMLGWSFGDYFKELACKMALE  
LLTQEFGIPIERLYVTYFGGDEAAGLEADLECKQIWQNLGLDDTKILPGNMKDNFWEMGD  
TGPCGPCSEIHYDRIGGRDAAHLVNQDDPNVLEIWNLVFIQYNREADGILKPLPKSIDT  
GMGLERLVSVLQNKMSNYD TDLFVYPYFEAIQKGTGARPYTGKVGAEADADGIDMAYRVLAD  
HARTITVALADGGRPDNTGRGYVLRRI LRRAVRYAHEKLNASRGFFATLVDVVVQSLGDA  
FPCLKKDPDMVKDIINEEEVQFLKTL SRGRRILDRKIQSLGDSKTI PGDTAWLLYD TYGF  
PVDLTGLIAEEKGLVVDMDGFEEERKLAQLKSQKGAGGEDLIMLDIYAI EELRARGLEV  
TDDSPKYNHLDSSGSYVFENTVATVMALRREKMFVEEVSTGQECGVLDKTCFYAEQGG  
QIYDEGYLVKVDSSSEDKTEFTVKNAQVRGGYVLHIGTIYGLKVGQVWLFIDEPRRRP  
IMSNHTATHILNFALRSVLGEADQKGS L VAPDRLRFDF'TAKGAMSTQQIKKAE EIANEMI  
EAAKAVYTQDCPLAAAKAIQGLRAVFDETYDPVVRVVSIGVPVSELLDDPSGPAGSLTSV  
EFCGGTHLRNSSHAGAFVIVTEEAIAKGI RRI VAVTGAEAQKALRKAESLKKCLSVMEAK



VKAQTAPNKDVQREIADLGEALATAV I P Q W Q K D E L R E T L K S L K K V M D D L D R A S K A D V Q K R  
V L E K T K Q F I D S N P N Q P L V I L E M E S G A S A K A L N E A L K L F K M H S P Q T S A M L F T V D N E A G K I T  
C L C Q V P Q N A A N R G L K A S E W V Q Q V S G L M D G K G G G K D V S A Q A T G K N V G C L Q E A L Q L A T S F A Q  
L R L G D V K N

>Q99N48

MAHEVDLESFKELERDI I L R V L Y R D Q T V Q S T E E E R V R K L K S H L Q H L R W K G A K S S S Q E Y K E  
K C C A R C Q R A L G L L L N R G A V C Q G C S H R V C S E C R V F L R R T R A W K C T V C F E D R N V K I K T G E W F  
F E E R A R K F P T A G R R E T A G A K L L Q S Y Q R L S K I S V V P P T P P P F S E S Q C S S S S R L Q E L G H F R G  
F N K S V E N L F L S V T T Q M R K L S K S Q N D M T S E K H L L A M D P R Q C V G H T E R R S Q S D T A V N V T S R K  
A S T P D I L K A F H Q E D P K H P D P V L K Q D T P P S S P T H S A V F S G G L R H G S L I S I N S T C T E M G N F  
D N A N V T G E I E F A I H Y C V K S C S L E I C I K T C K N L A Y G E E K K R K C N P Y V K T Y L L P D R S S Q G K R  
K T R V Q K N T L D P T F E E T L K Y Q V D P G Q L M T R R L Q V S V W H L G T L A R R V F L G E V I L P L A M W D F K  
D S T A Q N A R W Y P L R A K A E K Y E E N I P Q N G E L A V R A K L V L P A G P R K P Q E A Q E G Q L A L N G Q L C  
L V V L G A K N L P V R S D G T L N S F V K G C L T L P N Q Q K L R V K S P V L K K Q A C P Q W K H S F V F N G V S S S  
Q L R Q S T L E L T V W D Q A I F G M N D R L L G E A R L G S K G G A A G C P D S G S Q S K L Q W H R V L S S P N L W T  
D M T L V L H

>P25239

M N K K D Q L Q R L I D K Y K S D I D Y R S A R Y N E T Q L R T D F L D Q L F L I L G W D I T N A A G K P T N E R E V  
L V E E G L K A R A G E N T K K P D Y T F R L F S E R K F F L E A K K P S V D I S T T I E P A L Q V R R Y G F T A K L K  
I S V L S N F E Y T A I Y D C S N Q V K E T D S V A N S R I K L Y H F T E L V D K F D E I N N L I G R E S V Y T G H F D  
N E W S E I E N K I L R F S V D D L F L K Q I N D W R L L L A N E F L Q I K N E L P E E K L N D L V Q N Y I N S I V F L  
R V C E D R D L E E Y E T L Y H F A Q D K D F Q S L V K K L K S S D K K Y N S G L F S L E Y I D E L L S N A N S C I W S  
I I E Q L Y F P Q S T Y S F S V F S S D I L G N I Y E I F L S E K V R I D E L G N V K I Q P K E E H I D R D V V T T P T  
H I V K E I I R N T V V E Y C K G K S D I E I L N S K F A D I A C G S G A F I E A F Q F I Q D I L I D Y Y I Q N D K S  
K L Q Q I S E H T Y K L K F E V K R E I L C K C I Y G I D K D Y N A T K A C T F G L L L K L L E G E T T E T I G K D T P  
I L P A L D T N I L F G N S L I D S G D K V K Q E D I F S I N P F D L T N Y Q F D V I V G N P P Y M A T E H M N Q L T P  
K E L D I Y K R K Y K S A Y K Q F D K Y F L F I E R S I Q I L K E Y G Y L G Y I L P S R F I K V D A G K K L R K F L S E  
N K Y L S K L I S F G S H Q V F K N K T T Y T C L L F L N K E N H D N F S F Y E V K D F K K W L T R E D K Y L L S S T Y  
Q T S S L D S D T W V L E K K I N D I L K L M F S K S E Q L G N I V G K S N V A N G I Q T S A N K Y Y I H K E I K S E N  
G F I Y F E Y D G I E Y H I E K E L T R P Y F E T N R S G D D S F Y T Y K D V E P N S F V V Y P Y K K V G E R I Q F I E  
Y D E L K R Q Y P K L F E F L Q V V K V H L N D K K R S I K P D P T G P N E W Y R Y G R S Q A L E N C D V D Q K L I V G  
I L S N G Y K Y S I D N H R T F V S S G G T A G Y S I I N I P N N V R Y S I Y Y I Q A I L T S K Y L E W F A S I Y G D I  
F R G R F V A R G T K V Q T R M P I P T I D F D D P K Q K E I H D T I S S K Q Q Y L N K L Y S Q T Q K S A D R D K I I F  
E R Q F E Q E K I Q M D Y L I K N L F D L G D L D S E I P T V E D L Y K N L

>P06529

M G K N S K A I G N N H V K S V Y Q A L L Q S L K S K S V N G F S K I T I E T I S F I K N L Y P E I D S V T S K F D N S  
R P D Q S K D L T L Y L K S G E T I S L N L F L I K K G R R I Q P K N A G A K S F L E K Y F L S A E M Q K I F N K E F E  
R Y Y L D Y L K E V V E H K K G T H Y I T D K R E L K R L V S S H F P K F T E E I N L Y R D K F L F N L R E T C F T L L  
Q Q F Y N E K N I G F T H A F N V F F M V N D T N I I T S Y G K D E N D V K V E K F A P A S P S L K D I E L Y K T G K S  
T V G I K F G E V G L T L R F K F E S D P W K S I K L A T G Y H E F P K E K E R V N V N L K T M R R M E K L L N K H E Y  
A K T S N N S N A I G K C H E A W T Y Y Y F L K A F P D V I Q V D P K Q C V E L I N T Y F S S I N Q N T L K K L Y S S T  
S T I V D A I T E K L R Q K Y H D Y I I E S I E L I P D A Y I K D R L D T G D L Q L V L K V N N N I I V E N I S L K A L  
A K R N S K I T T K N P G M G S I L G P T Y F N M G S M E S V I N E V K N K F T I G E F N H R K S L E I L S Y E F G M K  
L D S A T Q E Q L R R G I H N L L G K A M I A I T I Y G E G I S F C K E P S E I D G E V K V H V N V P S A I Q N T L T W  
N N E L E S I S L R A K F S K S Q K H G W S S I K L T S E C Q L E S R K

>P30773

MTTPNKINFPKPKLQIDFAFALKRFRVAVYLSALLETVRDMEDIAELDRQLSKYVPPADLA  
TLAQYGLRAELLFAVPAVLEANPHLLGYRLLMGYSQKEFYGRDKGFVGCFFKSMEKGGK  
AGKAAVADLHDLCVAFCATASALLAGVGPLRVSRELLDDLTLTVPQLRGGANNQRGAD  
GIVLVFEIIREIVAHAAAEEVRESAIEVNSATGRPVLIIEFAPDPDIIREEMENQHRYRNVV  
AIEVKSQTDVSNIHNRIGEAESHQKARQLGFTWCWTVVNVGRLLDMVKARSESPSTDRFY  
SLTALSRLAGDEYADFRRRVLSLTAIPARPANP

>P76145

MSDWNPSLYLHFSASERSRPAVELLARVPLENVEYVADLGCNPGNSTALLQQRWPAARITG  
IDSSPAMIAEARSALPDCQFVEADIRNWQPVQALDLIFANASLQWLPDHYELFPHLVSL  
NPQGVAVQMPDNWLEPHTVLMREVAWEQNYPRGREGPLAGVHAYYDILSEAGCEVDIWR  
TTYHQMPHQAIIDWVTATGLRPWLQDLTESEQQLFLKRYHQMLEEQYPLQENGQILL  
FPRLFIVARRME

>P32086

MNFLEQDQLFLENINQDNVVSAYHTSEYDNNEKEKSDDLKKNLVHKNISLNIHNISSAN  
LCIDINLRLVAVSIRNAEYNPSKINTLIIRLNKPQCTALIFKNGRIMLTGTRTKKDSIMG  
CKKIAKIIKIVTKDKVKFCNFKIENIIASANCNIPIRLEVLAHDHKEYCNYEPELFAGLV  
YRYKPTSNLKSIVLIFVSGKIIITGCKSVNKLTYTFQDIYNVLIQYKN

>Q06184

MPKQKAAKADHYQYSDLSSIKKEGEEDQYHFYGVVIDASFYKGEKRYVVTCKVADPSSV  
AKGGKLNNTVNVVFFSQNFEDLPPIQRVGDIVRVHRARLQHYNDAKQLNVNMYRSSWCLF  
IGNDKAEAPLEPKVENEDGTNNYFSYTPYNFSGKSFTQEGHETKILKDLKWSKYFSNND  
VVEQVKKADIETAMKNKTDFDLLAKVTEISDNDQYTNVSLNDSTGQWTGHLFKRKFPH  
LVKGDVLRKISVSAKEDNSLIFSSHSNLIKFFSFSSIHKKLKSSISSDTHIKTCVTKIDK  
AAHNKMDITPLKKLFFNPKKSEKLFRSQFVSVLKVDTKNLEDYVGAFDGKKWHSYKGGKTP  
KDAELRWNIKLIVTDYKNQQDDKAYMIHLDDNSFFKGINPANWSNAATKKKAEKAFSVLT  
NNKVNYVDAILERDKKNYHIRHTQFK

>P08587

MAEDLILERCDLQLEVNGRDHRADLRCRERLVLRRGQPFWLTLLHFEGRGYEAGVDTLTFN  
AVTGPDPSEEAGTMARFSLSSAVEGGTWSASAVDQQDSTVSLLLSTPADAPIGLYRLSLE  
ASTGYQGSSFVLGHFILLYNPRCPADAVYMSDQERQEYVLTQQGFYQGSAKFINGIPW  
NFGQFEDGILDICLMLLDTPNPKFLKNAGQDCSRRSRPVYVGRVVSAMVNCNDDQGVLQGR  
WDNNYSQVSPMSWIGSVDILRRWKDYGCQRVKYGCWVFAAVACTVLRCLGIPTRVVTN  
FNSAHDQNSNLLIEYFRNESGEIEGNKSEMIWNFHCWVESWMTRPDLEPGYEGWQALDPT  
PQEKSEGTYYCCGPVPVRAIKEGHLNVKYDAPFVFAEVNADVNVNIRQKDGSLRKSINHLV  
VGLKISTKSVGRDEREDITHYKYPEGSEEEERAEFVRANHLNKLATKEEAQEETGVAMRI  
RVGQNMTEGSDFDIFAYITNGTAESHECQLLLCARIVSYNGVLGPVCSTNDLLNLTLDPF  
SENSIPLHILYKEYGYLITESNLIKVRGLLIEPAANSYVLAERDIYLENPEIKIRVLGEP  
KQNRKLI AEVSLKNPLPVPLLGCIFTVEGAGLTKDQKSVEVPDPVEAGEQAKVRVDLLPT  
EVGLHKLNVNFECDKLKAVKGYRNVIIGPA

>Q09814

MNKNEELDEDELKCKIICPPVPKALKKYWNRYNLFSRFDEGIWLDYQSWYSVTPEKVA  
VAIAKSVVDFIQPELIIIDAFSGCGGNTIQFAKYCPVISIEIDPIKIAMAKHNLEIYGIPS  
SRVTFIQGDVLDTFKSLQFAKDYRSLVFMSPWPGGPSYSGKTVYSLNDLNPYAFDVLKFE  
ATRISPYVA AFLPRNTDVKELAAAYGSIHNKPYITNFLFEGYAKAICCYFNMKGAIARKI

>P28720

MVEATAQETDRPRFSFSIAAREGKARTGTIEMKRGVIRTPAFMPVGTAAATVKALKPETVR  
ATGADIILGNTYHLMRLPGAERIAKLGGLHSFMGWRPILTDSSGGYQVMSLSSSLTKQSEE  
GVTFKSHLDGSRHMLSPERSIEIQHLLGSDIVMAFDECTPYPATPSRAASSMERSMRWAK  
RSRDAFDSRKEQAENAALFGIQQGSVFENLRQQSADALAEIGFDGYAVGGLAVGEGQDEM  
FRVLDFSVPMPLPDDKPHYLMGVGKPDIVGAVERGIDMFDVLPTRSGRNGQAF'WDGPI  
NIRNARFSEDLTPLDSECHCAVCQKWSRAYIHHLIRAGEILGAMLMTEHNIAFYQQLMQK  
IRDSISEGRFSQFAQDFRARYFARNS

>Q99757

MAQRLLLRFLASVISRKPSQGWPPILTSRALQTPQCSFGGLTVPNPARTIYTTRISLT  
TFNIQDGPDPFQDRVVNSETPVVVDFHAQWCGPCKILGPRLEKMKVAKQHKGKVMMAKVDIDD  
HTDLAIEYEVSAVPTVLMAMKNGDVVDKDFVGIKDEDQLEAFLLKLLIG

>Q8MKF1

MAQGLIEVERKFPVPGPSTEERLQELGGTLEHRVTFRDSYYDTPELSLMRADYWLRQREGS  
GWELKCPGAAGVSGPHTEYTELTAEPSIVAQLCEVLGAEVPGAGGVAAVLGPLGLQLVAS  
FVTKRSAWKLVLSGADGEERLLRVDLDTADFGYAVGEVEALVHKEAEVPAALEKIHLLSS  
LLGVLEQGRAPAKLIVYLRFRPQDYQRLLLEVYGSKEKP

>P43221

MLDTKPSATTRIPLVIATVAVGGLAGFAALYGLGLSRAPTGDPAACRAAVATAQKIAPLAH  
GEVAALTMASAPLKLPLDAFEDADGKPKKLSDFRGTLLVNLWATWCVPCRKEMPALDEL  
QGKLSGPNFEVVAINIDTRDPEKPKTFLKEANLTRLGYFNDQKAKVFDLKAIGRALGMP  
TSVLVDPQGEIATIAGPAEWASEDALKLIRAATGKAAAAL

>P05846

MSATRIQAVYRDTGVEAYRDNPFIEALPPLQESVNSAASLKSSQLTSSDLQKSRVIRAH  
TICRIPDDYFQPLGTHLLLSERISVMIRGGYVGRNPKTGDLQKHLQNGYERVQTGELETF  
RFEEARSTAQSLLLIGCSGSGKTTSLHRILATYPQVIYHRELNVEQVVYLKIDCSHNGSL  
KEICLNFFRALDRALGSNYERRYGLKRHGIEETMLALMSQIANAHALGLLVIDEIQHLSRS  
RSGGSQEMLNFFVTMVNIIGVPMMLIGTPKAREIFEADLRSARRGAGFGAIFWDP'QQTQ  
RGKPNQEWIAFTDNLWQLQLLQRKDALLSDEVDRDVWYELSQGVMDIVVKLFVLAQLRALA  
LGNERITAGLLRQVYQDELKPVHPMLEALRSGIPERIARYSDLVVP'IDKRLIQQLDIA  
AIQEQTPEEKALQELDTEDQRHLYLMLKEDYDSSLLIPTIKKAFSQNPTMTRQKLLPLVL  
QWLMEGETVVSELEKPSKSKKVSIAIKVVKPSDWDSLPDTDLRYIYSQRQPEKTMHERLKG  
KGVIVDMASL'FKQAG

>P51580

MDGTRTSLDIEEYSDTEVQKNQVLTLEEWQDKWVNGKTAHFHQEQGHQLLKKHLDTF'FLKGGK  
SGLRVFFPLCGKAVEMKWFADRGHSVVGVEISELGIQEFFTEQNLSYSEEPITEIPGTKV  
FKSSSGNISLYCCSIFDL'PRTNIGKFDMIWDRGALVAINPGDRKCYADTMFSL'LGKKFQY  
LLCVLSYDPTKHPGPPFYVPHAEIERLFGKICNIRCLEKVD'AFEERHKS'WGIDCLFEKLY  
LLTEK

>P17909

MADETKPTRKGSPP'IKVYCLPDERRAIEEKAAAAGMSLSAYLLAVGQGYKITGVVDYEHV  
RELARINGDLGRLGGLLKLWL'TDDPRTARFGDATILALLAKIEEKQDELGKVM'GVVRPR  
AEP

>A8J4S9

MASSCSIRCGSRNILVNAAATFLALLVVLRCFANAEPSPCQSDVYCRGELLHTIQMASI  
YKDSKTFVDMKMKRPPDETLKSFREFMERHEQMPTRYQIERFVNDTFDPEGSEFEDWDPD  
DWTFRPKFLSRILDDDLRNFASELNGIWKMLGRKMKDDVRVNEELYSIIYVPHPVIVPGG  
RFREFYYWDSYWIWKGLLLSEMYTTVKGMLTNFVSLVDKIGFIPNGGR IYYTMRSQPPML  
IPMVDEYLKITHDYEWLENNLYLLEKEFDWFMTNRTVEIEVDGVNYVLARYNEQSSGPRP  
ESYKEDYLTSSQFRFTNEEKDNYYSELKTAAESGWDFSSRWFILDGTNKGNTNLKTRYII  
PVDLNSIIYRNAVLLAQYNQRMGNESKVAYYQKRAAEWKRAIQAVLWHDEVGAWLDYDIL  
NDIKRDYFYPTNILPLWTD CYDIAKREEYVSKVLKYLEKNKIMLNLGGIPTTLEHSGEQW  
DYPNAWPPQLQYFVIMALNKTEDPWAQRLAYEISERWVRSNYKAYNETHSMFEKYDATVSG  
GHGGGGEYEVQLGFGWSNGVIMDLLNRYGDKLTAEDRFVATFHSNSTPQPVVVSTAGQVM  
TGILALVISLAAGFIGMRCANNAQ

>O93654

MNPGIEKYEIRFDFDLKDFTYTSHERIHLAGDWKDIKLDVAVRLSVDKVTCTNGQPMRFETG  
QDVTVTVKG SFHDKDVIDIDFHAKVSDTLMGLYLSRTKEGTMITTQFESNGARMAFPCVDH  
PAYKAVFAITVVIDKDYDAISNMPPKRIEVSERKIVEFQDTPKMSTYLLYIGVGKFKYAT  
DKYRDIDLILVSLKDIKSKYPLEIARKSIEFYESYFGIPYALPKMHLISVPEFGAGAMEN  
WGAITFREVALMATENSGSIMKQNAAITIAHEIAHQWFGDLVTMKWWDNLWLNESFATFM  
SYKTVD SFSKQWDFVADFIRSETGGALRSDSLKNTHPIEVDVKDPDEISQIFDEISYGKG  
ASILRMIEDYAGYEEFRKGISKYLNDHRYGNAEGSDLWTAIEDVSGKPVKRVMEYWIKNP  
GYPVVSVVKSGNKFRLTQEQQFFLDGTRGQGWPIPLTVMTKSGKKAMLMEESAEIEDMVK  
VNVNSSGFYRVSYDGESFETVMKNYSKLSNLD RWGLISDLYAFLISGRVSVDDYLARIKG  
FFEDSDHLIVEEIASQLTGLYLLKPD SNRIRETAASYLSRQVVALGDKQKGEDDKISKIR  
GIVTQDLAMVDDHFASDLARKFSTLAEDPDLALAKSIAAAKAYGISELASAADKYTDDEI  
RVRIIAAMGWCSPSDLKSVFELIDKGTIRKQDMLYVFSNMPANPKGRDFFF SNIDRIVAL  
MEHAFEGTGYTSRILETAIPYLG LARYEDVKKKAEQIRKPSYNVGINKGLETTLEIVRKLY  
NKL

>P0A8I5

MKNDVISPEFDENGRPLRRIRSFVRRQGR LTKGQEHALenyWPVMGVEFSEDMLDFPALF  
GREAPVTLEIGFGMGASLVAMAKDRPEQDFLGIEVHSPGVGACLASAHEEGLSNLRVMCH  
DAVEVLHKMIPDNSLRMQLFFPDPWHKARHNKRRIVQVPFAELVKSKLQLGGV FHMATD  
WEPYAEHMLEVMSSIDGYKNLSESN DYVPRPASRPVTKFEQRGHRLGHGVWDL MFERVK

>Q32P41

MVLWILWRPFGFSGRFLKLESHSITESKSLIPVAWTSLTQMLLEAPGIFLLGQRKRFTM  
PETETHERETELFSPPSDVRGMTKLDRTAFKKT VNI PVLKVRKEIVSKLMRSLKRAALQR  
PGIRRVIEDPEDKESRLIMLDPYKIFTHDSFEKAELSVLEQLNVSPQISKYNLELT YEHF  
KSEEILRAVLPEGQDVTSGFSRIGHIAHLNLRDHQLSFKHLIGQVMIDKNPGITS AVNKI  
NNIDNMYRNFQMEVLSGEQNMMTKVREN NYTYEFD FSKVYWNPRLSTEHSRITELLKPGD  
VLFDFVAGVGPFAIPVAKKNCTV FANDLNPE SHKWLLYNCKLNKVDQKVKVFNLDGKDFL  
QGPVKEELMQLLGLSKERKPSVHVMMNLPAKAIEFLSAFKWLLDGQPC SSEFLP IVHCYS  
FSKDANPAEDVRQRAGAVLGISLEACSSVHLVRNVAPNKEMLCITFQIPASVLYKNQTRN  
PENHEDPPLKRQRTAEAFSDEKTQIVSNT

>P96116

MIRERICACVLALGMLTGFTHAFGSKDAAADGKPLVVTTIGMIADAVKNIAQGDVHLKGL  
MGPGVDPHLYTATAGDVEWLG NADLILYNGLHLET KMGEVFSKLRGSRLVVAVSETIPVS  
QRLSLEEA EFDPHVWFVVKLWSYSVKAVYESLCKLLPGKTREFTQRYQAYQQQLDKL DAY

VRRKAQSLPAERRVLVTAHDAFGYFSRAYGFEVKGLQGVSTASEASAHDMQELAAFIAQR  
KLPAIFIESSIPHKNVEALRDAVQARGHVVQIGGELFSDAMGDAGTSEGTYYGMVTHNID  
TIVAALAR

>P22803

MVTQLKSASEYDSALASGDKLVVVDFFATWCGPCKMIAPMIEKFAEQYSDAAFYKLDVDE  
VSDVAQKAEVSSMPTLIFYKGGKEVTRVVGANPAAIKQAIASNV

>P38584

MYTFVVRDENSSVYAEVSRLLLLATGHWKRLRRDNPRFNLMLGERNRLLPFGRLLGHEPGLMQ  
LVNYYRGADKLCRKASLVKLIKTSPELAESCTWFPESYVIYPTNLKTPVAPAQDGIHPPL  
HSSRTDEREFFLASYNRKKEEGEGNVWIAKSSAGAKGEGILISSDATELLDFIDNQGVH  
VIQYLERPLLLLEPGHRKFDIRSWVLVDHQFNIYLYREGVLRRTASEPYHMDNFQDKTCHL  
TNHCIQKEYSKNYGKYEEGNEMFFFAFNRYLTSALNITLESSILLQIKHIIRSCLMSVEP  
AISTKHLPHYQSFQLFGFDFMVEDELKVWLVIEVNGAPACAQKLYAELCQGIVDIAIASVFP  
PPDAEQPPQPATFIKL

>Q9NUW8

MSQEGDYGRWTISSSDESEEEKPKPKDPKSTSSLLCARQGAANEPRYTCSEAQKAAHKKRI  
SPVKFSNTDSVLPKRQKSGSQEDLGWCLSSSDELQPEMPQKQAEKVVIKKEKDISAPN  
DGTAQRTENHGAPACHRLKEEEDYETSSEGQDIWMLDKGNPFQFYLTRVSGVKPKYNS  
GALHIKDILSPLFGTLVSSAQFNCFDWDVLVKQYPPEFRKKPILLVHGDKREAKAHLHA  
QAKPYENISLQAKLDIAFGTHHTKMMLLLYEEGLRVVIHTSNLIHADWHQKTQGIWLS  
LYPRIADGTHKSGESPTHFKADLISYLMAYNAPSLKEWIDVIHKHDLSETNVYLIGSTPG  
RFQGSQKDNWGHFRLKLLKDHASSMPNAESWPVVGQFSSVGSGLGADESKWLCSEFKESM  
LTLGKESKTPGKSSVPLYLIYPSVENVRTSLEGYPAGGSLPYSIQTAEKQNLHSHYFHKW  
SAETSGRSNAMPHIKTYMRPSPDFSKIAWFLVTSANLSKAAWGALEKNGTQLMIRSYELG  
VLFLPSAFGLDSFKVKQKFFAGSQEPMATFPVVPYDLPELYGSKDRPWIWNIPIYVKAPDT  
HGNMWVPS

>P80305

MAYEISVDEIAEGWLKLVKIMSDGREIRDERGSLTREVMTVVTIKNPLGRSGDFYHLP  
ARSLINIRVPEGYFWSGEKLEKYSEQFLSDDRKGFFVYTYGNRLRAHFGVDQVDRAIERLK  
NCKESRRATMVTWDPKIDTESDEVPCMILVDFKVRGRLFTTALWRSHDIYGAWFPNAV  
LAYLADHVASEVGVVGHITIHSAHIYEVNFKEAKEVIKNG

>P26602

MSHPALTQLRALRYCKEIPALDPQLLDWLLLEDSMTKRFEQQGKTVSVTMIREGFVEQNE  
IPEELPLLKESRYWLREILLCADGEPWLAGRTVVPVSTLSGPELALQKLGKTPPLGRYLF  
TSSTLTRDFIEIGRDAGLWGRRSRLRLSGKPLLLTELFLPASPLY

>P19595

MATATTLSPADAEKLNKSAVAGLNQISENEKSGFINLVGRYLSGAEQHIWDSKIQTPT  
DEVVVPYDKLAPLSEDPATKLLDKLVVLKLNGLGTMTMGCTGPKSVIEVRNGLTFLDL  
IVKQIEALNAKFGCSVPLLLMNSFNTHDDTLKIVEKYANSNIDIHTFNQSQYPRLVTEDF  
APLPCKGNSGKDGWYPPGHGDVFPPLMNSGKLDALLAKGKEYVFFVANSNLAIVDLKIL  
NHLILNKNEYCMEVTPKTLADVKGGLTISYEGKVQLEIAQVPDEHVNEFKSIEKFKIFN  
TNNLWVNLSAIKRLVEADALKMEIIPNPKEVDGKVLQLETAAGAAIKFFDRAIGANVPR  
SRFLPVKATSDLLLQSDLYTLTDEGYVIRNPARSNPSNPSIELGPEFKKVANFLGRFKS  
IPSIIDLDSLKVTGDVWFGSVTLKGVTVAAKSGVKLEIPDGAVIANKDINGPEDI

>Q8TL28

MAEKFESRGIIEEASSEVPTQRRCGAMEVHHRLLRASASYVRERDQIENLALKYKQGFRAIS  
RMEIVKIPVVVHVVVWNEEEENISDAQIQSQIDILNKDFRKLNSDVSQVPSVWSNLIADLG  
IEFFLATKDPNGNQTTGITRQTQTSVTFFTTSDEVKFASSGGEDAWPADRYLNIWVCHVLK  
SEIGQDILGYAQFPGGPAETDGVVIVDAAFGTGTALPPFDKGRATHEIGHWLNLYHIW  
GDELRFEDPCSRSEVDDTPNQADPNFGCPSYPHVSCSNGPNGDMFMNYMDYVDDKCMVM  
FTQGQATRVAACLDGPRSSFLARVEETEKEEAPSKREMPMPR

>Q26998

MAQVPASGKLLVDPYSTNDQEEESILQDIITRFPNVVLMKQTAQLRAMMTIIRDKETPKE  
EFVFIADRLIRLLIEEALNELPFEKKEVTTPLDVSYHGVSFYSKICGVSIVRAGESMESG  
LRAVCRGCRIGKILIQRDETТАEPKLIYEKLPADIRDRWMLLDPMCАTAGSVCKAIEVL  
LRLGVKEERIIIFVNILAAPQGIERVFKEYPKVRMVТАAVDICLNSRYIIVPGIGDFGDRY  
FGTM

>Q59190

MAKIIIGISGGSGSGKTTVVSKISEFIPEFVLISQDNYYKSVGDEHEFSKVNFDHPDAFD  
NNLFYEHLKNLKKNSPIDMPLYDFINHKRQLKTVLVVPTPVVIVEGIMIFVEERVRNLID  
LKIYIDTPNDIRFIRRLRRDISKRGRТVESVIDQYLNТTRWGYYRFIEPTKEYADLIIPE  
GGHNDKALYVLSTFLKSLSKGLDFT

>P98119

MVNTMKTKLLCVLLLСGAVFSLPRQETYRQLARGSRAYGVACKDEITQMTYRRQESWLRP  
EVRSKRVEHCQCDRGQARCHTVPVNSCSEPRCFNGGTCWQAVYFSDFCQCPAGYTGKRC  
EVDTRATCYEGQGVTYRGТWSTAESRVECINWNSSLLTRRTYNGRMPDAFNLGLGNHNYC  
RNPNGAPKPWCYVIKAGKFTSESCSVPVCSKATCGLRKYKEPQLHSTGGLF'TDITSHPWQ  
AAIFAQNRSSGERFLCGGILISSCWVLTAAHCFQESYLPDQLKVVLGRTYRVKPGEEEQ  
TFKVKKYIVHKEFDDDTYNNDIALLQLKSDSPQCAQESDSVRAICLPEANLQLPDWTECE  
LSGYGKHKSSSPFYSEQLKEGHVRLYPSSRCAPKFLFNKTVTNMMLCAGDTRSGEIPNV  
HDACQGDSSGGLVCMNDNHMTLLGIIISWGVGCGEKDVPGVYTKVTNYLГWIRDNMHL

>P35777

MKTFVLVSCLLVFTQIIYALDIKEISIMNRILEKCI RTV PKRENDP INPLRNVNVWYCAF  
TKRGIFT PKGVNTKQYIN YCEKТАISPADIKLCKKIASKCVKKVYDRPGPI IERSKNLLS  
CVLKKGLLELTVYGKKK

>Q7Z156

NKYCNIKCSKVAHTVCQYGESTKPSKNCNKVSITSVGVTEEEKKLIVDEHNRFRQKVAQ  
GLETRGNPGPQPAASDMNNLVWNDELAYIAQVWANQCQFFVHDKCRNTAQYQVGQNIAYS  
ASTAAYPGIVSLIVLWENEVKDFNYSQGITKENFAKVGHYTQVWAKTKEVGCOSIKYIE  
KGMKSHYLVСNYGPAGNYMGQPIYTKK

>P13332

MTLLSPGIELKETTVQSTVVNNSTGТАALAGKFQWGP AFQIKQVTNEVDLVNTFGQPТАE  
TADYFMSAMNFLQYGNDLRVVRAVDRDTAKNSSPIAGNIDYTI STPGSNYAVGDKITVKY  
VSDDIETEGKITEVDADGKIKKINIPTGKNYAKAKEVEGEYPTLGSNWТАEISSSSSGLAA  
VITLGKIIITDSGILLAEIENAEAMTAVDFQANLKKYGI PGVVALYPGELGDKIEIEIVS  
KADYAKGASALLPIYPGGTRASTAKAVFGYPQТDSQYAIIVRRNDAI VQS VVLSTKRG  
EKDIYDSNIYIDDFFAKGGSEYIFATAQNWPEGFSGILTLSSGLSSNAEVTAGDLMEAWD

FFADRESVDVQLFIAGSCAGESLETASTVQKHVVISIGDARQDCLVLCSPPRETVVGIPVT  
RAVDNLVNWRTAAGSYTDNNFNISSTYAAIDGNHKEYQYDKYNDVNRWVPLAADIAGLCAR  
TDNVSQTMWSPAGYNRGQILNVIKLAIETRQAQRDRLYQEAINPVTGTGGDGYVLYGDKT  
ATSVPSPFDRINVRRLFNMLKTNIGRSSKYRLFELNNAFTRSSFRTEETAQYLQGNKALGG  
IYEYRVVCDTTNNTPSVIDRNEFVATFYIQPARSINYITLNFVATATGADFDELTLGLAG

>P13342

MIKLMPAGGERYIDGKSVYKLYLMIKQHMNGKYDVIKYNWCMRVSDAAYQKRRDKYFFQ  
KLSEKYKLKELALIFISNLVANQDAWIGDISDADALVFYREYIGRLKQIKFKFEEDIRNI  
YYFSKKVEVSFAKKEIFEYNPKVQSSYIFKLLQSNII SFETFILLDSFLNIIDKHDEQTDN  
LVWNNYSIKLKAYRKILNIDSQKAKNVFIETVKSCKY

>P17978

MEFKLQELNLTNQDTGPYGITVSDKGKVVITQHKANMISCINLDGKITEYPLPTPAKVM  
CLTISSDGEVWFTENAANKIGRITKKGIIKEYTLPNPD SAPYGITTEGPNGD IWFTEMNGN  
RIGRITDDGKIREYELPNKGSYPSFITLGS DNALWFTENQNNAIGRITESGDITEFKIPT  
PASGPVGITKGNDDALWFVEIIGNKIGRITPLGEITEFKIPTPNARPHAITAGAGIDLWF  
TEWGANKIGRLTSNNIIIEEYPIQIKSGEPHGICFDGETIWFAMECDKIGKLTLLIKDNME

>P09327

MTKLSAQVKGSLNITTPGLQIWRIEAMQMVPVPSSTFGSFFDGDICYIILAIHKTASSLSY  
DIHYWIGQDSSSLDEQGAAYITTTQMDDFLKGRAVQHREVOGNESEAFRGYFKQGLVIRKG  
GVASGMKHVETNSYDVQRLLHVKGKRNVVAGEVEMSWKSFNRGDVFLDLGLKLIQWNGP  
ESTRMERLRGMTLAKEIRDQERGGRTYVGVVDGENELASPKLMEVMNHVLGKRRELKAAV  
PDTVVEPALKAALKLYHVS DSEGNLVREVATRPLTQDLLSHEDCYILLDQGGKLIYVWKG  
KKANEQEKKGAMSHALNF IKAKQYPPSTQVEVQNDGAESAVFQQLFQKWTASNRTSGLGK  
THTVGSVAKVEQVKFDATSMHVKPQVAAQQKMVDDGSGEVQVWRIENLELVPVDSKWLGH  
FYGGDCYLLLYTYLIGEKQHLYLVWQGSQASQDEITASAYQAVILDQKYNGEVPVQIRVP  
MGKEPPHLSIFKGRMVVYQGGTSRTNNLETPSTRLQVQGTGANNTKAFEVPARANFL  
NSNDVFLKTQSCCYLWCGKGC SGDEREMAKMVADTISRTEKQVVVEGQEPANFWMALGG  
KAPYANTKRLQEEENLVITPRLFEC SNKTGRFLATEIPDFNQDDLEEDDVFLLDVWDQVFF  
WIGKHANEEEEKAAAATTAQEYLKTHPSGRDPETPIIVVKQGHEPPTFTGWFLAWDPFKWS  
NTKSYEDLKAESGNLRDWSQITAEVTS PKVDVFNANSNLSSGPLPIFPLEQLVNKPVEEL  
PEGVDPSRKEEHL SIEDFTQAFGMTPAAFSALPRWKQONLKKKGLF

>Q7BU69

MQTSNITNHERNDSSWMSTVKSTTEVSWNKLSFC DILLKIITFGIYSPHETLAEKHSEKK  
LMDSFSPSLSQDKMDGEFAHANIDGISIRLCLNKGICSVFYLDGDKIQSTQLSSKEYNNL  
LSSLPPKQFNLGKVHTITAPVSGNFKTHKPAPEVIETAINCCTSIIPNDYFHVKDTDFN  
SVWHDIYRDIRASDSNSTKIYFNIEIPLKLIADLINELGINEFIDSKKELQMLSYNQVN  
KIINSNFPQDLCFQTEKLLFTSLFQDPAFISALTSAFWQSLHITSSSVEHIYAQIMSEN  
IENRLNFMPEQRVINNCGHIKINAVVPKNDTAISASGGRAYEVSSSILPSHITCNGVGI  
NKIETSYL VHAGTLP SSEGLRNAIPPE SRQVSFAIISP DV

>P84035

SHDNAQLLTAIKAYIATMCDPKMAVIMAHEIGHGGYGYCRKIPCAPEDVKDDDIGMVLV  
GTK

>P0C6S0

SQIKFKPSYIELAVVADHGMFTKYN SNINTIRIVHEMVNTVDGFFRTITSFGEWRERDII

PRSCIMASTISKHNPQCIINQPI

>Q90495

MIQILLVIIICLAVFPYQGCSIILGSGNVNDYEVVYPQKVTALPKGAVQQPEQKYEDAMQY  
EFEVKGEPVVLHLEKNKELFSEDYSETHYSSDDREITTNPSVEDHCYYHGRIQNDAESTA  
SISACNGLKGHFKLGRGETYFIEPLKIPDSEAHAVYKYENIENEDEAPKMGVTDQDNWESD  
EPIKKTGLGLIVPPHERKFEKKFIELVVVVVDHSMVTKYNNDSTAIRTWIYEMLNTVNEIYL  
PFNIRVALVGLFVWCNGDLINVTSTADDTLHSFGEWRASDLLNRKRHDHAQLLTNTVTLDH  
STLGITFVYGMCKSDRSVELILDYSNITFNMAIYIAHEMGHSLGMLHDTKFCCTCGAKPCI  
MFGKESIPPPKEFSSCSYDQYNKYLLKYNPKCILDPPLRKDIASPAVCGNEIWEEGEECD  
CGSPADCRNPCCDAATCKLKPGAECGNGECCDKCKIRKAGTECRPARDDCDVAEHCTGQS  
AECPRNEFQRNGQPCLNNSGYCYNGDCPIMLNQCIALFSPSATVAQDSCFQRNLQGSYYG  
YCTKEIGYYGKRFPQCAPQDVKCGRLYCLDNSFKKNMRCKNDYSYADENKGIVEPGTKCED  
GKVCINRKCVDVNTAY

>P0C6E8

KMCGVTQNWESYESTKKASQLNLTPEQQRFPQRYIKLGI FVDHGMVTKYSGNSERITKRV  
HQMINNINMMCRALNIVTTLISLLEIWSEKDLITVQASAPTTLTLFGAWRETVLLNRTSHD  
HAQLLTATIFNGNVI GRAPVGGMCDPKRSVAIVRDHNAIVFVAVTMTHEMGHNLGNHHD  
EDKCNCTCIMS KVL SRQPSKYFSECSKDYYQTFLTNHNFQCILNAPLRTDVTSTPVS GN  
ELLEAGEDCDGSPANPCDAATCKLRPGAQCCEGLCCDQCRFTSAGTECRAARSECDIA  
ESCAGQSADCPDTHFRNGQPCLNNHGYCYNGNCPIMFYQCIALFSGNATVGQDGCDFAN  
DIGHKYFHC RKDNEKYIPCAPQDVKCGRLFCITYIYDIDLCRYDDSSANGMVAQGTKCADGK  
VCNSNRQCADVNTAY

>Q98157

MDTKGILLVAVLTALLCLQSGDTLGASWHRPDKCCLGYQKRPLPQVLLSSWYPTSQ LCSK  
PGVIFLTKRGRQVCADKSKDWVKKLMQQLPVTAR

>Q91053

MVLISVLANLLILQLSYAQKSELVIGGDECNINEHRFLVALYNSRSRTLFCGGTLINQE  
WVLTAAH CERKNFRIKLGIHSHKVPNEDEQTRVPKEKFFCLSSKNYTLWDKDIMLIRLDS  
PVSNSEHIAPLSLPSSPPSVGSVCRIMGWGRISPTKETYPDVPHCANINLLEYEMCRAPY  
PEFGLPATSRITLCAGILEGGKDTCRGDSGGPLICNGQFQGIASWGDDPCAQPHKPAAYTK  
VFDHLDWIQSI IAGNTDASCPP

>P78423

MAPISLSWLLRLATFCHLTVLLAGQHGGVTKCNITCSKMTSKIPVALLIHYQQNQASC GK  
RAIILETRQHRLFCADPKEQWVKDAMQHLD RQAAALTRNGGTFEKQIGEVKPRTPAAGG  
MDESVVLEPEATGESSLEPTPSSQEAQRALGTSPELPTGVTGSSGTRLPPTPKAQDGGP  
VGTELFVRVPPVSTAATWQSSAPHQPGPSLWAEAKTSEAPSTQDPSTQASTASSPAPEENA  
PSEGQRVWVGQGS PRPENSLEREEMGPVPAHTDAFQDWGPGSMAHVSVPVSSEGTSPRE  
PVASGSWTPKAE EPIHATMDPQRLGVLITPVPDAQAATRRQAVGLLAFLLFLCLGVAMF  
TYQSLQGCPRKMAGEMA EGLRYIPRSCGSNSYVLVPV

>P40383

MGIPKFFRWMSEYPLCSQLIENDRIPEFDNLYLDMNGILHNC THKNDDHSSPPLPEEEM  
YIAIFNYIEHLFEKIKPKLLYMAVDGCAPRAKMNQQRSRFRRTAKDAHDARLKAERNGE  
DFPEEQFDSNCITP GTTFMERVSRQLYYFIHKKVTNDSQWQNI E VIFSGHDCPGEGEHKI  
MEYIRTQKAQPSYNPNTRHCLYGLDADLIMLGLLSHDPHFCLLREEVTFGPASRNRSKEL



AHQKFYLLHLSLLREYLEFEFQECRSTFTFKYDLEKILDDFILLAFFVGNDFLPHLPGLH  
INEGALALMFSIYKKVMP SAGGYINEKGVINMARLELILLELENFEKEIFKAEVSETKNN  
GNSDKPSFDFLKYITESTNDIKAMTGEQKNYFLQIKKFLSSREPFIDFSANISSVDQRFL  
RRLCNDLHLSFSKIIKVDGTHLLRITFRDLEFNDEDEDEIEQDEIERVLQKYDNIPLNE  
EQALKEKNVEKDFIQWKDDYYRSKVGFSYDEEALKAMAERYVEGLQWVLFY YRGCQSW  
GWYYNYHFAPKISDVLKGLDVKIDFKMGTPFRPFQQLMAVLPARSQALVPPCFRDLMVNS  
ESPIIDFY PENFALDQNGKTASWEAVVIIPFIDETRLIDALASKDKFLTEEERKNSFNA  
PTVFSLAEDYTSFY PSSLPLFPDLVTRCIQKPYSLPSMEGKEYLVGLCPGVFLGAFGMV  
GFPSFH TLKHKAE LVYHG INVFGNESRNP SVIVNVEDVKSALTSEQIAMQYV GKRI FVDW  
PYLREAYVESAMDES MYLASNSTIEKRD LAEIEKSQWGRKCSHKIREYSKRFGVLF GDI  
SLLLQVRPIKGLE YTREGALVKIFNESVLEDYPAQLVVEKIAIDDP RFTEREAPPVEVEY  
PPGTKAFHLGEYNYGRPAQITGCKDNKLI IWLSTAPGLDAQWGRVLVND SKSKEKYPSY  
IVAKLLNIHPLLLSKITSSFLISNGTKRENIGLNLKFDARNQKVLGFSRKSTKGW EFSNK  
TVALVKEYINTFPQLFNILTTHATKDNLTVKDCFPKDDTQQLAAVKHWIKEKGINSLTRV  
SLDEDALDSDI IKLIEEKASTIDSTYQVPKVFVGPVRYALLKPSQTRGILHSQEFALGDR  
VVYVQDSGKVP IAAAGTVVGIMLHHL DVVFDLPFMSGTTLDGRCSPHYGMQVEVSMVLNV  
TNPQFVVNTRAGKNRKTNVSANNVSQGTDSRLVTKPTSTFPSPSPSSSVWNKREHHPK  
PFSLHQVPPPESLIHKSKSKFSKGNHSTNGTQSIRGRGGKRGKPLRSKELNRKHDHIVQ  
PMGKLQIN

>Q9P999

MRIGNL NVEIEFIADNIVRVLYYYGREAIVDNSLVVLPNLEKLSIKGESTGPSIISFSSE  
SLSVDINTSNGELIMKDNKGGIVVKEKRRDLKFNEELSTYNVEQEFELSEGERVYGLGQH  
AGGNGLGQSSAYKLDYSGLSTTLSQRNTDIGIPFIVSSKGYGILWDNYSLSISLRRNKL  
KVWF EAGKKIDYVVIYGDSIDDVIKGYRKL TGDAPLLPKWAYGYWQSKERYKSQDEITSV  
VKEFRERKIPLDVI VL DWRYWGKYGWNAFKFDETD FPRPKDMVEE IHKMGAKLAISIWPT  
FGKETE VFKDMESKGCII LGTTAFNPFKDECRELFW SYVKGFYDLGIDAYWLDASEPETG  
LGLVFFSPIHDVDLEIGKGYEYLNAYPLMETKAVYEGQRRISNKR VVILTRSAFAGQQRH  
SAISWSGDVLDGWATLRAQIPAGLNFSISGIPYWTDTGGFFSGNPETKAYAEIFVRWFQ  
WSTFCPILRVHGTIFPKPEWRFPREYQEVILKYIRLRYKLLPYIYSLAWMTYSIGYTIMR  
PLVMDFRDDQNVYDFDEQYMF GPYILISPVTLP SIEKEVYLP SKEYWYDFWTGEKLEGG  
RMMDVKVTLDTIPLFVRSGAVLPLLGKNVNNAE EYWDVIDLRVYPGKNGYFELYDDDGIT  
YEYEK GKYYIIPITWDEDKQELTIGKKRGELEMSKKI IKI IWVEKKGKIEHTKPDVEIEY  
NGKETITV KRG

>O59245

MVVPLKRIDKIRWEIPKFDKMRVPGRVYADEV LLEKMKNDRTLEQATNVAMLPGIYKYS  
IVMPDGHQGYGFP IGGVAADFVKEGVISPGGIGYDINCLAPGTRVLTEHGYWLKIEEMPE  
KFKLQRLRVYNIIEGHNDFSKVVVFAEREVGSEEK AIRIVTESGKVI EGS EDHPVLTPEG  
YVYLRNVEKGDYIILVYPFEGVPYEEKKGVILDES AFEGEDPQVVKFLRERNLIPLQWKDP  
KVGILARILGFALANGYISENDLTFHGKEEVLREVRKDLEELGIEAIVAEEDK LKVTSR  
EFAFLLEKLGMAHDSIPEWIIIEGPLWIKRNF LAGLFGANGSIVEFKGDVPLPITLTHSRE  
LLNDVSRILEGFKVRAKIKMGKNGSYQLVIEDEDSIRNFLGRINYEYDPEKKARGLIAYA  
YLKFKELMKGNLMTFEEFARDRGYEGGFVAEKVIEVKS VKPEYDKFYDIGVYHSAHNFIA  
NGIVVHNCGVRLIRTNLTEKEVRPRIKQLVDTLFKNVPSGVGSQGR IKLHWTQIDDLVD  
GAKWAVDNGY GWERDLERLEEGRMEGADPEAVSQRAKQRGAPQLGSLGSGNHFLVQVV  
DKIFDPEVAKAYGLFEGQVVVMVHTGSRGLGHQVASYLRIMERAIRKYRIPWPDRELVS  
VPFQSEEGQRYFSAMKAAANFAWANRQMI THWVRESFQEVFKQDPEGDLGMDIVYDVAHN  
IGKVEEHEVDGKRVKVIVHRKGATRAFPPGHEAVPRLYRDVGPVLI PGSMGTASYILAG  
TEGAMKETFGSTCHGAGRVL SRKAATRQYRGDRIRQELLNRGIYVRAASMRVVAEEAPGA

YKNVDNVVKVSEAGIAKLVARMRPIGVAKG

>O22152

MSMSSMSSPSSAVCSPDHFSPSDHLCYVQC�FCQTILAVNVPYTSLFKTVTVRCGCCTNL  
LSVNMRSYVLPASNQLQLQLGPHSYFNPQDILEELRDAPSNMNMMMNQHPTMNDIPSFM  
DLHQQHEIPKAPPVNRPEKQRVPSAYNRFIKEEIQRIKAGNPDISHREAFSAAKNWA  
HFPPIHFGLVPDNQPVKKTNPQQEGEDNMVMKEGFYAPAAANVGVTPY

>P0A8E7

MPSFDIVSEVDLQEARNAVDNASREVESRFDFRNVEASFELNDASKTIKVLSESDFQVNQ  
LLDILRAKLLKRGIEGSSLDVPENIVHSGKTFVFEAKLKQGIESATQKKIVKMIKDSKLLK  
VQAQIQGDEIRVTGKSRDDLQAVMAMVRGGDLGQPFQFKNFRD

>Q09923

MSIPTRKIGNDTVPAIGFGCMGLHAMYGPSSEEANQAVLTHAADLGCTFWDSDDMYGFGA  
NEECIGRWFKQTGRRIEFLATKFGYEKNPETGELSLNNEPDYIEKALDLSLKRLGIDCI  
DLYYVHRFSGETPIEKIMGALKKCVEAGKIRYIGLSECSANTIRRAAVYPVSAVQVEYS  
PFSLEIERPEIGVMKACRENNITIVCYAPLGRGFLTAYKSPDDFPEGDFRRKAPRYQKE  
NFYKNLELVTKIEKIATANNITPGQLSLAWLLAQDDILPIPGTKRVKYLEENFGALKVK  
LSDATVKEIREACDNAEVI GARYPPGAGSKIFMDTPMPK

>P51981

MRTVKVFEEAWPLHTPFVIARGSRSEARVVVELEEEGIKGTGECTPYPRYGESDASVMA  
QIMSVVPQLEKGLTREELQKILPAGAARNALDCALWDLAARRQQQSLADLIGITLPETVI  
TAQTVVIGTPDQMANSASTLWQAGAKLLKVKLDNHLISERMVAIRTAVPDATLIVDANES  
WRAEGLAARCQLLADLGVAMLEQPLPAQDDAALENFIHPLPICADESCHTRS NLKALKGR  
YEMVNIKLDKTGGLTEALALATEARAQGFSLMLGCMCTSRASAAALPLVPQVSFADLDG  
PTWLAVDVEPALQFTTGELHL

>P76407

MAEFPASLLIILNGKSTDNLPLREAIMLLREEGMTIHVRVTWEKGDAARYVEEARKFGVAT  
VIAGGGDGTINEVSTALIQCEGDDIPALGILPLGTANDFATSVGIPEALDKALKLAIAGD  
AIAIDMAQVNKQTCFINMATGGFGTRITTEPEKPKAALGSVSYI IHGLMRMDTLQPDR  
EIRGENFHWQGDALVIGIGNGRQAGGGQQLCPNALINDGLLQLRIFTGDEILPALVSTLK  
SDEDNPNIIEGASSWFDIQAPHDITFNLDGEPLSGQNFHIEILPAALRCRLPPDCPLLR

>P76483

MGMIGYFAEIDSEKINQLESTEKPLMDNIHDTLSGLRRLDIDKRWDFLHFGLTGTSAFD  
PAKNDPLSRAVLGEHSLEDGIDGFLGLTWNQELAATIDRLES LDRNELRKQFSIKRLNEM  
EIYPGVTFSEELEGQLFASIMLDMEKLI SAYRRMLRQGNHALTVIVG

>P64559

MDINNKARIHWACRRGMRELDISIMPFHEHEYDSLSDDEKRIFIRLLECDPDLFNWLMN  
HGKPADAELEMMVRLIQTRNRERGPVAI

>P27862

MESWLI PAAPVTVVEEIKKSRFITMLAHTDGVEAAKAFVESVRAEHPDARHHCVAWVAGA  
PDDSQQLGFSDDGEPAGTAGKPMLAQLMGSGVGEITAVVRYGGILLGTGGLVKAYGGG  
VNQALRQLTTQRKTPLTEYTLQCEYHQLTGIEALLGQCDGKI INSDYQAFVLLRVALPAA  
KVAEFSAKLADFSRGSLLAIEE

>P32157

MRYPVVDVYTGKIQAYPEGKPSAIAKIQVDGELMLTELGLEGDEQAEKKVHGGPDRALCHY  
PREHYLYWAREFPEQAELFVAPAFGENLSTDGLTESNVYMGDIFRWGEALIQVSQPRSPC  
YKLNHYHFDISDIAQLMQNTGKVGWLYSVIAPGKVSADAPLELVSRVSDVTVQEAAAIAWH  
MPFDDDQYHRLLSAAGLSKSWTRTMQKRRLSGKIEDFSRRLWGK

>O31607

MGQSFNAPYEAI GEELLSQLVDTFYERVASHPLLKPIFPSDLTETARKQKQFLTQYLGGP  
PLYTEEHGHPMLRARHLFPFITNERADAWLSCMKDAMDHVGLEGEIREFLFGRLELTARH  
MVNQTEAEDRSS

>O31699

MKLRQPMPELTGEKAWLNGEVTREQLIGEKPTLIHFWSISCHLCKEAMPQVNEFRDKYPD  
QLNVVAVHMPREDDLDPGKIKETA AEHDITQPIFVDSHALTDAFENEYVPAYYVFDKT  
GQLRHFQAGGSGMKMLEKRVNRVWLKRNRYLTK

>P75804

MHRQSFFLVPLICLSSALWAAPATVNVEVLQDKLDHPWALAFLPDNHGMLITLRGGELRH  
WQAGKGLSAPLSGVPDVWAHQGGLLDVVLAPDFAQSRRIWLSYSEVGDDGKAGTAVGYG  
RLSDDL SKVTD FRTVFRQMPKLSSTGNHFGGRLVFDGKGYLFIALGENNQRP TAQDL DKLQ  
GKLVRLTDQGEIPDDNPFIKESGARAEIWSYGIRNPQGMAMNPWSNALWLNEHGPRGGDE  
INIPQKGKNYGWPLATWGINSYGFKIPEAKGEIVAGTEQPVFYWKDSPA VSGMAFYNSDK  
FPQWQKLFIGALKDKDIVMSVNGDKVTEDEGRILTDGRQIRDVRTGPDGYLYVLTDES  
SGELLKVS PRN

>P45923

MLLITPDELKSYSVFEVSKTRPDELLKQDILEATADIILKVGHDFSDAEYIPLPETVRLA  
LLKLSQFYALINGDESI IKGYTTEKIGDYSYTLGDGSP LQKPDVYALIKDYVKPADPDLE  
GIEAKVRMRSI

>Q8VDQ1

MIIQRVVLNSRPGKNGNPVAENFRVEEFSLLDALNEGQVQVRTLYLSVDPYMRCKMNEDT  
GTDYLAPWQLAQVADGGGIGIVEESKHQKLAKGDFVTSFYWPWQTKAILDGNGLKVD PQ  
LVDGHL SYFLGAIGMPGLTSLIGVQEKGHI SAGSNQTMVVSGAAGACGSLAGQIGHLLGC  
SRVVGICGTQEKCLFLTSELGFDAAVNYKTGNVAEQLREACPGGVDVYFDNVGGDISNTV  
ISQMNENSHIILCGQISQYNKDVYPPLPPAVEAIRKERNITRERFTVLNYKDKFEPGI  
LQLSQWFKEGKLVKVTAKGLENMGVAFQSMMTGGNVGKQIVCISEDSSL

>Q9SMJ3

MATCSAYLCCPATASLKKRVFPDGSAGFLFFGGRRLSNRLVTPKSVIRADLNSMVSDMS  
TNAPKGLFPPEPEHYRGPKLKVAIIGAGLAGMSTAVELLDQGHEVDIYESRTFIGGKVG S  
FVDKRGNIEMGLHVFFGCYNNLFRMLMKKVGA EKNLLVKEHTHTFVNKGGEIGELDFRFP  
VGAPLHGINAFLSTNQKTYDKARNAVALALSPVVRALVDPD GALQQIRDLD SVSFSDFW  
MSKGGTRASIQRMWDPVAYALGFIDCDNISARCM LTI FALFATKTEASLLRMLKGS PDVY  
LSGPIKYYIIDKGRFHLRWGCREVLYETSSDGS MYV SGLAMSKATQKKIVKADAYVAAC  
VVPGIKRLVLPQKWRELEFFGNIYKLI GVPVVTVQLRYNGWVTELQDLERSRQSKRATGLD  
NLLYTPDADFSCFADLALASPEDYIEGQGSLLQCVLTPGDPYMPLPNEEIRRVS KQVL  
ALFPSSQGLEVTWSSVVKIGQSLYREGPGKDPFRPDQKTPVENFFLAGSYTKQDYIDSME  
GATLSGRQASAYICDAGEQLLALRKKIAAAELNEISKGVSL SDELSLV

(2) 2,968 homo-oligomer

>P29310

MSTVDKEELVQKAKLAEQSERYDDMAQAMKSVTETGVELSNEERNLLSVAYKNVVGARRS  
SWRVISSIEQKTEASARKQQLAREYRERVEKELREICYEVLGLLDKYLIPKASNPEKVF  
YLKMKGDYRYLAEVATGDARNTVVDDSQAYQDAFDISKGKMQPHTPIRLGLALNFSVF  
YYEILNSPKACQLAKQAFDDAIAELDTLNEDSYKDSTLIMQLLRDNLTLWTSDTQGDEA  
EPQEGGDN

>P29535

MDLETSEISNYKSSVVLKSLASNEQHGENSEPYFDGWKAYDNDPFHLVNNLNGVIQMLAE  
NQLSVDLIEEWIKRNPKASICTNDGIESFRRIANFQDYHGLPEFTNAIAKFMKTRGGKV  
KFDAKRVMAGGATGANETLILCLADPGDAFLVPTPYYPGFNRDLRWRSGVQLLPISCKS  
CNNFKITIEAIEEAYEKGOQANVKIKGLILTNPCLGTILDRDTLKKISTFTNEHNIHL  
VCDEIYAATVFNPKFVSI AEI INEDNCINKDLVHIVSSLSKDLGFPGRVGI VYSFNDD  
VVNCARKMSSFLVSTQTQHLLAFMLSDDFVVEEFLIESAKRLRERYEKFTRGLLEEIGIK  
CLESNAGVYCWMDLRSLKKEATLDAEMSLWKL I INEVKLNVSFGSSFNCSEVGWFRVCF  
NIDDQTMELALARIRMFMDAYNNVKNKNGVMKNKHNGRGTTYDLTPQMGSTMKMLLA

>P29266

MAASLGFRGAASGLRYWSGRRRPVGSAAVCSRSMASKTPVGF IGLGNMGNPMAKNLIK  
GYPLILYDVFDPVCKEFKEAGEQVASSPADVAEKADRIITMLPSSMNSIEVYSGANGILK  
KVKKGSLIDSSTIDPSVSKELAKEVEKMGAVFMDAPVSGGVAARSGNLTFMVGGVENE  
FAAAQELLGCMGSNVLYCGAVGSGQSAKICNNMLLAISMIGTAEAMNLGIRSGLDPKLLA  
KILNMSGRCSWSDTYNPVPGVMDGVPSSNNYQGGFGTTLMAKDLGLAQDSATSTKTPIL  
LGSVAHQIYRMMCSKGYSKKDFSSVFQYLREEETF

>P56653

MARSITMQORIEFGDCDPAGIVWFPNYHRWLDAA SRNYFIKCGLPPWRQTVVERGIVGTP  
IVSCNASFVCTASYDDVLT IETCIKEWRRKSFVQRHSVSRTPGGDVQLVMSRADEIRVFA  
MNDGERLRAIEVPADYIELCS

>Q01468

MPIAQIHILEGRSDEQKETLIREVSEAI SRSLDAPLTSVRVIITEMAKGHFGIGGELASK  
VRR

>P49902

MSTSWSDRLQNAADMPANMDKHALKKYRREAYHRVFNRS LAMEKIKCFGFDMDYTLAVY  
KSPEYESLGFELTVERLVSIGYPQELLSFAYDSTFPTRGLVFD TLYGNLLKVDAYGNLLV  
CAHG FNFIRGPETREQYPNKFIQRDDTERFYILN TLFNLPETYLLACLVDFFTNCPRYTS  
CETGFKDGDLFMSYRSMFQDVRDAVDWVHYKGLKEKTVENLEKYVVKDGKLP LLLSRMK  
EVGKVFLATNSDYKYTDKIMTYLFD FPHGPKPGSSHRPWQSYFDLILVDARKPLFFGEGT  
VLRQVDTKTGKLIKIGTYTGPLQHGI VYSGGSDTICDLLGAKGKDILYIGDHIFGDILKS  
KKRQGWRTFLVIPELAQELHVWTDKSS LFEELQSLDIFLAELYKHL DSSNERPDISSIQ  
RRIKKVTHDMDCYGMMSLFRSGSRQTLFASQVMRYADLYAASF INLLYYPFSYLFRAA  
HVLMPHESTVEH THVDINEMESPLATRNRTSVDFKDTDYKRHQLTR SISEIKPPNLFPLA  
PQEITHCHDEDDDEEEEEEEEE

>P52307

GRLLAACLLLPGLAATDFTATV LHTNDVHGRFEQITASGTRCTKQAAEAQQCVGGIARQKT

VVSQAAASGANVLFNLNAGDYYQGSIWYYVLGAPIVAEAVNYLAHDMALGNHEFDRGAEG  
LVPLLTESRVPVIGCNVDFSEEP TLKPLQPKPSVVVERAGIKIGLIGYTTMNTTYLSSPG  
KVRFTDEAEICIQREARLRREEGVQVIAVGHSGVPRDLEICERVPEVSLVVGHTHTFL  
YSGPTENGRVSGDKPQGPYPVVDRAADSRCLVVQDFYMGKYMGNISITWNQRGEVVRWS  
GQPVLDRSIPEDPDGIALLDYRDRVAQSQASVVAESKVLDDGDKNRCRLDECNLGNLV  
MDAFLKKMASLPSPQASWTRVAAVIANAGGIRASIDEQSTGGRITFEDVNVLPFGNTLV  
EMNVTGAQLKGLLEHGVHRHDVKGYVPPAELVLAAGLRVVYDIQREPYDRVVEAHILCTE  
CRVPRYEPLYEARQYRIAALSIVHGGDNFDFSFVKPKDMYDTGFQDAEIVMKYMNSTSP  
ITTALDGRVTF LKTNQASDACLNLASPFLLVLLVLVVYHL

>P21588

MRPAAATAPKWL L L L L L SALLPLWPTAKSWELTIMHTNDVHSRLEQTSDDSTKCLNASLCV  
GGVARLFTKVQQIRKEE PNVLLLDAGDQYQGTIWFTVYKGLEVAHF MNLLGYDAMALGNH  
EFDNGVEGLIDPLLRNVKFPILSANIKARGPLAPQISGLYLPYKVL SVGGEVVGI VGYTS  
KETPFLSNPGTNLVFEDEV TALQPEVDK LKTLNVNKI IALGHSGFEMDKLIAQKVRGVDV  
VVGHTNTFLYTGNPPSKEVPAGKYPFIVTSDDRKVPVQAYAFGKYLGYLKV EFDK G  
NVVTSYGNPILLNSTIREDAAIKADINQWR IKLDNYSTQELGRTIVYLNGSAQE CRFREC  
NMGN LICDAMINNNLRHPDEMFWNHVSMCIVNGGGIRSPIDER NNGTITWENLAAVLPFG  
GTFDLVQLKGSTLKKAFEHSVHRYGQSTGEFLQVGGIHVVYDISRKPWDRV VQLKVLCTK  
CRVPIYE PLEMDKVYKVVLP SYLVNNGDGFQMIKDELLKHDSGDQDISV VSEYISKMKVI  
YPAVEGR IKFSAASHYQGSFPLIILSFWAVILVLYQ

>Q70AC7

MSPREIEVSEPREVGITELVLRDAHQS LMATRMAMEDMVGACADIDAAGYWSVECWGGAT  
YDSCIRFLNEDPWERLRTFRKLMPNSRLQMLLRGQNL LGYRHYNDEVVDRFVDKSAENGM  
DVFRVFDAMNDPRNMAHAMA AVKKAGKHAQGTICYTISP VHTVEGYVKLAGQLLDMGADS  
IALKDMAALLKPQPAYDI IKA IKD TYGQKTQINLHCHSTTGVT E VSLMKAIEAGVDV VDT  
AISSMSLGP GHNPTESVAEMLEGTGYTTNL DYDR LHKIRDHFKAIRPKYK KFESKTLVDT  
SIFKSQIPGGMLSNMESQLRAQGAEDKMDEVMAEVP RVRKAAGFPPLVTPSSQIVGTQAV  
FNVMGGEYKRMTGEFADIMLGYYGASPADRDPKVVKLAEEQSGKKPITQR PADLLPPEWE  
KQSKEAATLKG FNGTDEDVLT YALFPQVAPVFFEHRAEGPHSVALTDAQLKAEAE GDEKS  
LAVAGPVTYNVNVGGTVREVTVQQA

>P27091

MSGLRNTSEAVAVLASLGLGMVLLMFVATTPPAVEATQSGIYIDNGKDQTIMHRVLS EDD  
KLDVSYEILEFLGIAERP THLSSHQLSLRKSAPKFLLDVYHRITAE EGLSDQDEDDDYER  
GHRSRRSADLEEDEGEQQKNFITDLDKRAIDESDIIMTFLNKRHHNVDEL RHEHGRRLWF  
DVS NVPNDNYLVMAELRIYQANEGKWL TANREFTITVYAI GTGT LGQHTMEPLSSVNTT  
GDYVWGLELNVTEGLHEWL VKSKDNHGIYI GAHAVNRPDREV KLD D IGLIHRKV DDEFQP  
FMIGFFRGP ELIKATAHSSHRSKRSASHPRKRKKSVPNNVPLLEPMESTRSCQM TLY  
IDFKDLGWHDWIIAPEGYGAFYCSGECNFPLNAHMNATNHAI VQTLVHLLLEPKKVPK PCC  
APTRLGALPVLYHLNDENVNLKKYRNMIVKSCGCH

>P00349

MAQADIALIGLAVMGQNLILNMNDHGFVVC AFNRTVSKVDDFLANEAKGTKVLGAHSLEE  
MVS KLKPRRIILLVKAGQAVDNFIEKLVPLLDIGDIIIDGGNSEYRDTMRRCRDLKDKG  
ILFVSGSVSGGEDGARYGPSLMPGGNKEAWPHIKAI FQGI AAKVGTGEPCCDWVGDDGAG  
HFVKMVHNGIEY GDMQLICEAYHLMKDVLGLGHKEMAKAFEWNKTELD SFLIEITASIL  
KFQDADGKHL LPKIRDSAGQKGTGKWT AISALEYGV PVTLIGEAVFARCLSS LKDERIQA  
SKKLKGPQNIPFEGDKSFL EDIRKALYASKIISYAQGFMLLRQAATEFGWTLN YGGIAL

MWRGGCIIRSVFLGKIKDAFDRNPGLQNLLLDDFFKSAVENCQDSWRRAISTGVQAGIPM  
PCFTTALSFYDGYRHAML PANLIQAQRDYFGAHTYELLAKPGQFIHTNWTGHGGSVSSSS  
YNA

>P31072

MSMDVGVVGLGVMGANLALNIAEKGFKVAVFNRTYSKSEEFMKANASAPFAGNLKAFETM  
EAF AASLKKPRKALILVQAGAATDSTTEQLKKVFEEKDILVDTGNAHFKDQGRRAQQLEA  
AGLRF LGMGISGGEEGARKGPAFFPGGTL SVWEEIRPIVEAAAAKADDGRPCVTMNGSGG  
AGSCVKMYHNSGEYAILQIWGEVFDILRAMGLNND EVAAVLEDWKS KNFLKSYMLDISIA  
AARAKDKDGSYLTEHVMDRIGSKGTGLWSAQEAL EIGVPAPSLNMAVVSQRFTMYKTERQ  
ANASNAPGITQSPGYTLKNKSPSGPEIKQLYDSVCIAIISCYAQMFCLEREMDKVHNFGL  
NLPATIATFRAGCILQGYLLKPMTEAFEKPNPINSNLMAFQTEIRAGLQNYRDMVALITS  
KLEVSIPVLSASLNYVTAMFTPTLKYGQLVSLQRDVFGRHGYERVDKDGRESFQWPELQ

>Q9SMZ4

MNSNGHEEEKKGNGVVGILAE TVNKWERRTPLTPSHCARLLHGKDRGTGISRIVVQPSA  
KRIHHDALYEDVGC EISDDLSDCGLILGIKQPELEMILPERAYAFFSHTHKAQKENMPLL  
DKILSERVTLCDYELIVGDHGKRLLA F GK YAGRAGLVDFLHGLGQRKLILGYSTPFLSLG  
ASYMYSSLA AAKAAVIVSGEEIASOGLPLGICPLVVFVFTGTGNVSLGAQEIFKLLPHTFV  
EPSKLPPELVKDKGISQNGISTKR VYQVYGCIIITSQDMVEHKDPKSKSFDKADYAHPEHY  
NPVFHEKISPYTSVLVNCMYWEKRFPCLLSTKQLQDLTKKGLPLVGICDITCDIGGSIEF  
VNRATLIDSPFFRFNPSNNSYYDDMDGDGVL CMAVDILPTEFAKEASQHF GDILSGFVGS  
LASMTEISDLP AHLKRACISYRGELTSLYEYIPRMRKSNPEEAQDNI IANGVSSQRTFNI  
LVSLSGHLFDKFLINEALDMIEAAGGSFHLAKCELGQSADAESYSELEVGADDKRVLDQI  
IDSLTRLANPNEDYISPHREANKISL KIGKVQQENEIKEKPEMTKKSGVLILGAGRVCRP  
AADFLASVRTISSQQWYKTYFGADSEKTDVHVIVASLYLKDAKETVEGISDVEAVRLDV  
SDSESLK YVSQVDVVL SLLPASCHAVVAKTCIELKKHLVTASYVDEET SMLHEKAKSAG  
ITILGEMGLDPGIDHMMAMKMINDAHIKKGKVKSF TSYCGGLPSPAAAANNPLAYKFSWNP  
AGAIRAGQNP AKYKSNGDI IHVDGKNLYDS AARFRV PNLPAFALECFPNRDSL VYGEHYG  
IESEATTIFRGT LRYEGFSMIMATLSKLGFFDSEANQVLSTGKRITFGALLSNI LNKDAD  
NESEPLAGEEEISKRI I KLGHSKETA AAKAAKTIVFLGFNEEREVPSLCKSVF DATCYLME  
EKLAYSQNEQDMVLLHHEVEVEFLESKR IEKHTATLLEFGDIKNGQTTTAMAKTVGIPAA  
IGALLLIEDKIKTRGVLRPLEAEVYLPALDILQAYGIKLM EKAE

>Q99K67

MLRAQRPRLARLRACL SRGLHHKPVMALRREDVNAWERRAPLAPKHIKGITKLG YKVLIQ  
PSNRRAIHDKEYVRAGGILQEDITEACLILGVKRPPEEKLM SKKTYAFFSHTIKAQEANM  
NLLDEV LKQ EIRLIDYEKMDHRGSRIVAFGQWAGVAGMINILHGMGLRLLALGHHTPFM  
HLGMAHNYRNSSQAVQAVRDAGYEISLGLMPKSIGPLTFVFTGTGNVSKGAQEVFNELPC  
EYVEPHELREVSKTGDLRKVYGTVLSRHHHLVRKTDGVYDPEVEYKPERYTSR FN TDIA  
PYTTCLINGIYWEQNTPRLLTRQDAQSLLVPVKSSVVPVEGCPELPHKLVAICDISADTG  
GSIDFMTECTTIERPFCMYDADQQI IHDSVEGSGILMCSIDNLP AQLP IEATEYFGDMLY  
PYVEEMLLSDASQPLESQNFSPVVRDAVITSNGLLTDKYKYIQKLRESRERIQFLSMSTK  
KKVLVLGSGYVSGPVLEYLSRDNNIEITLGS DMTNQMQQLSKKYNINPVSLTVGKQ EAKL  
QSLVESQDLVISL LPPYVLHPV VAKACIESRVNMVTASYITPAMKELEKSVDDAGITVIGE  
LGLDPGLDHMLAMETIDTAKELGATVESYVS YCGGLPAPEHSDNPLRYKFSWSPVGLMN  
IMQPASYLLNGKVVNVTGGVSFLNSVTPMDYFPGLNLEGYPNRDSIKYAEIYGISSAHTL  
LRGTLRYKGYSKALNGFVKLGLINREAYPALRPEANPLTWKQLLCDLVGISRSSPCEK LK  
EVVFTKLG DNTQLEAAEWLGLLGDEQVPQAESIVDAFSKHLVSKLSYGP EEKDMIVMRD  
SFGIRHPSGHLENKTI DLVVYGD FNGFSAMAKTVGLPTAMAAMLLDGEIEAKGLMGPF T

KEIYGPILERIKAEGIVFNTQSTIKL

>P00509

MFENITAAPADPILGLADLFRADERPGKINLGI G VYKDETGKTPVLT SVKKAEQYLLENE  
TTKNYLIGIDGIPFGRCTQELLFGKGSALINDKRARTAQT PGGTGALRVAADFLAKNTSV  
KRVWVSNPSPWNHKS VFN SAGLEVREYAYYDAENHTLDFDALINSLNEAQAGDVVLFHGC  
CHNPTGIDPTLEQWQTLAQLSVEKGWLP LFD FAYQGFARGLEEDAEG LRAFAAMHKELIV  
ASSYSKNFGLYNERVGACTLVAADSETVDRAFSQMKAAIRANYSNPPAHGASVVATILSN  
DALRAIWEQELTDMRQRIQRMRQLFVNTLQEKGANRDFSFIKQNGMFSFSGLTKEQVLR  
LREEFGVYAVASGRVNVAGMTPDNMAPLCEAIVAVL

>Q56232

MRGLSRRVQAMKPSATVAVNAKALELRRQGVDLVALTAGEPDPDTP EHVKEAARRALAQG  
KTKYAPPAGIPELREALAEKFRRENGLSVTPEETIVTVGGKQALFNLFQA ILDPGDEVIV  
LSPYVWSYP EMVRFAGGVVEVETLPEEGFVPDPERVRRAITPRTKALV VNSPNNPTGAV  
YPKEVLEALARLAVEHDFYLVSDEIYEHLLEYEGEHFSPGRVAPEHTLTVNGAAKAFAMTG  
WRIGYACGPKEVIKAMASVSSQSTTSPDTIAQWATLEALTNQEASRAFVEMAREAYRRRR  
DLLLEGLTALGLKAVRPSGAFYVLMDTSP IAPDEVRAAERLLEAGVAVVP GTDFAAFGHV  
RLSYATSEENLRKALERFARVLGRA

>P12344

MALLHSGRFLSGVAAAFHPGLAAAASARASSWWAHVEMGPPDP ILGVTEAFKRDTNSKKM  
NLGVGAYRDDNGKPYVLP SVRKAEAQIAAKNLDKEYLP IAGLAEFCKASAELALGENNEV  
LKSGRYVTVQTI SGTGALRIGASFLQRFFKFSRDVFLPKPTWGNHTPIFRDAGMQLQSYR  
YYDPKTCGFDFGTGAI EDISKIPAQSVILLHACAHNPTGVDPRPEQWKEMATVVKNNLFA  
FFDMAYQGFASGDGNKDAWAVRHFI EQGINVCLCQSYAKNMGLYGERVGAFTVVCKDAEE  
AKRVESQLKILIRPMYSNPPINGARIASTILTSPDLRKQWLHEVKGMADRIISMRTQLVS  
NLKKEGSSHNWQHIIDQIGMFCYTGKPEQVERLTKEFSIYMTKDGRISVAGVTSGNVAY  
LAHAIHQVTK

>Q9UH17

MNPQIRNPMERMYRDTFYDNFENEPILYGRSYTWLCYEVKIKRGRSNLLWDTGVFRGQVY  
FKPQYHAEMCFLSWFCGNQLPAYKCFQITWVFSWTPCPDCVAKLAEF LSEHPNVTLTISA  
ARLYYYWERDYRRALCRLSQAGARVTIMDYEEFAYCWENFVYNEGQQFMPWYKFDENYAF  
LHRTLKEILRYLMDPDTFTFNFNNDPLVLRRTQTYLCYEVERLDNGTWVLMQHMGLFCN  
EAKNLLCGFYGRHAELRFLDLVPSLQLDPAQIYRVTFWISWSPCF SWGCAGEVRAFLQEN  
THVRLRIFAARIYDYDPLYKEALQMLRDAGAQVSIMTYDEFEYCWDTFVYRQGC PFQPWD  
GLEEHSQALSGRLRAILQNQGN

>Q9HC16

MKPHFRNTVERMYRDTFSYNFYNRPILSRRNTVWLCYEVKTKGPSRPPLDAKIFRGQVYS  
ELKYHPEMRFHWF SKWRKLRDQEYEV TWYISWSPCTKCTRDMATFLAEDPKVTLTIFV  
ARLYYFWDPDYQEALRSLCQKRDRGPRATMKIMNYDEFQHCWSKFVYSQREL FEPWNNLPK  
YYILLHIMLGEILRHSMDPPTFTFNFNNEPWVRGRHETYL CYEVERMHNDTWVLLNQRRG  
FLCNQAPHKHGFLEGRHAELCFLDVIPFWKLDLDQDYRVTCFTSWSPCF SCAQEMAKFIS  
KNKHVSLCIFTARIYDDQGRCEGLRTLAEAGAKISIMTYSEFKHCWDTFVDHQGCPFPQ  
WDGLDEHSQDLSGRLRAILQNQEN

>Q9NP58

MVTVGNyceAEGPVGPAWMQDGLSPCFFFTLVPSTRMALGTLALVLALPCRRREREPAGAD

SLSWGAGPRISPYVLQLLLATLQAALPLAGLAGRVGTARGAPLPSYLLLASVLESLAGAC  
GLWLLVVERSQARQRLAMGIWIKFRHSPGLLLLLWTVAFAAENLALVSWNSPQWWWARADL  
GQQVQFSLWVLRVYVSSGGLFVLGLWAPGLRPQSYTLQVHEEDQDVERSQVRSAAQQSTWR  
DFGRKLRLLSGYLWPRGSPALQLVVLICLGLMGLERALNVLP I FYRNIVNLLTEKAPWN  
SLAWTVTSYVFLKFLQGGGTGSTGFVSNLRTFLWIRVQQFTSRRVELLIFSHLHELRLRW  
HLGRRTGEVLR IADRGTS SVTGLLSYLVFNVIPTLADI I IGI IYFSMFFNAWFG LIVFLC  
MSLYLTLTIVVTEWRTKFRRAMNTQENATRARA VDSLNNFETVKYNAESYEVEERYREAI  
IKYQGLEWKSSASLVLLNQTQNLVIGLGLLAGSLLCAYFVTEQKLQVGDYVLFGTYYIIQL  
YMPLNWFGTYYRMIQTNFIDMENMFDLLKEETE VKDLPGAGPLRFQKGR IEFENVHFSYA  
DGRETLQDVSFTVMPGQTLALVGPSPGAGKSTILRLLFRFYDISSGCIRIDGQDISQVTQA  
SLRSHIGVVPQD TVLFNDTIADNIRYGRVTAGNDEVEAAAQAAGIHDAIMAFPEGYRTQV  
GERGLKLSGGEEKORVAIARTILKAPGI ILLDEATSALDTSNERAIQASLAKVCANRTTIV  
VAHRLSTVVNADQILVIKDGCI VERGRHEALLSRGGVYADMWQLQQGQEETS EDTK PQTM  
ER

>P77674

MQHKL LINGELVSGEGEKQPVYNPATGDVLL EIAEASAEQVDAAVRAADA AFAEWGQ TTP  
KVRAECLLKLADVIEENGQVFAELES RNCGKPLHS AFNDEIPAIVDVFRFFAGAARCLNG  
LAAGEYLEGHTSMIRRDPLGVVASIAPWNYPLMMAAWKLAPALAAAGNCVVLKPSEITPLT  
ALKLAELAKDIFPAGVINILFGRGKT VGDPLTGHPKVRMVS LTGSIATGEHII SHTASSI  
KRTHMELGGKAPVIVFDDADIEAVVEGVRTFGYYNAGQDCTAACRIYAQKGIYDTLVEKL  
GAAVATL KSGAPDDESTELGPLSSLAHLERVGKAVEEAKATGH I KVI TGG EK RKNGY YYY  
APTLLAGALQDDAIVQKEVFGPVVSVTPFDNEEQV VNWANDSQYGLASSVWTKDVGRAHR  
VSARLQYGCTWVNTHFMLVSEMPHGGQKLSGYGKDMSLYGLEDYTVVRHVMVKH

>P41238

MTSEKGPSTGDPTLRRRIEPWEFDFVYDPREL RKEACLLYEIKWGM SRKIWRSSGKNTTN  
HVEVNF I KKF T SERDFHPSMCSITWFLSWSPCWECSQAIREFLSRHPGVTLVIYVARLF  
WHMDQQNRQGLRDLVNSGVTIQIMRASEYYHCWRNFVNYPPGDEAHWPQY PPLWMLYAL  
ELHCIILSLPPCLKISRRWQNH LTF FRLHLQNC HYQTIPPHILLATGLIHPSVAWR

>P13689

MAPDSELAAAAARGAYLAGVGVAVLLAASFLPVAESSCVRD NSLVRDISQMPQSSYGI  
EGLSHITVAGALNHGMKEVEVWLQTI SPGQRTPIHRHSCEEVFTVLKKGK TLLMGSSSLK  
YPGQPQEIPFFQNTTFSIPVNDPHQVWNSDEHEDLQVLV IISRPPAKIFLYDDWSMPHTA  
AVLKFPFVWDEDCFEAAKDEL

>Q00955

MSEESLFESSPQMEYEITNYSERHTELPGHF IGLNTVDKLEESPLRDFVKSHGGHTVIS  
KILIANNGIAAVKEIRSVRKWAYETFGDDR TVQFVAMATPEDLEANA EYIR MADQYIEVP  
GGTNNNNYANVDLIVDIAERADVDAVWAGWGHASENPLLPEKLSQSKRKVIFIGPPGNAM  
RSLGDKISSTIVAQSAKVPCIPWSGTGVDTVHVDEKTGLVSVDDD IYQKGCCTSPEDGLQ  
KAKRIGFPVMIKASEGGGK GIRQVEREEDFIALYHQAANEIPGSPIFIMKLAGRARHLE  
VQLLADQYGTNISLFG RDCSVQRRHQK IIEEAPVTI AKAET FHEMEKAAVRLGKLVGYVS  
AGTVEYLYSHDDGKFYFLELNPRLQVEHPTTEMVSGVNL PAAQLQIAMGIPMHRISDIRT  
LYGMNPHSASEIDFEFKTQDATKKQRRPIPKGHCTACRITSEDPNDGFKPSGGTLHELNF  
RSSSNVWGYFSVGNNGNIHSFSDSQFGHIFAFGENRQASRKHMVVALKELSIRGDFRTTV  
EYL IKLLETEDFEDNTIT TGWDDLI THKMTAEKPDPTLAVICGAATKAF LASEEARHKY  
IESLQKGQVLSKDLLQTMFPVDFIHEGKRYKFTVAKSGNDRYTLFINGSKCDIILRQLSD  
GGLLIAIGGKSHTIYWKEEVAATRLSVDSMTTLLEVENDP TQLRTPSPGKLVKFLVENGE



HI IKGQPYAEIEVMKMQMPLVSQENGIVQLLKQPGSTIVAGDIMAIMTLDDPSKVKHALP  
FEGMLPDFGSPVIEGTPAYKFKSLVSTLENILKGYDNQVIMNASLQQLIEVLRNPKLPY  
SEWKLHISALHSRLPAKLDEQMEELVARSLRRGAVFPARQLSKLIDMAVKNPEYNPKLL  
GAVVEPLADIAHKYSNGLEAHEHSIFVHFLEEYVEVEKLFNGPNVREENIILKLRDENPK  
DLDKVALTVLSHSHKVSANNLILAILKHYQPLCKLSSKVSALFSTPLQHIVELESKATAK  
VALQAREILIQGALPSVKERTEQIEHILKSSVVKVAYGSSNPKRSEPDNLILKDLIDSNY  
VVFVLLQFLTHQDPVVTAAAAQVYIRRAYRAYTIGDIRVHEGVTVPIVEWKFQLPSAAF  
STFPTVKSKMGMNRAVSVSDLSYVANSQSSPLREGILMAVDHLDDVDEILSQSLEVIPRH  
QSSSNGPAPDRSGSSASLSNVANVCVASTEGFESEEEILVRLREILDNLKQELINASIRR  
ITFMFGFKDGSYPKYTFNGPNYNENETIRHIEPALAFQLELGRLSNFKPIFTDNRNI  
HVYEAVSKTSPLDKRFFTRGIIRTGHIRDDISIQEYLTSEANRLMSDILDNLEVTDTSNS  
DLNHIFINFIAVFDISPEDVEAAFGGFLERFGKRLRLRVSSAEIRI I IKDPQTGAPVPL  
RALINNVSGYVIKTEMYTEVKNAKGEVWFKSLGKPGSMHLRPIATPYPVKEWLQPKRYKA  
HLMGTTYVYDFPELFRQASSSQWKNFSADVKLTDFFISNELIEDENGELTEVEREPGAN  
AIGMVAFKITVKTPEYPRGRQFVVVANDITFKIGSFGPQEDEFNKVTEYARKRGIPIRIY  
LAANSGARIGMAEEIVPLFQVAWANDAANPKGFQYLYLTSEGMETLKKFDKENSVLTERT  
VINGEERFVIKTIIGSEDGLGVECLRGSLIAGATSRAYHDIFTITLVTCRSVGIGAYLV  
RLGQRAIQVEGQPIILTGAPAINKMLGREVYTSNLQLGGTQIMYNNGVSHLTAVDDLAVG  
EKIVEWMSYVPAKRNPVPILETKDTWDRPVDFPTNDETYDVRWMIEGRETESGFYGL  
FDKGSFFETLSGWAKGVVGRARLGGIPLGVIGVETRTVENLIPADPANPNSAETLIQEP  
GQVWHPNSAFKTAQAINDFNNGEQLPMMILANWRGFSGGQRDMFNEVLKYGSFIVDALVD  
YKQPII IYIPPTGELRGGSWVVVDPTINADQMEMYADVNRAGVLEPQGMVGKFRREKL  
LDTMNRLLDDKYRELSQLSNKSLAPEVHQQISKQLADRERELLPYQGISLQFADLHRS  
SRMVAKGVISKELEWTEARRFFFWRRLRRRLNEEYLIKRLSHQVGEASRLEKIARIRSWYP  
ASVDHEDDRQVATWIEENYKTLDDKLGKLESAQDLAKKIRSDHDNAIDGLESEVIKML  
STDDKEKLLKTLK

>Q9UKU7

MLWSGCRRFGARLGCLPGGLRVLVQTGHRSLTSCIDPSMGLNEEQKEFKQVAFDFAAREM  
APNMAEWDQKELFPVDVMRKAQAQLGFGGVYIQTDVGGSGLSRLDTSVIFEALATGCTSTT  
AYISIHNMCAWMIDSFNGEEQRHKFCPPLECTMEKFASYCLTEPGSGSDAASLLTSAKKQG  
DHYILNGSKAFISGAGESDIYVVMCRTGGPGPKGISCI VVEKGTPLSFGKKEKKVWNS  
QPTRAVIFEDCAVPVANRIGSEGQGFIAVRGLNGGRINIASCSLGAHAASVILTRDHLN  
VRKQFGEPLASNQYLQFTLADMATRLVAARLMVRNAVALQEERKDAVALCSMAKLFATD  
ECFAICNQALQMHHGGYGLKDYAVQQYVRDSRVHQILEGSNEVMRILISRSLLQE

>P28330

MAARLLRGLRVLGHRAPRQLPAARCSHSGGEERLETPSAKKLTDIGIRRIFSPEHDIF  
RKSVRKFFQEEVIPHHSEWEKAGEVSREVWEKAGKQGLLGVNIAEHLGGIGGDLYSAAIV  
WEEQAYSNCSPGFSIHSGIVMSYITNHGSEEQIKHFIPQMTAGKCIGAIAMTEPGAGSD  
LQGIKTNAKKDGSDWILNGSKVVISNGSLSDVVIVVAVTNHEAPSPAHGISLFLVENGMK  
GFIKGRKLHKMGLKAQDTAELFFEDIRLPASALLGEENKGFYYIMKELPQERLLIADVAI  
SATEFMFEETRNIVKQRKAFGKTVAHLQTVQHQLAELKTHICVTRAFVDNCLQLHEAKRL  
DSATACMAKYWASELQNSVAYDCVQLHGGWGYMWEYPIAKAYVDARVQPIYGGTNEIMKE  
LIAREIVFDK

>P11310

MAAGFGRCCRVLRISRFHWSQHTKANRQREPGLGFSFEFTEQQKEFQATARKFAREEI  
IPVAAEYDKTGEYPVPLIRRAWELGLMNTHIPENCGGLGLGTFDACLISEELAYGCTGVQ  
TAIEGNSLGQMPIIIAGNDQKKKYLGRMTEEPLMCAYCVTEPGAGSDVAGIKTKAEKKG

DEYIINGQKMWITNGGKANWYFLLARSDPKAPANKAFTGFIVEADTPGIQIGRKELNM  
GQRCSOTRIGIVFEDVKVPKENVLIIGDGAGFKVAMGAFDKTRPVVAAGAVGLAQRALDEAT  
KYALERKTFGKLLVEHQAI SFMLAEMAMKVELARMSYQRAAWEVDSGRRNTYYASIAKAF  
AGDIANQLATDAVQILGGNGFNTEYPVEKLMRDAKIYQIYEGTSQIQRLIVAREHIDKYK  
N

>P79273

MAAALLARACGPVRGALWPRDCRRLHTIFQSVELPEYQMLRQTCRDFAEKELVPIAAQV  
DKEHRFPEAQVKKMGELGLMAMDVPEELSGAGLDYLAYTIAMEEISRGCASTGVIMSVNN  
FLYLGPILKFGSKEQKQWITPFTSGDKVGCFFALSEPNGSDAGAAATTAQADHDSWVLS  
GTKAWITNAWEASAAVFASTDRSLQNKGISAFVLPMP TAGLTLGKKEDKLGIRASSTAN  
LIFEDCRIPKENLLGEPGMGFKIAMKTLDMGRIGIASKALGISQAALDCAVNYAENRRAF  
GVPLTKLQGIQFKLADMALALE SARLLTWRAAMLKDNKKNPFIKEPAMAKLAASEAATAI  
THQAIQILGGMGYVTEMPAERHYRDARITEIYEGTSEIQRLVIAGHLLKSYRS

>P49748

MQAARMAASLGRQLRLGGSSRLTALLGQPRPGPARRPYAGGAAQLALDKSDSHPSDAL  
TRKKPAKAESKSFVAVGMFKGQLTTDQVFPYPSVLNEEQTFKELVEPVSRFFEEVNDPA  
KNDALEMVEETTQWGLKELGAFGLQVPSELGGVGLCNTQYARLVEIVGMHDLGVGITLGA  
HQSIGFKGILLFGTKAQKEKYL PKLASGETVA AFCLTEPSSGSDAASIRTS AVPSPCGKY  
YTLNGSKLWISNGGLADIFTVFAKTPVTD PATGAVKEKITA FVVERGFGGITHPPEKKM  
GIKASNTAEVFFDGVVRVPSENVLGEVGS GFKVAMHILNNGRFGMAAALAGTMRGIIAKAV  
DHATNRTQFGEKIHNFGLIQEKLARMVMLQYVTE SMAYMVSANMDQGATDFQIEAAISKI  
FGSEAAWKVTDECIQIMGGMGFMKEPGVERVLRDLRIFRIFEGTNDILRRLFVALQGCMDK  
GKELSGLSALKNPFNGAGLLLGEAGKQLRRRAGLGSGLSLSGLVHPELSRSGELAVRAL  
EQFATVVEAKLIKHKKGIVNEQFLLQRLADGAIDL YAMVVLSRASRSLSEGHPAQHEK  
MLC DTWCI EAAARIREGMAALQSDPWQQELYRNFKSI SKALVERGGVVT SNPLGF

>P83300

NKCPKGWLD FRGSCYGYFGQELTWRKAEAWCKVIHAGCHLASLHSP EEAHAAVARFIAKFQ  
RREEEDNVWIGLHHWNQARVWIDGSKKRYSAWDDDELPRGKYCTVLEGSSGFMSWEDNAC  
SERNPFVCKYSA

>Q06319

MDFNLTDIQDFLKLAHDFGEKKLAPT VTERDHKGIYDKELIDELLSLGITGAYFEEKYG  
GSGDDGGDVL SYILAVEELAKYDAGVAITLSATVSLCANPIWQFGTEAQKEKFLVPLVEG  
TKLGAFGLTEPNAGTDASGQQT IATKNDDGTYTLNGSKIFITNGGAAD IYIVFAMTDKSK  
GNHGITAFILEDGTPGFYTGKKEDKMG IHTSQT MELVFQDVKVP AENMLGEEGKGFKIAM  
MTLDGGRIGVAAQALGIAEALADAVEYSKQRVQFGKPLCKFQSI SFKLADMKMQIEAAR  
NLVYKAACKKQEGKPFVDAAI AKRVASDVAMRVTT EAVQIFGGYGYSEEYPVARHMRDA  
KITQIYEGTNEVQLMVTGGALLR

>P45954

MEGLAVRLLRGSRLLRNFLTCLSSWKIPPHVSKSSQSEALLNITNNGIHFAPLQTF TDE  
EMMIKSSVKKFAQE QIAPLVSTMDENSKMEKSVIQGLFQQGLMGIEVDPEYGGTGASF LS  
TVLVIEELAKVDASVAVFCEIQNTLINTLIRKHGTEEQKATYLPQLTTEKVSFCLSEAG  
AGSDSFALKTRADKEGDYVVLNGSKMWISSAEHAGLFLVMANVDPTIGYKGITSFLVDRD  
TPGLHIGKPENKLG L RASSTCPLTFENVKVPEANILGQIGHGYKYAIGSLNEGRIGIAAQ  
MLGLAQGCFDYTIPYIKERI QFGKRLFD FQGLQH QVAHVATQLEAARLLTYNAARLLEAG  
KPFIKEASMAKY YASEIAGQTT SKCIEWMGGVGYTKDYPVEKYFRDAKIGTIYEGASNIQ

LNTIAKHIDAAY

>P28297

MAASFVSPSMIMEEEGRFEAEVAEVQTTWSSERFKLTRRPYTARDVVALRGHLKQGYASN  
EMAKKLWRTLKSHQANGTASRTFGALDPVQVTMMAKHLDTIYVSGWQCSSTHTSTNEPGP  
DLADYPYDTPVFNKVEHLFFAQYHDKRQREARMSMSREERTKTPFVDYLKPIIADGDTGF  
GGTTATVKLCKLFFVERGAAGVHIEDQSSVTKKCGHMAGKVLVAVSEHINRLVAARLQFDV  
MGTETVLVARTDAVAATLIQSNIDARDHQF ILGATNPSLRGKSLSSLLAEGMTVGKNGPA  
LQSI EDQWLGSAGLMTFSEAVVQAIKRMNLENENEKNQRLSEWLTHARYENCLSNEQGRVL  
AAKLGVTDLFWDWDLPRTRREGFYRFQGSVAAA VVRGWAFQA IADI IWMETASPD LNECTQ  
FAEGIKSKTPEVMLAYNLSPSFNWDASGMDTQQMVEFIPRIARLGYCWQFITLAGFHADA  
LVVDTFADYARRGMLAYVERIQREERTHGVDTLAHQKWSGANYYDRYLKTVQGGISSTA  
AMGKGVTEEQFKESWTRPGADGMGEGTSLVVAKSRM

>P42449

MSNVGKPRTAQEIQQDWDTNPRWNGITRDYTDQVADLQGSVIEEHTLARRGSEILWDAV  
TQEGDGYINALGALTGNQAVQQVRAGLKAVYLSGWQVAGDANLSGHTYPDQSLYPANSVP  
SVVRRINNALLRSDEIARTEGDTSDVNWVVP IVADGEAGFGGALNVYELQKAMIAAGAAG  
THWEDQLASEKKCGHLGGKVL IPTQQHIRTLSARLAADVANTPTVVIARTDAEAATLIT  
SDVDERDQPFITGERTAEGYHVKNGLPECIARAKSYAPYADMIWMETGTPDLELAKKFA  
EGVRSEFPDQLLSYNCSPSFNWSAHLEADEIAKFQKELGAMGFKFQFITLAGFHSLNYGM  
FDLAYGYAREGMTSFVDLQNREFKAAEERGFTAVKHQREVGAGYFDQIATTVDPNSSTTA  
LKGSTEEGQFHN

>P0A9G6

MKTRTQQIEELQKEWTQPRWEGITRPPYSAEDVVKLRGSVNPECTLAQLGAAKMWRLLHGE  
SKKGYINSLGALTGGQALQQAKAGIEAVYLSGWQVAADANLAASMPDQSLYPANSVPAV  
VERINNTFRADQIQWSAGIEPGDPRYVDYFLPIVADAEAGFGGVLNAFELMKAMIEAGA  
AAVHFEDQLASVKKCGHMGGKVLVPTQEA IQKLVAARLAADVTVGPTLLVARTDADAADL  
ITSDCDPYDSEFITGERTSEGFRTTHAGIEQAI SRGLAYAPYADLVWCETSTPDLELARR  
FAQAIHAKYPGKLLAYNCSPSFNWQKNLDDKTIASFQQQLSDMGYKFQFITLAGIHSMW  
NMFDLANAYAQQEGMKHYVEKVQQPEFAAAKDG YTFVSHQQEVGTGYFDKVTTI IQGGTS  
SVTALTGSTEESQF

>P28298

MSYIEEEDQRYWDEVA AVKNWWDKSRWRYTKRPFTA EQIVAKRGNLKIEYPSNVQAKKLW  
GILERNFNKNEASFTYGLDPTMVTQMAKYLDTVYVSGWQSSSTASSTDEPSPDLADYPM  
NTVFNKVNHLWMAQLFHDKRQREERMTPKQQRHKVANVDYLRPIIADADTGHGGLTAVM  
KLTKLFFVERGAAGIHI EDQAPGTTKCGHMAGKVLVPISEHINRLVAIRAQADIMGTDLLA  
IARTDSEAATLITSTIDHRDHPFIIGSTNPD IQPLNDLMVMAEQAGKNGAELQAI EDEWL  
AKAGLKLFNDAVVDAINNSPLPNKAAIEKYLTQSKGKSNLEARAIAKEIAGTDIYFDWE  
APRTREGYRYRQGGTQCAINRAVAYAPFADLIWMESKLPDYKQAKEFADGVHAVWPEQKL  
AYNLSPSFNWKKAMPREQETYIKRLGALGYAWQFITLAGLHTTALISDTFAKAYAKQGM  
RAYGELVQEP EMANGVDVVTHQKWSGANYVDNMLKMITGGVSSTAAMGKGVTEDEQFKS

>P28240

MPIPVGNTKNDFAALQAKLDADAAEIEKWWSDSRWSKTKRNY SARDIAVRRGTFPPIEY  
SSVMARKLKFVKLEKHHNEGTVSKTFGALDPVQISQMAKYLDTIYISGWQCSSTASTSNEP  
GPD LADYPM DTPVFNKVEHLFKAQLFHDKRQLEARSKAKSQEELDEM GAPIDYLTPIVADA  
DAGHGGLTAVFKLTKMFI ERGAAGIHMEDQTSTNKKCGHMAGRCVIPVQEHVNRLVTIRM

CADIMHSDLIVVARTDSEAATLISSTIDTRDHYFIVGATNPNI EPFAEVLNDAIMSGASG  
QELADIEQKWCARDAGLKL FHEAVIDE IERSALS NKQELIKKFTSKVGPLTETSHREAKKL  
AKEILGHEIFFDWELPRVREGLYRGGTQCSIMRARAFAFYADLVWME SNYPDFQQAKE  
FAEGVKEKFPDQWLAYNLS PFSFNWPKAMSVDEQHTFIQRLGDLGYIWQFITLAGLHTNAL  
AVHNF SRDFAKDGMKAYA QNVQ QREMD DGDV LKHKQKWSGAEYIDGLLKL AQGGVSATAA  
MGTGVTEDQFKENG VKK

>P36544

MRCSPGGVWLALAA SLLHVS LQGEFQRKLYKELVKNYNPLERP VANDSQPLTVYFSL SLL  
QIMDVDEKNQVLT TN IWLQMSWTDHYLQWNVSEY PGVKT VRF PDGQIWKPDILLYNSADE  
RFDATFHTNVLVNSSGHCQYLPPGIFKSSCYIDVRWFPPFDVQHCKLKF GSWSYGGWSLDL  
QMQEADISGYIPNGEWDLVGIPGKR SERFYECCKEPYPDVTF'TV'TMRRRTLYYGLNLLIP  
CVLISALALLVFLLPADSGEKISLGITVLLSLTVFMLLVAEIMPATSDSVPLIAQYFAST  
MIIVGLSVVVTVIVLQYHHHDPDGGKMPKWTRVILLNWCAWFLRMKRPGEDKVRPACQHK  
QRRCSLASVEMSAVAPP PASNGNLLYIGFRGLDGVHCVP TPD SGVVCGRMACSPHDEHL  
LHGGQPPEGDPDLAKILEEVRYIANRFRQCDESEAVCSEWKFAACVVDRLCLMAFSVFTI  
ICTIGILMSAPNFVEAVSKDFA

>P58154

MRRNIFCLA CLWIVQACL SLDRADILYNIRQTSR PDVIPTQRDRPVA VSVSLKFINILEV  
NEITNEVDVVFQQOTTWSDRTLAWNSSHSPDQVSVPISSLVWPDLAAYNAISKPEVLT PQ  
LARVVS DGEVLYMPSIRQRFSCDVSGVDTESGATCR I KIGSWTHHSREISVDPTTENSDD  
SEYFSQYSRFEILDVTQKKN SVTYSCCPEAYEDVEVSLNFRKKGRSEIL

>P0A6A3

MSSKLVVLNCGSSSLKF AII DAVNGEEYLSGLAECFHLPEARIKWKMDGNKQE AALGAG  
AAHSEALNFIVNTILAQKPELSAQLTAIGHRIVHGGEKYTSSVVIDESVIQGIKDAASFA  
PLHNPAHLIGIEEALKSFPQLKDKNAVFD TAFHQTMPEESYLYALPYNLYKEHGIRRYG  
AHGTSHFYVTQEA AKMLNKPV EELNIITCHLGN GGSVSAIRNGKCVDTSMGLT PLEGLVM  
GTRSGDIDPAIIFHLHDTLGM SVDAINKLLTKESGLLGLTEVTSDCRYVEDNYATKEDAK  
RAMDVYCHRLAKYIGAYTALMDGRLDAVVFTGGIGENAAMVRELSLGLGLVLFGEVDHER  
NLAARFGKSGFINKEGTRPAVVIPTNEELVIAQDASRLTA

>P38502

MKVLVINAGSSSLKYQLIDMTNESALAVGLCERIGIDNSIITQKKFDGKKLEKLTDLPTH  
KDALEE VVKALTDDEFVGIKDMGEINAVGHRVVHGGEKFTTSALYDEGVEKAIKDCFELA  
PLHNPPNMMGISACAEIMP GTPMVIVFD TAFHQTMPPYAYMYALPYDLYEKHGVRKYGFH  
GTSHKYVAERAALMLGKPAEETKIITCHLGN GSSITAVEGGKSVETSMGF TPLEGLAMGT  
RCGSIDPAIVPFLMEKEGLTTREIDTL MNKSGV LGV SGLSNDFRDLDEAASKGNRKAEL  
ALEIFAYKVKKFIGEYS AVLNGADAVVFTAGIGENSASIRKRILTGLD GIGIKIDDEKNK  
IRGQEIDISTPDAKVRVFIPTNEELAIARETKEIVETE VKLRSSIPV

>Q9WYB1

MRVLVINS GSSSIKYQLIEME GEKVLCKGIAERIGIEGSR LVHRVGDEKHVIERELPDHE  
EALKLILNTLVDEKLGVIKDLKEIDAVGHRVVHGGERFKESVLVDEEVLKAI EEV SPLAP  
LHN PANLMGIKAA M KLLPGVPNAVFD TAFHQ TIPQKAYLYAIPY EY YEKYKIRRYGFHG  
TSHRYVSKRAAEILGKKLEELKIITCHIGN GASVA AVKYGKCVDTSMGF TPLEGLVMGTR  
SGDLDP AIPFFIMEKEGISPQEMYDILNKKSGVYGLSKGFSSDMRDI EEAALKGDEWCKL  
VLEIYDYRIAKYIGAYAAAMNGVDAIVFTAGVGENSPITRE DVCSYLEFLGVKLDKQKNE  
ETIRGKEGII STPDSRVKVLVVP TNEELMIARDTKEIVEKIGR

>Q8N97

MSVAAGDKPTNSRQEILEGARRCFAEHGYEGATVRRLEEEATGKSRGAI FHHFGDKENLFL  
ALAREDAARMAEVVSENGLVEVMRGMLEDPERYDWM SVRLEISKQLRTDPVFRAK WIDHQ  
SVLDEAVRVRLSRNVDKGQMR TDVPIEVLHTFLETVLDGFI SRLATGASTEGLSEVLDLV  
EGTVRKR D

>O65202

MEGIDHLADERNKAEFDVEDMKIVWAGSRHAFEVSDRIARLVASDPVFEKSNRRLSRKE  
LFKSTLRKCAHAFKRI IELRLNEEEAGRLRHFI DQPAYVDLHWGMFVPAIKGQGTEEQK  
KWL SLANKMQIIGCYAQTELGHGSNVQGLETTATFDPKTDEFV IHTPTQTASKWWPGGLG  
KVSTHAVVYARLITNGKDYGIHGFIVQLRSLEDHSP LPNITVGDIGTKMGNGAYNSMDNG  
FLMFDHVRIPRDQMLMRLSKVTREGEYVPSDVPKQLVYGT MVYVRQTIVADASNALSRV  
CIATRYSAVRRQFGAHNGGIETQVIDYKTQQNRLFP LLASAYA FRFVGEWLKWL YTDVTE  
RLAASDFATLPEAHACTAGLKSLTTTATADGIEECRKL CGGHGYLWCSGLPELFAVYVPA  
CTYEGDNVVLQLQVARFLMKTVAQLGSGKVPVGT TAYMGRAAHLLQCRSGVQKAEDWLN  
DVVLEAFEARALRMAVTCAKNLSKFENQEQGFQELLADLVEAAIAHCQLIVVSKFIAKLE  
QDIGGKGVKKQLNLCYIYALYLLHKLHGLDFLSTNCITPKQASLANDQLRSLYTQVRPNA  
VALVDAFN YTDHYLNSVLGRYDGNVYPKLFEEALKDPLNDSVVPDGYQEYLRPVLQQQLR  
TARL

>Q96329

MAVLSSADRASNEKKVKS SYFDLPPMEMSVAFPQATPASTFP PCTSDY YHFNDLLTPEEQ  
AIRKKVRECKEKEVAPIMTEYWEKAEFFPHITPKLGAMGVAGGSIKGYGCPGLSITANAI  
ATAE IARVDASCSTFILVHSSLGMLTIALCGSEAQKEKYLPSLAQLNTVACWALTEPDNG  
SDASGLGTTATKVEGGWKINGQKRWIGNSTFADLLIIFARNTTNQINGFIVKKDAPGLK  
ATKIPNKIGLRMVQNGDILLQNVFV PDEDRLPGVNSFQDTSKVLAVSRVMVAWQPIGISM  
GIYDMCHRYLKERKQFGAPLAAFQLNQKLVQMLGNVQAMFLMGWRLCKLYETGQMPGQ  
ASLGKAWISSKARETASLGRELLGGNGILADFLVAKAFCDLEPIYTYEGTYDINTLVTGR  
EVTGIASFKPATRSRL

>P06598

MTFTKKNVSVSQGPDRSSI QKERDSSKWNPQQMNYFLEGSVERSELMKALAQQMERDPI  
LFTDGSYYDLTKDQQREL TAVKINRIARYREQESIDTFNKRLSLIGIFDPQVGRIGVNL  
GLFLSCIRNGTTSQLNYWANEKETADV KGIYGCFGMTELAHGSNVAGLETTATFDKESD  
EFVINTPHIGATKWWIGGAAHSATHCSVYARLIVDGQDYGVKTFV VPLRDSNHDLMPGVT  
VGDIGPKMGRDGDIDNGWIQFSNVRIPRFFMLQKFCVSAEGETLPPLEQLSYSALLGGR  
VMMVLD SYRMLARMSTIALRYAIGRRQFKGDNVDPNDPNALETQLIDYPLHQKRLFPYFV  
PPMSSPSVPSRLNTPSRPPWSNWTSP LKRTTPRLIFKSIDDMKSLFVDSGSLKSTATWLG  
AEAIDQCRQACGGHGHSSYNGFGKAYNDWVQCTWEGDNNVLGMSVGKPIVKQVISIEDA  
GKTVRGSTAFNLQLKEYTGSNSSKVV LNTVADLDDIKTVIKAI EVAIIRLSQEAASIVKK  
ESFDYVGAELVQLSKLKAHYLLTEYIRRIDTFDQKELAPYLITL GKLYAATIVLDRFAG  
VFLTFNVASTEAITALASVQIPKLCAEVRPNV VAYTDSFQQSDMIVNSAIGRYDGD IYEN  
YFDLVKLQNPPSKTKAPYSDALEAMLNRPTLDERERFQKSDETAAILSK

>P08790

MPTELQKERELTKFNPKELNYFLEGSQERSEIISNMVEQM QKDPILKVDASYYNLTKDQQ  
REVTAKKIARLSRYFEHEYPDQQAQRLSILGVFDPQVFT RIGVNLGLFVSCVRGNGTNSQ  
FFYWTINKGIDKLRGIYGCFGMTELAHGSNVQGIETTATFDEDTDEFVINTPHIGATKWW  
IGGAAHSATHCSVYARLKVKGKDYGVKTFV VPLRDSNHDL EPGVTVGDIGAKMGRDGDIN

GWIQFSNVRIPRFFMLQKYCKVSRSGEVTMPPSEQLSYSALIGGRVTMMDSYRMTSRFI  
TIALRYAIHRRQFKKKDTDTIETKLIIDYPLHQKRLFPFLAAAYLFSQGALYLEQTMNATN  
DKLDEAVSAGEKEAIDAAIVESKLLFVASGCLKSTCTWLTAEAIDEARQACGGHGYSSYN  
GFGKAYS DWVVQCTWEGDNNILAMNVAKPMVRDLLKEPEQKGLVLSVADLDDPAKLVKA  
FDHALSGLARDIGAVAEDKGFIDITGPSLVLVSKLNAHRFLIDGFFKRITPEWSEVLRPLG  
FLYADWILTNFGATFLQYGIITPDVSRKISSEHFALCAKVRPNVGLTDGFNLTDMMTN  
AAIGRYDGNVYEHYFETVKALNPPENTKAPYSKALEDMNLNRPDLVREERGERKSEEAAIL  
SS

>P13711

MTRRTTINPDSVVLNPQKFIQKERADSKIKVDQVNTFLESSPERRTLTHALIDQIVNDPI  
LKTDTDYDDAKKMQEREITAKKIARLASMEHDIKTVRKHFRDIDLKELQANDPKASP  
LTNKDLFIFDKRLSLVANIDPQLGTRVGVHLGLFGNCIKNGTDEQIRYWLQERGATLMK  
GIYGC FAMTELGHGSNVAQLQTRAVYDKQNDTFVIDTPDLTATKWWIGGAAHSATHAAVY  
ARLIVEGKDYGVKTFVVP LRD PSTFQ LLAGVSIGDIGAKMGRDGDIDNGWIQFRNVV IPRE  
FMLSRFTKVVRSPDGSVTVKTEPQLDQISGYSALLSGRVNMVMSFRFGSKFATIAVRYA  
VGRQQFAPRKGLSETQLIDYPLHQYRVL PQLCVPYLVSPVAFK LMDNYSTLDELYNASS  
SAYKAALVTVSKKLNLFIDSASLKATNTWLIATLIDELRQTCCGGHGYSSQYNGFGKGYDD  
WVVQCTWEGDNNVLSLTSAKSILKKFIDSATKGRFDNTLDVDSFSYLKPQYIGSVVSGEI  
KSGLKELGDYTEIWSITLIKLLAHIGTLVEKSRSIDSVSKLLVLVSKFHALRCMLKTYID  
KLNSRDSHISDEITKESMWNVYKLFSLYFIDKHSGEFQQFKIFTPDQISKVVQPQLLALL  
PIVRKDCIGLTDSELPDAMLNSPIGYFDGDIYHNYFNVEVCRNPNVEADGAGKPSYHALL  
SSMLGRGFEDQKLGGAAAEILSKINK

>P16544

MATQDSEVALVTGATSGIGLEIARRLGKEGLRVFVCARGE EGLRTTLKELREAGVEADGR  
TCDVRSVPEIEALVA AVVERYGPVDVLVNNAGRPGGATAELADELWLDVVE'TNLTGVFR  
VTKQVLKAGGMLERGTGRIVNIAS TGGKQGVVHAAPYSASKHGVVGF TKALGLELARTGI  
TVNAVCPGFVETPMAASVREHYSDIWEVSTEEAFDRITARVPIGRYVQPSEVAEMVAYLI  
GPGAAAVTAQALNVCGLGNY

>Q90734

MVDYHSAGQPPYPYGGNGPGPNGDYMAQEDDWRDLLLLDPAWEKQQRKTFTAWCNSHLRKA  
GTQIENIDEDFRDGLKLM LLEVISGERLPKPERGKMRVHKINN VNKALDF IASKGVNVV  
SIGAEIIVDGNAMTLMGIWTIILRF AIQDISVEETS AKEGLLLWCQRKTAPYKNVNVQN  
FHISWKDGLAFNALIHRHRPELIEYDKLRKDDPVTNLNNAFEVAEKYLDIPKMLDAEDIV  
NTARPDEKAIMTYVSSFYHAFSGAQAETAANRICKVLAVNQENEHLMEDYEKLASDLLE  
WIRRTIPWLEDRSPQKTIQEMQQKLEDFRDYRRVHKPPKVQEKQCLEINFNTLQTKLRLS  
NRPAFMPSEGRMVSDINTGWQHLEQA EKGYEEWLLNEIRRLEPLDHLAEKFRQKAS IHEA  
WTEGKEAMLKQKDYETATLS DIKALIRKHEAFESDLAAHQDRVEQIAAIAQELNELDYD  
SPSVNARCQKICDQWDVLGSLTHSRREALEKTEKQLETIDELHLEYAKRAAPFNNWME SA  
MEDLQDMFIVHTIEEIEGLIAAHDQFKATLPDADREREA IILGIQREAR IADLHSIKLSG  
NNPYTSVTPQVINSKWERVQQLVPTRDRALQDEQSRQCCNERLRRQFAGQANIVGPWMQT  
KMEEIGRIS IEMHGTLEDQLQHLKHYESIVDYKPNLELLEHEHQLV EEA LIFDNKHTNY  
TMEHIRVGWEQLLTTIARTINEVENQILTRDAKGISQEQMQEFRAFNFHFDKDHCGALGP  
EEFKACLISLGYDVENDRQGD AEFNRIMSLVDPNGSGSVTFQAFIDFMSRET'TD'TDADQ  
VIASFVKLAGDKNYITAEELRRELPP EQAEYCIARMAPYRGPDAAPGALDYKSFSTALYG  
ESDL

>P18091

MMENGLSMEYGDGYMEQEEWEREGLLDPAWEKQQKKTFTAWCNSHLRKAGTAIDNIEE  
DFRNLKLMMLLEVISGETLPKPKDRGKMRFHKIANVVKALDFIASKGVHLVLSIGAEIIVD  
GNLKMTLGMIWTIILRFAIQDISVEEMTAKEGLLLWCQRKTAPYKNVNVQNFHLSFKDGL  
AFCALIHHRPDLIDYAKLSKDNPLENLNTAFDVAEKYLDIPRMLDPDDLINTPKPDERA  
IMTYVSCYYHAFQGAQQVGNNTALPDERAVMTYVSSYYHCFSGAQAETAANRICKVLKV  
NQENERLMEEYERLASDLLEWIRRTMPWLNRSQADNSLAGVQKKLEEYRTRYRRKHKPPRV  
EQKAKLETNFNTLQTKLRRLSNRPAYLPTEGKTVSDISNSWKGLELAEKAFEEWLLAETMR  
LERLEHLAQKFHKKADAHEDWTRGKEEMLQSQDFRQCKLNELKALKKKHEAFESDLAAHQ  
DRVEQIAAIAQELNTLEYHDCVSVNARCQRICDQWDRLGALTQRRRTALDEAERILEKID  
ILHLEFAKRAAPFNNWLDGTRELDVDMFIVHTMEEIQGLIQAHQDFKATLGEADKEFNLI  
VNLVREVESIVKQHQIPGGLENPYTTLTANDMTRKWSDVRLVLPQRDQTLANELRKQQNN  
EMLRRQFAEKANIVGPWIERQMDAVTAIGMGLQGSLEDQLHRLKEYEQAVYAYKPNIEEL  
EKIHQAVQESMIFENRYTNYTMETLRVGEQLLTSINRNINEVENQILTRDSKGISQEQ  
NEFRSSFNFHFDKNRTGRLSPEEFKSCLVSLGYSIGKDRQGDLDLDFQRIILAVVDPNNTGYVH  
FDAFLDFMTRESTDTDTAEQVIDSFRILAADKPYILPEDELRRRELPPDQAEYCIQRMPPYK  
GPNGVPGALDYMSFSTALYGETDL

>P05095

MSEETPVSGNDKQLLNKAWIEITQKKTFTAWCNSHLRKLKLGSSIEQIDTDFTDGIKLAQLL  
EVISNDPVFKVKNTPKLRIHNIQNVGLCLKHIESHGKLVGIGAEELVDKNLKMTLGMIW  
TIIILRFAIQDISIEELSAKEALLLWCQRKTEGYDRVKVGNFHTSFQDGLAFCALIHKHRP  
DLINFDSLKNKDDKAGNLQLAFDIAEKELDIPKMLDVSDMLDVVRPDERSVMTYVAQYYHH  
FSASRKAETAGKQVGVLDTFMLLEQTKSDYLKRANELVQWINDKQASLESRDFGDSIES  
VQSFMNAHKEYKKTTEKPPKGOEVSELEAIYNSLQTKLRLIKREPFVAPAGLTPNEIDSTW  
SALEKAEQEHAEALRIELKRQKKAIVLLQKYNRILKKNENWATTKSVYLGNETGDSITA  
VQAKLKNLEAFDGCQSLEGQSNDDLSSILAQLTELNYNGVPELTERKDTFFAQQWTGVK  
SSAETYKNTLLAELERLQKIEDSLVEFAKRAAQLNVWIEAADDHVFDPINVDSVQGVQEI  
QEKFDAFLHDQSQQFAELEALAAALTOQLRELGRSENDYSVISYDELSAKWNNLLAGIEER  
KVQLANELTTQTNNVLCQSFVSKANEISDYVRVTLDAISQNTSSDPQEQLNINRAIITA  
HAEKKPELDELYTIASQLEEAQVVDNKHTQHSLESIKLKWDKLNLTAKKNEQVVEGEILA  
KQLTGVTAEELSEFKACFSHFDDKNDNKNLNRLEFSSCLKSIGDELTEEQLNQVISKIDTD  
GNGTISFEEFIDYMVSSRKGTDSESTKAAFKVMAEDKDFITEAQIRAAISDSKQIDYLL  
ASMPAVEGGFDYNSFAEKLYQ

>P32705

MKRVLTAALATLPFAANAADAISGAVERQPTNWQAIMFLIFVVF'TLGITYWASKRVRSR  
SDYYTAGGNITGFQNGLAIAGDYMSAASFLGISALVFTSGYDGLIYSLGFLVGPWIIILFL  
IAERLRNLGRYTFADVASYRLKQGPRIILSACGSLVVVALYLIAQMVGAGKLIELLFGLN  
YHIAVVLVGVLMVMYVLFGGMLATTWVQIIKAVLLLF GASFMFMVMKHVGF'SFNNLFSE  
AMAVHPKGV DIMKPGGLVKDPI SALSGLGLMFGTAGLPHILMRFFTVSDAREARKSVFY  
ATGFMGYFYILTFIIGFGAIMLVGANPEYKDAAGHLIGGNMAAVHLANAVGGNLF LGFI  
SAVAFATILAVVAGLTLGASAVSHDLYANVFKKGATEREELRVSKITVLILGVIAIILG  
VLFENQNI AFMVGLAFAIAASCNFP IILLSMYWSKLTTRGAMMGWLGLITAVVLMILGP  
TIWVQILGHEKAIFFPYEYPALFSITVAFLGIWFFSATDNSAEGARERELFRAQFIRSQTG  
FGVEQGRAH

>Q03154

MTSKGPEEEHPSVTLFRQYLRIRTVQPKPDYGAAVAFFFEETARQLGLGCQKVEVAPGYV  
TVLTPWPGTNP TLSSILLNSHTDVVPVFKHSHDPFEAFKDEGYIYARGAQDMKCVSIQ  
YLEAVRRLKVEGHRFPRTIHMFTVPDEEVGGHQGMELFVQRPEFHALRAGFALDEGIANP

TDAFTVFYSPWVVRVTSTGRPGHASRFMEDTAAEKLHKVVNSILAFREKEWQRLQSN  
PHLKEGVSVTSVNLTKLEGGVAYNVIIPATMSASFDFRVAPDVFKAFFEEQLQSWCQAAGEG  
VTLEFAQKWMHPQVTPDDSNPWAAFSRVCKDMNLTLEPEIMPAATDNRYIRAVGVPAL  
GFSPMNRTPVLLHDHDERLHEAVFLRGVDIYTRLLPALASVPALPSDS

>P31441

MNNSINHKFHHSRAEYQELLAVSRGDAVADYIIDNVSIIDLINGGEISGPVIVIKGRYIA  
GVGAEYTDAPALQRIDARGATAVPGFIDAHLHIESSMTPVTFETATLPRGLTTVICDPH  
EIVNVMGEAGFAWFCARCAEQARQNYLQVSSCVPALLEGCDVNGASFTEQMLAWRDHPQV  
TGLAEMMDYPGVI SQNALLDKLDAFRHLTLDGHCPGLGGKELNAYITAGIENCHESYQL  
EEGRKQLQGMSLMIREGSAARNLNALAPLINEFNPSQCMLCTDDRNPEIAHEGHIDAL  
IRRLIEQHNVPVHVAYRVASWSTARHFGLNHLGGLLAPGKQADIVLLSDARKVTVQQVLVK  
GEPIDAQTLQAEESARLAQSAPPYGNFIARQPVASDFALQFQTPGKRYRVIDVIHNELIT  
HSHSSVYSENGFDRDDVSFIAVLERYGQRLAPACGLLGGFGLNEGALAAATVSHDSHNIVV  
IGRSAEEMALAVNQVIQDGGGLCVVRNGQVQSHLPLPIAGLMSTDTAQSLAEQIDALKAA  
ARECGPLPDEPFIQMAFLSLPVPALKLT SQGLFDGEKFAFTTLEVTE

>P23991

MSTVGKVIKCKAAVLWEANKPFSLEEVEVAPPKAHEVRIKIVATGICRSDDHVVTGALAM  
PFPIILGHEAAGVIESVGEKVTSLKPGDAVIPLFVFPQCGECRSCSLSTKGNLCIKNDLSSS  
PTGLMADGTTTRFTCKGKAIHHFVGTSTFTEYTVVHETAAAKIDSAAPLEKVCCLIGCGFST  
GYGAVLQTAKVEAGSTCAVFGLGGVGLSVVMGCKAAGASRIIAVDINKDKFAKAKELGAT  
ECINPKDFKKPIHEVLTMTGQVDYSFEVIGRIETMTAALASCHNNYGVSVIVGVPPAA  
QKISFDPMLIFSGRTWKGSVFGGWKSKDAVPKLVADYMKKKFVLDPLIHTHLPFTKINEG  
FDLLRTGKSIRSVLVL

>P26325

ATVGKVIKCKAAVAWEANKPLVIEEIEVDVPHANEIRIKIIATGVCHTDLYHLFEGKHKD  
GFPVVLGHEGAGIVESVGPVTEFQPGKVIPLFISQCGECRFCQSPKTNQCVKGWANES  
PDVMSPKETRFTCKGRKVLQFLGTSTFSQYTVVNQIAVAKIDPSAPLDTVCLLGCSTG  
FGAAVNTAKVEPGSTCAVFGLGAVGLAAVMGCHSAGAKRIIAVDLNPDKFEKAKVFGATD  
FVNPNDHSEPI SQVLSKMTNGGVDFSLCECVNVMRNASCLKGGVSVLVGWTDLHD  
VATRPIQLIAGRTWKGSFGGFKGKDGVPKMKAYLDKVKLDEFITHRMPLESVNDAID  
LMKHGKCIRTVLSLE

>P25141

MSSNTAGQVIRCKAAVAWEAGKPLVIEEVEVAPPQKMEVRLKILFTSLCHTDVYFWEAKG  
QTPLFPRIFGHEAGGIVESVGEVTDLKPGDHVLVFTGECQQCRHCKSEESNMCDLLRI  
NTDRGVMIHGQTRFSKDGKPIYHFVGTSTFSEYTVCHSGCVTKIDPQAPLDKVCVLSG  
ISTGLGATLNVAKPTKGSTVAIFGLGAVGLAAAEGARIAAGASRIIGVDLNP SRFNDAKKF  
GVTEFVNPKDHGDKPVQVIAEMTDGGVDRSVECTGNVNAMISAFECVHDGWGVAVLVGV  
PNKDDAFKTHPMNLLNERTLKGTFFFGNYPKSDIPSVVDKYMKELELEKFIHQVVFSE  
INKAFDYMLKGESIRCMITMEH

>P06758

MASSTFYIPFVNEMGEGLSLEKAIKDLNGSGFKNALIVSDAFMNSGVVKQVADLLKAQGI  
NSAVYDGVMPNPTVTAVLEGLKILKDNNSDFVISLGGGSPHDCAKAIALVATNGGEVKDY  
EGIDKSKKPALPLMSINTTAGTASEMTRFCIITDEVHRVKMAIVDRHVTPMVS VNDP LLM  
VGM PKGLTAATGMDALTHAFEAYSSTAATPITDACAALKAASMI AKNLKTACDNGKDM PAR  
EAMAYAQFLAGMAFNNASLGYVHAMAHQLGGYYNLP HGV CNVALLPHVLAYNASV VAGRL



KDVGAMGLDIANLGDKEGAEATIQA VRDLAASIGIPANLTELGAKKEDVPLLADHALKD  
ACALTNPRQGDQKEVEELFLSAF

>P07754

MSVPEVQWAQVVEKAGTPPVYKQVPVPKPGPDEILVKMRYSGVCHTDLHAMKGDWPLPSK  
MPLIGGHEGAGVVVAKGELVKDEDFKIGDRAGIKWLNGLSCLSCMEMQADEPLCPHASLS  
GYTVDGTFQOYTIKGAALASKIPDNVPLDAAAPILCAGITVYKGLKESGARPGQTVVAIVG  
AGGGLGSLAQYAKAMGLRTIAIDSGDEKKAMCEQLGAEVVIDFSKADVVADVKAATPG  
GLGAHAVILLAVAEPFQOATEYVVRSHGSSVVAIGLPANAFKAPVFTTVVRMINIKGSYV  
GNRQDGV EALDFFARGLIKAPFKKAPLQDL PQIFELMGQGIAGRYVLEIPE

>P07246

MLRTSTLFTTRRVQPSLFSRNILRLQSTAAIPKTQKGVIFYENKGLHYKDIPVPEPKPNE  
ILINVKYSGVCHTDLHAWHGDWPLPVKLPVGGHEGAGVVVKLGSNVKWKVGDLAGIKW  
LNGSCMTCEFCESGHESNCPDADLSGYTHDGSFQQFATADAIQAAKIQQGTDLAEVAPIL  
CAGVTVYKALKEADLKAGDWVAISGAAGGLGSLAVQYATAMGYRVLGIDAGEEKEKLFKK  
LGGEVVIDFTTKTKNMVSDIQEATKGGPHGVINVSSEAAISLSTEYVVRPCGTVVLVGLPA  
NAYVKSEVFSHVVKSINIKGSYVGNRADTREALDFFSRGLIKSPIKIVGLSELPKVYDLM  
EKGKILGRYVVDTSK

>P08319

MGTGKGVKICKKAAIAWEAGKPLCIEEVEVAPPKAHEVRIQIIATSLCHTDATVIDSKFEG  
LAFPVIVGHEAAGIVESIGPGVTNVKPGDKVIPLIYAPLCKRCKFCLSPLTNLCGKISNLK  
SPASDQQLMEDKTSRFTCKGKPVYHFFGTSTFSQYTVVSDINLAKIDDDANLERVCLLGC  
GFSTGYGAAINNAKVTPGSTCAVFGGLGGVGLSAVMGCKAAGASRIIGIDINSEKFKAKA  
LGATDCLNPRDLHKPIQEVIIELTKGGVDFALDCAGGSETMKAALDCTTAGWGSCTFIGV  
AAGSKGLTVFPEELIIGRTINGTFFGGWKSVD SIPKLVTDYKNKKFNLDALVTHTLPLPDK  
ISEAFDLMNQGKSIRTI LIF

>P25377

MLYPEKFQIGIGISNAKDWKHPKLVSFDPKPFGDHVDVVEIEACGICGSDFHIAVGNWGPV  
PENQILGHEIIGRVVVKVSGKCHTGVKIGDRVGVGAQALACFECERCKSDNEQYCTNDHVL  
TMWTPYKDGYSIQGGFASHVRLHEHFQIPIPENIPSPLAAPLLCGGITVFSPLLRNGCGP  
GKRVGIVGIGGIGHMGILLAKAMGAEVYAFSRGHKREDSMKLGADHYIAMLEDKGWTEQ  
YSNALDLLVVCSSSLSKVNFDSIVKIMKIGGSIVSIAAPEVNEKLVKPLGLMGVSISS  
AIGSRKEIEQLLKL VSEKNVKI WVEKLP ISEEGVSHAFTRMESGDVKYRFTLVLDYDKKFK  
K

>P14940

MTAMMKA AVFVEPGRIELADKPIPDIGPNDALVRITTTTTCGTDVHILKGEYPVAKGLTV  
GHEPVGII EKLGS AVTGYREGQRVIAGAI CPNFNSYAAQDGVASQDGSYLMASGQCGCHG  
YKATAGWRFRGNMIDGTQAEYVLPDAQANLTPIPDGLTDEQVLMCPDIMSTGFKGAENAN  
IRIGHTVAVFAQGP IGLCATAGARLCGATTIIAIDGNDHRLEIARKMGADVVLNFRNCDV  
VDEVKLTGGRGVDASIEALGTQATFEQSLRVLPKGGT LSSSLGVYSSDLTIPLSFAAAGL  
GDHKINTALCPGGKERMRLINVI ESGRVDL GALVTHQYRLDDIVAAYDLFANQRDGV LK  
IAIKPH

>P00332

MTIPDKQLAAV FHTHGGPENVKFEEVPVAEPGQDEVLVN IKYTG VCHTDLHALQGDWPLP  
AKMPLIGGHEGAGVVVKV GAGVTR LKIGDRVGVKWMNSSCGNCEYCMKAEETICPHIQLS

GYTVDGTFQHYCIANATHATIIPESVPLEVAAPIMCAGITCYRALKESKVGPGEWICIPG  
AGGGLGHLAVQYAKAMAMRVVAIDTGDDKAELVKSFGAEVFLDFKKEADMI EAVKAATNG  
GAHGTLVLSTSPKSYEQAAGFARPGSTMVTVSMPAGAKLGADIFWLTVKMLKICGSHVGN  
RIDSIEALEYVSRGLVKPYKVPFSTLDPVYRLMHENKIAGRIVLDLSK

>P39462

MRAVRLVEIGKPLSLQEIGVPPKPKGPQVLIKVEAAGVCHSDVHMRQGRFGNLRIVEDLGV  
KLPVTLGHEIAGKIEEVGDEVVGYSKGDLVAVNPWQEGENCYYCRIGEEHLCDSPRWLGI  
NFDGAYA EYVIVPHYKMYKLRRLNAVEAAPLTCSGITTYRAVRKASLDPTKTLVVGAG  
GGLGTMAVQIAKAVSGATIIGVDVREEAVEAAKRAGADYVINASMQDPLAEIRRITESKG  
VDAVIDLNNSEKTL SVYPKALAKQKGYVMVGLFGADLHYHAPLITLSEIQFVGSLVGNQS  
DFLIGIMRLAEAGKVKPMITKTMKLEEANE AIDNLENFKAIGRQVLI P

>P14941

MKGFAMLSIGKVGWIEKEKPAPGPFDAIVRPLAVAPCTSDIHTVFE GAIGERHNMI LGHE  
AVGEVVEVGSEVKDFKPGDRVVPAITPDWRTSEVQRGYHQHSGGMLAGWKFSNVKDGVF  
GEFFHVNDADMNLAHLPEI PLEAAVMI PDMMTTGFHGAELADIELGATVAVLGI GPVGL  
MAVAGAKLRGAGRI IAVGSRPVCVDAAKYYGATDIVNYKDGPIESQIMNLTEGKGVDAAI  
IAGGNADIMATAVKIVKPGGTIANVNYFGEGEVLPVPRLEWCGMAHKTIKGGLCPGGRL  
RMERLIDL VFYKRVDP SKLVTHVFRGFDNIEKAFMLMKDKPKDLIKPVVILA

>Q04945

MVDFEYSIPTRIFFGKDKINVLGRELKKYGSKVLI VYGGGSIKRNGIYDKAVSILEKNSI  
KFYELAGVEPNPRVTTVEKGVKICRENGVEVVLAI GGGSAIDCAKVIAAAACEYDGNPWDI  
VLDGSKI KRVLP IASILTIAATGSEMDTWAVINNM DTNEKLI AAHPD MAPKFSILDPTYT  
YTVPTNQTAAGTADIMSHIFEVYFSNTKTAYLQDRMAEALLRTC IKYGGIALEK PDDYEA  
RANLMWASSLAINGLLTYGKDTNWSVHLM EHEL SAYYDITHGVGLAILTPNWMEYILNND  
TVYKFVEYGVNVWGIDKEKNHYDIAHQAIQKTRDYFVNVLGLPSRLRVDVGI EEEKLDIMA  
KESVKL TGGTIGNLRPVNASEVLQIFKKS V

>P81431

TDATGKPIKMAAIAWEAKKPLSIEEVEVAPPKSGEVR IKILHSGVCHTDAYTLEGIDPE  
GIFPVILGHEGAGIVESIGEGVTSVKPGD TVIPLYVPQCYECKFCLNPKTNLCQKIRVTQ  
GKGVMPDGTTRFTCKGKEVFHFMG CSTFSEFTVVAEISIAKVNPKAALDKVCLLGC GIST  
GYGAALNTAAVEKGSNCAVWGLGAVGLAVAMGCKAAGAARIIGIDINESKFEIGKKFGIT  
EFVNPKKFCKSVQKVLGEMTDVGVDFTFECIGNVGMRAALESCHKGWGT SVIVGVAAHG  
EEI STRPFQLVTGRVWKGTAFFGGFKSRDSVPKLVDDYMNK KLLLDEFVSHKLSFKKINEA  
FDLMHKGESIRAVLDIPE

>P48034

MEGGSELLFYVNGRKVTEKNVDPETMLLPYL RKKLRLTGTKYCGGGGCGACTVMISRYN  
PITTKIRHYPANA CLTPICSLYGA AVTTVEGIGSTKTRIHVPQERIAKCHGTQCGFCTPG  
MVMSLYTL LRNHPEPTLTQLNDALGGNLCRCTGYRPI INACKTFCKTSGCCQSKENGVCC  
LDQGMNGLPEFEEGNETSLKLFSEEEFLPLDPTQELIFPPELMTMAEKKTKQTRIFGSDR  
MTWISPVT LKELLEAKVKYPQAPVVMGNTSVGPDMKFKGIFHPV IISPDRIEELS VVNYT  
DNGLTLGA AVSLAEVKDILANVTRKLP EEEKTQMYHALLKHLETLAGPQIRNMASLGGHIV  
SRHPDSDLNPLLAVGNCTLNLLSKEGRRQIPLNEQFLRKCP SADLKPEEILISVNIPIYSR  
KWEFVSAFRQAQRQQNALAIVNSGMRVCFGKGDGI IRELSIAYGGVGP TTI LANNSCQKL  
IGRPWNEEMLDAACRLILDEVSLPGSAPGGRVEFKRTLIVSFLFKFYLEVSQILKGM DLV  
HYP SLASKYESALEDLHSRHYWSTLKYQNADLKQLSQDP IGHPIMHLSG IKHATGEAIYC

DDMPVVDRELFVTFVTSSRAHAKIVSIDVSAALSLPGVVDILTGEHLPGINTTFGFLTDA  
DQLLSTDEVSCVGLVCAVIADSEVQARRAAQQVKIVYQDLEPVILTIEEAIQNKSFPEP  
ERKLEYGNVDEAFKMDQILEGEIHMGGQEHFYMETQSMLVVPKGEDREIDVYVSAQFPK  
YIQDITASVLKVSANKVMCHVKRVGGAFGGKVTKTGVLAAITAFANRKHGRPVRCILERG  
EDILITGGRHPYLGKYKAGFMNDGRILALDMEHYNNAGAFLESLFVIEMGLLKLLENAYK  
FPNLRRCRGWACRTNLPNTALRGGFQAGLITEACITEVAACKGLPPEKVRMINMYKEI  
DQTPYKQEIINTKNLTQCWKECMATSSYTLRKAAVEKFNSENYWKKKGLAMVPLKYP IGLG  
SVAAGQAAALVHIYLDGSLVLTHTGGIEMGGQGVHTKMIQVVSRELRLMPLSSIHLRGTSTET  
IPNTNPSGGSVVADLNGLAVKDACQTLKRLKPIISKNPKGTWKDWAQAAFNESISLSAT  
GYFRGYESNINWETGEGHPFEYFVYGAACSEVEIDCLTGAHKNIRTDIVMDVGYSINPAL  
DVGQIEGAFIQGMGLYTIIEELNYSPPQGVLYTRGPNQYKIPAICDIPMELHISFLPPSENS  
NTLYSSKGLGESGIFLGCSSVFFAIHDAIRAARQERGLPGPLRLNSPLTPEKIRMACEDKF  
TKMIPRDEPGSYVPWSVPI

>P02722

MSDQALSFLKDFLAGGVAIAISKTAVAPIERVKLLLVQVHASKQISAEKQYKGIIDCVVR  
IPKEQGFLSFWRGNLANVIRYFPTQALNFAFKDKYKQIFLGGVDRHKQFWRYPAGNLSAG  
GAAGATSLCFVYPLDFARTRLAADVKGAAQREF'TGLGNCITKIFKSDGLRGLYQGFNVS  
VQGI I IYRAAYFGVYDTAKGMLPDPKNVHIIVSWMIAQTVTAVAGLVSYFPDTRRRMMM  
QSGRKGADIMYTGTVDCWRKIAKDEGPKAFFKGAWSNVLRGMGGAFVLVLYDEIKKFV

>P04709

MADQANQPTVLHKLGGQFHLRSIISEGVARNICPSVSSYERRFATRNYMTQSLWGPSMS  
VSGGINVPMQTPLCANAPAEKGGKNFMIDFMMGGVSAAVSKTAAAPIERVKLLIQNQDE  
MIKSGRLSEPYKGIIVDCFKRTIKDEGFSSSLWRGNTANVIRYFPTQALNFAFKDYFKRLFN  
FKKDRDGYWKWFAGNLSGGAAGASSLFFVYSLDYARTRLANDAKAAKGGGERQFNGLVD  
VYRKTLSKSDGIAGLYRGNISCVGIIVYRGLYFGLYDSIKPVVLTGNLQDNFFASFALGW  
LITNGAGLASYPIDTVRRRMMMTSGEAVKYKSSLDAFQQILKKEGPKSLFKGAGANILRA  
IAGAGVLSGYDQLQILFFGKKYGSGBA

>P09167

MQKIKLTGLSLIISGLLMAQAQAAEPVYDPQLRRLFSLGQVCGDKYRPVNREEAQSVKSN  
IVGMMGQWQISGLANGWVIMPGYNGEIKPGTASNTWCYPTNPVTGEIPTLSALDIPDGD  
EVDVQWRLVHDSANFIKPTSZYLAHYLGYAWVGGNHSQYVGEDMDVTRDGDGWVIRGNNDG  
GCDGYRCGDKTAIKVSNFAYNLDPDSFKHGDVTQSDRQLVKTVVGWAVNDSPTPQSGYDV  
TLRYDTATNWSKTNTYGLSEKVTTKNKFKWPLVGETELSI EIAANQSWASQNGGSTTTSL  
SQSVRPTVPARSKIPVKIELYKADISYPYEFKADVSYDLTSLGFLRWGGNAWYTHPDNRP  
NWNHTFVIGPYKDKASSIRYQWDKRYIPGEVKWWDWNWTIQQNGLSTMQNNLARVLRPVR  
AGITGDFSAESQFAGNIEIGAPVPLAADSKVRRARSVDGAGQGLRLEIPLDAQELSGLGF  
NNVSLSVTPAANQ

>Q9ZN78

MAKQARAVQTWRSIVDAAASVFDYGYERAAISEILRRAKVTKGALYFHFASKEAIAQAI  
MDEQTSTVEFEQEGSPLQSLVDGGQQFALRHNSMARAGTRLSIEGVFLGGPHPWGDWI  
DATARMLLELQGERGEVFPQIDPMVSAKIIIVASFTGIQLVSEADSGRADLRGQVAEMWRHI  
LPSIAHPGVIAHIKPEGRVDLAAQAREKAEREQEARIAAEAKGAGSDAATDSGSRSGGS  
GLRGGGSGRGPRAGGAGDEGDEEPAGAGVAAGGVVA

>P06720

MMSAPKITFAGASTIFVKNILGDVHFHREALKTAHIALMDIDPTRLEESHIVVRKLMDSA

GASGKITCHTQQKEALEDADFVVVAFQIGGYEPCVTDFEVCKRHGLEQTIADTLGPGGI  
MRALRTIPLHLWQICEDMTEVCPDATMLNIVNPMAMNTWAMYARYPHIKQVGLCHSVQGT  
EELARDLNIDPATLRYRCAGINHMAFYLELERKTADGSYVNLYPELLAAAYEAGQAPKPN  
HGNTRCQNIIVRYEMFKKLG YFVTESEHFAEYTPWF IKPGREDLIER YKVPLDEYPKRCV  
EQLANWHKELEEEYKKASRIDIKPSREYASTIMNAIWTGEP SVIYGNVRNDGLIDNLPQGC  
CVEVA CLVDANGIQPTKVGTLP SHLAALMQTNINVQ TLLTEAILTENRDRVYHAAMMDPH  
TAAVLGIDEIYALVDDLI AAHGDWLP GWLHR

>P06280

MQLRNPELHLGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWERFMCNLDCQEEP  
DSCISEKLFMEMAELMVSEGWKDAGYEYLCIDDCWMAPQRDSEGRLQADPQRFPHGIRQL  
ANYVHSGKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADWGV DLLKFDGCYCD SLENL  
ADGYKHMSLALNRTGRSIVYSCEWPLYMWPFPKPNYTEIRQYCNHWRNFADIDDSWKS IK  
SILDWTSFNQERIVDVAGPGGWNDPMLVIGNFGLSWNQV TQMALWA IMAAPLFMSNDL  
RHISPQAKALLQDKDVIAINQDPLGKQGYQLRQGDNF EVWERPLSGLAWAVAMINRQEIG  
GPRS YTI AVASLGKGVACNPACFITQLLPVKRKLGFYEWT S RLRSHINPTGTVLLQLENT  
MQMSLKDLL

>P27756

MGIVIKDNLFYIHTKDS SLIIEERDGD LLLKHLGKKIEAYHFSNTVFEKD HAFSANPVAD  
NRNYSYDTQRQIFGVHGFDFRVP SLILQHDMNDL TRFKFKKAKI IKGGIKARGLPNPHS  
SESAQSLALILEDDLAKLRMTLYYTAYDDNATISTFVKFENLSDKPVILHRALSTMFDLP  
ASHYDVITFQGAYAREKTLRRHQIEQGLFKIGSNRGASGHAQTPSLILTEHDSNEFYGEA  
LALQLIYSGNFQAFVQKNQLNEVRLGIGINDDNFSWDLQANQSFETPVALITYTDKGLTD  
LTQESHNFIKRHIIPKNFANKERPILINWEATYFDFNRSQ LGLADEARKLGIELFVLD  
DGWFGHRFDDNSSLGDWVNEEKLGGSLDSF I KEIHDRGLQFGLWFEP EMVSVDSKLYRA  
HPDWVIQADQREHTYSRNQLVNLANPDVVAYIKTVL DKLLTENTIDYVKWDYNRNITNI  
GNGRTYLETQMOSHAYILGLYNI VSYLTTKHKDKVLFESCSGGGRNDLGMICYFPQVWSS  
DNTDAIARLP IQYSSYLYPTISMG AHVSAVPNHQMN RHTPLTTRGHVAMMGNLGYELDL  
AILTKNEKKAVANQIKHYK KIRSVVQFGKLYRLINPEVGINEVAVQYTYDNQVLVTYVRI  
QSTIEMMETTVKLRGLDADAIYVLIETGQIFSGAELMYAGLTIDMPQGDYLSKQYYFIK

>P02876

MRKMMSTMALTLGAAVFLAFAAATAQAQRCEQGSNMECPNNLCCSQYGYCGMGDYCGK  
GCQNGACWTSKRCSQAGGATCPNNHCCSQYGHCGFGAEYCGAGCQGGPCRADIKCGSQS  
GGKLCNNLCCSQWGFCLGSEFCGGCQSGACSTDKPCGKDAGGRVCTNNYCCSKW GSC  
GIGPGYCGAGCQSGGCDAVFAGAITANSTLLAE

>O33830

MPSVKIGIIGAGSAVFLRLVSDLCKTPGLSGSTVTLMDIDEERLDAILTIAKKYVEEVG  
ADLKF EKT MNLD DVIIDADFVINTAMVGGHTYLEKVRQIGEKYGYR GIDAQEFNMVSDY  
YTFSNYNQLKYFVDIARKIEKLSPKAWYLQAANPIFEGTTLVTRTVPIKAVGFCHGHYGV  
MEIVEKLGLEEEKVDWQVAGVNHGIWLNRFYNGGNAYPLLDKWIEEKSKDWK PENPFND  
QLSPA AIDMYRFYGVMPIGD TVRNS SWRYHRDLET KKKWYGE PWGGADSEIGWKWYQDTL  
GKVTEITKKVAKFIKENPSVRLSDLG SVLGKDLSEKQFVLEVEKILDPERKSGEQHIPPFI  
DALLNDNKARFV VNI PNKGI IHGIDDDVVVEVPALVDKNGIHPEKIEPPLPDRVVKYYLR  
PRIMMEMALEAFLTGDIRI IKELLYRDPRTKSDEQVEKVIIEILALPENEEMRKHYLKR

>Q8GW7

MEESRES PAEHGYMPAEWDSHAQTWIGWPERQDNWRHNALPAQRVFADVAKAISKFEPV

TVCASPAQWENARKQLPEDIRVVEMSMNDSWFRDSGPTFIVRKRVPKLSLNRNIAGIDW  
NFNAWGGANDGCYNDWSHDLVSRKILALERIPRFQHSMILEGGSIHVDGEGTCLVTEEC  
LLNKNRNPMSKEQIEEELKKYLGVQSFIVLPRGLYGEDDTNGHIDNMCCFARPGVLLS  
WTDDDETPQYERSVEALSVLSNSIDARGRKIQVIKLYIPEPLYMTEEESSGITQDGEAIP  
RLAGTRLAASYVNFYIANGGI IAPQFGDPIRDKEAIRVLSDTFFPHHSVVGIENAREIVLA  
GGNIHCITQQPAEPTSVAENGH

>Q9I6J9

MSNPTSTPRADGFRMPAEWEPHEQTWMVWPERPDNWRNGGKPAQAFAAVAKAIARFEPV  
TVCASAGQYENARARLDDGNIRVVEISSDDAWVRDTGPTFVIDDKGDVRGVDWGFNAWGG  
FEGGLYFPWQRDDQVARKILEIERRARYRTDDFVLEGGSIHVDGEGTLITTEECLLNHR  
NPHLSQAEIERTLRDYLAVESI IWLPNGLYNDETGDHVDNFCCYARPGEVLLAWTDDQDD  
PNYLRCQAALRVLEESRDAKGRKLVVHKMPIPGLYATQEEDGVDIVEGSQLPRDPSIRL  
AGSYVNFILVNGGI IAPSFDDPKDAEARAAILQRVFPHEHEVVMVPGREILLGGNIHCITQ  
QQPAPRKA

>Q8VYF5

METEGRRREVVVSSLQFACSDDISTNVAAAERFVSLSSSLPLSNYQSLPSSSSFKFPYAL  
VREAHAKGANI ILIQELFEGYYFCQAQREDFFKRAKPYKNHPTIARMQKLAKELGVVIPV  
SFFEEANTAHYNSIAI IDADGTDLGIYRKSHIPDGPYQEKFYFNPGDGTFKVFQTKFAK  
IGVAICWDQWFPEAARAMVLQGAELFYPTAIGSEPQDQGLDSRDHWRRVMQGHAGANVV  
PLVASNRIGKEI IETEHPQSQITFYGTSFIAGPTGEIVAEADDKSEAVLVAQFDLDMIKS  
KRQSWGVRDRRDPDLYKVLLTMDGNL

>P35340

MLDTNMKTQLKAYLEKLTKPVELIATLDDSAKSAEIKELLAEIAELSDKVTFKEDNSLPV  
RKPSFLITNPGSNQGRFAGSPLGHEFTSLVLALLWTGGHPSKEAQSLEQIRHIDGDFE  
FETYYSLSCHNCPDQVQALNLMVSNPRIKHTAIDGGTFQNEITDRNVMGVPVAVFVNGKE  
FGQGRMTLTEIVAKIDTGAEKRAAEELNKRDAYDVLIVGSGPAGAAAAIYSARKGIRTGL  
MGERFGGQILDVTDIENYISVPKTEGQKLAGALKVHVDEYDVIDSQSASKLI PAAVEG  
GLHQIETASGAVLKARSI IVATGAKWRNMNVPGEDQYRTKGVTYCPHCDGPLFKGKRVAV  
IGGGNSGVEAAIDLAGEVHVTLLEFAPEMKADQVLQDKLRSKKNVDI ILNAQTTEVKGD  
GSKVVGLEYRDRVSGDIHNIELAGIFVQIGLLPNTNWLEGAVERNRMGEI I IDAKCETNV  
KGVFAAGDCTTVPYKQII IATGEGAKASLSAFDYLI RTKTA

>O43918

MATDAALRRLRLHRTEI AVAVDSAFPLLHALADHDVVPEDKFQETLHLKEKEGCPQAFH  
ALLSWLLTQDSTAILDFWRVLFKDYNLERYGRLQPILDSFPKDVLDLSQPRKGRKPPAVPK  
ALVPPPRLPTKRKASEEARAAAPAALTPRGTASPGSQLKAKPPKKPESSAEQQRLPLGNG  
IQTMSASVQRAVAMSSGDVPGARGAVEGILIQQVFESGGSKKCIQVGGEFYTPSKFEDSG  
SGKNKARSSSGPKPLVRAKGAQGAAPGGGEARLGQQGSVPAPLALPSPDQLHQKNEDECA  
VCRDGGELICCDGCPRAFHLACLSPPLREIPSGTWRCSSCLQATVQEVQPRAEEPRPQEP  
PVETPLPPGLRSAGEEVRGPPGEPLAGMDTTLVYKHL PAPP SAAPLPGLDSSALHPLLCV  
GPEGQONLAPGARCGVCGDGTDLRCTHCAAAFHWRFHCFPAGTSRPGTGLRCRSCSGDVT  
PAPVEGVLAPSPARLAPGPAKDDTASHEPALHRDDLESLLSEHTFDGILQWAIQSMARPA  
APFPS

>Q90WJ8

MVSFKLPAFLCVAVLSSMALVSHGAVLGLCEGACPEGWVEHKNRCYLHVAEKKTWLDAEL  
NCLHHGGNLASEHSEDEHQFLKDLHKGSDDPFWIGLSAVHEGRSWLWSDGTSASAEGDFS

MWNPGEPNDAAGKEDCVHDNYGGQKHWN DIKCDLLFPSICVLRMVE

>Q9LYU8

MAATRVRCCCHSNAAFTRLPLTRHRNSPTLPISLNRVDFPTLKKLSLPIGDGSSIRKVS  
GSRNIVRAVLEEKKTEAITEVDEKGITCVMKFGGSSVASAERMKEVADLILTFPEESPVI  
VLSAMGKTTNNLLLAGKAVSCGVSNASEIEELSIKELHIRTVKELNIDPSVILTYLEE  
LEQLLKGIAMMKELTLRTRDYLVSFGECLSTRIFAAYLNTIGVKARQYDAFEIGFITDD  
FTNGDILEATYPAVAKRLYDDWMHDPVPVITGFLGKGWKTGAVTTLGRGSDLTATTIG  
KALGLKEIQVWKDVGVLTCDPITYKRATPVPYLTDFEAAELAYFGAQLHPQSMRPARE  
GEIPVRVKNSYNPKAPGTIITKTRDMTKSILTSIVLKRNVTMLDIASRMLGQVGF  
LAKVFSIFEELGISVDVATSEVSI SLTLDP SKLWSRELIQQELDHVVEELEKIAV  
VNLKGRAIISLIGNVQHSSLILERAFHVLYTKGVNVQMISQGASKVNI SFIVNEAE  
AEGCVQALHKSFFESGDLSELLIQPRLGNGSPVRTLQVEN

>P00561

MRVLKFGGTSVANAERFLRVADILESNA RQGQVATVLSAPAKITNHLVAMIEKTISGQDA  
LPNISDAERIFAELLTGLAAAQPGFPLAQLKTFVDQEF AQIKHVLHGISLLGQCPDSINA  
ALICRGEKMSIAIMAGVLEARGHNVTVIDPVEKLLAVGHYLESTVDIAESTRRIAASRIP  
ADHMVLMAGFTAGNEKGELVVLGRNGSDYSAAVLAAACLRADCC EIWTDVDGVYTC  
DPRQVPDARLLKSMSYQEAMELSYFGAKVLHPRTITPIAQFQIPCLIKNTGNPQAPGTLIGASRD  
EDEL PVKGISNLNMMAMFSVSGPGMKGMVGM AARVFAAMSRARISVV LITQSSEYSISF  
CVPQSDCVRAERAMQEEFYLELKEGLEPLAVTERLAIISVVGDMRTRLRGISAKFFAAL  
ARANINIVAI AQSSERSISVVVNDDATTGVRVTHQMLFNTDQVIEVFVIGVGGVGGAL  
LEQLKRQOSWLKNKHIDLRVCGVANSKALLTNVHGLNLENWQEELAQAKEPFNLGRLIRL  
VKEYHLLNPVIVDCTSSQAVADQYADFLREGFHVVTPNKKANTSSMDY YHQLRYAAEKSR  
RKFLYDTNVGAGLPV IENLQNLNAGDELMKFSGILSGSLSYIFGKLDEGMSFSEATTLA  
REMGYTEPDRDDL SGMDVARKLLILARETGRELELADIEIEPVLPAEFNAEGDVAAFMA  
NLSQLDDLFAARVAKARDEGKVLRYVGNIDEDGVC RVKIAEVDGNDPLFKVKNGENALAF  
YSHYYQPLPLVLRGYGAGNDVTAAGVFADLLR TLRSWKLG V

>P00562

MSVIAQAGAKGRQLHKFGGSS LADV KCYLRVAGIMAEYSQPDDMMVVS AAGSTTNQLINW  
LKLSQTDRLSAHQVQQT LRRYQCDLISGLLPAEEADSLISAFVSDLERLAALLDSGINDA  
VYAEVVGHGEVWSARLMSAVLNQOGLPAAWLDAREFLRAERAAQPQVDEGLSYPL LQQLL  
VQHPGKRLVVTGFISRNNAGETVLLGRNGSDYSATQIGALAGVSRVTI WSDVAGVYSADP  
RKVKDACLPLRLDEASELARLAAPVLHARTLQPVSGSEIDLQLRCSYTPDQGSTRIER  
VLASGTGARIVTSHDDVCLIEFQVPASQDFKLAHKEIDQILKRAQVRPLAVGVHNDRQLL  
QFCYTSEVADSALKILDEAGLPGELRLRQGLALVAMVGAGVTRNPLHCHRFWQQLKGQPV  
EFTWQSDDGISLVAVLRTGPTESLIQGLHQSVFRAEKRIGLVLF GKGNIGSRWLELFARE  
QSTLSARTGF EFVLAGVVD SRRSLLSYDGLDASRALAFFNDEAVEQDEESLFLWMRAHPY  
DDL VVLDVTASQQLADQYLD FASHGFHVISANKLAGASDSNKYRQIHDAFEKTGRHWLYN  
ATVGAGLPINHTVRDLIDSGDTILSISGIFSGTLSWLF LQFDGSVPFTELVDQAWQGLT  
EPDRDDL SGKDVMRKLVLILAREAGYNI EPDQVRVESL VPAHCEGGSIDHFFENGDELNE  
QMVQRLEAAREMGLVLR YVARFDANGKARVGVEAVREDHPLASLLPCDNVFAIESRWYRD  
NPLVIRGPGAGRDV TAGAIQSDINRLAQLL

>P08660

MSEIVVSKFGGTSVADFDAMNRSADIVLSDANVRLV VLSASAGITNLLVALAEGLEPGER  
FEKLDAIRNIQFAILERLRYPNVIREEIERLLENITVLA EAAAALATSPAL TDELVSHGEL  
MSTLLFVEILRERDVQAQWF DVRKVMRTNDRFGRAEPDIAALAE LAALQLL PRLNEGLVI

TQGFIGSENKGRTTTTLGRGGSDYTAALLAEALHASRVDIWTDPGIYTTDPRVVSAAKRI  
DEIAFAEAAEMATFGAKVLHPATLLPAVRS DIPV FVGVSSKDPFRAGGTLV CNKTENPPLFR  
ALALRRNQTLTLHSLNMLHSRGLAEVFGILARHNISVDLITTTSEVSVALTLDTTGSTS  
TGDTLLTQSLMELSALCRVEVEEGLALVALIGNDLSKACGVGKEVFGVLEPFNIRMICY  
GASSHNL CFLVPGEDAEQVVQKLHSLNLF E

>Q60I26

MSSSEEADLLRLEEVSFTTLARTISLILQPLLLADPEPSPDCGKECLRLLQQLHESAQRL  
WYVTEQSLLSLRQRLYHPPSKGLEAVLLLSNADHVLQAHMEYIKSYTDCVVAQAFQKVS  
KRSEFWRSQRKALRQLSSGSSEGSVGTTCQALRQPLSQHVQKYLLLLLSLRDTLDESH  
PAQELVMHAITLFGNLQSFMGQALDQAVATQALWHSLSRRLRDVLCSPAHRLLQDSQDIP  
VVVTPLRAERVLLFDDSLVLLQGHNTHTFDLKLWVWVWPGQDKCVLHILTPEEEISFCTRD  
PQQQVVWQWKVTQAVCQALCGKDFPVLGSGRETSVPEECRCVAYTFCREGRQCQATYDG  
EWCRAKPHGKGLKWPDGRNHVGTFFYQGLEHGFGLCLVPQASEDKFDCYKCHWREGRMCE  
YGICEYGTDEVYKGYFQAGLRHGFGLSAPQAPQPFRTYGHWERGQRSGYGI EEDRDRG  
ERYIGMWQADQRHGPVVTQAGVCYQGTQGDGMAGP GILLCEDDSL YEGTFTRDLTLL  
GKGKVTFPNGFTLDGSFSSGTDKGLYTQGVLDTAALPPDPSSSTRKRQLGLGTFPVESRWQ  
GVYSPFRDFLRLGCPGEQQEALLGFHTQSSRELRSQECCLCERSHPEDCVGSMEDTLKE  
LLQHRKPKALQOYLKALSNSRHPLGQLLRTLM LTFQATYSGIGANKHLQEMAQEEVKQH  
ARELWAAAYRGLLKVALQHQQTLEENMETRDLQVHGLLLPLILPSFYSELTLYLLLHE  
REDGLYSRGITNLSLFPDTKLLEFLDVQKHLWPLKDLKLT SNQRYSLVRDKCFLTATECL  
QKIITTVHPREKLEVLKTYGIEIATVSRVLGCKYKLPMDLLPLLIYVVSRRARIQHLGA  
EIHLIRDMMDPVHTGGLHDFLLTALESCYEHIQKEDMRPHHLPGHWDARDLW

>P30838

MSKISEAVKRARAASFSSGRTRPLQFR IQQLEALQRLIQEQEQLV GALAADLHKNEWNAY  
YEEVVYVLEEIEYMIQKLP EWAADPEVEKTPQTQQDELYIHSEPLGVVLVIGTWNYPFNL  
TIQPMVGAIAAGNAVVLKPS ELS ENMASLLATIIPQYLDKDLYPVINGGVPETTELLKER  
FDHILYTGSTGVGKIIMTAAAKHLTPVTLELGGKSPCYVDKNCDL DVACRR IAWGKFMNS  
GQTCVAPDYILCDPSIQNQIVEKLLKSLKEFYGEDAKKSRDYGR IISARHFQRMGLIEG  
QKVAYGGTGDAATRYIAPTILTDVDPQSPVMQEEIFGPVLP IVCVRSLEEA IQFINQREK  
PLALYMFSSNDKVIKMKIAETSSGGVAANDVIVHITLHSLPFGG VGN SGMGSYHGKKSFE  
TFSHRRSCLVRPLMND EGLKVRYPSPAKMTQH

>P30038

MLLPAPALRRALLSRPWTGAGLRWKHTSSSLKVANEPVLAFTQGS PERDALQKALDKLGR  
MEAI PCVVGDEEVWTS DVQYQVSPFNHGHK VAKFCYADKSLLNKAI EAALARK EWDLKP  
IADRAQIFLKAADMLSGPRRAEILAKTMVGQKTVIQAEIDAAAELIDFFRFNAKYAVEL  
EGQQPISVPPSTNSTVYRGL EGFVAAISPFNF TAIGGNLAGAPALMGNVVLWKP SDTAML  
ASYAVYRILREAGLPPNI IQFVPADGPLFGDTVTSSEHL CGINF TGSVPTFKHLWKQVAQ  
NLDRFHTFPRLAGECGGNFHFVHRSADVESVVS GTLRS AF EYGGQKCSACSRLYVPHSL  
WPQIKGRLLLEEHSRIKVG DPAEDFGTFFSAVIDAKSFARIKKWLEHARSSPSLTILAGGK  
CDDSVGYFVEPCIVESKDPQEPIMKEEIFGPVLSVYVYPDDKYKETLQLVDSTTSYGLTG  
AVFSQDKDVVQEATKVL RNAAGNFYINDKSTGSIVGQQPFGGARASGTNDKPGGPHYILR  
WTSPQVIKETHKPLGDWSYAYMQ

>P25553

MSVPVQHMPYIDGQFVTWRGDAWIDV VNPATEAVISRIPDGQAEDARKA IDAAERAQPEW  
EALPAIERASWLRKISAGIRERASEISALIVEEGGKIQQLAEVEVAFTADYIDYMAEWAR  
RYEGEIIQSDRPGENILLFKRALGVTTGILPWNFPFFFLIARKMAPALLTGNTIVIKPSEF

TPNNAIAFAKIVDEIGLPRGVFNVLVLRGETVQELAGNPKVAMVSMTGVS SAGEKIMAT  
AAKNITKVCLELGGKAPAIVMDADLELAVKAIVDSRVINSGQVCNCAERVVYQKGIYDQ  
FVNRLGEAMQAVQFGNPAERNDIAMGPLINAAAALERVEQKVARAVEEGARVAFGGKAVEG  
KGYYPPTLLLDVVRQEMSIMHEETFPGVLPVVAFDTLEDAISMANDSDYGLTSSIYTQNL  
NVAMKAIKGLKFGETYINRENFEAMQGFHAGWRKSGIGGADGKHGLHEYLQTQVVYLQS

>P37685

MTNPPSAQIKPGEYGFPLKLYDNFVIGGEWVAPADGEYYQNLTPVTGQLLCEVASSG  
KRDIDLALDAAHKVKDKWAHTSVQDRAAILFKIADRMEQNLELLATAETWDNGKPIRETS  
AADVPLAIDHFRYFASCIRAQEGGISEVDSETVAYHFHEPLGVVGGQIIPWNFPLLMASWK  
MAPALAAGNCVVLKPARLTPLSVLLLMEIVGDLLPPGVVNVVNGAGGVIGEYLATSKRIA  
KVAFTGSTEVGQQIMQYATQNIIPVTLELGGKSPNIFADVMDEEDAFDKALEGFALFA  
FNQGEVCTCPSRALVQESIYERFMERAIRRVESIRSGNPLDSVTQMGAVSHGQLETILN  
YIDIGKKEGADVLTGGRKLLLEGELKDGYYLEPTILFGQNNMRVFEIIFGPVLAVTTFK  
TMEEALELANDTQYGLGAGVWSRNGNLAYKMGRIQAGRVWTCYHAYPAHAAFGGYKQS  
GIGRETHKMMLLEHYQQTCLLVSYSDKPLGLF

>P20000

MLRAVALAAARLGPRQGRLLSAATQAVPTPNQQPEVLYNQIFINNEWHDAVSKKTFPTV  
NPSTGDVICHVAEGDKADVDRAVKAARAAFQLGSPWRRMDASERGRLLNRLADLIERDRT  
YLAALETLDNKPYIISYLVLDMLVKCLRYAGWADKYHGKTIPIDGDYFSYTRHEPVG  
VCGQIIPWNFPLLMQAWKLGALATGNVVMKVAEQTPLTALYVANLIKEAGFPVGVNV  
IPFGFPTAGAAIASHEDVDKVAFTGSTEVGHLIQVAAGKSNLKRVTLEIGGKSPNIMS  
ADMDWAVEQAHFALFFNQGCCAGSRTFVQEDIYAEFVERSVARAKSRVGNPFDSRTE  
QGPQVDETQFKKVLGYIKSGKEEGLKLLCGGAAADRGYFIQPTVFGDLQDGMTIAKEEI  
FGPVMQILKFKSMEEVGRANNSKYGLAAAVFTKDLKANYLSQALQAGTVWVNCYDVF  
AQSPFGGYKLSGSGRELGEYGLQAYTEVKTVTVRVPQKNS

>P42329

MKVQTEIKTYFNINGNWSSVSNVPSINPANRHDIVGYVQRSTLEDVNEAVTAANE  
QTSWWKRSGVERGEYLYKAAHILEQCLQDIAETMTREMGTAEAKAETMRGVHILRYA  
GEGARKIGDVIPSSDSEGLLFTTRVPLGVVGVISPWNFPVAIPIWKMAPALVYGNVTVLK  
PASETAVTAAKVIECFHEAGFPKGVNMVCGSGSVVGGIANHPDIDGVTFTGSNTVVKQ  
VGRAAFERGAQYQLEMGGKNPVIKADADLDLAVEGTISGGLRSTGQCTATSRVIERE  
VYEPFKAKLLERVKQLKIGNGLDAETWMGPCASESQFHTVLSYIEKKGKSEGAKLIYGNR  
CLEGELANGFFVEPTIFEDVDLQMTIAREEIFGPVLALIQVDSIEEAIKLANDTEYGLSA  
SIYTKNIGNALEFIKDIEAGLIKVNAETAGVEFQAPFGGMKQSSSHSREQQAAIEFFTS  
IKTVFVKA

>Q56694

MNPQTDNVFYATNAFTGEALPLAFVHTEVEVNQAATAAAKVARDFRRLNNSKRASLLRT  
IASELEARSDDI IARAHLETALPEVRLTGEIARTANQLRFLADVNSGSYHQAILDTPNP  
TRAPLPKPDIRRQOIALGPVAVFGASNFPLAFSAAGGDTASALAAGCPVIVKGHTAHPGT  
SQIVAECIEQALKQEQLPQAIFTLLQGNQRALGQALVSHPEIKAVGF'TG SVGGRALFNL  
AHERPEPIPFY GELGAINPTFIFPSAMRAKADLADQFVASMIMGCGQFCTKPGVVFALNT  
PETQAFIETAQSLIRQQSPSTLLTPGIRDSYQSQVVSRSDDGIDVTFQSQAESPCVASAL  
FVTSSENWRKHPAWEEEEIFGPQSLIVVCENVADMLSLSEMLAGSLTATIHATEEDYPQVS  
QLIPRLEEIAGRLVFNWPTGVEVGYAMVHGGYPASTHSASTSVGAEAIHRWLRPVAYQ  
ALPESLLPDSLKAENPLEIARAVIDGKAAHS



>P22281

MLATRNLVPIIRASIKWRIKLSALHYCMSDAETSEALLEDNSAYINNEKHNLFLEKIFSD  
YQPFKHDNRTQVSCSQHMRDYRPLLLTLSSATRSVLFSLASDMSIILSISPNTGILLICIG  
HLLASDIEDVVIVLSRGSPLVDLASTRIFKLAQNGTLRFAIKRRTTFQELRFLRKSKDENV  
MEAATRGIITIRQLYYENKVPLRFTGNVATHIEENLEFEEQITWRTHVDSIFPNTRCA  
YPSGYGPSAKIPCLSHKPNDILAYTGSTLVGRVVSCLKAPEQVMKKVTLESQGGKSTMAVFI  
QHDVTWAVENTQFGVFDRQGCCIAQSGYTVHRSTLSQIVENNLEKDPSTVYLVHVDTESDI  
RGPFILKIHFESIPRRINSAKAENSKVLCGGPRENSVYLYPTLSATLTDECRIMKEEVFA  
PIITILCVKTVDEAIQRGNNSKFLAAYVTKENVHGIILSTALKTVKLFICVHLASYQI  
PFGGNKNSGMGAELGKRALENYTEGNHVLPVSLVKETLAPNTETASPARWPIH

>Q7G193

MGEKAIDEDKVEAMKSSKTSLVFAINGQRFELELSSIDPSTTLVDFLRNKTPFKSVKLG  
GEGGCGACVVLLSKYDPLLEKVDEFTISSCLTLLCSIDGCSITTS DGLGNSRVGFHAVHE  
RIAGFHATQCGFCTPGMSVSMFSALLNADKSHPPRSGF SNLTAVEAEKAVSGNLCRCTG  
YRPLVDACKSFAADVDIEDLGFNAFCCKGENRDEVLRRLPCYDHTSSHVCTFPPEFLKKEI  
KNDMSLHSRKYRWSSPVSVSELQGLLEVENGLSVKLVAGNTSTGYKKEEKERYERFIDI  
RKIPEFTMVRSDKGVDELGACVTISKAIEVLREEKNVSVLAKIATHMEKIANRFVRNTGT  
IGGNIMMAQRKQFSDLATILVAAQATVKIMTSSSSQEQFTLEEFLLQPPDLAKSLLLSL  
EIPSWHSAKNGSSEDSILLFETYRAAPRPLGNALAFNAAFSAEVTEALDGI VVNDQCQL  
VFGAYGTKHAHRAKKVEEFLTGKVISDEVLMEAISLLKDEIVPDKGTSNPGYRSSLAVTF  
LFEFFGSLTKKNAKTNGWLNNGCKEIGFDQNVESLKP EAMLSSAQQIVENQEHSPVGKG  
ITKAGACLQASGEAVYVDDIPAPENCLYGAFIYSTMPLARIKIRFKQNRVPEGLGIIT  
YKDIPKGGQNI GTNGFFTSDLLFAEEVTHCAGQIIAFLVADSQKHADIAANLVVIDYDTK  
DLKPPILSLEEAVERNFSLFEVPPPLRGYPVGDITKGMDEAEHKILGSKISFGSQYFFYME  
TQTALAVPDEDNCMVVYSSTQTPFEVHQTIAGCLGVPENNVRVITRRVGGGFGGKAVKSM  
PVAAACALAAASKMQRPVRTYVNRKTDMITTGRHPMKVTYSVGFKSNGKITALDVEVLLD  
AGLTEDISPLMPKGIQGALMKYDWGALSFNVKVCKTNTVSR TALRAPGDVQGSYIGEAI I  
EKVASYLSVDVDEIRKVNHLHTYESLRLFHSAKAGEFSEYTLPLLLWDRIDEFSGFNKRRKV  
VEEFNASNKWRKRGISRPVAVYAVNMRSTPGRVSVLGDGSIVVEVQGIEIGQGLWTKVKQ  
MAAYSLGLIQCGTTSDELLKIRVIQSDTLSMVQGSMTAGSTTSEASSEAVRICCDGLVE  
RLLPVKTALVEQTGGPVTWDSLISQAYQQSINMSVSSKYMPDSTGEYLN YGIAASEVEVN  
VLTGETTILRTDIYDCGKSLNPAVDLQIEGAFVQGLGFFMLEEFLMNSDGLVVT DSTW  
TYKIPTVDTIPRQFNVEILNSGQHKNRVLSKASGEPPLLLAASVHCAVRAAVKEARKQI  
LSWNSNKQGTDMYFELPVPATMPIVKEFCGLDVVEKYLEWKIQQRKNV

>Q7G192

MSLVFAINGQRFELELSSVDPSTTLLEFLRYQTSFKSVKLSCEGEGGCGACVVLLSKFDPV  
LQKVEDFTVSSCLTLLCSVNHCNITTTSEGLGNSRDGFHP IHKRLSGFHASQCGFCTPGMS  
VSLFSALLDADKSQYSDLTVEAEKAVSGNLCRCTGYRPIVDACKSFASDVIDEDLGLNS  
FCRKGDKSSSLTRFDSEKRICTFPPEFLKDEIKSVDSGMYRWCS PASVEELSSLLEACKA  
NSNTVSMKLVAGNTSMGYKDEREQNYDKYIDITRIPHLKEIRENQNGVEIGSVVTISKV  
IAALKEIRVSPGVEKIFGKLATHMEMIAARFIRNFGSIGGNLVMAQRKQFSDMATILLA  
AGAFVNIMSSSRGLEKLTLEEFLEERSPLEAHDLVLSIEIPFWHSETNSELFFETYRAAPR  
PHGSALAYLNAAF LAEVKDTMVVNCRLAFGAYGTKHAIRCKEIEEF LSGKVIDTKVLYEA  
ITLLGNVVVPEDGTSNPAYRSS LAPGFLFKFLHTLMTHPTTDKPSNGYHLDPPKPLPMLS  
SSQNVPINNEYNPVGPVTKVGASLQASGEAVYVDDIPSP TNCLYGAFIYSKKPFARIKG  
IHFKDDLVP TGVVAVISRKDV PKGGKNIGMKIIGLSDQLFAEDFTTSVGE CIAFVVADTQ  
RHADA AVNLA VVEYETEDLEPPILSVEDAVKSSSLFDIIPFLYPQQVGDTSKGMAEADHQ  
ILSSEIRLGSQYVFYMETQTALAVGDEDNCIVVYSSTQTPQYVQSSVAA CLGIPENNIRV

ITRRVGGGFGGKSVKSMPVATACALAAKKLQRPVRTYVNRKTDMMIMTGGRHPMKITYSVG  
FKSTGKITALELEILIDAGASYGFSMFIPSNLIGSLKKNWGALSFDIKLCKTNLLSRAI  
MRSPGDVQGTYYIAEAI IENIASSLSLEVD TIRKINLH THE SLALFYKDGAGEPHEYTLSS  
MWDKVGVS SSKFEERVS VVREFNESNMWRKRGISRVP I IYEVLLFATPGRVSVLS DGTIVV  
EIGGIELGQGLWTKVKQMTSYALGMLQCDGTEELLEKIRVIQSDSLSMVQGNFTGGSTTS  
EGSCAAVRLCCETLVERLKLPLMERSDGPITWNELISQAYAQSVNLSASDLYTPKDTPMQY  
LNYGTAVSEVEVDLVTGQTTVLQTDILYDCGKSLNPAVDLGGIEGSFVQGLGFFMLEEYI  
EDPEGLLLTDSTWYKIPTVDTIPKQFNVEILNNGGCHEKRVLSSKASGEPPLLLAASVHC  
ATRQAVKEARKQLCMWKGENGSSGSAFQLPVPATMPVVKELCGLDIIESYLEWKLHDNSN  
L

>P04075

MPYQYPALTP EQKKE LSDIAHRIVAPGKGILAADESTGSI AKRLQSIGTENTENRRFYR  
QLLLTADDRVNPCIGGVILFHETLYQKADDGRPFPPQVIKSKGGVVGIKVDKGVVPLAGTN  
GETTTQGLDGLSERCAQYKKGADFAKWRCVLKIGEHTPSALAIMENANVLARYASICQQ  
NGI VPIVEPEILPDGDHDLKRCQYVTEKVLAAVYKALSDHHIYLEGTL LKPNM VTPGHAC  
TQKFSHEEIAMATVTALRRTPPAVTGITFLSGGQSEEEASINLNAINKCPLLKPWALTF  
SYGRALQASALKAWGGKENLKAQQEYV KRALANSLACQ GK YTPSGQAGAAAASESLFVS  
NHAY

>P27995

MALITLRQLLDHAAERLQGYGVP AFNINMEQGLAILAAARACDAPVIASRGARSYAGDI  
MLRHIVEALAE MYPQIPICLHQDHGNNEATCLSAIRHGFTSVMMDGSLQADMKTVASYDY  
NVDITRRVTDAAHWVGASVEGELGVLGSLEKGEAEAEDGSGAEGKLDHSQMLTDPDQAVE  
FVQATRVDALAIAMGTSHGAYKFSRKP DGEILAMRVIEEIHARLPATHLVMHGSSSVAAR  
LQDLINAHGADMPQTYGVPVEEIERGIRHGVRKVNIDTDCRMALTGQFRKVAMESPKFEF  
ARKFMI PAMKEMEALVRDRFERFGTAGNASKITVIPMDDMAKRYASGALDPAVATAKAA

>P0AB71

MSKIFDFVKPGVITGDDVQKVFQVAKENNFALPAVNCVGTDSINAVLETA AKVKAPVIVQ  
FSNGGASF IAGKGVKSDVPQGAA I LGAI SGAHHVHQMAEHYGV PVI LH TDHCAKLLPWI  
DGLLDAGEKHFAATGKPLFSSH MIDLSEESLQENIEICSKYLERMSKIGMTLEIELGCTG  
GEEDGVDNSHMDASALYTQPEDVDYAYTELSKISPRFTIAASFGNVHGVYKPGNVVLTPT  
ILRDSQEYVSKKHNLPHNSLNFV FHGGSGSTAQEI KDSVSYGVVKMNIDTDTQWATWEGV  
LNYYKANEAYLQGGQLGNPKGEDQP NKKYDPRVWLRAGQTSMIARLEKAFQELNAIDVL

>P14223

MAHCTEYMNAPK KLPADVAEELATTAQKLVQAGKGILAADESTQT IKKRFDNIKLENTIE  
NRASYRDL LFGTKGLGKFISGAILFEETL FQKNEAGVPMVNL LHNENIIPGIKVDKGLVN  
IPCTDEEKSTQGLDGLAERCKEYKAGARFAKWRTVLVIDTAKGKPTDLSIHETAWGLAR  
YASICQQNRLVPIVEPEILADGPHSIEVCAVVTQKVLSCVFKALQENGVLLEGALLKPNM  
VTAGYECTAKTTTQDVGF LTVRTLRRTPPALPGVVF LSGGQSEEEASVNLNSINALGPH  
PWALTF SYGRALQASV LNTWQGGKENVAKAREVLLQRAEANS LATYGYKGGAGGENAGA  
SLYEKKYVY

>Q70312

MLVTGLEILRKARAEGYGVGAFNTNMEFTQAILEAAEEMKSPVILALSEGAMKYGGRAL  
TRMVVALAQEARVPVAVHLDHGSSYESVLKALREGFTSVMIDKSHEDFETNVRETKRVVE  
AAHAVGVTVAEALGRLAGIEEHVAVDEKDALLTNPEEARIFMERTGADYLAVAI GTSHGA  
YKKG RPFIDHPRLARI AKLV PAVLVLHGASAVPQELVERFRAAGGEIGEASGIHPEDIK

KAISLGI AKINTD TDLRLAFTALVRETLGKNPK EFDPRKYLGPAREAVKEVVKSRMELFG  
SVGRA

>P14540

MGVEQILKRKTGVIVGEDVHNLFTYAKEHKFAIPAINVTSSSTAVAAL EAARDSKSPIIL  
QTSNGGAAYFAGKGISNEQNASIKGAI AAAHYIRSIAPAYGIPVVLHSDHCAKLLLPWF  
DGMLEADEAYFKEHGEPLFSSHMLDLSEETDEENISTCVKYFKRMAAMDQWLEMEIGITG  
GEEDGVNENADKEDLYTKPEQVYNVYKALHPISPNFSIAAAF GNCHGLYAGDIALRPEI  
LAEHQKYTREQVGCKEEKPLFLVFHGGSGSTVQEFHTGIDNGVVKVNLDTDCQYAYLTGI  
RDYVNLKKDYIMSPVGNPEGPEKPNKKFFDPRVWVREGEKTMGAKITKSL ETRTNTL

>P16661

MFLEIPRWLLALIIILYLSIPLV VYVIPYLFYGNKSTKKRIIFVLGDVGHSPRICYHAI  
SFSKLGWQVELCGYVEDTLPKIISSDPNITVHHMSNLKRKGGGTSVIFMVKKVLFQVLSI  
FKLLWELRGS DYILVQNPPSIPILPIAVLYKLTGCKLIIDWHNLAYSILQLKFKGNFYHP  
LVLISYVMEMIFSKFADYNLTVTEAMRKYLIQS FHLNPKRCAVLYDRPASQFQPLAGDIS  
RQKALTTKAFIKNYIRDDFDTEKGDKIIVTSTSF TPEDEDIGILLGALKIYENSYVKFDSS  
LPKILCFITGKGPLKEKYMKQVEEYDWKRCQIEFVWLSAEDYPKLLQLCDYGVSLHTSSS  
GLDLPMKILDMFGSGLPVIAMNYPVLDELVQHNVNGLKFVDRRELHESLIFAMKDADLYQ  
KLKKNVTQEAENRWQSNWERTMRDLKLIH

>Q9UM73

MGAIGLLWLLPLLLSTAAVSGMG TGQRAGSPAAGPPLQPREPLSY SRLQRKSLAVDFV  
PSLFRVYARDLLLPPSSSELKAGRPEARGLALDCAPLLRLLGPAPGVSWTAGSPAPAEA  
RTL SRVLKGGSVRKLRRAKQLVLELGE EAILLEGCVGPPGEAAVGLLQFNLS ELSFWIRQ  
GEGRLRIRLMPEKKASEVGREGRLSAAIRASQPRLLFQIFGTGHSSLESPTNMPSPSPDY  
FTWNL TWIMKDSFPFLSHRSRYGLECSFDFPCELEYS PPLHDLRNQSWSWRRIPSE EASQ  
MDLLDGPGAERSKEMPRGSFLLLNTSADSKHTILSPWMRSSSEHCTLAVSVHRHLQPSGR  
YIAQLLPHNEAAREILLMPTPGKHGWTVLQGRIGRPNPFRVALEYISSGNRSLSAVDFF  
ALKNCSEGTSPGSKMALQSSFTCWNGTVLQLGQACDFHQDCAQGEDESQMCRKLPVGFYC  
NFEDGFCGWTQGTLS PHTPQWQVRTLKDARFQDHQDHALLLSTTDVPASESATVTSATFP  
APIKSSPCEL RMSWLIRGVL RGNVSLVLVENKTGKEQGRMVWHVAAAYEGLSLWQWMLPL  
LDVSDRFLWQMAWWGQSRAIVA FDNISISLDCYLTISGEDKILQNTAPKSRNLFERNP  
NKELKPGENS PRQTPIFDPTVHWLFTTCGASGPHGPTQAQCNNAYQNSNLSVEVGSEGPL  
KGIQIWKVPATDTYSISGYGAAGGKGGKNTMMRSHGVSVLGI FNLEKDDMLYILVGGQGE  
DACPSTNQLIQKVICIGENNVIEEIRVNRSVHEWAGGGGGGGGATYVFKMKDGVVPLII  
AAGGGGRAYGAKTDTFHPERLENNSSVLGLNGNSGAAGGGGGWNDNTSLLWAGKSLQEGA  
TGGHSCPQAMKKWGWETRGGFGGGGGGCSSGGGGGGYIGGNAASNNDPEMDGEDGVSFIS  
PLGILYTPALKVMEGHGEVNIKH YLNC SHCEVDECHMDPESHKVICFCDHGTVLAEDGVS  
CIVSPTPEPHLPLSLILSVVTSALVAALVLA FSGIMIVYRRKHQELQAMQ MELQSPEYKL  
SKLRTSTIMTDYNPNYCFAGKTSSISDLKEVPRKNITLIRGLGHGAFGEVYEGQVSGMPN  
DPSPLQVAVKTLPEVCSEQDELDFLMEALIISKFNHQNIVRCIGVSLQSLPRFILLELMA  
GGDLKSFLRETRPRPSQPSSLAMLDLLHVARDIACGCQYLEENHF IHRDIAARNCLLTCP  
GPGRVAKIGDFGMARDIYRASYYRKGGCAML PVKWPPEAFMEGIFTSKTDTW SFGVLLW  
EIFSLGYMPYPSKSNQEVLEFVTS GGRMDPPKNC PGVYRIMTQCWQHQPEDRPNFAIIL  
ERIEYCTQDPDVINTALPIEYGPLVEE EKVPRPKDPEGVPLLVSQQAKRE EERSPAA  
PPPLPTTSSGKA AKKPTAAEVSVRVRGPAVEGGHV NMAFSQSNPPSELHKVHGSRNKPT  
SLWNPTYGSWFTEKPTKKNPIAKKEPHDRGNLGL EGSCVPPNVATGR LPGA SLLLEPS  
SLTANMKEVPLFRLRHFP CGNVNYGYQQQLPLEAATAPGAGHYEDTILKSKNSMNQPGP

>P00885

MTTLERPQPKLSMADKAARIDAI CEKARILPVIT IAREEDILPLADALAAGGIRTLEVTL  
RSQHGLKAIQVLRERPELQVAGTVLDRSMFAAVEAAGAQFVVTGPGITEDI LEAGVDSE  
IPLLPGISTPSEIMMGYALGYRRFKLFP AEISGGVAAIKAFGGPF GDIRFCPTGGVNPAN  
VRNYMALPNVMCVGTGWMLDSSWIKNGDWARIEACSAEAIALLDAN

>P0A955

MKNWKTSAESILTTGPVVPVIVVKKLEHAVPMAKALVAGGVRVLEVTLRTECAVD AIRAI  
AKEVPEAIVGAGTVLNPQQLAEVTEAGAQFAISPGLTEPLLKAATEGTIPLIPGISTVSE  
LMLGMDYGLKEFKFFPAEANGGVKALQAIAGPFSQVRF CPTGGISPANYRDYLALKSVLC  
IGGSWLV PADALEAGDYDRITKLAREAVEGAKL

>P44480

MSYTTQQIIIEKLRELKIVPVIALDNADDILPLADTLAKNGLSVAEITFRSEAAA DAIRLL  
RANRPDFLIAAGTVLTAEQVVLAKSSGADFFVVTGPNPKIVKLCQDLNFPITPGVNNPMA  
IEIALEMGISAVKFFPAEASGGVKMIKALLGPYAQLQIMPTGGIGLHNIRDYLAIPNIVA  
CGGSWFVEKKLIQSNNWDEIGRLVREVIDIIK

>Q00384

MRDIDSVMRLAPVMPVLVIEDIADAKPIAEALVAGGLNVLEVTLRTPCALEAIKIMKEVP  
GAVVGAGTVLNAKMLDQAQEAGCEFFVSPGLTADLGKHAVAQKAALLPGVANAA DVMLGL  
DLGLDRFKFFPAENIGGLPALKSMASVFRQVRF CPTGGITPTSAPKYLENPSILCVGGSW  
VVPAGKPDVAKITALAKEASAFKRAAVA

>P63486

MKLQVLPLSQEAFSAYGDVIETQQRDFFHINNGLVERYHDLALVEILEQDRTLISINRAQ  
PANLPLTIHELERHPLGTQAFIPMKGEVFFVVVALGDDKPDLS'TLRAFITNGEQGVNYHR  
NVWHHPLFAWQRVTDFLTIDRGGSDNCDVESIPEQELCFA

>P59285

MRTLMIEPLTKEAFAQFGDVIETDGSDFHMINNGSTMRFHKLATVETAEPEDKAIISIFR  
ADAQDMPLTVRMLERHPLGSQAFIPLLGPNPFLIVVAPVGDAPVSGLVRAFRSNGRQGVNY  
HRGVWHHPVLTIEKRDDFLVVD RSGSGMNCDEHYFTEEQMLILNPHQ

>P77425

MITHFRQAI EETLPWLSSFGADPAGGMTRLLYSPEWLETQQQFKKRMAASGLETRFDEVG  
NLYGRLNGTEYPQEVVLSGSHIDTVVNGGNLDGQFGALAAWL AIDWLKTQYGAPLRTVEV  
VAMAE EEGSRFPYVFWGSKNIFGLANPDDVRNICDAKGN SFVDAMKACGFTLPNAPLTPR  
QDIKAFVELHIEQGC VLESNGQSIGVVNAIVGQRRYTVTLNGESNHAGTTPMGYRRDTVY  
AFSRICHQSVEKAKRMGDPLVLTFGKVEPRPNTVNVVPGKTTFTIDCRHTDAAVLRDFTQ  
QLENDMRAICDEMDIGIDIDLWMDEEPVPMNKELVATLTEL CEREKLNRYVMHSGAGHDA  
QIFAPRVPTCMIFIP SINGISHNPAERTNITDLAEGVKT LALMLYQLAWQK

>Q01594

MVESYKKIGSCNKMPCLVILTICIIMSNSLVNNNMVQAKMTWTMKA AEEAEAVANINCSE  
HGRAFLDGI ISEGPSKCECNTCYTGPDCSEKI QGCSADV ASGDGLFLEEYWKQHKEASAV  
LVSPWHRMSYFFNPVSNFISFELEKTIKELHEVVGNA AAKDRYIVFGVGTQLIHGLVIS  
LSPNMTATPDAPESKVV AHAPFPVFREQT KYFNKKG YVWAGNAANYVNVSNPEQYIEMV  
TSPNNPEGLLRHAVIKGCKSIYDMVYYWPHYTP IKYKADEDILLF'TMSKF'TGHSGSRFGW  
ALIKDES VYNNLLNYMTKNTEGTPRETQLRSLKVLKEVVAMVKTQKGTMRDLNTFGFKKL

RERWVNITALLDQSDRFSYQELPQSEYCNFRMRPPSPSYAWVKCEWEEDKDCYQTFQN  
GRINTQNGVGFEEASSRYVRLSLIKTQDDFDQLMYYLKDMVKAKRKTPLIKQLFIDQTETA  
SRRPFI

>P0ACN4

MTEVRRRGRPGQAEFVAQKGAQALERGIAILQYLEKSGSSSVSDISLNLDDLPLSTTFRL  
LKVLAADDFVYQDSQLGWWHIGLGVFNVAAYIHNRDVLVAGPFMRRLMLLSGETVNVA  
IRNGNEAVLIGQLECKSMVRMCAPLGSRLPLHASGAGKALLYPLAEELMSIILQTGLQQ  
FTPTTLVDMPTLLKDLQARELGYTVDKKEHVVLNCIASAIYDDVGSVVAISISGPSS  
RLTEDRFVVSQGELVRDTARDISTALGLKAHP

>P04841

MAIPDEFDIIIVVGGSTGCCIIAGRLANLDDQNLTVALLIEGGENNINNPWVYLPGVYPRNM  
RLDSKTATFYSSRPSKALNGRRAIVPCANILGGGSSINFLMYTRASASDYDDWESEGWST  
DELLPLIKKIETYQRPCNNRDLHGFDGPIKVSFGNYTYPTCQDFLRAAESQGIPIVDDLE  
DFKTSHGAHHLKWINRDLGRRSDSAHAYVHPTMRNKQSLFLITSTKCDKVIIEEDGKAVA  
VRTVPMKPLNPKKPVSRTRFRARKQIVISCGTISSPLVLQRSGIGAAHHLRSVGVKPIVDL  
PGVGENFQDHYCFFTPYYVKPDVPTFDDFVRGDPVAQKAAFDQWYSNKDGPLTTNGIEAG  
VKIRPTEEELATADEDFRRGYAEYFENKPKPLMHYSVISGFFGDHTKIPNGKFMFMFHF  
LEYPFSRGFVRITSANPYDAPDFDPGFLNDRDLWPMVWAYKKSRETARRMESFAGEVTS  
HHPLFKVDSPARARDLDLETCSAYAGPKHLTANLYHGSWTVPIDKPTPKNDFHVTSNQVQ  
LHSDIEYTEEDDEAIVNYIKEHTETTWCHLGTCSMAPREGSKIAPKGGVLDARLNVYGVQ  
NLKVADLSVCPDNVGCNTYSTALTIGEKAATLVAEDLGYSGSDLDMTIPNFRLGTYYEETG  
LARF

>Q63042

MRTQQKRDIKFREDCPQDREELGRNTWAFHLHTLAAYYPDMPTPEQQQDMAQFIHIFSKFY  
PCEECAEDIRKRIDRSQPDSTSTRVSFSQWLRLHNEVNRKLGKPDFDCSRVDERWRDQWK  
DGSCD

>P37112

MTKEEIKRLVDEVKTDVIAWRRHLHAHPELSFQEEKTAQFVYETLQSFHLELSRPTKTS  
VMARLIGQQPGRVVAIRADMDALPIQEENTFEFASKNPGVMHACGHGHTAMLLGTAKIF  
SQLRDDIRGEIRFLFQHAEEELFPGGAEEMVQAGVMDGVDVVIGTHLWSPLERKIGIVYG  
PMAAPDRFFIRIIGKGGHGAMPHQTTIDAIAIGAQVVTNLQHIVSRYVDPLEPLVLSVTQ  
FVAGTAHNVLPEVEIQGTVRTFDETLRRTVPPQWMERIVKGITAEHAGASYEFRFDYGYRP  
VINYDEGDPRHGGNGVRAVRRRGSGLPLETEHGRRRFLRLFAKSARQLFLRRRGQCRKRHR  
LPAPPPALYD

>P11436

MRHGDISSSNDTVGVAVVNYKMPRLHTAAEVLNARKIAEMIVGMKQGLPGMDLVVFPPEY  
SLQGIMYDPAEMMETAVAIPEGETEIFSRACRKANVWGVFSLTGERHEEHPRKAPYNTLV  
LIDNNGEIVQYRKIIPWCPIEGWYPGGQTYVSEGPKGMIISLIICDDGNYPEIWRDCAM  
KGAELIVRCQGYMPAKDQQVMMAKAMAWANNCYVAVANAAGFDGVYSYFGHSAIIGFDG  
RTLGECEGEEEMGIQYAQLSLSQIRDARANDQSQNHLFKILHRGYSGLQASGDGDRGLAEC  
PFEFYRTWVTDAEKARENVERLTRSTTGVAQCPVGRLPYEGLEKEA

>O25836

MGSIGSMGKPIEGFLVAAIQFPVPIVNSRKIDHNIIESIIRTLHATKAGYPGVELIIFPE  
YSTQGLNTAKWLSEEFLLDVPKETEYAKACKEAKVYGVFSIMERNPDSNKNPYNTAII

IDPQGEIILKYRKLFPWNP IEPWYPGDLGMPVCEGPGGSKLAVCI CHDGM IPELAREAA Y  
KGCNVYIRISGYSTQVNDQWIL TNRSNAWHNLMYTVSVNLAGYDNVFFYFGEQQICNFDG  
TTLVQGHRNPWEIVTGEIYPKMADNARLSWGLENNIYNLGHRYGVAKPGGEHDAGLTYIK  
DLAAGKYKLPWEDHMKIKDGS IYGYPTTGGRFGK

>Q12556

MLPHPLAILSEEETNIARNVILA QHPNTVIDFREIYLSEPPKAQLLEFLALEHSGRLSPT  
SPRPPRLALCQYDVIGNDRI PSFEESVVDVGTQRVQHRVVGKEHHASLTLSEFDTLVER  
CFASPLFQKALADFDLPEGFEVVI EPWPYGGLDYVEEKRRYFQGLCFATDKRKNNDANF  
YSYPLPLIPVMDALTQE IIRVDRPATGGKGEGLTEQTFKRDI IGHCKDSDYVPELNPGGT  
RKDLKPLNVVQPEGPSFRITEESLVEWQKWRFRVAFNPREGATI HDVWYDGRSVLYRLSV  
SEMTVPYADPRPPFHRKQAFDFGDGGGNMANNLSIGCDCLGVIKYFDAVMTGADGSAKK  
MPNAICLHEQDNGIGWKHSNWR TGRAVVTRHRELVVQF IITLANEYEIFAYKFDQSGGIT  
VESRATGILNVVNIDAGKVSEYGNVVS GGVL AQNHQHIFCVRIDPAIDGPNSVQVEESH  
PVPMAVTPNPNNGFYKVTETMERAGFFDAAPELNRTVKMVPNHKKNPISQKPVGYKFI P  
LATQRLADPNSIQARRAQFAQHVVWTKYRDGELYAGGRYTLQSQEEIEGVSDAVKRGD  
SVVDTDVVVWSTFGITHNPRVEDWPVMPVEIFQLMIRPADFF'TANPSLDVPSDKNISSRV  
VGNDCCRNAHI

>P46883

MGSPSLYSARKTTLALAVALSFAWQAPVFAHGGEAHMVPMDKTLKEFGADVQWDDYAQLF  
TLIKDGAYVKVPGAQTAIVNGQPLALQVPVVMKDNKAWVSDTFINDVFQSGLDQTFQVE  
KRPHPLNALTAD EIKQAVEIVKASADFKPNTRFTEISLLPPDKEAVWAFALENK PVDQPR  
KADVIMLDGKHIIEAVVDLQNNKLLSWQPIKDAHGMVLLDDFASVQNIINNSEEFAAAVK  
KRGITDAKKVITTPLVG YFDGKDGLKQDARLLKVISYLDVGDGNYWAHP IENLVAVVDL  
EQKKIVKIEEGPVVPVPM TARPFDGRDRVAPAVKPMQIEPEGKNYTTITGDMIHWRNWDF  
HLSMNSRVGPMISTVTYNDNGTKRKVMYEGSLGGMIVPYGDPDIGWYFKAYLDSGDYGMG  
TLTSP IARGKDAPSNAVLLNETIADYTGVPMEIPRAIAVFERIYAGPEYKHQEMGQPNVST  
ERRELVVRWISTVGN YDIIFDWIFHENG TIGIDAGATGIEAVKGVKAKTMHDE TAKDDTR  
YGTLDHNI VGTTHQHIYNFRLDLVDGNNSLVAMDPVVKPNTAGGPR TSTMQVNQYNI  
GNEQDAAQKFDPGTIRLLSNPNKENRMGNPVS YQIIPYAGGTHPVAKGAQFAPDEWIYHR  
LSFMDKQLVWTRYHPGERFPEGKYPNRSTHDTGLGQYSKDNESLDNTDAVVWMTGTTHV  
ARAEWPIMPTEWVHTLLKPWNFFDETPTLGALKKDK

>Q43077

MAS TTTMR LALFSVL TLLSFHAVVSVTPLHVQHPLDPLTKEEFLAVQTIVQNKYPI SNNR  
LAFHYIGLDDPEKDHLVRYETHPTLVSI PRKIFVVAIINSQTHEILINLRIRSI VSDNIH  
NGYGFPI LSVDEQSLAIKLPKYPPIFIDSVKKRGLNLSEIVCSSFTMGWFGEEKNVRTVR  
LDCFMEKESTVNIYVRPITGITIVADLDL M KIVEYHDRDIEAVPTAENT EYQVSKQSPFPG  
PKQHSLTSHQPQGPFGQINGHSVSWANWKFHIGFDVRAGIVISLASIYDLEKHKSRRLVY  
KGYISELFPVYQDPTEEFYFKTFFDSGEFGFGLSTVSLIPNRDCPPHAQFIDTYVHSANG  
TPILLKNAICVFEQYGNIMWRHTENGIPNESIEESRTEVNLI VRTIVTVGN YDNVIDWEF  
KASGSIKPSIALSGILEIKGTNIKHKDEIKEDLHGKLV SANSIGIYHDHFYIYYLDFDID  
GTHNSFEKTS LKTVRIKDGSSKRKSYWTTETQTAKTESDAKITIGLAPAE LVVNPNIKT  
AVGNEVGYRLIPAIPAHP LLLTEDDYPQIRGAFTNYNVWVTAYNRTEKWAGGLYVDHSRGD  
DTLAVWTKQNR EIVNKDIVMWHVVG IHHVPAQEDFPIMPLLSTSFELRPTNFFERNPVLK  
TLSPRDVAWP GCSN

>P12807

MERLRQIASQATAASAAPARPAHPLDPLSTAEIKAATNTVKS YFAGKKISFNTVTLREPA

RKAYIQWKEQGGPLPPRLAYVILEAGKPGVKEGLVDLASLSVIETRALETVQPILTVED  
LCSTEEVIRNDPAVIEQCVLSGIPANEMHKVYCDPWTIGYDERWGTGKRLQQALVYYRSD  
EDDSQYSHPLDFCPIVDTEEEKKVFIFIDIPNRRRKVSKHKHANFYPKHMIKVGAMRPEAP  
PINVTQPEGVSFKMTGNVMEWSNFKFHI GFNYREGIVLSDVSYNDHGNVRPIFHRISLSE  
MIVPYGSPEFPHQRKHALDIGEYGAGYMTNPLSLGCDCKGVIHYLDAHFSDRAGDPITVK  
NAVCIHEEDDGLLFKHSDFRDNFATSLVTRATKLVVSIQIFTAANYEYCLYWVFMQDGAIR  
LDIRLTGILNTYILGDDEEAGPWGTRVYPNVNAHNHQLHFLSLRIDPRIDGDGNSAAACDA  
KSSPYPLGSPENMYGNAFYSEKTTFFKTVKDSL TNYESATGRSWDIFNPNKVN PYS GKPPS  
YKLVSTQCPPLLAKEGSLVAKRAPWASHSVNVVVPYKDNRLYPSGDHVPQWSGDGVRGMRE  
WIGDGSENIDNTDILFFHTFGITHFPAPEDFPLMPAEPITLMLRPRHFFTENPGLDIQPS  
YAMTTSEAKRAVHKETKDKTSRLAFEGSCCGK

>P68767

MEFSVKSGSPEKQRSACIVVGVFEPRRLSPIAEQDKISDGYISALLRRGELEGKPGQTL  
LLHHVNVLSERILLIGCGKERELDERQYKQVIQKTINTLNDTGSMEAVCFLTELVHKGR  
NNYWKVRQAVETAKETLYSFDQLKTNKSEPRRPLRKMVFNVPTRRELTSGERAIQHGLAI  
AAGIKA AKDLGNMPPNICNAAYLASQARQLADSYSKNVI TRVIGEQQMKELGMHSYLA VG  
QGSQNESLMSVIEYKGNASEDARPIVLVVGKGLTFDSGGISIKPSEGMDMKYDMCGAAAV  
YGVMRMVAELQLP INVIGVLACENMPGGRAYRPGDVLTTMSGQTV EVLNTDAEGRVLVC  
DVLTYVERFEPEAVIDVATLTGACVIALGHHITGLMANHNPLAHELIAASEQSGDRAWRL  
PLGDEYQEQLSNFADMANIGGRP GGAITAGCFLSRFTRKYNWAHLDIAGTAWRS GKAKG  
ATGRPVALLAQFLLNRAGFN GEE

>Q01433

MRNRGQGLFRLRSRCFLHQSLPLGAGRRKGLDVAEPGPSRCRSDSPA VAAVVPAMASYPS  
GSGKPKAKYPFKKRASLQASTAAPEARGGLGAPPLQSARSLPGPAPCLKHFPLDLRTSMD  
GKCKEIAEELFTRSLAESELRSAPYEFPEESPIEQLEERRQLERQISQDVKLEPDILLR  
AKQDFLKTDSDDLQLYKEQGEQGDRLRERDVLEREFQRVTISGEEKCGV PFTDLLDA  
AKSVVRAFIREKYMALSLQSFCTTRRYLQQLAEKPLETRTYEQGPDTPVSADAPVHPP  
ALEQHPYEHCEPSTMPGDLGLGLRMVRGVVHVYTRREPDEHCSEVELPYPD LQE FVADV N  
VLMALIINGPIKSF CYRRLQYLS SKFQMHVLLNEMKELAAQKVP HRDFYNIRKVDTHIH  
ASSCMNQKHL LRFIKRAMKRHLEEIVHVEQGREQTLREVFESMNL TAYDLSVDTL DVHAD  
RNTFHRFDKFN AKYNPIGESVLREIFIKTDNRVSGKYFAHIKEVMSDLEESKYQNAELR  
LSIYGRSRDEWDKLARWAVMHRVHSPNVRWL VQVPR LFDVYR TKGQLANFQEMLENI FLP  
LFEATVHPASHPELHLFLFLEHVDGFDSDVDESKPENHVFNLESPLPEAWVEEDNPPYAYYL  
YYTFANMAMNLRRQRGFHTFVLRPHCGEAGPIHHLVSAFMLAENISHGLLLRKAPVLQ  
YLYYLAQIGIAMSP LSNNSLFLSYHRNPLPEYLSRGLMVSLSTDDPLQFHF TKEPLMEEY  
SIATQVWKLSSCDMCELARNSVLM SFGSHKVKSHWLGP NYTKEGPEGNDIRRTNVPDIRV  
GYRYETLCQELALITQAVQSEMLETIP EEAGITMSPGPQ

>Q01432

MPRQFPKLNISEVDEQVRL LAEKVFAKVLREEDSKDALSLFTVPEDCPIGQKEAKERELQ  
KELAEQKSVETAKRKSFKMIRSQSLSLQMP PQDWKGPPAASPAMSP TTPVVTGATSLP  
TPAPYAMPEFQRVTISGDY CAGITLEDYEQA AKSLAKALMIREKYARLAYHRFP RITSQY  
LGHPRADTAPPEEGLPDFHPPPLPQEDPYCLDDAPPNLDYLVHMQGGILFVYDNKKMLEH  
QEPHSLPYPDLETYTVDM SHILALITDGPTKTYCHRRLNFL ESKFSLHEMLNEMSEFKEL  
KSNPHRDFYNVRKVDTHIHAAACMNQKHL LRFIKHTYQTEPDRTVAEKRGRKITLRQVFD  
GLHMDPYDLTVDSL DVHAGRQTFHRFDKFN SKYNPVGASELRDLYLKTENYLGGEYFARM  
VKEVARELEESKYQYSEPRLSIYGRSPEEWPNLAYWFIQHKVYSPNMRWIIQVPR IYDIF  
RSKLLLPNFGKMLENIFLPLFKATINPQDHRELHLFLKYVTGFDSVDESKHSDHMFSDK

SPNPDVWTSEQNPPYSYLYMYANIMVLNMLRRERGLSTFLFRPHCGEAGSITHLVSAF  
LTADNISHGLLLKKSPLVLYLYLAQIP IAMSPLSNNSLFLEYSKNPLREFLHKGLHVSL  
STDDPMQFHYTKEALMEEYAIAAQVWKLSTCDLCEIARNSVLQSGLSHQEKQKFLGQNY  
KEGPEGNDIRKTNVAQIRMAFRYETLCNELSFLSDAMKSEEITALTN

>O80452

MEPNYQLALALFGASFVAVSGFFMHFKALNLVLERGKERKENPDGDEPQNPTLVRRRS  
QVRRKVNDQYGRSPASLPDATPFTDGGGGGGGDTGRSNGHVYVDEIPPGLPRLHTPSEGR  
ASVHGASSIRKTGSFVRPISPSPKSPVASASAFESVEESDDDDNLTNSEGLDASYLQANGDN  
EMPADANEEQISMAASSMIRSHSVSGDLHGVQPDPIAADILRKEPEQETVFRNLNVPLEVP  
TSDEVEAYKCLQECLERKRYVQETVAPWEKEVISDPSTPKPNTEPFAHYPPQKSDHCF  
EMQDGVVHVFANKDAKEDLFPVADATAFFTDLHHVLKVIAGNIRTLCHRRLVLLLEQKFN  
LHLMLNADKEFLAQKSAPHRDFYNVRKVDTHVHHSACMNQKHLRFLKSKLRKEPDEVVI  
FRDGTYLTLREVFEESLDLTGYDLNVDLLDVHADKSTFHRFDKFNLYNPNCGQSRLEIFL  
KQDNLIQGRFLGEITKQVFSLEASKYQMAEYRISYGRKMSEWDQLASWIVNNDLYSEN  
VVWLIQLPRLYNIYKDMGIVTSFQNILDNIFIPLEFATVDPDHPQLHVFLKQVVGFDLV  
DDESKPERRPTKHMPTPAQWTNAFNPAFSYVYCYANLYVLNKLRESKGMTTITLRPHS  
GEAGDIDHLAATFLTCHSIAHGINLRKSPVLQYLYLAQIGLAMSPLSNNSFLDYHRNP  
FPVFFLRGLNVSLSTDDPLQIHLTKEPLVEEYSIAASVWKL SACDLCEIARNSVYQSGFS  
HALKSHWIGKDYYKRGPDGNDIHKTNPVPHIRVEFRDTIWKEEMQQVYL GKAVISDEVVP

>Q54DD0

MSTPLRGSSPQVSFYESELDQEGGSDASHFTYRNYMEDDKINSFTFMARKDQTQLFQRI  
ILTNESESEIEEYAEVAEQLLDAINLREKYVFHPKIWKADAPVGEKPPYSPFESDESTNC  
ATEHMFKEVNGVYFVYSNETDMKSNKALFSVPHTLASYYKDINNLMMLSSYGPACTFTFK  
RLQLLESKFNMTLLNDSLELFQOKTAPHRDFYNVRKVDTHVHSSSMNQKHLKFKIKR  
LKENPNEIVI FRDDKYLTLAEVFKSLNLDVDELSVDTL DVHADNNTFHRFDKFNLYNPC  
GQSRLEIFLKTDLNIKGYLAEISKEVFTDLESSKYQCAEYRLSIYGRKMSEWDTLASW  
IVDNDLFSTKVRWLIQVPRLYDVYRETSTTTFFQDFLNNVHFPLFEVTKDPSSHPKLHLFL  
QQVVGIDCVDDDESKFEKFKTEKFPVPGEWSSEHNPPYTYLYLYLANLYTLNQFREEKGL  
NILTLRPHSGEAGEVDHMGAAFYLAHGINHGINLRKTPVLQYLYLTQIGIAMSPLSNNS  
LFLTYNRNPFPAFFARGLNVSISTDDPLQFHYTKEPLMEEYSIATQVWRLSVCDICEIAR  
NSVLQSGFEHNVKSHWLGPDYANSGGNDIKKTNISDIRVCFRNETLIEELHLILKSLQTL  
PNFKNLNINFLLDKLPSEITTGNDYKLLKKAQLKLNKLNKLNSSVSGSTPNNGTPSSSGTP  
SLSSPGAIVHLMKTKPIPPPLSLNIKQENNNNNNNNNNNNNNNNNNNNTNTNTNSNSTTT  
NQDDNSKSDK

>P15274

MDNQATQRLNDLSLEPAPSHDEQDGSGLVIDIDQRKIGDEQAGVVVDETPPLEQQDSHE  
SLAADSRNANFSYHENQQLLENGTKQLALDEHDSHSAILEQPSHSTNCSSSNIAAMNKGH  
DSADHASQNSGGKPRTLSASAQHILPETLKSFAGAPVVNKQVRTSASYKMGM LADDASQQ  
FLDDPSSSELIDLYSKVAECRNLRAKYQTI SVQNDQNPKNKPGWVYPPPPKPSYNSDTK  
TVVPVTNKPDAEVDFDKCEIPGEDPDWEFTLNDDDSYVHRSGKTDELIAQIPTLRDYY  
LDLEKMISISSDGPASFAYRRLQYLEARWNLYYLLNEYQETS VSKRNPHRDFYNVRKVD  
THVHHSACMNQKHLRFLIKHKLRSKDEKVI FRDGKLLTLDEVFRSLHLTG YDLSIDTLD  
MHAHKDTFHRFDKFNLYNPIGESRLREIFLKTNNYIKGTYLADITKQVIFDLENSKYQN  
CEYRISVYGRSLDEWDKLASWVIDNKVISHNVRWL VQIPRLYDIYKKTGIVQSFQDICKN  
LFQPLFEVTKNPQSHPKLHVFLQRVIGFDSVDDDESKVDRRFHRKYPKPSLWEAPQNPPYS  
YYLYLYLSNVASLNQWRKRGFNTLVLRPHCGEAGDPEHLVSAYLLAHGISHGILLRKVP  
FVQYLYYLDQVGIAMSPLSNALFLTYDKNPFPRYFKRGLNVSLSTDDPLQFSYTREPLI



EEYSVAAQIYKLSNVDMCELARNSVLQSGWEAQIKKHWIGKDFDKSGVEGNDVVRTNVPD  
IRINYRYDTLSTELELVNHFANFKRTIEEK

>Q07075

MNFAEREGSKRYCIQTKHVAAILCAVVVGVGLIVGLAVGLTRSCDSSGDGGPGTAPAPSHL  
PSSTASPSGPPAQDQDIPASEDESGQWKNFRLPDFVNPVHYDLHVKPLLEEDTYTGTVS  
ISINLSAPTRYLWLHLRETRITRLELKRPSGDQVQVRRRCFEYKKQEYVVVEAEELTPS  
SGDGLYLLTMEFAGWLNGSLVGFYRTTYTENGRVKSIVATDHEPTDARKSFPFCFDEPNKK  
ATYTTISITHPKEYGALSNNMPVAKEESVDDKWTRTTFEKSVPMSSTYLVCFAVHQFDSVKRI  
SNSGKPLTIYVQPEQKHTAEYAANITKSVFDYFEEYFAMNYSLPKLDKIAIPDFGTGAME  
NWGLITYRETNLLYDPKESASSNQQRVATVVAHELVAHQWFGNIVTMDWEDLWLNNEGFAS  
FFEFLGVNHAETDWQMRDQMLLEDVLPVQEDDSLMSHP IIVTVTTPDEITSVFDGISYS  
KGSSILRMLLEDWIKPENFQKGCQMYLEKYQFKNAKTSDFWAALAEASRLPVKEVMDTWTR  
QMGYPVLNVNGVKNITQKRFLLDPRANPSQPPSDLGYTWNIPVKWTEDNITSSVLFNRSE  
KEGITLNSNPSGNAFLKINPDHIGFYRVNYEVATWDSIATALSLNHKTFSSADRASLID  
DAFALARAQLLDYKVALNLT KYL KREENFLPWQRVISAVTYIISMFEEDKELYPMIEEYF  
QGQVKPIADSLGWNDAGDHVTKLLRSSVLGFACKMGDREALNNASSLFEQWLNQTVSLPV  
NLRLLVYRYGMQNSGNEISWNYTLEQYQKTSLAQEKEKLLYGLASVKNVTLLSRYL DLLK  
DTNLIKTDQDVFTVIRYISYNSYGNMAWNWIQLNWDYLVNRYTLNRRNLGRIVTIAEPPFN  
TELQLWQMESFFAKYPQAGAGEKPREQVLETVKNNIEWLKQHRNTIREWFFNLLESG

>P00727

MFLPLPAAARVAVRHL SVKRLWAPGPAADMTKGLVLGIYSKEKEEDEPQFTSAGENFN  
KLVSGKLR EILNISGPPLKAGKTRTFYGLHEDFP SVVVVGLGKKTAGIDEQENWHEGKEN  
IRAAVAAGCRQIQDLEIPSVEVDPCGDAQAAAEGAVLGLYEYDDLKQKRKVVS AKLHGS  
EDQEAWQRGVLFASGQNLARRLMETPANEMTPTKFAEIVEENLKSASIKTDVFI RPKSWI  
EEQEMGSFLSVAKGSEPPVFLEIHYKGNASEPPLVGVGKITFDSSGGISIKAAANMD  
LMRADMGGAATICS AIVSAAKLDLPINIVGLAPL CENMPSGKANKPGDVVRARNGKTIQV  
DNTDAEGRLLIADALCYAHTFNPKVIINAATLTGAMDIALGSGATGVFTNSSWLWNKLF E  
AS IETGDRVWRMPLFEHYTRQVIDCQLADVNNIGKYRSAGACTAAAF LKEFVTHPKWAHL  
DIAGVMTNKDEV P YLRKGMAGRPTRTLIEFLFRFSQDSA

>P15144

MAKGFYISKSLGILGILLGVAAVCTIIALS SVVYSQEKKNANSSPVASTTPSASATTNPA  
SATTLDQSKAWNRYRLPNTLKPDSYRVTLR P YLTPNDRGLYVFKGSSTVRFTCKEATDVI  
I IHSKKNLNYTLSQHRVVL RGVGGSQPPDIDKTELVEPTEYLVVHLKGS LVKDSQYEMDS  
EFEGELADDLAGFYRSEYMEGNVRKV VATTQMQAADARKSFPFCFDEPAMKAEFNITLIHP  
KDLTALS NMLPKGPSTPLPEDPNWNVTEFH TTPKMSTYLLAFIVSEFDYVEKQASNGVLI  
RIWARPSAIAAGHG DYALNVTGPILNFFAGHYDTPYPLPKSDQIGLPDFNAGAMENWGLV  
TYRENSLLFDPLSSSSSKNERVVTVIAHELAHQWFGNLTIEW WNDLWLNNEGFASYVEYL  
GADYAEPTWNLKDLMLVNDVYRVM AVDALASSHPLSTPASEINTPAQISELFD A I SYSKG  
ASVLRMLSSSFLSEDVFKQGLASYLHTFAYQNTIYLNLDHDLQEAVNNRSIQLP TTVRDIM  
NRWTLQMGFPVITVDTSTGTL S QEHFLLD PDSNVTRPSEFN YVWIVPITSIRDGRQQQDY  
WLIDVRAQNDL FSTSGNEWVLLNLNVTGYRRVNYDEENWRKIQTQLQRDHS AIPVINRAQ  
IINDAFNLASAHKVPVTLALNNTLFLIEERQYMPWEAALS SLSYFKLMFDRSEVYGP MKN  
YLKKQVTPLF I HFRNNTNNWREIPENLMDQYSEVN AISTACSNGVPECEEMV SGLFKQWM  
ENPNNNPIHPNLRSTVYCNAIAQGGEEEWDF AWEQFRNATLVNEADKLR AALACSKELWI  
LNRYLSYTLNPD LIRKQDATSTIISITNNVIGQGLVWDFVQSNWKKL FNDYGGGSFSFSN  
LIQAVTRRFSTEYELQQLEQFKKDNEETGFGSGTRALEQALEKTKANIKWVKENKEVVLQ  
WFTENSK

>P0A3Z2

MAEELTPENPAIPETPEETEPEIKQRKNGLYPGVSDLAENMQSGWADTELHDLEPIAQA  
AETAARRAALSARFPGERLVIIPAGNLKTRSNDTEYSFRASVEYAYLTGNQTEDGVLVMEP  
EGDGHAAATIIYLLPRSDRENGEFWDGQGELWVGRRHSLAEAGELYGIPASDVRELAGSLR  
EATGPVRRVVRGFDAGIEAALTDKVTAERDEELRVFLSEARLVKDEFEIGELQKAVDSTVR  
GFEDVVKVLDRAEATSERYIEGTFFLRARVEGNDVGYGSI CAAGPHACTLHWVRNDGPVR  
SGDLLLLLDAGVETHTYTADVTRTLPISGTYSELQKKIYDAVYDAQEAGIAAVRPGAKYR  
DFHDASQRVLAERLVEWGLVEGPVERVLELGLQRRWTLHGTHMLGMDVHDCAAARVESY  
VDGTLPEGMVLTVEPGLYFQADDLTVPEEYRGIGVRIEDDILVTADGNRNL SAGLPRRSD  
EVEEWMAALKG

>P15034

MSEISRQEFQRRRQALVEQMOPGSAALIFAAPVTR SADSEYPYRQNSDFWYFTGFNEPE  
AVLVLIKSDDTHNHSVLFNRVRDLTAEIWFGRRLGQDAAPEKLGVDRALAFSEINQQLYQ  
LLNGLDVVYHAQGEYAYADVIVNSALEKLRKGSRQNL TAPATMIDWRPVVHEMRLFKSPE  
EIAVLR RAGEITAMAHTRAMEKCRPGMFEYHLEGEIHHEFNRHGARYPSYNTIVGSGENG  
CILHYTENECEMRDGLVLIDAGCEYKGYAGDITRTFPVNGKFTQAQREIYDIVLESLET  
SLRLYRPGT SILEVTGEVVRIMVSGLVKLGILKGDVDELIAQNAHRPFFMHGLSHWLGLD  
VHDVGVYQDRSRILEP GMVLTVEPGLYIAPDAEVPEQYRGIGIRIEDDIVITETGNENL  
TASVVKKPEEIEALMVAARKQ

>P10537

MAPIPGVMPIGNYVSLYVMLPLGVVNADNVFPDKEKVEDELKQVKAGGCDGVMVDVWWGI  
IEAKGPKQYDWSAYRELFQLVKKCGLKIQAIMSFHQCGGNVGDVAFIPIPQWILQIGDKN  
PDIFYTNRAGNRNQEYLSLGVNDQRLFQGRTALEMRYRDFMESFRDNMADFLKAGDIVDIE  
VGCGAAGELRYPSYPETQGWVFPGIGEFQCYDKYMVADWKEAVKQAGNADWEMP GKAGT  
YNDTPDKTEFFRPNGT YKTDMGKFFLTWYSNKLIIHGDQVLEEANKVFVGLRVNIAAKVS  
GIHWYVNHVSHAAELTAGFYNVAGRDGYRPIARMLARHHATLNFTCLEMRDSEQP AEAKS  
APQELVQQVLS SGWKEYIDVAGENALPRYDATAYNQMLLNVRPNGVNLNGPPKLM SGLT  
YLRLSDDLQTDNFELFKKFVKMHADLDPSPNAISP AVLERSNSAITIDELMEATKGSR  
PFPWYDVTDM PVDG S N PFD

>P03880

MRILKSHPLLKIVNSYIIDSPQPANLSYLWNFGSLLALCLGIQIVTGVTLAMHYTPSVSE  
AFNSVEHIMRDVNNGLVRYLHSNTASAFFFLVYLHIGRGLYYSYKTPRRTL TWAIGTVI  
LIVMMATAFLGYVLPYGQMSLWGATVITNLMSAIPWIGQDIVEFIWGGLYTDEPQCGDVL  
LKILLNAGKSPILGFAYDLFFIIVLLIGVKIAMTRGKSAGVRS LHTSEASQRLHAGDLTY  
AYLVGLFEGDGYFSITKKGKYLTYELGIELSIKDVQLIYKIKKILGIGIVSFRKINEIEM  
VALRIRDKNHLKSFILPIFEKYPMFSNKQYDYLRFRNALLSGIISLEDLPDYTR SDEPLN  
SIESIINTSYFSAWL VGFIEAEGCFSVYKLNKDDDYLIASF DIAQRDGDILISAIRKYLS  
FTTKVYLDKTNCSKLVKVT SVRSVENI IKFLQ NAPVKLLGNKKLQYLLWLKQLRKISRYSY  
KIKIPSNY

>Q02219

MKRQALAAMIASLFALAAACGGEQAAQAPAETPAASAEAAASSAAQATAETPAGELPVIDAV  
TTHAPEVPPAIDRDYPAKVRVKMETVEKTMKMDDGVEYRYWTFDGDVPGRMIRVREGDTV  
EVEFSNNPSSTVPHNVDFHAATQGGGAAATFTAPGRTSTFSFKALQPGLYIYHCAVAPV  
GMHIANGMYGLILVEPK EGLPKVDKEFYIVQGFYTKGKKGAQGLQPFDMDKAVAEQPEY  
VVFNGHV GSIAGDNALKAKAGETVRMYVGN GGNLVSSFHVIGE I FDKVYVEGGKLINE

VQSTIVPAGGSAIVEFKVDIPGSYTLVDHSIFRAFNKGALGQLKVEGAENPEIMTQKLS  
TAYAGSGAASAPAASAPAASAPAASASEKSVY

>P18910

MPGSRRVRPRLRALLLLPPLLLLRGGHASDLTVAVVLPPLTNTSYPSWARVGPVELALA  
RVKARPDLLPGWTVRMVLGSSENAAGVCSDTAAPLAAVDLKWEHSPAVFLGPGCVYSAAP  
VGRFTAHRVPLLTAGAPALGIGVKDEYALTTRTGP SHVKLGDFVTALHRRRLGWEHQALV  
LYADRLGDDRPCFFIVEGLYMRVRERLNI TVNHQEFVEGDPDHYPKLLRAVRRKGRVIYI  
CSSPDAFRNLMLLALNAGLTGEDYVFFHLDVFGQSLKSAQGLVPQKPWERGDGQDRSARQ  
AFQAAKIITYKEPDNPEYLEFLKQLKLLADKKFNFTVEDGLKNIIPASFHDGLLLYVQAV  
TETLAQGGTVTDGENITQRMWNRSFQGVGTGYLKIDRNGDRD TDFSLWMDPETGAFRVVL  
NYNGTSQELMAVSEHKLYWPLGYPPPDPVKCGFDNEDPACNQDHFSTLEVLALVGSLSLI  
SFLIVSFFIYRKMQLKELVSELWRVRWEDLQPSSELRHLSAGSRLTSLGRGSNYGSL  
TTEGQFQVFAKTAYYKGNLVAVKRVNRKRIELTRKVL FELKHM RDVQNEHLTRFVGACTD  
PPNICILTEYCPRGLQDILENESITLDMFRYSLTNDIVKGMFLHNGAICSHGNLKSS  
NCVVDGRFVLKITDYGLESFRDPEPEQGHTLFAKKLWTAPELLRMASPPARGSQAGDVYS  
FGIILQEIALRSGVFYVEGLDLSPKEI IERVTRGEQPPFRPSMDLQSHLEELGQLMQRW  
AEDPQERPPFQQIRLALRKFNKENSSNILDNLLSRMEQYANNLEELVEERTQAYLEEKRK  
AEALLYQILPHSVAEQKRGETVQAEAFDSVTIYFSDIVGFTALSAESTPMQVVTLLNDL  
YTCFDAVIDNFDVYK VETIGDAYMVVSGLPVRNGQLHAREVARMALALLDAVRSFRIRHR  
PQEQLRLRIGIHTGPVCAGVVGLKMPRYCLFGDTVNTASRMESNGEALKIHLSETKAVL  
EEFDGFELELRGDVEMKGGKGVRTYWLLGERGCSTRG

>P17342

MPSLLVLTFSPCVLLGWALLAGGTGGGGVGGGGGAGIGGGRQERREALPPQKIEVLVLLP  
QDDSYLFSLTRVPAIEYALRSVEGNGTGRLLP PGTRFQVAYEDSDCGNRALFSLVDRV  
AAARGAKPDLILGPVCEYAAAPVARLASHWDL PMLSAGALAAGFQHKDSEYSHLTRVAPA  
YAKMGEMMLALFRHHHWSRAALVYSDDKLERNCYFTLEGVHEVFQEEGLHTSIYSFDETK  
DLLEDIVRNIQASERVVIMCASSDTIRSIMLVAHRHGMTSGDYAFFNIELFNSSSYGDG  
SWKRGDKHDFAKQAYSSLQTVTLRTVKPEFEKFSMEVKSSVEKQGLNMEDYVNMFVEG  
FHDAILLYVLALHEVLRAGYSKKDGGKIIQQTWNRTFEGIAGQV SIDANGDRYGD FS VIA  
MTDVEAGTQEVIGDYFGKEGRFEMRPNVKYPWGPKLRIDENRIVEHTNSSPCKSSGGL  
ESAVTGIVVGALLGAGLLMAFYFFRKKYRITIERRTQEEESNLGKHRELR EDSIRSHFSV  
A

>Q16853

MNQKTILVLLILAVITIFALVCVLLVGRGGDGGEPSQLPHCP SVSPSAQPWTHPGQSOLF  
ADLSREELTAVMRFLTQRLGPGLVDAAQARPSDNCVFSVELQLPPKAAALAHLD RGSPPP  
AREALAI VFFGRQPQPNVSELVVGPLPHPSYMRDVTVERHGGPLPYHRRPVLFQ EYLDID  
QMIFNREL PQASGLLHHCCFYKHRGRNLVTMTTAPRGLQSGDRATWFGLYYNI SGAGFFL  
HHVGLELLVNHKALD PARWTIQKV FYQGRYDSL AQLEAQFEAGLVNVVLI PDNGTGGSW  
SLKSPVPPGPAPPLQFYYPQGRFSVQGSRVASSLWTF SFGLGAFSGPRIFDVRV FQGERLV  
YEISLQEALAIYGGNSPAAMTTRYVDGGFGMGKYTTPLTRGVDCPYLATYVDWHF LLESQ  
APKTIRDAFCVFEQNQGLPLRRHSDLYSHYFGGLAETVLVVRSMSTLLNYDYVWDTVFH  
PSGAIEIRFYATGYISSAFLFGATGKYGNQVSEHTLGTVHTHSAHFKVDL DVAGLENVWV  
AEDMVFPMAVPWSPHQQLQRLQVTRKLL EMEEQAAFLVGSATPRYL YLASNHSNKWGH  
RGYRIQMLSFAGEPLPQNSSMARGFSWERYQLAVTQRKEE EPSSSVFNQNDPWAPTVD  
SDFINNETIAGKDLVAVWTAGFLHIPHAEDIPNTVTVGNVGVFFLRPYNFFDEDP SFYSA  
DSIYFRGDQDAGACEVNP LACL PQA AACAPDLPAF SHGGF SHN

>Q51739

MYGNWGRFIRVNLSTGDIKVEEYDEELAKKWLGSRLAIYLLKEMDPTVDP LSPENKLI  
IAAGPLTGTSAPTGGRYNVVTKSPLTGFITMANSGGYFGAELKFAGYDAIVVEGKAEKPV  
YIYIKDEHIEIRDASHIWGKKVSETEATIRKEVGESEKVKIASIGPAGENLVKFAAIMNDG  
HRAAGRGGVAVMGSKNLKAI AVEGSKTVPIADKQKFM LVVREKVNKL RNDPVAGGGLPK  
YGTAVLVNI INENGLYPVKNFQTGVYPYAYEQSGEAMAAKYLV RNKPCYACPIGCGRVNR  
LPTVGETEGPEYESVWALGANLGINDLASIIEANHMCDELGLDTISTGGTLATAMELYEK  
GHIKDEELGDAPPFRWGNTEVLHYYIEKIAKREGFGDKLAEGSYRLAESYGHPELSMTVK  
KLELPAYDPRGAEGHGLGYATNNRGGCHIKNYMISPEILGYPKMDPHDVSDDKIKMLIL  
FQDLTALIDSAGLCLFTTFFGLGADDYRDLLNAALGWDFTTEDYLIKIGERIWNAERLFNLK  
AGLDPARDDTLPKRFLEEMPEGPNKGHTVRLKEMLP RYYKLRGWTEDGKIPKEKLEELG  
IAEFY

>Q8A1E9

MKKFTCVQDIDGLKSALAEAFEIQKDRFKYVELGRNKTLMMIFFNSSLRTRLSTQKAALN  
LGMNVMVLDINQGAWKLETERGVIMDGDKPEHLLEAIPVMGCYCDIIGVRSFARFEDRDF  
DYQETILNQFIQYSGRPVFSMEAATRHP LQSFADLITIEEYKKTARPKVVM TWAPHRPL  
PQAVPNSFAEWMNATDYDFVITHPEGYELAPQFVGN AKVEYDQMKA FEGADFIYAKNWAA  
YTGDNYGQILSKDREWTVSDRQMAVTNNAFFMHCLPVR RNMI VTD DVIESPQSIV IPEAA  
NREISATVV LKRLIEGLE

>Q8P8J2

MSLKHF LNTQDWSRAELDALLTQAALFKRNKLGSELK GKSIALVFFNPSMRTRTSFELGA  
FQLGGHAVVLQPGKDAWPIEFNLGTVM DGDTEEHIAEVARVLGRYVDLIGVRAF PKFVDW  
SKDREDQVLKSF AKYSPVPVINMETITHPCQELAHALALQEHFGTPDLRGK KYVLTW TYH  
PKPLNTAVANSALTIATRMGMDV TLLCPTPDYILDERYMDWAAQNVAESGGSLQVSHDID  
SAYAGADV VYAKSWGALPFFGNWEPEKPIRDQYQHFI VDERKMAL TNGVFSHCLPLRRN  
VKATDAVMDSPNCIAIDEAENRLHVQKAIMAALV GQSRP

>P35631

MGRGRVQLKRIENKINRQVTF SKRRAGLLKKAHEISVLCDAEVALV VFSHKGKLF EYSTD  
SCMEKILERYERYSYAERQLIAPESDVNTNWSMEYNRLKAKIELLERNQRHYLGEDLQAM  
SPKELQNL EQQLDTALKHIRTRKNQLMYESINELQKKEKAIQE QNSMLSKQIKEREKILR  
AQQE QWDQONQGHNMPPPLPPQHQIQHPYMLSHQPSPF LNMGGLYQEDDP MAMRRNDLE  
LTLEPVYNCNLGCF AA

>P47927

MWDLNDAPHQTQREEESEEF CYSSPSKRVGSFSNSSSSAVVIEDGSDDDELNRVRPNNPL  
VTHQFFPEMDSNGGGVASGFPRAHWFGVKFCQSDLATGSSAGKATNVAAA VVEPAQPLKK  
SRRGPRSRSSQYRGVTFYRRTGRWESH IWD CGKQVYLG GFDTAHAAA RAYDRAAIKFRGV  
EADINFNIDDYDDLKQMTNLTKEEFVHVLRRQSTGFPRGSSKYRGVTLHKCGRWEARMG  
QFLGKKYVYVLGLFDTEVEAARAYDKAAIKCNGKDAVTNFDP SIYDEELNAESSGNPTTPQ  
DHNLDSLGN SANSKHKSQDMRLRMNQQQD SLHSNEVLGLGQTGMLNHTPNSNHQFPGS  
SNI GSGGGFSLFPAAENHRFDGRASTNQVLTNAAA SSGFSPHHHNQIFNSTSTPHQNWLQ  
TNGFQPPLMRPS

>P59632

MDLFMRFFTLGSITAQPVKIDNASPASTVHATATIPLQASLPFGWLVI GVAFLAVFQSAT  
KIIALNKRWQLALYKGFQFICNLLLLLVFTIYSHLLLLVAAGMEAQFLYLYALIYFLQCINA  
CRIIMRCWLCWKCKSKNPLLYDANYFVCWHTHNYDYCIPYNSVTD TIVVTEGDGISTPKL

KEDYQIGGYSEDRHSGVKDYVVVHGYFTEVYYQLESTQITTTDTGIENATFFIFNKLVKDP  
PNVQIHTIDGSSGVANPAMDPYDEPTTTTTSVPL

>Q9VQG2

MTLPEFFFGCTFIAFGPPFALFVFTIANDPVRIIILIAAAFFWLLSLLISSLWYALIPLKE  
FLAFGVVFSVCFQEAFRYIIYRILRSTEQGLHAVAEDTRVTDNKHILAYVSGLGFGIISG  
MFALVNVLADMSGPGTMGLKGGTELEFFVTSAAQALSILLHTFWSVIFFNAFDTNNYIHI  
GYVVFVSHLFLVSLITLLNANELYTTTLLINYLVTILTGVLAFRVAGGTSRSFRKFITCQ

>Q96BI3

MGAAVFFGCTFVAFGPAFALFLITVAGDPLRVIILVAGAFFWLVSLLLASVWVWILVHVT  
DRSDARLQYGLLIFGAAVSVLLQEVFRFAYYKLLKKADEGLASLSEDRSPISIRQMAYV  
SGLSFGIISGVFSVINILADALGPGVVGIHGDSPPYFLTSAFLTAAIILLHTFWGVVFFD  
ACERRRYWALGLVVGSHLLTSGLTFLNPWYEASLLPIYAVTVSMGLWAFITAGGSLRSIQ  
RSLLCRRQEDSRVMVYSALRIPPED

>P0AE22

MRKITQAIASAVCLLFALNSSAVALASSPSPLNPGTNVARLAEQAPIHWVSVQAQIENSLAG  
RPPMAVGFDDIDTDLFSSPGFWRGKKTFSPESEDYLNKPNVFEKMNNGWDEFSSIPKEVAR  
QLIDMHVRRGDIAIFFVTGRSPTKTETVSKTLADNFHIPATNMNPVIFAGDKPGQNTKSQW  
LQDKNIRIFYGSDNDITAARDVVGARGIRILRASNSTYKPLPQAGAFGEEVIVNSEY

>P47865

MASEFKKKLFWRAVVAEFLAMILFIFISIGSALGFHYPIKSNQTTGAVQDNVKSLSLAFGL  
SIATLAQSVGHISGAHLNPAVTLGLLLSQCISVLRAIMYIIAQCVGAIVATAILSGITSS  
LPDNLGLNALAPGVNSGQGLGIEIIGTLQLVLCVLATDRRRRDLGGSGPLAIGFSVAL  
GHLLAIDYTGCGINPARSFGSSVITHNFQDHWIFWVGPFIGAALAVLIYDFILAPRSSDL  
TDRVKVWTSQVVEEYDLADADDINSRVEMKPK

>Q23808

MAADKSDVNTKKIIGIDDITDKTIWRCLAAELIGTLLLVLI GTGSCTGVQISEGDVVVR  
IALTFGFI IATMVQCIGHVSGCHINPAVTCGLLV TGHSILKAI FYIIVQCVGAIAGSAI  
LKVITPAEFRGTL CMTSLAPGVTPPMGFLVEACITFVLILLVQSV CDDRRKNLGNAAPVA  
VGLAITCCHLAAIKYT GSSMNPARSFGPAVNGDDN WANHWVY WAGPIVGGVVAGITYRAL  
FRARKPEEEASSYDF

>Q9C4Z5

MVSLTKRCIAEFIGTFILVFFGAGSAAVTLMIASGGTSPNPFNIGIGLLGGLGDWVAIGL  
AFGF AIAASIYALGNISGCHINPAVTIGLWSVKKFP GREVVPYIIAQLLGAAFGSFI FLQ  
CAGIGAATVGG LGATAPFPGISYQAMLAEVVGTFLLMITIMGIAVDERAPKGFAGI IIG  
LTVAGIITTLGNISGSSLNPARTFGPYLNDMIFAGTDLWNYYSIYVIGPIVGAVLAALTY  
QYLTSE

>P60844

MFRKLA AECFGTFWL VFGGCSAVLAAGFPELGIGFAGVALAFGLTVL TMAFAVGHISGG  
HFNPAVTIGLWAGGRFPAKEVVG YVIAQVVGIVAAALLYLIASGKTGFDA AASGFASNG  
YGEHSPGGYSMLSALVVELVLSAGFLLVIHGATDKFAPAGFAPIAIGLALTLIHLISIPV  
TNTSVNPARSTAVAI FQGGWALEQLWFFVWVPIVGGIIGGLIYRTLLEKRD

>P0A9E0

MAEAQNDDPLLPGYSFNAHLVAGLTP IEANGYLDFFI DRPLGMKGY I LNLTIRGQGVVKNQ  
GREFVCRPGDILLFPPGEIHHYGRHPEAREWYHQWVYFRPRAYWHEWLNWPSIFANTGFF  
RPDEAHQPHFSDLFGQIINAGQGEGRYSELLAINLLEQLLLRRMEAINESLHPPMDNRVR  
EACQYISDHLADSNFDIASVAQHVCLSPSRLSHLFRQQLGISVLSWREDQRISQAKLLLS  
TTRMPIATVGRNVGFDQLYFSRVFVKKCTGASPSSEFRAGCEEKVNDDVAVKLS

>P07642

MYHRMAHESQPNPLLPGYSFNAYLVAGLTP ILAEGPLDFFI DRPDGMKGY I INLTMKGQG  
QIFDGDDETFCCNPGDLLLFPKSTHFYGRSPSSDCWYHRWVYFRPRAYWADWLEWHTKSS  
GIGRMSLPNNQLLEFDRLFANIEQTQSRGRRFSEELGMNLLERLLL RAMEEDPQSPQKI  
MDPRVIEACQFITSNLAGELRIDEVARHVCLSPSRLAHLFREQVGINILRWREDQRVIRA  
KLLLQTTQESIANIGRVVGYDDQLYFSRVFRKRKRVGVSPSDFRRRSSEINYPAAKTL PVAW  
GEQIPHAVSS

>P0A2X7

MGKMMVVALGGNAILSNDA SAHAQQQALVQTSAYLVHLIKQGHRLIVSHGNGPQVGNLLL  
QQQAADSEKNPAMPLDTCVAMTQSGIGYWLSNALNQELNKAGIKKQVATVLTQVVDPAD  
EAFKNPTKPIGPFLTAEAEKEAMQAGAI FKEDAGRGWRKVVPSPKPIDIHEAETINTLIK  
NDIITISCGGGGIPVVGQELKGVEAVIDKDFASEKLAELVDADALVILTGVDYVCINYGK  
PDEKQLTNVTVAELEEKQAGHFAPGSMLPKIEAAIQFVESQPNKQAIITSL ENLGSMG  
DEIVGTVVTK

>P13982

MRIVVALGGNALLRRGEPMTADNQRENVRIAAEQIAKVAPGNELVIAHGNGPQVGLLALQ  
GAAYDKVSPYPLDVLGAETE GMIGYMI EQEMGNLLPFEVFPFATILTQVEVDGKDPAFQNP  
TKPIGPVYSREEAERLAAEKGWSIAPDGDKFRRVVPSRPRKRIFEIRPVKWLLEKGTIVI  
CAGGGGIPTMYDEAGKKLSGVEAVIDKDLCSLLAQELVADILIIATDVDAAYVDWGKPT  
QKAIQAHPDELERLGFAAGSMGPKVQAAIEFARATGKDAVIGSLADIVAITEGKAGTRV  
STRKAGIEYR

>Q07905

MGKTVVIKCGGSVLDDELSPAFFASV NAMRKQGMVVIVHGGGPEIGQMLKTLRVPSEFVN  
GLRKTTKDVLAVVEMVLSGKVNQLASMLRQHGLPAVGVSVDGGLLEAEPIDLAKLGYV  
GRVKTVRSQLLRTLAAAGYIPVISPLGIDQNGQTYNINADTAAGAVAAAIGASQLAFVTN  
VPGILRDGALVAEATAEMIERLIEDGVITGGMIPKVQAALSALSDALPEVMIVSGKTTFY  
QNGTWHGTTIRKEVGVYL

>P0A6C8

MMNPLIIKLGVLDDSEEALERLFSALVNYRESHQRPLVIVHGGGCVVDELMKGLNLPVK  
KKNGLRVTPADQIDIITGALAGTANKTLLAWAKKHQIAAVGLFLGDGDSVKVTQLDEELG  
HVGLAQPGSPKLINSLENGYLPVVSSIGVTDEGQLMNVNADQAATALAATLGADLILLS  
DVSGILDGKGQRIAEEMTAAKAEQLIEQGIITDGMIVKVNAALDAARTLGRPVDIASWRHA  
EQLPALFNGMPMGTRILA

>P0A4Y6

MSRIEALPTHIKAQVLA EALPWLKQLHGKVVVVKYGGNAMTDDTLRRFAADMAFLRNCG  
IHPVVVHGGGPQITAMLRRLGIEGDFKGGFRVTTPEVLDVARMVLFQVGRELVNLINAH  
GPYAVGITGEDAQLFTAVRRSVTVDG VATDIGLVGDVDQVNTAAMLDLVAAGRIPVVSTL  
APDADGVVHNINADTAAA AVAEALGAEKLLMLTDIDGLYTRWPDRDSLVS EIDTGTLAQL  
LPTLESGMVPKVEACLRAVIGGVPSAHIIDGRVTHCVLVELFTDAGTGTKVVRG

>Q9HTN2

MTLSRDDAAQVAKVLSALPYIRRFVVGKTLVIKYGGNAMESEELKAGFARDVVLKAVGI  
NPVVVHGGGPQIGDLLKRLSIESHFIDGMRVTDAAATMDVVEMVLGGQVNDIVNLRHG  
GSAIGLTGKDAELIRAKKLTVTRQTPPEMTPKPEIIDIGHVGEVTVGNVGLLNMLVKGDFIP  
VIAPIGVSGNGESYNINADLVAGKVAEALKAELMLLTNIAGLMDKQGQVLTGLSTEQVN  
ELIADGTIYGGMLPKIRCALEAVQGGVTSAHIIDGRVPAVLLLEIF'TDSGVGTLSNRKR  
H

>Q9X2A4

MRIDTVNVLLLEALPYIKEFYGKTFVVIKFGGSAMKQENAKKAFIQDIIILLKYTGKPIIVH  
GGGPAISQMMKDLGIEPVFKNGHRVTDEKTMIEIVEMVLVGKINKEIVMNLNLHGGRAVGI  
CGKDSKLIVAEKETKHGDIGYVGKVKVNPPEILHALIENDYIPVIAPVIGEDGHSYNIN  
ADTAAAEIAKSLMAEKLILLTDVDGVLKDGKLISTLTPDEAEELIRDGTVTGGMIPKVEC  
AVSAVRGGVAVHIINGGLEHAILLEIFSRKIGITMIKELEG

>Q6AV34

MGSTALGGGAPARLGLAPKDGVFVGSNLKQCCGGFMLKTTTPKVGSSSVRVRASVASSPQKQH  
SPKTSVGVKSGEEVRIAVLGASGYTGAEIVRLLANHPQFRIVMTADRKAGEQFGSVFPHL  
ITQDLPNLVAVKDADFVSNVDAVFCCLPHGTTQEIIKGLPQELKIVDLSADFRLRDINEYA  
EWYGHSHRAPELQQEAVYGLTEVLRNEIRNARLVANPGCYPTSIQLPLVPLIKAKLIKVS  
NIIIDAKSGVSGAGRGAKEANLYTEIAEGIHAYGIKGRHVPEIEQGLSEAAESKVTISF  
TPNLI CMKRGMQSTMFVEMAPGVTANDLYQHLKSTYEGEFVKLLNGSSVPHTRHVGSN  
YCFMNVFEDRIPGRAIIISVIDNLVKGASGQAVQNLNLMGLPENTGLQYQPLFP

>P23908

MKNKLPPFIEIYRALIATPSISATEEALDQSNADLITLLADWFKDLGFNVVQVVPVGRN  
KFNMLASIGQGAGGLLLAGHTDTPVFPDDGRWTRDPFTLTHEHDGKLYGLGTADMKGFFAFI  
LDALRDVDVTKLKKPLYILATADEETSMAGARYFAETTALRPDCAIIGEP TSLQPVRAHK  
GHISNAIRIQGQSGHSSDPARGVNAIELMHDAIGHILQLRDNLKERYHYEAFVVPYPTLN  
LGHIHGGDASNRICACCELHMDIRPLPGMTLNLNGLLNDALAPVSRWPGR LTVDELHP  
PIPGYECPPNHQLVEVVEKLLGAKTEVVNYCTEAPFIQTLCP TLVLGPGSINQAHQPDEY  
LETRFIKPTRELITQVIHHFCWH

>P07824

MSSKPKPIEIIIGAPFSKQPRGGVEKGPAA LRKAGLVEKLEKETEYNVRDHGDLAFVDVPN  
DSPFQIVKNPRSVGKANEQLAAVVAETQKNGTISVVLGGDHSMAIGSISGHARVHPDLCV  
IWVDAHTDINTPLTTSSGNLHGQPVAFLLKELKGFDPVPGFSWVTPCISAKDIVYIGLR  
DVPDGEHYIIKTLGIKYFSMTEVDKLGIGKVMEE TFSYLLGRKKRPIHLSFDVDGLDPVF  
TPATGTPVVGGLSYREGLYITEEIIYKTGLLSGLDIMEVNPTLGKTPPEVTRTVNTAVALT  
LSCFGTKREGNHKPE TDYLPKPK

>P78540

MSLRGSLRLLQTRVHSILKKS VHSVAVIGAPFSQGQKRKGV EHGPAAI REAGLMKRLSS  
LGCHLKDFGDL SFTVPKDDLYNNLIVNPRSVGLANQELAEVVSRAVSDGYS CVTLGGDH  
SLAIGTISGHARHCPDLCVWVDAHADINTPLTTSSGNLHGQPV SFLLRELQDKVPQLPG  
FSWIKPCISSASIVYIIGLRDVPPEHFILKNYDIQYFSMRDIDRLGIQKVMERTFDLLIG  
KRQRPIHLSFDIDA F DPTLAPATGTPVVGGLTYREGMYIAEEIHNTGLLSALDLVEVNPQ  
LATSEEEAKTTANLAVDVIASSFGQTREGGHIVYDQLPTPSSPDESENQARVRI

>P53608

MKPISIIIGVPMDLGQTRRGVDMGPSAMRYAGVIERLERLHYDIEDLDGDIPIGKAERLHEQ  
GDSRLRNLKAVAEANEKLA AAVDQVVQRGRFPLVLGGDHSIAIGTLAGVAKHYERLGVIIW  
YDAHGDVNTAETSPPSGNIHGMPLAASLGFGHPALTQIGGYSPKIKPEHVVLIGVRSLEDEG  
EKKFIREKGIKIYTMHEVDRLGMTRVMEETIAYLKERTDGVHLSLDLDGLDPSDAPGVGT  
PVIIGGLTYRESHLAMEMLAEAQIITSAEFVEVNPILDERNK TASVAVALMGSLFGEKLM

>P33280

MSPSLVDNHAAYIAAPSSAKAPMIQKPGNTFGMSSPIESKFLSQPRDLGIVAVGFSGGQ  
CKPGVDAAPSALIESGLLTQLREELGYRLHGDDEVHLYTDLVPKEDPPHRNMKNPRAVSN  
VTKRIAEQVHSHAKEGRLVLTLLGGDHSIAIGTIAGSAKAIKERLGREIAVIWVDAHADIN  
TPETSGSGNIHGMPVSFLTGLASEDKEEFFGWLKP DHLLSVKLVYIGLRDVPDGEKRIL  
RENGIKAFSMHDIDKHGIGRVMEMALGHIGNDTPIHLSFDVDALDPMWAPSTGTPVRGGL  
TLREGDFICECVHETGSLVAVDLVEVNPTLAAPNDVGAHETVRAGCSLVR CALGESLL

>P00812

METGPHYNYKREL SIVLAPFSGGQKLGVEKGPYMLKHGLQTSIEDLGWSTELEPSM  
DEAQFVVKLMEKDSTTGSSVMIDGVKAKRADLVGEATKLVYNSVSKVVQANRFP LTLG  
GDHSIAIGTVSAVLDKYPDAGLLWIDAHADINTIESTPSGNLHGCPVSFLMGLNKDVPHC  
PESLKWVPGNLSPKKIAYIGLRDVDAGEKKILKDLGIAAFSMYHVDKYGINAVIEMAMKA  
VHPETNGEGPIMCSYDVGVDPLYIPATGTPVRGGLTLREGLFLVERLAESGNLIALDVV  
ECNPD LAIHDIHVSNTISAGCAIARCALGETLL

>O31408

MNKGQRHIKIREIIMSNDIETQDELVDRLREAGFNVTQATVSRDIKEMQLVKVPMANGRY  
KYSLPSDQRFNPLQKLKRALVDVFIKLDGTGNLLVLR TLPGNAHAIGVLLDNLDWDEIVG  
TICGDDTCLIIICRTPKDAKKVSNQLLSML

>P0A6D0

MRSSAQEELVKAFKALLKEEFSSQGEIVAALQEQQGFDNINQSKVSRMLTKFGAVRTRN  
AKMEMVYCLPAELGVPTTSSPLKNLVLDDIDYNDAVVVIHTSPGAAQLIARLLDSLGAEG  
ILGTIAGDDTIFTTPANGFTVKDLYEAILELFDQEL

>P38116

MGNIFSSMFDKLGWSNKELRILILGLDGAGKTTILYRLQIGEVVTTKPTIGFNVETLSYK  
NLKLNVDLGGQTSIRPYWRCYYADTA AVIFVVDSTDKDRMSTASKELHMLQEELQDA  
ALLVFANKQDQPGALSASEVSKELNLVELKDRSWSIVASSAIKGEGIT EGLDWLIDVIKE  
EQL

>P24058

MASEARGDKLWGGRFSGSTDPIMEKLNSSIA YDQRLSEVDIQGSMAYAKALEKAGILT KT  
ELEKILSGLEKISEEWSKGVFVVKQSDEDIHTANERRLKE LIGDIAGKLHTGRSRNDQVV  
TDLKLFMKNLSIIISTHLLQLIKTLVERAAIEIDVILPGYTHLQKAQPIRWSQFLLSHAV  
ALTRDSERLGEVKKRINVLPLGSGALAGNPLDIDREMLRSELEFASISLNSMDAISERDF  
VVEFLSFATLLMIHLSKMAEDLIIYSTSEFGFLTLSDAFSTGSSLMPQKKNPDSLELIRS  
KAGR VFGRLASILMVLKGLPSTYNKDLQEDKEAVFDVVDTLTAVLQVATGVISTLQISKE  
NMEKALTPEMPLATDLALYLVRKGVPPFRQAHTASGKAVHLAETKGITINKLSLEDLKSISP  
QFSSDVSQVFNFVNSVEQYTALAGTAKSSVTTQIEQLRELMKKQKEQA

>P41906



MSDGTQKLWGGRFTGETDPLMHLYNASLPYDYKMYKADLEGTKVYTAGLQKLGLLTD AEL  
AKIHEGLAEIQKEWDADKFVVRHPNDEDIHTANERRLGEIIGREIAGKVHTGRSRNDQVVT  
DLRIYCRDVVNDTLFPALKGLVDVLIKRAEAGEIDILMPGYTHLQRAQP IRWSHWLSSYAT  
YFTEDYKRLGQILHRLNQSP LGAGALAGHPY GIDREFLAEGLGFNSVIGNSLVAVSDRDF  
IVELMFWGTLFMNHI SRFAEDLI IYCTAEFGFIQLSDAYSTGSSLM PQKNADSLELLRG  
KSGRVFGDLTGFLMSLKGIPSTYDKMQEDKEPLFDCLTTVEHSMLIATGVISTLTVNKD  
KMEAALTM DMLATDLADYLVRKGVPPFRETHHISGECVATAENLGLSGIDKLTLEQYQKID  
SRFAEDLFETFNFEQSVERRNATGGTAKSAVLKQLNNLKSQLN

>P77398

MKTVV FAYHDMGCLGIEALLAAGYEISAI FTHTDNPGEKAFYGSVARLAAERGI PVYAPD  
NVNHPLWVERIAQLSPDVIFSFYYRHLIYDEILQLAPAGAFNLHGSLLPKYRGRAPLNWV  
LVNGETETGVTLHRMVKRADAGAIVAQLRIAIAIPDDIAITLHHLKCHAARQLLEQTLPAI  
KHGNILEIAQRENEATCFGRRTPD DSFLEWHKPA SVLHNMVRAVADPWPGAFSYVGNQKF  
TVWSSRVPHASKAQPGSVISVAPLLIACGDGALEIVTGQAGDGI TMQGSQLAQTLGLVQ  
GSRLNSQPACTARRRTRVLILGVNGFIGNHLTERLLREDHYEVYGLDIGSDAISRFLNHP  
HFHFVEGDISIHSEWIEYHVKKCDVVLPLVAIATPIEYTRNPLRVFELDFEENLRIIRYC  
VKYRKRIIFPSTSEVYGMCSDKYFDEDH SNLIVGPVNKPRWIYSVSKQLLDRVIWAYGEK  
EGLQFTLFRFPNWMGPRLDNLNAARIGSSRAITQLILNLVEGSP IKLIDGGKQKRCFTDI  
RDGIEALYRIIENAGNRCDGEIINIGNPENEASIEELGEMLLASF EKHPLRHHFPFAGF  
RVV ESSSYGKGYQDVEHRKPSIRNAHRCLDWEPKIDMQETIDE TLDFFLRTVDLTDKPS

>Q8ZNF3

MSDFLPFSRPAMGAEE LAAVKTVLDSGWIT TGPKNQELEAAFCRLTGNQYAVAVSSATAG  
MHIALMALGIGEGDEVITPSMTWVSTLNMIVLLGANPVMVDVDRDTLMVTPEHIEAAITP  
QTKAII PVHYAGAPADLDAIYALGERYGIPVIEDAAHATGTSYKGRHIGARGTAIFS FHA  
IKNITCAEGGIVVTDNPQFADKLRSLKFHGLGVD AWRQSGRAPQAEVLAPGYKYNLPD  
LNAAIALAQLQKLDALNARRAAIAAQYHQAMADLPFQPLSLPSWEHIHAWHLFI IRVDEA  
RCGITRDALMASLKTGIGTGLHFRAAHTQKYRERFPTLTL PDTEWNSERICSLPLFPD  
MTESDFDRVIT ALHQIAGQ

>P27793

MASSLSTKPF LSGSRRRSTTDGSGWSYFQTSDLRQLSNQSVQISVRRQTAPLKL VVQASG  
SSF GKVFQVTTYGESHG GVGCVIDGCP RFP ISEADIQSDLDRRRPGQSRITTPRKE TD  
TCKIYSGVADGFTTGSPIHISVPNTDQRGNDYSEMAKAYRPSHADATYDFKYGVR SVQGG  
GRSSARETIGRVAAGALAKKILKAYAGTEVLAYVSQAHKVVLPEGLVDHETLSLEQIESN  
IVRCPDSEYAEKMIAAIDAVRVKGD SVGGVVT CIMRNVPRGLGSPVFDKLEAELAKACMS  
LPATKGF EFGSGFSGTFLT GSEHNDEFYTDENGRIRTRTNRS GGIQGGISNGEI INMRIA  
FKPTSTIGKKQNTVTREREEIELIARGRHDP CVVPRAVPMVEAMVALVLLDQLMLQHAQG  
NLFSINPALQEPLSETVSSAAAASLQGV

>P12008

MAGNTIGQLFRVTTFGESHGLALGCIVDGVPPGIPLTEADLQHDLDRRRPGTSRYTTQRR  
EPDQVKILSGVFEGVTTGTSIGLLIENTDQRSQDYSAIKDVFRPGHADYTYEQYGLRDY  
RGGGRSSARETAMRVAAGAI AKKYLA EKFGIEIRGCLTQMGDIPLDIKDWSQVEQNPF FC  
PDPDKIDALDEL MRALKKEGDSIGAKVTVVASGV PAGLGE PVFDRLDADIAHALMSINAV  
KGVEIGDGF DVVALRGSQNRDEITKDG FQSNHAGGILGGISSGQIIAHMALKPTSSITV  
PGRTINRFGE EVMITKGRHDPCV GIRAVPIAEAMLAI VLM D HLLRQRAQNADVKTDI PR

>P05194

MKTVTVKDLVIGTGAPKIIIVSLMAKDIASVKSEALAYREADFDILEWRVDHYADLSNVES  
VMAAAKILRETMPKPLLFTRSAKEGGEQAI STEAYIALNRAAIDSGLVDMIDLELFTG  
DDQVKETVAYAHAHDVKVMSNHDFHKTPEAE E I IARLRKMQSFDADIPKIALMPQSTSD  
VLTLLAATLEMQEYADRPIITMSMAKTGVISRLAGEVFGSAATFGAVKKASAPGQISVN  
DLRTVLTILHQA

>Q58484

MINAKTKVIGLIGHPVEHSFSPIMHNAAFKDKGLNYVYVAFDVL PENLKYVIDGAKALGI  
VGFNVTIPHKIEIMKYLDEIDKDAQLIGAVNTIKIEDGKAIGYNTDGIGARMALEEEIGR  
VKDKNIVIYGAGGAARAVAFELAKDNII IANRTVEKAEALAKEIAEKLNKKFGEEVKFS  
GLDVDLDGVDIIINATPIGMYPNIDVEPIVKAEKLREDMVMDLIYNPLETVLLKEAKKV  
NAKTINGLGLMIYQGAVAFKIWTGVEPNIEVMKNAIIDKIKT

>Q9WYH8

MIVVLKPGSTEEDIRKVVKLAESYNLKHISKGQERTVIGIIGDDRYVVADKFESLDCVE  
SVVRVLKPYKLV SREFHPEDTVIDLGDVKIGNGYFTIIAGPCSVEGREMLMETAHFLSEL  
GVKVL RGGAYKPR TSPYSFQGLGEKGLEYLREAADKYGMV VTEALGEDDLPKVAEYADI  
IQIGARNAQNFRLLSKAGSYNKPVLLKRGFMNTIEEFLLSAEYIANSNTKIILCERGIR  
TFEKATRNTLDISAVPIIRKESHLPILVDP SHSGRRDLVIPLSRAAIAVGAHGIIVEVH  
PEPEKALSDGKQSLDFELFKELVQEMKKLADALGVKVN

>P0AB91

MNYQNDDLRIKEIKELLPPVALLEKFPATENAANTVAHARKAIHKILKGNDDRLLVVIGP  
CSIHDPVAAKEYATRLALREELKDELEIVMRVYFEKPRTTVGWKGLINDPHMNSFQIN  
DGLRIARKLLLDINDSGLPAAGEFLDMITPQYLADLMSWGAIGARTTESQVHRELASGLS  
CPVGFKNGTDGTIKVAIDAINAAGAPHCFLSVTKWGHSAIVNTSGNGDCHIILRGGKEPN  
YSAKHVAEVKEGLNKAGLPAQVMIDF SHANSSKQFKKQMDVCADVCQQIAGGEKAIIGVM  
VESHLVEGNQSLESGEPLAYGKSITDACIGWEDTDALLRQLANAVKARRG

>P15905

MLQLTPLQLFKNLSDETRLGIVLLREMGELCVCDL CMALDQSQPKISRHLAMLRESGIL  
LDRKQGWVHYRLSPHIPSWAAQII EQAWLSQQDDVQVIARKLASVNC SGSSKAVCI

>O80931

MKERQRWSGEEDALLRAYVRQFGPREWHLVSERMKNPLNRDAKSCLERWKNYLKP GIKKG  
SLTEEEQRLVIRLQEKHGNKWKKIAAEVPGRTAKRLGKWWEVFKKQREKESNKRV EP  
IDESKYDRILESFAEKLVKERSNVV PAAAAAATVVMANSNGGFLHSEQQVQPPNPVIPPW  
LATSNNGNVVARPPSVTLTLPSTVAAAAPQPPIPWLQQQP ERAENGPGLVLGSMMP  
SCSGSSESVFLSELVECCRELEEGHRAWADHKKEAAWRLRRLLELQLESEKTCRQREK MEE  
IEAKMKALREEQKNAMEKIEGEYREQLVGLRRDAEAKDQKLADQWTSRHIRLTKFLEQQM  
GCRLDRP

>P83886

MGRTTSSPKAMMRIAIVAAIILTILASTCMARNVLTNGEGLYAGQSLDVEQYKFIMQDDCN  
LVLYEYSTPIWASNTGVTGKNGCRAVMQRDGNFVVYDVNGRPVWASNSVRGNGNYILVLQ  
KDRNVVIYGSDIWSTGTYRRSVGGAVVMAMNGTVDGGSVIGPVVNVNQTAAIRKVG TGA  
A

>Q9HEV5

MATMANHDRETTQPTCQNCATSTTPLWRRDEMGOVLCNACGLFLKHLHGRPRPISLKTVDI  
KSRNRVKTMRPDLAKQKKQQQQQQQQNLAATADMNGGVGMMDPNNPAAAARRASQKSIN  
GHPVDDNSPVSRTGTPNVYNPHIPIDHSLEYQFQAQQIPGFGVPTASPGRAPSPMNGEHM  
PQTHEQLLAANASLKTRVSELEVIQELYRGRHLHQLETEENIRQASEPGKLEAQLRAQIDA  
MGEAHQQLQKELEESHRRNMLKRRLDELELEVELKDVKDALESQDNGRHKKIRLDENVKTE  
PYAEVVEPQQPEQQQPAPAEQPIPTMAIDEATPAPAPAPEAAPEQAPAPAPEPVQEQAQ  
EPEPAPVSEPTASAPAPAPEADSVVPEPTPAAPESAPTEEPAAPETEASEPPTTAPVEE  
APKAES

>P22106

MCSIFGVFDIKTDAVELRKKALELSRLMRHRGPDWSGIYASDNAI LAHERLSIVDVNAGA  
QPLYNQKQTHVLAVNGEINYHQALRAEYGDYQFQTGSDCEVILALYQEKGPFLDDLQ  
MFAFALYDSEKDAYLIGRDHLGIIPLYMGYDEHGQLYVASEMKALVPVCRTIKEFPAGSY  
LWSQDGEIRSYHRDWFYDAVKDNVTDKNELRQALEDSVKSHLMSDVPYGVLLSGGLDS  
SIIISAITKKYAAARRVEDQERSEAWWPQLHSFAVGLPGSPDLKAAQEVANHLGTVHHEIHF  
TVQEGLDAIRDVIYHIETYDVTTIRASTPMLMSRRIKAMGIKMVLSGEGSDEVFGGYLY  
FHKAPNAKELHEETVRKLLALHMYDCARANKAMSAWGVPEARVPLDKKFLDVAMRINPQD  
KMCNGKMEKHILRECFEAYLPASVAWRQEQFSDGVGYSWIDTLKEVAAQQVSDQQLLET  
ARFRFPYNTPTSKEAYLYREIFEELFPLPSAAECVPGGPSVACSSAKAIEWDEAFKKMDD  
PSGRAVGHVHQSAYK

>P26899

MLNGQKEYRVEKDFLGEKQIEADVYYGIQTLRASENFPI TGYK IHEEMINALAIVKAAA  
LANMDVKRLYEGIGQAI VQAADEILEGKWHQDFIVDPIQGGAGTSMNMNANEVIGNRALE  
IMGHKKGDYIHLSPNTHVNMSQSQNDVFP TAIHISTLKLLEKLLKTMEDMHSVFKQKAQE  
FHSVIKMGRTHLQDAVP IRLGQEF EAYSRLVERDIKRIKQSRQHLYEVNMGATAVGTGLN  
ADPEYIKQVVKHLADISGLPLVGADHLVDATQNTDAYTEVSASLKVCMNMMSKIANDLRL  
MASGPRAGLAEISL PARQPGSSIMPGKVNPMVMAELINQIAFQVIGNDNTICLASEAGQLE  
LNVMEPVLVFNLLQSI SIMNNGFRSFTDNCLKGIEANEKRMKQYVEKSAGVITAVNPHLG  
YEAAARIAEAIMTGQSVRDLCLOHVDL TEEELDIILNPYEMTKPGIAGKELLEK

>P0AC38

MSNNIRIEEDLLGTREVPADAYYGVHTLR A IENFYISNNKISDIPEFVRGMVMVKAAAAM  
ANKELQTI PKSVANAI I AACDEVLNNGKCMDQFPVDVYQGGAGTSMNMNTNEVLANIGLE  
LMGHQKGEYQYLNPNDHVNKCQSTNDAYPTGFRIAVYSSLIKLVDAINQLREGFERKAVE  
FQDILKMGRTQLQDAVPMTLGQEFRAFSILLKEEVKNIQRTAELLLLEVNLGATAIGTGLN  
TPKEYSPLAVKKLAEVTFGFCVPAEDLIEATSDCGAYVMVHGALKRLAVKMSKICNDLRL  
LSSGPRAGLNEINLPELQAGSSIMPAKVNPPVPEVNVQVCFKVI GNDT'TVTMAAEAGQLQ  
LNVMEPVIGQAMFESVHILTNACYNLLEKCI NGITANKEVCEGYVYNSIGIVTYLNPFIG  
HHNGDIVGKICAETGKSVREVVLERGLL TEAEELDDIFSVQNLMPAYKAKRYTDESEQ

>P07346

MISVMSSAASFRTEKDLLGVLEVP AQAYYGIQTLRAVN NFRLSGVPISHYPKLVVGLAMV  
KQAAADANRELQQLSERKHAAI SEACARLIRGDFHEEFVVDMIQGGAGTSTNMNANEVIA  
NIALEAMGHQKGEYQYLHPNNDVNMAQSTNDAYPTAIRLGLLLGHDALLASLDSL IQAFA  
AKGAEFSHVLKMGRTQLQDAVPMTLGQEFRAFATTLGEDLARLKT LAPELLTEVNLGGTA  
IGTGINADPRYQALAVQRLATISGQPLVPAADLIEATSDMGAFVLFSGMLKRTAVKLSKI  
CNDLRLSSGPRGTINEINL PARQPGSSIMPGKVNPIPEAVNQVAFQVIGNDLAL TMAA  
EGGQLQLNVMEPLIAFKIFDSIRLLQRAMDMLREHCIVGITANEARCRELVEHSIGLVTA  
LNPYIGYENATRIARIALESGRGVLELVREEGLLDDAMLDDILRPENMIAPRLVPLKA

>P26900

MKLLMLTTGGTIASVEGENGLAPGVKADELLSYVSKLDNDYTMETQSLMNIIDSTNMQPE  
YWVEIAEAVKENYDAYDGFVITHGTDTMAYTSAALS YMLQHAKKPIVITGSQIPITFQKT  
DAKKNITDAIRFACEGVGGVYVFDGRVIQGTTRAIKLRTKSYDAFESINYPIAFINEDG  
IEYNKQVTEPENDTFTVDTSLCTDVCLLKLHPGLKPEMFDALKSMYKGIVIESYSGGGVP  
FEGRDILSKVNELIESGIVVVITTTQCLEEGEDMSIYEVGRRVNQDLIIRSRNMNTEAIVP  
KLMWALGQSSDLPVVKRIMETPIADDVVL

>P0A962

MQKKSIVVAYTGGTIGMQRSEQGYIPVSGHLQRQLALMPEFHRPEMPDFTIHEYTPLMDS  
SDMTPEDWQHIAEDIKAHYDDYDGFVILHGTDTMAYTASALSFMLENL GKPVIVTGSQIP  
LAELRSDGQINLLNALYVAANYPI NEVTLFFNNRLYRGNRTTKAHADGFDAFASP NLPLPL  
LEAGIHIRRLNTPPAPHGEGELIVHPITPQPIGVVTIYPGISADVVRNFLRQPVKALILR  
SYGVGNAPQNKAFQLQELQEASDRGIVVVNLTQCMMSGKVNMMGGYATGNALAHAGVIGGADM  
TVEATLTKLHYLLSQELDTETIRKAMSQNLRGELTPDD

>P00805

MEFFKKTALAALVMGFSGAALALPNITILATGGTIAGGGDSATKSNYTVGKVGVENLVNA  
VPQLKDIANVKGEQVVNIGSQDMNDNVWLTLAKKINTDCDKTDGFVITHGTDTEETAYF  
LDLTVKCDKPVVMVGAMRPSTSMSADGPFNLNAVVTAADKASANRGVLLVMNDTVLDGR  
DVTKTNTTVDVATFKSVNYGPLGYIHNGKIDYQRT PARKHTSDTPFDVSKLNELPKVGIVY  
NYANASDLPAKALVDAGYDGI VSAGVGNGLYKSVFDTLATAAKTGTAVVRSSRVP TGAT  
TQDAEVDDAKYGFVASGTLNPOKARVLLQLALQT KDPQQIQQIFNQY

>P06608

MERWFKSLFVLVLFVFTASAADKLPNIVILATGGTIAGSAATGTQTTGYKAGALGVDTL  
INAVPEVKLANVKGEQFSNMASENMTGDVV LKLSQRVNELLARDDVDGVVITHGTDTVE  
ESAYFLHLTVKSDKPVVFAAMRPATAISADGPMNLL EAVRVAGDKQSRGRGVMVVLNDR  
IGSARYITKTNASTLDTFKANE EGYLGVIIGNRIYYQNRIDKLHTRSVFDVRGLTSLPK  
VDILYGYQDDPEYLYDAAIQHG VKGIVYAGMGAGSVSVRGIAGMRKAMEKGVVIRSTRT  
GNGIVPPDEELPGLVSDSLNPAHARILLMLALTRTSDPKVIQ EYFHTY

>P10182

KEVENQQKLANVVILATGGTIAGAGASAANSATYQAAKVGVDKLIAGVPELADLANVRGE  
QVMQIASESIS TNDLLKLKGRVAELADSNDVDGIVITHGTD TLEETAYFLDLTLN TDKPI  
VVVGSMRPGTAMSADGMLNLYNAVAVASNKDSRGKGV LVTMND EIQSGRDVSKSINIKTE  
AFKSAWGPLGMVVEGKSYWFR LPAKRHTVNSEFDIKQISSLPQVDIAYS YGNVTD TAYKA  
LAQNGAKALIHAGTNGSVSSRLTPALQTLRKTGTQ IIRSSHVNQGGFVLRNAEQPDDKN  
DWVVAHDLNPEKARILVELAMVKTQDSKELQRIFWEY

>P14568

MSGKGSVVLA YSGGLDTSCILVWLKEQGYDV IAYLANIGQKEDFEEARKKALKLGAKKVF  
IEDISKEFVEEFIWPAIQSSALYEDRYLLGTSLARPCIARKQVEIAQREGAKYVSHGATG  
KGNQIRFELTCYSLAPQIKVIAPWRMPEFYNR FQGRNDLMEYAKQHGI PVPVTPKNPWS  
MDENLMHISYEAGILENPKNQAPPGLYTKTQDPAKAPNSPDMLEIEFKKGV PVKVTNVGD  
GTTSTALELFLYLNEVAGKHG VGRIDIVENRFIGMKSRGIYETPAGTILYHAHL DIEAF  
TMDREVRKIKQGLGLKFAELVYTGFWHSPECFVRHCIAKSQERVEGKVQVSVFKGQVYI  
LGRESPLSLYNEELVSMNVQGDYEPV DATGF ININSLRLKEYHRLQNKVTAK

>P13257

MAKKVALAYSGLDTSVCIPILKEKYGYDEVVTISVDVGPPEEEIKRADAKAEKISNKHY  
TIDAKEEFVKDYVFPLIKANGSYEGYVMGTSIARPLIAKKVVEAARKEGAVALAHGCTGK  
GNDQLRFEAVFRQTDMDVIAPMREMNLTREWEIDYAKEHGIPVEVTKSKPWSVDENIWSR  
SIEGGRLEDPSPFVPEEIEFEWTTTSPEKAPEQPRVVDIGFEAGVPVSLDGEKMSGYAFVKK  
MNEIAGENGVGRDMDIEDRVLGLKARENYEHPAATVLRQPNSRPLRNSSLTRSELKFKKI  
VDDQWSELAYYGLVDEPLYADLNAFIDKSQERVGTGIVKVRLYKGAL'TILARSSPNALYSE  
DLVSFDSQTIDQKGSEGFQAKYHGFQARMYRKVMDKQ

>P13256

MQEKI AVLAYSGLDTSCLLLEDKYNYKVVSVAVDVGPEDDLKEPEEKAKKLGVLKH  
YTIDAKEEFVADYIFRAIKANALYEGYPLSTALARPLIAIKIAELAKEIGADAI SHGCTG  
KGNDQFRFESVIRTKAPEIEIIAPVRDLNLTRTEEQYAKEKGIPIPVDLEKPFSDENL  
WGRSIEGGILENPMIETPKCEFAWTVDPKIAKDEEEYVEIEFKAGVPVAINGQKFDAINV  
IKEANKLAGRNGVGRVDIIEDRVLGLKSRENYECPGAILLITAHKALEQLVLSREELVFK  
EMVDSKYADLIYKGLWHEPLRHDLDAFVDKTQERMNGIVRAKLYKGSRLIVGRESECALY  
QENMVSFENKMDMDQREIVGMVKFHGLQAAIFESLRNK

>Q06734

MSKVLTSLPAGERVGIASFGLDTSVAVAWMRDKGAVPCTYTADIGQYDEPDIASVPSRA  
SAYGAEITRLVDCRAALVEEGLAALACGAFHIRSNGRPYFNTTPLGRAVTGTLVLRAMLE  
DGVQIWDGSGSTFKGNDIERFYRYGLLANPHLR IYKPWLDADFVTELGGRKEMSEWLLAHG  
LPYRDSTEKAYSTDANIWGATHEAKTLEHLDGTGIE TVDPI MGVRFWDP SVEIATEDVTVG  
FEQGRPV SINGKEFASAVDLVMEANAIGGRHGLGMSDQIENRIIEAKSRGIYEAPGMALL  
HIVYERLVNAIHNETLAAAYHNEGRRRLGRLMYEGRWLDPQALMIRESLQRWGTAVTGEV  
TLRLRRGEDYSILDTTGPAFSYHPDKLSMERTEDSAFGPVDRIGQLTMRNLDIADSRARL  
EQYVGLGLVGTPHPTPIGAAQAAATGLIGAMDEGGAEAIASRGEATDEETMLDRAAMESG  
TD

>Q9X2A1

MKEKVVLAYSGLDTSVILKWLCEKGFVDVIAYVANVGQKDDFVAIKEKALKTGASKVYVE  
DLRREFVTDYIIFTALLGNAMYEGRYLLGTAIARPLIAKRQVEIAEKEGAQYVAHGATGKG  
NDQVRFELTYAALNPNLKVISPWKDPEFLAKFKGRTDLINYAMEKGIPIKVSKKRPYSED  
ENLMHISHEAGKLEDPAHIPDEDVFTWTVSPKDAPDEETLLEIHFENGIPVKVNLKDGT  
EKTDPLELFEYLNVEVGAKNGVGRDLDMVENRFIGIKSRGVYETPGATILWIAHRDLEGITM  
DKEVMHLRDLMLAPKFAELIYNGFWFSPMEFLLAAFRKAQENVTKVTVS IYKGNVMPVA  
RYSPLYSLYNPELSSMDVEGGFDATDSKGF INIHALRLKVHQLVKKGYQR

>P59846

MKIVLAYSGLDTSIILKWLKETRYAEVIAFTADIGQGEEVEEAREKALRTGASKAIALD  
LKEEFVRDFVFPMMRAGAVYEGYLLGTSIARPLIAKHLVRIAEEEGAEIAHAGATGKGN  
DQVRFELTAYALKPDIKVIAPWREWSFQGRKEMIAAYAEAHGIPVPVTQEKPYSM DANLLH  
ISYEGGVLEDPWAEPPKGMFRMTQDPEEAPDAPEYVEVEFFEGDPVAVNGERLSPAALLQ  
RLNEIGGRHGVGRVDIVENRFVGMKSRGVYETPGGTILYHARRAVESLTLDRVHLHQ RDM  
LSPKYAELVYYGFWYAPEREALQAYFDHVARSVTGVARLKLYKGNVYVGRKAPKSLYRQ  
DLVSFDEAGGYDQKDAEGFIKIQALRLRVRALVEREGHGA

>P22768

MSKGVCLAYSGLDTSVILAWLLDQGYEVVAFMANVGOEEDFDAAKEKALKIGACKFVC  
VDCREDFVKDILFPAVQVNAVYEDVYLLGTSLARPVIAKAQIDVAKQEGCFVAVSHGCTGK

GNDQIRFELS FYALKPDVKCITPWRMPEFFERFAGRKDLLDYAAQKGI PVAQTKAKPWST  
DENQAHISYEAGILEDPTTPPKDMWKLIVDPMDAPDQPQDLTIDFERGLPVKLT YTDNK  
TSKEVSVTKPLDVF LAASN LARANGVGRIDIVEDRYINLKSRCYEQAPLTVLRKAHVLDL  
EGLTLDKEVRQLRDSFVTPNYSRLIYNGFLLHPECEYIRSMIQPSQNSVNGTVRVRLYKG  
NVIILGRSTKTEKLYDPTESSMDELDTGFLPTDTTGFIAIQAIRIKKYGESKTKGEELTL

>P18847

MMLQHPGQVSASEVSASAI VPCLSPPGSLVFEDEFANLTPFVKEELRFAIQNKHLCHRMSS  
ALESVTVSDRPLGVSITKA EVAPEE DERKKRRRERNKIAAAKCRNKKEKTECLQKESEK  
LESVNAELKAQIEELKNEKQH LIYMLNLHRPTCIVRAQNGRTPEDERNLFIQQIKEGTLQ  
S

>P18850

MGEPAGVAGTMESPFSPGLFHRLDEDWDSALFAELGYFTDTDELQLEAANETYENNFDNL  
DFDLDLMPWESDIWDINNQICTVKDIKAEPQPLSPASSSYSVSSPRSVDSYSSTQHVP EE  
LDLSSSSQMSPLSLYGENSNSLSSAEPLKEDKPV TGPRNK TENGLTPKKKIQVNSKPSIQ  
PKPLLLPAAPKTQTNSSVPAKTIIIIQTVPTLMPLAKQQPIISLQ PAPTKGQTVLLSQPTV  
VQLQAPGVLP SAQPV LAVAGGV TQLPNHVNVVPAPSANS SPVNGKLSVTKPVLQSTMRNV  
GSDIAVLR RQORMIKNRESACQSRKKKKEYMLGLEARLKAALSENEQLKKENGLTKRQLD  
EVVSENQRLKVPSPKRRVVCVMIVLAFIILNYGPM SMLEQDSRRMNP SVSPANQRRHLLG  
FSAKEAQDTS DGI IQKNSYRYDHSVSN DKALMVLTEEPLLYIPPPPCQPLINTTESLR LN  
HELRGWVHRHEVERTKSRRMTNNQOKTRILQGALEQGSNSQLMAVQY TETTSSISRNSGS  
ELQVYYASPRSYQDFFEAIRRRGDTFYVVSFRRDHLLL PATTHNKTRPKMSIVLPAINI  
NENVINGQDYEVMMQIDCQVMDTRILHIKSSSVPPYLRDQQRNQTNTFFGSPPAATEATH  
VVSTIPESLQ

>Q99941

MAELMLLSEIADPTRFFTDNLLSPEDWGLQNSTLYSGLDEVAEEQTQLFRCPEQDV PFDG  
SSLVDGMDVSPSEPPWELLPIFPDLQVKSEPPSSPCSSSSLSSESSRLSTEPSSSEALGVGE  
VLHVKTESLAPPLCLLGDPTSSFETVQINVIPTSDSSDVQTKIEPVSPCSSVNSEASL  
LSADSSSQAFIGEEVLEVKTESLSPSGCLLWDVPAPSLGAVQISMGPSLDGSSGKALPTR  
KPPLQPKPVVLTTPVMP SRAVPPSTTVLLQSLVQPPPVS PVL IQGAI R VQPEGPAPSLP  
RPERKSIVPAPMPGNSCPPEVDAKLLKRQORMIKNRESACQSRKKKKEYLQGLEARLQAV  
LADNQQLRRENAALRRRLEALLAENSELKL GSGNRKVVCMVFL LFIAFNFGPVSISEPP  
SAPISPRMNGEPQPRRHLLGFSEQEPVQGV EPLQGS SQGPK EPQPSPTDQPSFSNLTA F  
PGGAKELLLRDLQFLSSDCRHFNRTE SLRLADELSGWVQRHQGRRKIPQRAQERQKS  
QPRKKSPPVKAVPIQPPGPPERDSVGLQLYRHPDRSQPAFLDAIDRREDTFYVVSFRRD  
HLLLPAISHNKTSRPKMSLVMPAMAPNETLSGRGAPGDYEEMMQIECEVMDTRV IHIKTS  
TVPPSLRKQPSPTPGNATGGPLPVSAASQAHQASHQPLYLNHP

>P46667

MKRSRGSSDSL SGLPIRHSTTDKQISPRPTTTGFLYSGAGDYSQMFDALEDDGSLEDLG  
GVGHASSTAAEKRRRLGVEQVKALEKNFEIDNKLEPERKVKLAQELGLQPRQVAIWFQNR  
RARWKTQLERDYGV LKSNFDALKRNRDSLQRDND SLLGQIKELKAKLNVEGVKGI EENG  
ALKAVEANQSVMANNEVLELSHRSPSPPHIPTDAPTSELAFEMFSIFPRTENFRDDPAD  
SSDSSAVLNEEYSPNTVEAAGAVAATTVEMSTMGCFSQFVKMEEHEDLFSGEEACKLFAD  
NEQWYCS DQWNS

>P01096

MAATALAARTRQAVWSVWAMQGRGFGSESGDNVRSSAGAVRDAGGAFGKREQAEEERYFR

ARAKEQLAALKKHHENEISHHAKEIERLQKEIERHKQSIKCLKQSEDDDD

>P40416

MLLLPRCPVIGRIVRSKFRSGLIRNHSPVIFTVSKLSTQRPLLFNSAVNLWNQAQKDITH  
KKSVEQFSSAPKVKTQVKKTSKAPTLSELKILKDLFRYIWPKGNNKVRIRVLIALGLLIS  
AKILNVQVPFFFKQTIDSMNIAWDDPTVALPAAIGLTILCYGVARFGSVLFGELRNAVFA  
KVAQNAIRTVSLQTFQHLMKLDLGDWHLRQGTGGLTRAMDRGTTKGISQVLTAMVFHIIPIS  
FEISVVCGILTYQFGASFAAITFSTMLLYSIFTIKTTAWRTHFRRDANKADNKAASVALD  
SLINFEAVKYFNNEKYLDKYNGLMNYRDSQIKVSQSLAFLNSGQNLIFTTALTAMMYM  
GCTGVIIGNLTVGDLVLINQLVFLVQLSVPLNFLGVSRYDLKQSLIDMETLFLKLRKNEVKIK  
NAERPLMLPENVPYDITFENVTFGYHPDRKILKNASFTIPAGWKTAIVGSSGSGKSTILK  
LVFRFYDPESGRILINGRDIKEYDIDALRKVIGVVPQDTPLFNDTIWENVKFGRIDATDE  
EVITVVEKAQLAPLIKLPQGFDTIVGERGLMISGGEKQRLAIARVLLKNARIMFFDEAT  
SALDTHTEQALLRTIRDNFTSGSRTSVYIAHRLRTIADADKIVLDNGRVREEGKHLELL  
AMPGSLYRELWTIQEDLDHLENELKDQOQEL

>P04694

MDSYVIQTDVDDSLSSVLDVHVNIIGGRNSVQGRKKGRKARWDVRPSDMSNKTFNPIRAIV  
DNMKVQPNPNKTVISLSIGDPTVFGNLPDPEVTQAMKDALDSGKYNGYAPSIGYLSRE  
EVASYHCHEAPLEAKDVILTSGCSQAIELCLAVLANPGQNILIPRPGFSLYRTLAE SMG  
IEVKLYNLLPEKSWEIDLKQLESIDEKTA CLVVMNPSNPCGSVFSKRHLQKILAVAERQ  
CVPILADEIYGMVFS DCKYEPLANLSTNVPILSCGGLAKRWLVPGWRLGWILIHDRRDI  
FGNEIRDGLVKLSQRILGPCTIVQGALKSILQRTPQEFYHDTLSFLKSNADLCYGALAAI  
PGLQPVVRPSGAMYL MVGIEMEHFPEFENDVEFTE RLIAEQAVHCLPATCFEYPNFFRVVI  
TVPEVMMLLEACSRIQEFCEQHYHCAEGSQEECDK

>P95442

MTTTLTYTGFHQLVTGDVAGTVLNGVDILVRDGEIIGLGPDLPRTLAPIGVGQEQGVEVNV  
CRGLTAYPGLINTHHHFFQAFVRNLAPLDWTQLDVLAWLRKIYPVFALVDEDCIYHSTVV  
SMAELIKHGCTTAFDHQYNYRRGGPFLVDRQFDDAANLLGLRFHAGRGCITLPM AEGSTI  
PDAMRESTDTFLADCERLVS RFHDP RP FAMQRVVVAPSSPVIAYPETFFVESARLARHLGV  
SLHHTLGEGETPAMVARFGERSLDWCENRGFVGPDVWLAHGWEFTAADIARLAATGTGVA  
HCPAPVFLVGAEVTDIPAMAAAGVRVGFVGDGHASNDSSNLAECIRLAYLLQCLKASERQ  
HPVPAPYDFLRMATQGGADCLNRPDLGALAVGRAADFFAVDLNRIEYIGANHDPRS LPAK  
VGFSGPVDMTVINGKVWRNGEFPGLDEMELARAADGVFRRVIYGDPLVAALRRGTGVTP  
C

>Q13825

MAAAVAAAPGALGSLHAGGARLVAACSAWLC PGLR L P G S L A G R R A G P A I W A Q G W V P A A G G  
PAPKRGYSSEMKTEDELVRHLEENRGI VVLGINRAYGKNSLSKNLIKMLSKAVDALKS  
DKKVRTIIIRSEVPGIFCAGADLKERAKMSSSEVGPVFSKIRAVINDIANLPVPTIAAID  
GLALGGGLELALACDIRVAASSAKMGLVETKLAIIPGGGGTQRLPRAIGMSLAKELIFSA  
RVLDGKEAKAVGLISHVLEQNQEGDAAYRKALDLAREFLPQGPVAMRVAKLAINQGMEVD  
LVTGLAIEEACYAQTIPTKDRLEGLLAFKEKRPPRYKGE

>P02701

MVHATSPLLLLLLLLLSLALVAPGLSARKCSLTGKWTNDLGSNMTIGAVNSRGEFTGTYITA  
VTATSNEIKESPLHGTQNTINKRTQPTFGFTVNWKFSESTTVFTGQCFIDRNGKEVLKTM  
WLLRSSVNDIGDDWKATR VGINIFTRLRTQKE

>Q04749

MLKEPSVRLREAIIEGNLLIVKRLLRNPDLLTNIDSENGWSSSLHYASYHGRYLICVYLI  
QLGHDKHELKIKTFKNGTCVHLALMKGHEQTLHLLQLQFPRFINHRGENGRAPIHIACMND  
YYQCLSLLLIGVGADLWVMDTNGDTPHLVHCLEYGSI SCMKMLLNEGEVSLDDNVRDKGNWK  
PIDVAQTFEVGNIYSKVLKEVKKKGPPLGAGKKPSSFRTPILNAKATFEDGPPVLSMNS  
PYSLYSNNSPLPVLPRRISTHTTSGNGGNRRSSI TNPFVFNPRKPTLSTDSFSSSSNSSSR  
LRVNSINVKTPVGVSPKKELVSESVRHSATPTSPHNNIALINRYLLPNKSNDNVRGDSQT  
ATINDDGGGGNGGDATIGMGLRKDPDDENENKYKIKVNNGEPRRRVSLLNIPISKLRNSN  
NTRAED

>Q831B2

MSKLLVVKAHPLTKEESRSVRALETFLASYRETNPSEIEILDVYAPETNMPEIDEELLS  
AWGALRAGAAAFETLSENQQQKVARFNELTDQFLSADKVVIANPMWNLNVPTRLKAWVDTI  
NVAGKTFQYTAEGPKPLTSGKKALHIQSNGGFYEGKDFASQYIKAILNF IGVDQVDGLFI  
EGIDHFPDRAEELLNTAMTKATEYGKTF

>P80401

MFHHSAAAAAALLALAAPGFAATHEVHMLNKGESGAMVFEPAFVRAEPGDVINFPVPTDK  
SHNVEAIKEILPEGVESFKSKINESYTLTVTEPGLYGVKCTPHFGMGVGLVQVGDAPEN  
LDAAKTAKMPKKARERMDAELAQVN

>O94766

MKLKLVNFKLAYFLVSIAGLLYALVQLGQPCDCLPPLRAAAEQLRQKDLRISQLQAE LRR  
PPPAPAPPEPEALPTIYVVTPTYARLVQKAELVRLSQTLSLVPRLHWLLVEDAEGPTPL  
VSGLLAASGLLFTHLVVLTPKAQRLREGEPEGWVHPRGVEQRNKALDWLRGRGGAVGGEKD  
PPPPGTQGVVYFADDNNTYSRELFEEWRTRGVSVWVGLVGGGLRFEGPQVQDGRVVGFFH  
TAWEPSRPFVDMAGFAVALPLLLDKPNAQFDSTAPRGHLESSLLSHLVDPKDLEPRAAN  
CTRVLVWHTRTEKPKMKQEEQLQRQGRGSDPAIEV

>Q00973

MWLGRRALCALVLLLACASLGLLYASTRDAPGLRLPLAPWAPPQSPRRPELPLAPEPRY  
AHIPVRIKEQVVGLLAWNNCSCESSGGGLPLPFQKQVRAIDLTKAFDPAELRAASATREQ  
EFQAFLSRSQSPADQLLIAPANSPQYPLQGVVQPLRSILVPGLSLQAASGQEVYQVNL  
TASLGTWDVAGEVTGVTLTGEGQADTLVSPGLDQLNRQLQLVTYSSRSYQNTADTVRF  
STEGHEAAFTIRIRHPPNRLYPPGSLPQGAQYNISALVTIATKTFRLRYDRLRALITSIR  
RFYPTVTVVIADSDKPERVSGPYVEHYLMPFGKWFAGRNLAVSQVTTKYVLWVDDDFV  
FTARTRLERLVDVLERLPLDLVGGAVREISGFATTYRQLLSVEPGAPGLGNCLRQRGFH  
HELVGFPGCVVTDGVVNFFLARTDKVREVGFDPRLSRVAHLEFFLDGLGSLRVGSCSDVV  
VDHASKLKLWPWTSRDAGAETYARYRYPGSLDESQMAKHRLLF'FKHRLQCMTSQ

>P16102

MSITSVPGVVDAGVLGAQSAAAVRENALLSSSLWVNVALAGIAILLVFVYMGRTIRPGRPR  
LIWGATLMIPLVSISSYLGLLSGLTVGMIEMPAGHALAGEMVRSQWGRYLTWALSTPMIL  
LALGLLADVLDGSLFTVIAADIGMCVTVGLAAAMTTSALLFRWAFYAI SCAFFVVVLSALV  
TDWAASASSAGTAEIFDTLRVLTVVLWLGYPIVWAVGVEGLALVQSVGVTSWAYSVLDFV  
AKYVFAFILLRWVANNERTVAVAGQTLGTMSDD

>P02945

MLELLPTAVEGVSQAQITGRPEWIWLALGTALMGLGTLYFLVKMGVSDPDAKKFYAITT  
LVPAAIAFTMYLSMLLGYGLTMVPFGGQNP IYWARAYADWLF'TTPLLLLLDLALLVDADQGT



ILALVGADGIMIGTGLVGLTKVYSYRFVWVAI STAAMLY ILYVLFVGGFTSKAESMRPEV  
ASTFKVLRNVTVVLWSAYPVVWLIGSEGAGIVPLNIETLLFMVLDVSAKVGFLILLRSR  
AIFGEAEAPEPSAGDGAAATSD

>P42196

MVGLTTTLFWLGAIGMLVGTALFAWAGRDAGSGERRYVTVLVGISGIAAVAYVVMALGVGW  
VPVAERTVFAPRYIDWILTTPLIVYFLGLLAGLDSREFGIVITLNTVVMLAGFAGAMVPG  
IERYALFGMGAVAFGLVYYLVGPMTESASQRSSGIKSLYVRLRNLTVILWAIYPF IWLL  
GPPGVALLTPTVDVALIVYLDLVTKVGFGFIALDAAATLRAEHGESLAGVDTDAPAVAD

>P28237

MSMPIPSRQLFIDGEWREPIKKNRIP I INPSNEE I IGDIPAGSSEDI EVAVAAARRALKR  
NKGREWAATSGAHRARYLRAIAAKVTERKDHFKLETIDSGKPFDEAVLDIDDVATCFEY  
FAGQAEAMDAKQKAPVTLPMERFKSHVLRQP IGVVGLITPWNYP LLMATWKIAPALAAGC  
TAVLKPSELASITCLEFGEVCNEVGLPPGVLNIVTGLGPDAGAPLAAHPDVKVAFTGSS  
ATGSKVMASAAQLVKPVTLLELGGKSPIIVFEDVDIDQVVEWTFMFCFWTNGQICSATSRL  
LVHESIAAEFIDRLVKWTKNIKISDPFEEGCRLGPVISKGQYDKIMKFI STAKSEGATIL  
CGGSRPEHLKKGYFIEPTIISDISTSMQIWREEVFGPVLCKVTFSSDEALELANDTEYG  
LASAVFSKDLERCERVSKLLESGAVVWNC SQPCFVHAPWGGIKRSGFGRELGEWGIENYL  
NIKQVTSDISNEPWGWYKSP

>P56533

AQLVDSMPSASTGSVVVTDLDLNYWGGRR I KSKDGATTEPVFEPATGRVLCQMVP CGAEEV  
DQAVQSAQAAYLKWSKMAGIERSRVMLEAARI IRERRDNI AKLEV INNGKTITEAEYDID  
AAWQCI EYYAGLAPTL SGQHIQLPGGAFAYTRREPLGVCAGILAWNYPFMIAAWKCAPAL  
ACGNVAVFKPSPMTPVTGVILAEIFHEAGVPVGLVNVVQGAETGSL LCHHPNVAKVSFT  
GSVPTGKKVMEMSAKT VKHVTLLELGGKSPLLI FKDCELENAVARGALMANFLTQGGVCTNG  
TRVFVQREIMPQFLEEVVKRTKAI VVGDPLL TETRMGGLI SKPQLDKVLGFVAQAKKEGA  
RVLCGGEPLTPSDPKLKNYFMSPCVLDNCRDDMT CVKEE I FGPVMSVLPFDTEEEVLQR  
ANNTTFGLASGVFTRDISRAHRVAANLEAGTCYINTYSISPVEVPF GGYKMSGFGRENGQ  
ATVDYYSQLKTVIVEMGDVDSL F

>O75531

MTTSQKHRDFVAEPMGEKPVGSLAGIGEVLGKKLEERGFDKAYVVLGQFLVLKKDEDLFR  
EWLKDTCGANAKQSRDCFGLREWCDAFL

>Q9H503

MDNMSPRRLRAFLSEPIGEKDVCWVDGISHELAINLVTKGINKAY ILLGQFLLMHKNEAEF  
QRWLICCFGATECEAAQQTSHCLKEWCACFL

>O44739

MKVNVSCESSVQTTIDILEENQGEDESILTLGQLRDRIATDNDVDVETMKLLHRGKFLQGA  
DDVSLSTLNFKENDKIIVMGKNALVDDAGFKMLMQYEKHNLSNLQKAYDLNLRDVADLE  
RGFLEKPKQVEMGKKLEKKVKYFNEEAERHLETLDGMNIITETTPENQAKRNREKRKTLV  
NGIQTL LNQN DALLRRLQEQSVLNGDIPE

>P32370

MDMKHSRFLSPLQIGSLT LSNRVGMAPMSMDYEAADGTVPKRLADV FVRRAEGGTGYVMI  
DAVTIDSKYPYMGNTTALDRDELVPQFKEFADRVKEAGSTLVPQI IHPGPESVCGYRHIA  
PLGPSANTNANCHVSRISISIDEI HDI IKQFGQAARRAE EAGCGA I SLHCAHAYMLPGSFL

SPLRNKRMDEYGGSLDNRRARFVIEEMIEEARRNVSPDFPIFLRISGDERMVGNSLEDMLY  
LAPKFEEAGVSMLEVSOGGTQYEGLEHIIPCQNKSRGVNVYEASEIKKVVGIPVYAVGKIN  
DIRYAAEIVERGLVDGVAMGRPLLADPDLCKKAVEGQFDEITPCASC GGSCISRSEAAPE  
CHCHINPRLGREYEFDPVPAEKS KKVLVIGAGPGGMAAVTAAERGHDTVWEADDKIGG  
QLNLAVVAPGKQEMTQWMVHLNRYRAKKAGVKFEFNKEATAEDVKALAPEAVIVATGAKPL  
VPPIKGTQDYPVLTAHDFLRGKFVVPKGRVCVLGGGAVACETAETALENARPNSYTRGYD  
ASIGDIDVTLVEMLPQLLTGVCAPNREPLIRK LKSKGVHINVNTKIMEVTDHEVKVQRQD  
GTQEWLEGFYVFLFGLGSRNYDPLSETLKEFVPEVHVIGDAVRARQASYAMWEGFEKAYS  
L

>Q8RSQ2

MPEAIEVRKVPLHSVSDASELAKLIDDGVL EADRVI AVIGKTEGNGGVNDYTRI IADRAF  
REVL SAKGNRSPEEVAEVP IVWSGGTDGVISPHATIFATVPADKVTKTDEPRLTVGVAMS  
EQLLPEDIGRTAMITKVA AVKDAMADAGITDPADVHYVQTKTPLLTIHTIRDAKSRGKT  
VWTEQTHE SMDLSNGGTALGIAVALGEIDMPTDEDVMHSRELFSSVASCSSGVELDRAQI  
VVVGNARGVGGRRYRIGH SVMKDPLDQDGIWAAIRDAGLELPERPHSNDLDGQLVNVFLKC  
EASQDGTVRGRRNAMLDDSDVHWHRQIKSCVGGV TAAVTGDP AVFVSVSAAHQPEGGGP  
VAAIVDLGQ

>Q9KJE8

MDFSLSEEQTMLKEVARRFTANELMPL EKVLLEREMRMWTDGYTLLPEADHARLMKITQE  
MGFWGIEVDEKLGQGLGMFAKTLVVEEMSKSLIGF SHHGFTLPPDAPNLYYLEECGSPA  
QRDKYVRRYCRGEIDSAMMATEPGAGSDISGLTTTAVRENGQWVINGSKIFISKCDKDEL  
FFICIAVTDKEAPT KRRFTA FILDKDT PGLRIGAEIPVIGAMP TWSVYLDNVRVGDEAVL  
GEVGDAFIPLQNRFGVRRIELAAHCTGMAERLIQMMIDQANLRKTFGVALADRQTVQNW I  
ADSTIELEQVRLQLYFTAWKSDQGHKDLRLEAASLKIAATEMLTRVADRAIQ LHGGGLGLS  
REMGIEYVARMVRIWRVVEGASEIHRMSIAKKLLTDGRTYSPFVAA

>P54690

MAYLSRATATLARQDCSNGCSASYAE EEEEELEASTESYDEEGGSEASTQTFRAKDLIITKA  
DVLKKKPD PSSLVFGASFTDHMLMVEWTSKYGWDKPHIKPFENLSIHPAASVLHYAVELF  
EGLKA FRGVDNKIRLFRPDLNMKRMCRSAVRTTLP EFDKEELLQCVLQLIQLDREWVPYS  
TSASLYIRPTFIGIEPSLGVKKPSKALLFVILSPVGSYF SNGTFSVPVSLWANPKFVRSWK  
GGTGDFKMG CNYGSSLLAQCEAAENGCHQVLWLYGKENRIT E VGTMNLF LYWINKDGE E  
LATPPLDGVILPGVTRQSILELGE EWGEFKVCERHITMDDLSTALEENRVKEMFGSGTAC  
VVCVPVASILYKQMLHIPTMENGHKLSSRIMAKLTDIQYGR IKSEWTLLELP

>O15382

MAAAALGQIWARKLLSVPWLLCGPRRYASS SFKAADLQLEMTQKPHKKPGPGEPLVFGKT  
FTDHMLMVEWNDKGWGQPRIQPFQNLTLHPASSSLHYSLQLFEGMKAFKGDQQVRLFRP  
WLNMDRMLRSAMRLCLPSFDKLELLECI RRLIEVDKDWVPDAAGTSLYVRPVLIGNEPSL  
GVSQPTRALLFVILCPVGAYFP GGSVTPVSL LADPAFIRAWVGGVGN YKLGNYGPTVLV  
QQEALKRGCEQVLWLYGPDHQLTEVGT MNIFVYWTHEDGVLELVT PPLNGVILPGVVRQS  
LLDMAQTWGEFRVVERTITMKQLLRAL E EGRVREVF GSGTACQVCPVHRILYKDRNLHIP  
TMENGP ELILRFQKELKEIQYGIRAH EWMFPV

>Q06881

MPLDFNEIRQLLTTIAQTDIAEVTLKSDDFELTVRKAVGVNNSVVPVVTAPLSGVVGSGL  
PSAIPIVAHAA P SPSPEPGTSRAADHAVTSSGSQPGAKIIDQKLAEVASPMVGT FYRAPA  
PGEAVFVEVGDRIRQGQTVCIIEAMKLMNEIEADVSGQVIEILVQNGEPVEYNQPLMRIK

PD

>P20749

MDEGPVDLRTTRPKAAGLPGAALPLRKRPLRAPSPPEPAAPRGAAGLVVPLDPLRGGCDLPA  
VPGPPHGLARPEALYYPGALLPLYPTRAMGSPFPLVNLPTPLYPMPCMEHPLSADIAMA  
TRADEDGDTPLHIAVVQGNLPAVHRLVNLFQQGGRELDIYNNLRQTPLHLAVITTLPSVV  
RLLVTAGASPMALDRHGQTA AHLACEHRSPTCLRALLDSAAPGTL DLEARNYDGLTALHV  
AVNTECQETVQLLLLERGADIDAVDIKSGRSPLIHAVENNSLSMVQLLLQHGANVNAQMYS  
GSSALHSASGRGLLPLVRTLVRSGADSSLKNCHNDTPLMVARSRVIDILRGKATRPAST  
SQPDPSDRSANTSPRESSRLSSNGLLSASPSSSPSQSPPRDPPGFPMAPPNFFLPSPS  
PAFLPFAGVLRGPGRPVPPSPAPGGS

>P39714

MRALAYFKKGD IHFTNDIPRPEIQTDDEVIIDVSWCGICGSDLHEYLDGPIFMPKDGECH  
KLSNAALPLAMGHEMSGIVSKVGPVKVTKVVGVDHVVDAASSCADLHCWPHSKFYNSKPC  
DACQRGSENLC THAGFVGLGVISGGFAEQVVVSQH HIIPVPKEIPLDVAALVEPLSVTWH  
AVKISGFKKGSSALV LGAGPIGLCTILVLKGMGASKIVVSEIAERRIEMAKKLGVEVFNP  
SKHGHKSIEILRGLTKSHDGF DYSYDCSGIQVTFETSLKALTFKGTATNIAVWGP KPVPF  
QPM DVTLQEKVMTGSIGYVVEAFEEVVRAIHNGDIAMEDCKQLITGKQRIEDGWEKGFQE  
LMDHKESNVKILLTPNNHGEMK

>P07772

MNSTQRFEHKVVIVTGAAQIGRGVALRIAQEGGCLILADRSDLIQAVLAEIKALGALAI  
AVETDLETYAGAE LVVSHAIAEYGRIDVLIINN VGGAIWMKPFQEFSEEEIQEVHRSLFP  
ALWCCRAVLPPEMLKHQQTIVNVSSIATRGIHRIPYSASKGGVNALTASLAF EHAQH GIR  
VNAVATGGTKAPPRKI PRNAQPLSKSEQVMMQVVDQTI DRSF LGRYGSIDEQVNAITFL  
ASDESSYITGSVLPVGGGDQG

>P17445

MSRMAEQQLYIHGGYTSATSGRTFETINPANGNVLATVQAAGREDVDRAVKSAQQGQKIW  
ASMTAMERSRILRRAVDILRERND ELAKLETLDTGKAYSETSTVDIVTGADVLEYYAGLI  
PALEGSQIPLRETSFVYTRREPLGVVAGIGAWNYP IQIALWKSAPALAAGNAMIFKPSEV  
TPLTALKLAEIYSEAGLPDGVFNVLPGVGAETGQYLTEHPGIAKVSFTGGVASGKKVMAN  
SAASSLKEVTMELGGKSPLIVFDDADL DLAADIAMMANFFSSGQVCTNGTRVFPKCKA  
AFEQKILARVERIRAGDVFPQTNFGPLVSFPHRDNLRYIAKGKEEGARVLCGGDVLKG  
DGF DNGAWVAPT VFTDCSDDMTIVREEIFGPVMSILTYESEDEVIRRANDTDYGLAAGIV  
TADLNRAHRV IHQLEAGICWINTWGESPAEMPVGGYKXSGIGRENGVMTLQSYTQVKS IQ  
VEMAKFQSIF

>P08236

MARGSAVAWAALGPLLWGCALGLQGGMLYPQESPSRECKELDGLWSFRADFSDNRRRGFE  
EQWYRRPLWESGPTVDMPVPSSFNDISQDWRLRHFGVWVYEREVILPERWTQDLRTRVV  
LRIGSAHSYAI VVWNGVDTLEHEGGYLPFEADISNLVQVGPLPSRLRITIAINNTLTPTT  
LPPGTIQYLTDTSKYPKGYFVQNTYFDFFN YAGLQRSVLLYTTPTTYIDDI TVTTSVEQD  
SGLVNYQISVKGSNLFLKLEVRL LDAENKV VANGTGTQGGQLKVPVSLWVPLMHERPAYL  
YSLEVQLTAQTS LGPVSDFYTL PVGIRTVAVTKSQFLINGKPFYFHGVNKHEDADIRGKG  
FDWPLLVKDFNLLRWLGANAFRTSHYPYAEVVMQCDRYGIVVIDECPGVGLALPQFFNN  
VSLHHHMVMEEVRRDKNHPAVMMWSVANEPASHLESAGYYLKMVIAHTKSLDPSRPVT  
FVSNSNYAADKGAPYVDVICLNSYYSWYHDYGHLELIQLQLATQFENWYKKYQKPIIQSE  
YGAETIAGFHQDPPLMFTEEYQKSLLEQYHLGLDQKRRKYVVGELIWNFADFMT EQSPTR

VLGNKKGIFTRQRQPKSAAFLLRERYWKIANETRYPHSVAKSQCLENSLFT

>P06835

MLLPLYGLASFLVLSQAALVNTSAPQASNDPFFNHSPSFYPTPQGGRINDGKWQAAFYRA  
RELVDQMSIAEKVNLTGTVGSASGPCSGNTGSPVRLNISSICVQDGPLSVRAADLTDVFP  
CGMAASSSFNKQLIYDRAVAIGSEFKGKGADAILGPVYGPMGVKAAGGRGWEGHGPDPYL  
EGVIAYLQTIIGIQSQGVVSTAKHLIGNEQEHFRFAKKDKHAGKIDPGMFNTSSLSSEID  
DRAMHEIYLWPF AEAVRGGVSSIMCSYNKLNLSHACQNSYLLNYLLKEELGFQGFVMTDW  
GALYSGIDAANAGLDMMPCEAQYFGGNLTTAVLNGTLPQDRLLDDMATRILSALIYSGVH  
NPDGPNYNAQTFLTEGHEYFKQQEGDIVVLNKHVDVRSINRAVALRSAVEGVVLLKNEH  
ETLPLGREKVKRISILGQAAGDDSKGTSCSLRGCSSGAIGTGYGSGAGTFSYFVTPADGI  
GARAQQEKISYEFIGDSWNQAAAMDSALYADAAIEVANSVAGEEIGDVDGNYGDLNNTLTL  
WHNAVPLIKNISSINNNTIVIVTSGQQIDLEPFIDNENVTAVIYSSYLGQDFGTVLAKVL  
FGDENPSGKLPFTIAKDVNDYIPVIEKVDVDPVDKFTESIYVDYRYFDKYNKPVRYEFG  
YGLSYSNFSLSDIEIQTLQPFSENAEPAANYSETYQYKQSNMDPSEYTVPEGFKELANYT  
YPYIHDASSIKANSSYDYPEGYSTEQLDGPKSLAAGGLGNHTCGMLVTLSSLKSIKVL  
MLVGLHLNCLMDIQIMMNSQHLQCNYVDLKRCFWIKIILKLFLLN

>P07337

MSKFVDEQLLSELNQDEKISLLSAVDFWHTKKIERLGIPAVRVSDGPNGIRGTKFFDGVF  
SGCFPNGTGLASTFDRDLLETAGKLMAKESIAKNAAVILGPTTNMQRGPLGGRGFESFSE  
DPYLAGMATSSVVKGMQGGEGIAATVKHFVCNDLEDQRFSSNSIVSERALREIYLEPFRLA  
VKHANPVCIMTAYNKVNGDHCSQSKLLIDILRDEWKWDGMLMSDFWGTYYTAAAIKNGL  
DIEFPGPTRWRTRALVSHSLNSREQITTEDVDDRVRQVLKMIKFVVDNLEKTGIVENGPE  
STSNNTKETSDDLREIAADSIVLLKNKNNYLTSKERRQYHVIGPNAKAKTSSGGGSASMN  
SYYVVSPYEGIVNKLKGEVDYTVGAYSHKSIGGLAESSLIDAAPADAENAGLIAKFYSN  
PVEERSEDEEPPFHVTKVNRSNVHLFDKHEKVDPKNPYFFVTLTGQYVPQEDGDYIFSLQ  
VYGSGLFYLNDELIIDQKHNRGERSFCFGAGTKERTKKLTLKKGQVYNVRVEYSGSPTSG  
LVGEFGAGGFQAGVIAIDDEEIRNAAEALAAKHDKAVLIIGLNGEWETEYDRENMDLP  
KRTNELVRAVLKANPNTVIVNQSGTPVEFPWLEEANALVQAWYGGNELGNAIADVLYGDV  
VPNGKLSLSWPFKLQDNPAFLNFKTEFGRVVYGEDIFVGYRYYEKLRKVAFPFGYGLSY  
TTFELDISDFKVTDDKIDISVDVKNTGDKFAGSEVVQVYFSALNSKVS RPVKELKGFVKV  
HLEPGEKKTVNIELELKDASIFNEELGKWHVEAGEYLVSVGTSSDDILSVKEFKVEKDL  
YWKGL

>Q9X108

MRIAVIGGGSSYTPPELVKGLLDISEDVRIDEVIFYDIDEEKQKIVVDFVKRLVKDRFKVL  
ISDTFEGAVVDAKYVIFQFRPGGLKGRENDEGIPLKYGLIGQETTGVGGFSAALRAFPIV  
EEYVDTVRKTSNATIVNFTNPSGHITFVRNYLEYEKF IGLCNVPINFIREIAEMFSARL  
EDVFLKYYGLNHLNLSFIEKVFVKGEDVTEKVFENLKLKLSNIPDEDFPTWFYDSVRLIVNP  
YLRYLMEKKMFKKISTHEL RAREVMKIEKELFEKYRTAVEIPEELTKRGGSMYSTAAAH  
LIRDLETDEGKIHI VNTNRNNGSIENLPDDYVLEIPCYVRSRGRVHTLSQKGKGDHFALSF IH  
AVKMYERLTIEAYLKRSKKLALKALLSHPLGPDVEDAKDLLEEILEANREYVKLG

>P12996

MAHRPRWTL SQVTELF EKPLDLLLFEAQVHRQHFDPRQVQVSTLLSIKTGACPEDCKYC  
PQSSRYKTGLEAERLMEVEQVLESARKAKAAGSTRFCMGAAWKNPHERDMPYLEQMVQGV  
KAMGLEACMTLGTLSSESQAQRLANAGLDYNNHNLDTSP EFGNIITTRTYQERLDTLEKV  
RDAGIKVCSGGIVGLGETVKDRAGLLQLANLPTPPESVPINMLVKVKGTPLADNDDVDA  
FDFIRTI AVARIMMPTS YVRLSAGREQMNEQTQAMCFMAGANSIFYGCKLLTTPNPEEDK

DLQLFRKLGLNPQQTAVLAGDNEQQQRLEQALMTPDTDEYYNAAAAL

>P36572

MSKRWFVTGTDTEVGKSVASSALLQAAANRAGYPSAGYKPVASGSEMTEGLRNGDALALQ  
ANSGVALDYDEVNPYVFAEPTSPHIVSADEGRPIDAARLSDGLRRLEQRADWVLVEGAGG  
WFTPLSAEYTFADWVRQEQLPVILVVGIKLGCINHAVLTAQAVQQAGLTLAGWIANDVGG  
APGRRHQEYLATLRRMLPRRCWAKSRTCRRPERAPLGQYLDISLLAQ

>P12998

MSWQEKINAALDARRAADALRRRYPVQAQAGRWLVADDRQYLNFSNDYLGLSHHPQIIR  
AWQQGAEQFGIGSGSGHVSGYSVVHQALEEELAEWLGYSRALLFISGFAANQAVIAAMM  
AKEDRIAADRLSHASLLEAASLSPSQLRRFAHNDVTHLARLLASPCPGQQMVVTEGVFSM  
DGDSAPLAEIQQVTQQHNGWLMVDDAHGTGVIQGEQGRGSCWLQKVKPELLVVTFGKGFV  
SGAAVLCSSTVADYLLQFARHLIYSTSMPPAQAQALRASLAVIRSDEGDARREKLAALIT  
RFRAGVQDLPTLADSCSAIQPLIVGDNSRALQLAEKLRQQGCWVTAIRPPTVPAGTARL  
RLTLTAAHEMQDIDRLLEVLHGNG

>O15392

MGAPTLPPAWQPFLKDHRISTFKNWPFLGCACTPERMAEAGFIHCPTENEPDLAQCFFC  
FKELEGWEPDDDPIDEEHKKHSSGCAFLSVKKQFEELTLGEFLKLDREKAKNKIAKETNNK  
KKEFEETAEKVRRRAIEQLAAMD

>Q9DGI0

MNSLVALVLLGQIIIGSTLSSQVRGDLECDKDAKEWTDTGVRVINEHKLHGKYKALNVIK  
NIVVVPWDGDWVAVFLKLNLETECHVLDPTPVKNCTVRPQHNHAVEMDCDVKIMFNVD  
FKEDVFAKCHSTPDSVENVRRNCPKCPILLPSMNPQVVDVSVYVNLKHNEKLSDHVYEV  
EISRGQHKYEPEAYVVEFAIVEVNCTAQELHDDHHHCHPNTAGEDHIGFCRATVFRSHAS  
LEKPKDEQFESDCVILHVKEGHAHSHLIQQHVEKDSISPEHNNTALNFVHPHNDTSTSHE  
SHEHLAEVPPAVFVKKELPKDISDRHTTPVKGCPCGKVHHFEL

>Q01532

MLPTSVSRSLYLKTFRSHLLRAPQIVLKRMSSSIDISKINSWNKEFQSDLTHQLATTVLK  
NYNADDALLNKTRLQKQDNRFNTVVSTDPVTNQKSSGRCWLFAATNQLRLNLVLELN  
LKEFELSQAYLFFYDKLEKANYFLDQIVSSADQDIDSRLVQYLLAAPTEDGGQYSMFLNL  
VKKYGLIPKDLYGDLPYSTTASRKWNSLLTTKLRFAETLRTALKERSADDSIIVTLREQ  
MQREIFRLMSLFMDIPPVQPNQFTWEYVDKDKKIHTIKSTPLEFASKYAKLDPSTPVSL  
INDPRHPYKGLIKIDRLGNVLGGDAVIYLNVDNETLSKLVVKRLQNNKAVFFGSHTPKFM  
DKKTGVMDIELWNYPAIGYNLPQQKASRIRYHESLMTHAMLITGCHVDETSKLPLRYRVE  
NSWGKDSGKDGLYVMTQKYFEEYCFQIVVDINELPKELASKFTSGKEEPIVLP IWDPMGA  
LAK

>P87362

MNAHGLSTEKAAAFTRRLRAEPQFLLAQNVATCSDPLEVCQRQVVDQTIQVFQHAVPAE  
GKPVNTQKNSGRCWIFSCNAMRLPFMKKYNIEEFESQSYLFFWDKVERCYFLNAFVE  
TAQKKEPIDGRLVQFLLTNPNDGGQWMLVNIIVEKYGVVPKKYFPESHTTEATRRMNEI  
LNHKMREYCLRLRNMVATGTNKEELCAAMDTMIEEVFRIVSTCLGNPPEFCWEFRDKEK  
NYHKFGPMPVQFYNEHVKPYFNMEDKVCLVNDPRPQNPYCYLYTVEYLGNMAGGRKTLY  
NNQPIEVLKLAATS IKDGEAVWFGCDVAKHFYSKLGINDLNIFNHELVFVSVKNMKA  
ERLIFGDSLMTHAMVLTAVSEKDGQEDCYEKWRVENSWGEDRGNKGYLIMTDDWFSEYVY  
EVVVDKKYVPEDVLAVMEQEP IVLPAWDPMGALAK

>Q9R8E3

MGAPVLPAAFGFLASARTGGGRAPGPVFATRGSHTDIDTPQGERSLAATLVHAPSVAPDR  
AVARSLTGAPTTAVLAGEIYNRDELLSVLPAGPAPEGDAELVLRLLERYDLHAFRLVNGR  
FATVVRTGDRVLLATDHAGSVPLYTCVAPGEVRASTEAKALAAHRDPKGFPLADARRVAG  
LTGVYQVPAGAVMDIDLGSQTAVTHRTWTPGLSRRILPEGEAVAAVRAALEKAVAQRVTP  
GDTPLVVLSSGGIDSSGVAACAHRAAGELDTVSMGTDTSNEFREARAVVDHLRTRHREITI  
PTTELLAQLPYAVWASESVDPDIEYLLPLTALYRALDGPERRILTYGADIPLGGMHRE  
DRLPALDVTVAHDMATFDGLNEMSPVLSLTLAGHWTHPYWDREVLDDLVSLEAGLKRRHG  
RDKWVLRAMADALPAETVNRPKLGVHEGSGTTSFSSRLLLDHGVAEEDRVHEAKRQVVRE  
LFDLTVGGGRHPSEVDTDVVRVSVADRRTARGAA

>Q7T3E6

MHRTTRIKITELNPHLMCVLCGGYFIDATTIVECLHSFCKMCIVRYLET SKYCPICDVQV  
HKTKPLLNIIRSDKTLQDIVYKLVPLGFKNEMKRRRDFYAEHPVDATNGSNEDRGEVSD  
KRIIADDEIISLSIEFFDQKKLDGKDGEKESTKEVTVKRYLQCPAAMTMHLRKF LRSK  
MDIPCTFQIEVMYEDEPLKDYITLMDIAYIYTWRNGPLPLKYRVRPGCKKIKLSSPRND  
MSGGRRPDTESSSSDKPNSPSIVAAPSTSSSMPSPNTPVQSTHPSFPHISTINGVSAKV  
GHNGQTPFSSKVCKTSHNGSNSLG

>P25703

MVAGIHSLLLLLFYQVLLSGCTGLIPEEGKRKYTESGRSSPQQSQRVLNQFELRLLSMFG  
LKRRTPTGKNVVIIPPYMLDLHYHLHLAQLAADEGTSAMDFQMERAA SRANTVRSFHHEESM  
EEIPESREKTIQRFFFNLSIPNEELVTS AELRIFREQVQEPFESDSSKLHRINIYDIVK  
PAAAASRGPVVRLLDTRLVHHNESKWE SFDVTPAIARWIAHKQPNHGFVVEVNHLDNDKN  
VPKKHVRI SRSLTPDKDNWPQIRPLLVTF SHDGKGHALHKRQKRQARHKQRKRLKSSCRR  
HPLYVDFSDVGWNDWIVAPPGYHAFYCHGECFPPLADHLNSTNHAI VQTLVNSVNTNIPK  
ACCVPTELSAISMLYLDENEKVVLKNYQDMVVEGCGCR

>Q7T2X7

MAECPWLVLVWGCCGCLCLALGELLNDGLLAVGMGTGDAARQEEAALPLGDTVSEHMLR  
LYDKYRSGGGRAKESLRYRQALPDGNTVRSFRAMNGDEHKKCHYMFNLTSLTSSENILSA  
TLHYLGDLLNSSHRCPHSLFCTQHGHAKPEFTLYLTLWSFNALQNP THVISNFLINVSA  
SQRDHPLWQWKDITQAVRKAKEYGEAVLGFNLTI EYPNHRSIDILGLKPYILVYANDSAI  
SEPDSVSSSLHGPHTPALPKPNRKT EKAEQRKKRSTEILLPLQNNELPGA EYQYSVDEEG  
WEERKPYKNLQGRQNEKDKNKKLRKGSRQKSQTLQFDEQTLKARRKQWNEPRNCARRY  
LKVDFADIGWSEWII SPKSFDAYYCSGACQFPMPKSLKPSNHATI QSIVRAVGVVPGIPE  
PCCVPEKMSSLSILFLDENKNVVLKVYPNMTVESACR

>Q7T2X6

MQFSLVMSYYCLACFLVMFALGRAIKAHTSKLPPEGVGTIRLQSDPLSLHMAKLYEKYSR  
EGSRLQDGNTVRSFRAQPDSQFGSPLYRFNLSLQQTEEVLAATLHFAPVKGRSSRDSY  
CKRSKSSCRLLLPTQHQKISLVFKSVIQNKT LGSEKWNTNIFHKRAAWHVKDITNIIK  
DAQHERDLFISMEISFGEKFATVFENNP SELPYILVFADDRAISDPNSIALTLQRYDPFQ  
PNGGNSKQAPNTFPESRVKRDTS DLASSHDNELPDIKYMRYSKEDLWESTYKSLKHKSPR  
KEKKKKQGENEETLPKSPVLHFDERTM KKARRRQWDEPRVCSRRYLKVD FADIGWSEWII  
SPKSFDAYYCSGACEFPMKVVRPSNHATI QSIVKAVGIIPGVPEPCCTPDMNSLSVLF  
LDEGRNMVLKVYPNMSVESCS CR

>P23359

MHVRSRLAAAPHSFVALWAPLFLLLRSALADFSLDNEVHSSFIHRRRLRSQERREMQRREILS  
ILGLPHRPRPHLQGGKHSAPMFMLDLYNAMAVEESGPDGQGFSYYPYKAVFSTQGPPLASL  
QDSHFLTDADMVMSFVNLVEHDKEFFHPRYHHRFRFDLSKIPEGEAVTAAEFRIYKYDI  
RERFDNETFQITVYQVLQEHSGRESDLFLLLDSRTIWASEEGWLVDITATSNHWVWVNRH  
NLGLQLSVETLDGQSINPKLAGLIGRHGPQNKQPFMVAFFKATEVHLRSIRSTGGKQRSQ  
NRSKTPKNQEALRMASVAENSSDQRQACKKHELYVSFRDLGWQDWIIAPEGYAAAYCEG  
ECAFPLNSYMNATNHAIVQTLVHFINPDTVPKPCCAPTQLNAISVLYFDDSSNVILKKYR  
NMVVRACGCH

>P34820

MTALPGPLWLLGLALCALGGGGPGLRPPPGCPQRRLGARERRDVQREILAVLGLPGRPRP  
RAPPAAASRLPASAPLFLMLDLYHAMAGDDDEDGAPAERRRGRADLVMSFVNMVERDRALGH  
QEPHWKEFRFDLTQIPAGEAVTAAEFRIYKVPSTHLLNRTLHVSMFQVVQEQSNRESDLF  
FLDLQTLRAGDEGLVLDVTAASDCWLLKRHKDLGLRLYVETEDGHSVDPGLAGLLGQRA  
PRSQQPFVVVTFFRASPSPIRTPRAVRPLRRRQPKKSNELPQANRLPGIFDDVHGSHGRQV  
CRRHELIVVSFQDLGWLDWVIAPQGYSAAYCEGECSPFLDSCMNATNHAILQSLVHLMMPD  
AVPKACCAPTCLSATSVLYYDSSNNVILRKHNRNMVVKACGCH

>P39075

MKESYYSIGEVSPLANVSIKALRYDKIDLFPAYVDPDTSYRYYTDSQLIHLDLIKSLK  
YIGTPLEEMKKAQDLEMEELFAFYTEQERQIREKLDFLSALEQTISLVKKRMKRQMEYPA  
LGEVFLVDEEEIRIIQTEAEGIGPENVLNASYSKLLKFFIESADGF'TNNSYGATFSFQPYT  
SIDEMTYRHIFTPVLTNKQISSITPDMEITTPKGRYACIAYNFSPEHYFLNLQKLIKIYI  
ADRQLTVVSDVYELIIPIHYSPPKQEEYRVEMKIRIAE

>P41832

MLKNSSGSKHSNSKESHNSSSSIFQNLKRLANSNATNSNTGSPTYASQQQHSPVGNVST  
SPASSSSFRKLNAPSRSTSTEARPLNKKSTLNTQNLQSYMNGKLSGDVPVSSQHARSHSM  
QSKYSYSKRNSSQASNKLTRQHTGQSHSASSLLSQGSLTNLSKFTTPDGKIYLEMPSDPY  
EVEVLFEEDIMYKRNIFQSLSEDKQEALMGYSIEKKWLVKQDLQNELKMRANTTSSTA  
SRTSMASDHHPILTANSSLSPPKSVLMTSASSPTSTVYSNSLNHSTTLSSVGTSTSKGKK  
LVSGSLKKQPSLNNIYRGAENNTSASTLPGDRTNRPPIHVYQRIILADKLTSDMKDLWV  
TLRTEQLDWVDAFIDHQGHIAMANVLMNSIYKTAPRENLTKELEKENSFFKCFRVLMSL  
SQGLYEFSTHRLMTDTVAEGLFSTKLATRKMATEIFVCMLEKKNKSRFEAVLTSLDKFR  
IGQNLHMIQNFKKMPQYFSHLTLESHLKI IQAWLFAVEQTLDGRGKMGSLVGASDEFKNG  
GGENAILLEYCQWTFVFINHLCSNINQRMMLRRTKLENCGILRIMNKIKLLDYDKVIDQ  
IELYDNNKLDLDFNVKLEANNKAFNVLDLHDPSSLKLNLDICKGTENEKLLVSLVQHLFLS  
SSKLI EENQNSKLTQKLMDSLVTNVSVASTSDEETNMMAIQRLYDAMQTDEVARRA  
ILESRLTKKLEEIQAERDSLSEKLSKAHGLVGQLEDELHERDRILAKNQRVMQQLAE  
LEELKHKHLLLEKHQQEVELRKMLTILNSRPEESFNKNEGTRGMNSSLNSSEKANIQKVLQ  
DGLSRAKKDYKDDSKKFGMTLQPNKRLKMLRMQMENIENEARQLEMNFNFAEFKDRLEPP  
IHKKPKVKKMKNKDRKPLVKPQEADVNLNLDLRRALTEIQMESNDISKFNVEERVNELF  
NEKSLALKRLKELETKYKGFIDFNVDEIMDSPKNTGDVETEEDANYASLDPKTYQKK  
LDEINRITDQLLDIQTQTEHEIQVEEDGEEDLSSSSSSDDESEEIYQDASPTQELRSEHSE  
LSSGSGPGSFLDALQKYGTQNVTASAAAFGENNNGSGIGPLHKSVEKTFMNRLRKSTVS  
SAPYLEELTQKVNKVEPYEQNEDEGLDKKSLPENSTASAAAFDKAEKDMRQHVENGKQG  
RVVNHEEDKTADFSAVSKLNNTDGAEDLSTQSSVLSSQPPPPPPPPPPVPAKLFGESLEK  
EKKSEDDTVKQETTGDSPAPPPPPPPPPPPMALFGKPKGETPPPPPLPSVLSSSTDGVI  
PPAPPMMPASQIKSAVTSPLLPQSPSLFEKYPRPHKLLKQLHWEKLDCTDNSIWGTGKAE  
KFADDLYEKGVLADLEKAFAAAREIKSLASKRKEDLQKITFSLSRDISQQFGINLHMYSSLS

VADLVKKILNCDRDFLQTPSVVEFLSKSEIIEVSVNLARNYAPYSTDWEGVRNLEDAKPP  
EKDPNDLQRADQIYLQLMVNLESYWGSRRMRALTVVTSYEREYNELLAKLRKVDKAVSALQ  
ESDNLRNVFNVILAVGNFMNDTSKQAQGFKLSTLQRLTFIKDTTNSMTFLNYVEKIVRLN  
YPSFNDFLSELEPVLDVVKVSIIEQLVNDCKDFSQSIIVNVERSVEIGNLSDSSKFHPLDKV  
LIKTLPLVLPPEARKKGDLEDEVKLTIMEFESLMHTYGEDSGDKFAKISFFKFKFADFINEY  
KKAQAQNLAEEEEERLYIKHKKIVEEQQKRAQEKEKQKENSNSPSEGNEEDEAEDRRAV  
MDKLLLEQLKNAGPAKSDPSSARKRALVRKKYLSEKDNAPQLLNDLDTEEGSILYSPEAMD  
PTADTVIHAESPTPLATRGMNTSEDLPSPSKTSALEDQEEISDRARMLLKELRGSDTPV  
KQNSILDEHLEKLRARKERSIGEASTGNRLSFK

>Q12983

MSQNGAPGMQEEESLQGSWVELHFSNNGNGGSVPASVSIYNGDMEKILLDAQHESGRSSK  
SSHCDSPPRSQTPQDTNRASETDTHSIGEKNSQSEEDDIERRKEVESILKKNSDWIWDW  
SSRPENIPPKEFLFKHPKRTATLSMRNTSVMKKGIFSAEFLKVFLPSLLLSHLLAIGLG  
IYIGRRLTTSTSTF

>Q7Z465

MGTIQEAGKKTVDGVREIAEAPELGAALRHGELELKEEWQDEEFPRLLPEEAGTSEDPED  
PKGDSQAAAGTPSTLALCGQRPKRRLSAPELRLSLTKGPGNDGASPTQSAPSSPDGSSD  
LEIDELETPSDSEQLDGHEFEWEDELPRAEGLGTSETAERLGRGCMWDVTGEDGHHWRV  
FRMGPREQRVDMTVIEPYKKVLSHGGYHGDGLNAVILFASCYLPRSSIPNYTYVMEHLFR  
YMGVTLELLVAENYLLVHLSGGTSRAQVPPLSWIRQCYRTLDRRLRKNLRALVVHATWY  
VKAFLALLRPFISSKFTRKIRFLDSLGEAQLISLDQVHIPEAVRQLDRDLHGSGGT

>P80193

NAIADYRTFPLISPLASAASFASGVSVTWADGRVSPFHNLWLRDNCPCGDCVYEVTRQV  
FLVADVPEDIQVQAVTIGDDGRLVVQWDDGHASAYHPGWLRAHAYDAQSLAEREAAARPHK  
HRWMQGLSLPVYDHGAVMQDDDTLLEWLLAVRDVGLTQLHGVPTEPGALIPLAKRISFIR  
ESNFGVLFVRSKADADSNAYTAFNLP LHTDLP TRELQ PGLQFLHCLVNDATGGNSTFVD  
GFAIAEALRIEAPAAAYRLLCETPVFEFRNKDRHSYRCTAPVIALDSSGEVREIRLANFLR  
APFQMDAQRMPDYLLAYRRFIQMTREPRFCFTRRLEAGQLWCFDNRRVLHARDAFDPASG  
DRHFQGCYVDRDELLSRILVLQR

>Q03001

PSPRPHHRRGFPRLAETLQHPMCPLPLVASAGHHRHRLLLLLLAPQAPEREEASDEIVFS  
GRSRSDAVLRSHHFRSEGFRA SPRHLRRRVAAAAAARLEEVKPVVEVHHQSEQETSVRK  
RRIKSSRVQPEFYHSVQGASIRRPSSGNASYRCSMSSSADFSEDDFSQKSGSASPAPG  
DTLPWNLPKHERSKRKIQGGSVLDPAERAVLR IADERDKVQKKTFTKW INQHLMKVRKHV  
NDLYEDLRDGHNLISLLEVLSGDTLPREKGRMRFHRLQNVQIALDYLKRRQVKLVNIRND  
DITDGNPKLTLGLIWTIILHFQISDIHVTGESEDSAKERLLLLWTQQATEGYAGIRCENF  
TTCWRDGKLFNAI IHKYRPDLIDMNTVAVQSNLANLEHAFYVAEKIGVIRLLDPEDVDVS  
SPDEKSVITYVSSLYDAFPKVPPEGGEGIGANDVEVKWIEYQNMVNYLIQWIRHHVTMSE  
RTFPNPNVELKALYNQYLQFKETEIPPKETEKS IKRLYKLLIWIIEFGR IKLLQGYHPN  
DIEKEWGKLI IAMLEREKALRPEVERLEMLQQIANRVQRDSVICEDKLILAGNALQSDSK  
RLESGVQFQNEAEIAGYILECENLLRQHVIDVQILIDGKYQADQLVQRVAKLRDEIMAL  
RNECSSVYSKGRILTTEQTKLMISGITQSLNSGFAQTLHPSLTSGLTQSLTPSLTSSMT  
SGLSSGMTSRLTPSVTPAYTPGFPSGLVPNFSSGVEPNLQTLKLMQIRKPLLKSSLLDQ  
NLTEEEINMKFVQDLLNWVDEMQVQLDRTEWGSDDLPSVESHLENHKNVHRAIEEFESSLK  
EAKISEIQMTAPLKLTYAEKLRLESQYAKLLFSLKNTSRNQRHLDTLHNFVSRATNE  
LIWLNEKEEEEVAYDWSERNIARKKDYHAELMRELDQKEENIKSVQIEAEQLLLENHP



ARLTIEVKLESVMVLVEYAYRAAMQTQWSWILQLCQCVEQH IKENTAYFEFFNDAKEATD  
YLRNLKDAIQRKYS CDRSSSIHKLEDLVQESMEEKEELLQYKSTIANLMGKAKTIIQLKP  
RNSDCPLKTSIPIKAICDYRQIEITIIYKDDCEVLANN SHRAKWKVISPTGNEAMVPSVCF  
TVPPPNKEAVDLANRIEQYQNVLT LWHESHINMKS VVSWHYLINE IDRIRASNVASVSM  
NLIKTM L PGEHQVLSNLQSRFEDFLEDSQESQVFSGSDITQLEKEVNVCKQYYQELLKS  
AEREEQ EESVYNLYISEVRNIRLRL ENCEDRLIRQIRTPLERDDLHESVFRITEQEKLKK  
ELERLKDDLGTITNKCEEFFSQAAASSSVPTLRSELNVVLQNMNQVYSMSSTYIDKYVTA  
ISIIYKGYCLISFLRLKTVNLVLKNTQAAEALVKLYETKLC EEEAVIADKNNIENLISTLK  
QWRSEVDEKRQVFHALEDELQAKAISDEMFKTYKERDLDFDWHKEKADQLVERWQNVHV  
QIDNRLRDLEGIGKSLKYYRDTYHPLDDWIQQVETTQRKIQENQPENSKTLATQLNQKM  
LVSEIEMKQSKMDECCQYAEQYSATVKDYELQMTYRAMVDSQQKSPVKRRRMQSSADLI  
IQEFMDLRTRYTALVTLMTQYIKFAGDSLKRLEEEEEVIINSEHPVNIKELEIKRCKETSE  
HGAYSDLLQRQKATVLENSKLTGKISELERMVAELKKQKSRVEEELPKVREAAENELRKQ  
QRNVEDISLQKIRAESEAKQYRRELETIVREKEAAERELERVRQLTIEAEAKRAAVEENL  
LNFRNQLEENTFTRRTLEDHLKRKDL SLNDLEQQKNKLM EELRRKRDNEEELLKLIKQME  
KDLAFQKQVAEKQLKEKQKIELEARRKITEIQYTCRENALPVCPITQATSCRAVTGLQQE  
HDKQKAEELKQQVDELTAANRKAEQDMRELT YELNALQLEKTSSEEKARLLKDKLDE'TNN  
TLRCLKLELERKQDAEKGYSQLRELGRQLNQTTGKAEEMQEA S DLKKIKRNYQLELES  
LNHEKGKLOREVDRI TRAHAVA EKNIQHLSQIHSFRDEKELERLQICQRKSDHLKEQFE  
KSHEQLLQNIKA EKENNDKIQR LNEEELKSNECAEMLKQKVEELTRQNNETKLMMQRIQA  
ESENIVLEKQTIQORCEALKIQADGFKDQLRSTNEHLHKQTKTEQDFQRKIKCLEEDLAK  
SQNLVSEFKQKCDQONIIIQNTKKEVRNLNAELNASKEEKRRGEQKVQLQQAQVQELNNR  
LKKVQDELHLKTIIEEQMTHRKMVLFQEE S GKFQSAEEFRKKMEKLMESK VITENDISGI  
RLDFVSLQOENSRAQENAKLCETNIKELERQLQOYREQMQGQHMEANHYQKCQKLEDEL  
IAQKREVENLQKMDQQIKEHEHQVLVLLQCEIQKKSTAKDCTFKPDFEMTVKECQHS GEL  
SSRNTGHLHPTPRSPLLRWTQEPQPLEEKWQHRVVEQIPKEVQFQPPGAPLEKEKSQQCY  
SEYFSQTSTELQITFDETNPITRLSEIEKIRDQALNNSRPPVRYQDNACEMELVKVLTPL  
EIAKNKQYDMHTEVTTLKQEKNPVPSAE EWMLEGC RASGGLKKGDFLKKGLEPETFQNF D  
GDHACSVRDEDFKFQGLRHTVTARQLVEAKLLDMRTIEQLRLGLKTV EEVQKTLNKFLTK  
ATSIAGLYLESTKEKISFASAAERIIIDKMVALAFLEAQAATGFIIDPISGQTYSVEDAV  
LKGVDPEFRIRLLEAEKAAVGYSYSSKTL SVFQAMENRMLDRQKGKHILEAQIASGGVI  
DPVRGIRVPEIALQQGLNNAI LQFLHEPSSNTRVFPNPNNKQALYYSELLRMCVFDVE  
SQCFLFPFGERNISNLNVKKTHRISVVDTKTGSELT VYEAFQRN LIEKSIYLELSGQQYQ  
WKEAMFFESYGHSSHMLTDTKTGLHFNINEAIEQGTIDKALVKKYQEG LITLTELADSL L  
SRLVPKCDLHSPVAGYWL TASGERISVLKASRRNLVDRITALRCL EAQVSTGGIIDPLTG  
KKYRVAEALHRGLVDEGFAQQLRQCELVITGIGHPITNKMMSVVEAVNANI INKEMGIRC  
LEFQYLTGGLIEPQVHSRLSIEEALQVGIIDVLIATKLDQKSYVRNICPQTKRKLTYK  
EAL EKADDFDHTGLKLLLEVSEPLMTGISSLYSS

>Q60824

RRFPRAETLQHPMCSLPLVAPAGHRRHRL LLLLLLAPQAPERETSDEIVFSGRSRSDAA  
LRSHHFRSEGFRASPRHIRRRVAAAAAARLEEVKPVVKVHHQSEQESGRKRRIKKNSRV  
QPEFYHSVQGASTRRPSSGNASYRCSMSSADFSDEDDFSQKSGSASPAPGDTLPWNLPK  
HERSKRKIQGGSVLDP AERAVLR IADERDKVQKKTFTKW INQHLMKVRKHVNDLYEDLRD  
GHNLISLLEVLSGDTLPREKGRMRFHRLQNVQIALDYLKRRQVKLVNIRNDDITDGNPKL  
TLGLIWTIILHFQISDIHVTGESEDSAKERLLLWTQQATEGYAGVRCENFTTCWRDGLK  
FNAI IHKYRDLIDMNTVAVQSNLANLEHAFYVAEKIGVIRLLDPEDVDVSSPDEKSVIT  
YVSSLYDAFPKVPPEGGEGIGANDVEVKWIEYQNMVNYLIQWIRHHVVTMSERTFPNNPLE  
LKALYNQYLQFKEKEIPPKEMEKSKIKRLYKLEIWI EFGRIKLLQGYHPNDIEKEWGKL  
IIAMLEREKALRPEVERLDMLQOIATRVQRDSVSCEDKLI LARNALQSDSKRLESQVQFQ

NEAEIAGYILECENLLRQHVIDVQILIDGKYYQADQLVQRVAKLRDEIMALRNECSSVYS  
KGRMLTTEQTKLMISGITQSLNSGFANLVSEFKQKCDQQSMIIQKTEKEVRSLSAELSAS  
KEEKRREEQKAQLQRAQVQELNDRDKRVQDELHLKTIIEEQMTHRKMILLQEESDKFKRSA  
DEFRKKMEKLMESKVVTTETDLSGIKHDVSVLQRENFRAQENAKLWETNIRELERQLQCYR  
EKMQQGPPVEANHYQKCRRLLEEELLAQRREVENLKQKMDQQIKEHEHQLLRLQCEIQKKS  
TTQDHTFASAFDTAGRECHHPAEISPGNSGHLNLKTRPLSRWTQEPHQTEGKWPBRAAE  
QLPKVQFRQPGAPLDRESSQPCYSEYFSQTSTELQITFDDKNPIITRLSELETMREQALH  
PSRPPVTYQDDKLERELVKLLTPLEIAKNKQCGMHTEVTTLKQEKRLGSSAGGWMLEGCR  
TSGGLKGDFLKKSVEPEASPSLDLNQACSVRDEEFQFQGLRHTVTGRQVVEAKLLDMRTV  
EQLRLGLKTVVEVQRSLSKFLTKATSIAGLYLESSKEKMSFTSAAQKIIIDKMIALAFLE  
AQAATGFIIDPVSGQTYCVEDAVLHGIVDPEFRSRLLEAEKAVLGYSHASKTSLSVFQAME  
NRMLDRKKKGKHILEAQIASGGVIDPVRGVRVPPPEMAVQQGLLNNAVLQFLHEPSSNTRVF  
PNPNKQALYSELLQICVFDVDCQCFLLPFGEREISNLNIEKTHKIAVVDTKTGAEALTA  
FEAFQRNLIDKGIYLELSGQQYQWKEATFFDSYGHPSHMLTDTKTGLQFNISEAVEQGTLD  
DKALVQKYQEGTLTTELADFLLSKVVPKDLHSP IAGYWLTASGERISLLKASRRNLVD  
RVTALRCLEAQICTGGIIDPLTGKRYVAEALHRGLVDEGFAQQLRQCELVITGISHPVS  
NKMMSVVEAVNANIISKEMGMRCLEFQYLTGGLIEPKVFSRLTIEEALHVGIIDVLIATR  
LKDQKSYVRDIMCPQTKRKLTYKEALEKADFDHFTGLKLLEVSEPLGTGISNLYYSSQ

>P25440

MLQNVTPHNKLPGEENAGLLGLGPEAAAAPGKRIRKPSLLYEGFESPTMASVPALQLTPAN  
PPPPEVSNPKKPGRVTNQLQYLHKVVMKALWKHQFAWPFQPVDAVKLGLPDYHKIIKQP  
MDMGTIKRRENNYYWAASECMQDFNTMFTNCYIYNKPTDDIVLMAQTLEKIFLQKVASM  
PQEEQELVVTIPKNSHKKGAKLAALQGSVTSAHQVPAVSSVSHTALYTPPPEIPTTVLNI  
PHPSVISSPLLKSLHSAGPPLLAVTAAPPAQPLAKKKGVKRKADTTPTPTAILAPGSPA  
SPPGSLEPKAARLPPMRRESGRPIKPPRKDLPSQQQHQSCKKGLSEQLKHCNGILKEL  
LSKKHAAYAWPFYKPVDAALGLHDYHDIKHPMDLSTVVRKRMENRDYRDAQEFAADVRL  
MFSNCYKYNPPDHDVVAMARKLQDVFEFRYAKMPDEPLEPGPLPVSTAMPGLAKSSSES  
SSEESSSESSEEEEEEEDEEEDDEEESESSDSEEEERAHRLAELQEQLRVHEQLAALSQG  
PISKPKRKREKKEKRRKAEKHRGRAGADEDDKGPAPRPPQPKSKKASGSGGSAAL  
GPSGFGPSGGSGTKLPKATKTAPPALPTGYDSEEEEESRPMSYDEKRQLSLDINKLPGE  
KLGRVVIHQAREPSLRDSNPEEIEIDFETLKPSTLRELERVLSCLRKKPRKPYTIKKP  
VGKTKEELALEKKRELEKRLQDVSQQLNSTKKPPKANNEKTESSSAQQVAVSRLSASSSS  
SDSSSSSSSSSSSDTSDSDSG

>Q5VTR2

MSGIGNKRAAGEPGTSMPPPEKKAAVEDSGTTVETIKLGGVSSSTEELDIRTLQTKNRKLAE  
MLDQRQAIIEDELREHIEKLERQATDDASLLIVNRYWSQFDENIRIILKRYDLEQGLGDL  
LTERKALVVPEPEPDSNSQERKDDREREGEQEPAFSFLATLASSSSSEEMESQLQERVES  
SRRAVSQIVTVYDKLQEKVELLSRKLNSGDNLIVEEAVQELNSFLAQENMRLQELTDLLQ  
EKHRTMSQEFKLSQKVEETAESRVSVLES MIDDLEQWDIDKIRKREQLNRHLAEVLERVN  
SKGYKVYAGSSLYGGTITINARKFEEMNAELEENKELAQNRRLCELEKLRQDFEEVTTQN  
EKLKVELRSAAVEQVVKETPEYRCMQSQFSVLYNESLQLKAHLDEARTLLHGTRGTHQHQV  
ELIERDEVSLHKKLRTEVIQLEDTLAQVRKEYEMLRIEFEQTLAANEQAGPINREMRHLI  
SSLQNHNHQLKGEVLRKRLREAQSDLNKTRLRSGSALLQSQSSTEDPKDEPAELKPD  
EDLSSQSSASKASQEDANEIKSKRDEEEREREREREREREREREKEREKEREKQKLES  
EKERDSAKDKEKKGHDDGRKKEAEIIKQLKIELKKAQESQKEMKLLLDMYRSAPKEQRDK  
VQLMAAEKKSAAELEDLQRLKDLKEDKKNKMADEDALRKIRAVEEQIEYLQKKLAM  
AKQEEEAALLSEMDVTGQAFEDMQEQNIRLMQQLREKDDANFKLMSEIKSNQIHKLLKEE  
KEELADQVLTLKTQVDAQLVVRKLEEKELLSQSNIGTGEKELGLRTQALEMNRKAMEA

AQLADDLKAQLELAQKKLHDFQDEIVENSVTKEKDMFNFKRAQEDISRLRRKLETTKKPD  
NVPKCDEILMEEIKDYKARLTCPCCNMRKKDAVLTKCFHVFCFECVKTRYDTRQRKCPKC  
NAAFGANDFHRIYIG

>O75150

MSGPGNKRAAGDGGSGPPEKKLSREEKTTTTLIEPIRLGGISSTEEMDLKVLQFKNKKLA  
ERLEQRQACEDELREIERIEKLEKRQATDDATLLIVNRYWAQLDETVEALLRCHESQGELSS  
APEAPGTQEGPTCDGTPLPEPGTSELRDPLMQLRPPLSEPALAFVVALGASSSEVELE  
LQGRMEFSKAAVSRVVEASDRLQRRVEELCQRVYSRGDSEPLSEAAQAHTRELGRENRRL  
QDLATQLQEKHHRISLEYSSELQDKVTS AETKVLEMETTVEDLQWDIEKLRKREQKLNKHL  
AEALEQLNSGYVVS GSSSGFQGGQITLSMQKFEMLNAELEENQELANSRMAELEKLAEL  
QGAVRTNERLKVALRSLPEEVVRETGEYRMLQAQFSLLYNESLQVKTQLDEARGLLLATK  
NSHLRHIEHMESDELGLQKKLRTEVIQLEDTLAQVRKEYEMLRIEFEQNLAANEQAGPIN  
REMRHLISSLQNHNLKGD AQRYKRKLREVQAEIGKLRAQASGSAHSTPNLGHPEDSGV  
SAPAPGKEEGGPGPVSTPDNRKEMAPVPGTTTTTTTSVKKEELVLPSEEDFQGITPGAQGPS  
SRGREPEARPKRELREREGPSLGPPVASALSRADREKAKVEETKRKESELLKGLRAELK  
KAQESQKEMKLLLDMYKSAPKEQRDKVQLMAAERKAKAEVDELRSRIRELEERDRRESKK  
IADEDALRRIRQAEEQIEHLQRKLGATKQEEEEALLSEMDVTGQAFEDMQEQNGRLLQQLR  
EKDDANFKLMSERIKANQIHKLLREEKDELGEQVLGLKSQVDAQLLTVQKLEEKERALQG  
SLGGVEKELTLRSQALELNKRKAVEAAQLAEDLKVQLEHVQTRLREIQPCLAESRAAREK  
ESFNLKRAQEDISRLRRKLEKQRKVEVYADADEILQEEIKEYKARLTCPCCNTRKKDAVL  
TKCFHVFCFECVGRYEARQRKCPKCNAAFGAHDFHRIYIS

>P0C2P0

MPLSQEESTLIERATATINSIPISEDYSVASAALSSDGRIFTGVNVYHFTGGPCAELVVL  
GTAAAAAGNLT CIVAIGNENRGILSPCGRCRQVLLDLHPGIKAIVKDS DGQPTAVGIRE  
LLPSGYVWEG

>Q10588

MAAQGCAASRLLQLLLQLLLLLLLLLAAGGARARWRGEGTSAHLRDI FLGRCAEYRALLSP  
EQRNKNCTAIWEAFKVALDKDPCS VLP SDYDLF INLSRHSIPRDKSLFWENSHLLVNSFA  
DNTRRFMPLSDVLYGRVADFLSWCRQKNDSGLDYQSCPTSEDCENNPVDSFWKRASIQYS  
KDSGVIHVMLNGSEPTGAYPIKGGFFADYEIPNLQKEKITRIE I WVMHEIGGPNVESCGE  
GSMKVLEKRLKDMGFQYSCINDYRPVKLLQCVDHSTHPDCALKSAAAATQRKAPSLYTEQ  
RAGLI I PLFLVLASRTQL

>Q48436

MKKVALVTGAGQGIGKAIALRLVKDGFVAVAIADYNDATAKAVASEINQAGGRAMAVKVDV  
SDRDQVFAAVEQARKTLGGFDVIVNAGVAPSTPIESITPEIVDKVYNINVKGIWGIQA  
AVEAFKKEGHGKIINACSQAGHVGNPELAVYSSSKFAVRGLTQTAARDLAPLGITVNGY  
CPGIVKTPMWA EIDRQVSEAAGKPLGYGTA EFAKRITLGR LSEPEDVAACVSYL ASPDS  
YMTGQSL LIDGMVFN

>Q97111

MKFKLLTINPGSTSTKIAVFENEKEILSETLRHSSKELEAYKNIYEQFEFRKDTILKVLK  
DKNFNIQNIDAVVGRGGLLKP IVGGTYKVNKMLKDLKAGVQGEHASNLGGI IANSIAEA  
FGVSAYIVDPVVVDEMEIARFSGIPELPRKSI FHALNQKAVAKRYAKESERDYEDLNII  
VAHMGGGVSVGAHNGKI IDVNNALDGE GAFSPERSGNLPSGDLVRLCFSGKYTEDEILK  
KITGKGGFVAYHGTNNALDVQNAALEGDYDAKMTYNAMGYQVAKDIGSAAAVLDGKVDCI  
ILTGGIAYNKLMTDFIAKKVSFIAPIT IY PGEDEMLALAEGLRLVLSGQEEAKKYK

>Q03248

MAGPEWQSLEQCLEKHLPPDDLSSQVKRILYGKQTRNLDLPRKALEAASERNFELKGYAFG  
AAKEQQRCPQIVRVGLVQNRIPLPPTSAPVAEQVSALHKRIEEIAEVAAMCGVNIICFQEA  
WNMPFAFCTREKLPWTEFAESAEDGLTTRFCQKLAKKHNMVVISPILEDRDHGGVLWNT  
AVVISNSGLVMGKTRKNHPRVGFDFNESTYYMEGNLGHVPVQTQFGR IAVNICYGRHHPL  
NWLMSVNGAEIIFNPSATIGELSESMWPIEARNAAIANHCFTCALNRVQGEHYPNFTS  
GDGKKAHHDLYFYGSSYVAAPDGSRTPLSRNQDGLLVTELNLNLCQQINDFWTFKMTG  
RLEMYARELAEAVKPNYSPNIVKEDLV LAPSSG

>P0A4H2

MYNKVLIIDDHPVLRFAVRVLMKEGFEVIGETDNGIDGLKIAREKIPNLVVLDIGIPKL  
DGLEVIARLQSLGLPLRVLVLTGTQPPSLFARRCLNSGAAGFVCKHENLHEVINAAKAVMA  
GYTYFPSTTLSEMRMGDNAKSDSTLISVLSNRELTVLQLLAQGMSNKDIADSMFLSNKTV  
STYKTRLLQKLNATSLVELIDLAKRNLA

>O96553

MSAQYQRFLKVLEKWPAEKSKVSGEWTAEP AIKMSGAKIISGTAVAKSIREELRNEVTA  
MSKQLADFPVGLRIVQVGGREDSNVYIRMKIKAATEIGIDAAHVQLPRSITEVELLDKIN  
DLNEDPRVHGIIVQMPLCDPTIDSHRITDAVSPEKDV DGLHTVNEGR LAIGDLGGFLPC  
TPWGCELEIRRSGVEIAGARAVVLGRSKIVGTPAAELLKWANATVTVCHSKTRNLEEITR  
SADILVVGIGVAEMVKGSWIKPGAVVIDCGINVKPDASKASGSKLVGDVDYAEALQVAGH  
LTPVPGGVPMTVAMLKNTVRSAAFLERLAKSQWALQTLPLKPQRPVPSDIVIARAQK  
PKDIAVLAKEIGLEAREVSLYGNKKAKISLSVLERLKDKEVGHYVVVAGMTPPLGEGKT  
TTLMGLVQALGAHKLRNTMAALRQPSQGPFTFGIKGGAAGGGYAQVIPMEEFNLHLTGDIH  
AVSAANNLLAAQLDTRIFHENTQKDKALYDRLVPAIKGQRKFSPIQLRRLQKLGITKTDP  
DTLTADEYGPFFARLDIDPDTIMWERVVDINDRYLRTITVQSPTEKGISRETRFSISVAS  
EIMAVLALSRSLEDKQRLADMVVAFDKRGKPV TADDLGVTGALAVLLKDALEPNLMQSL  
EGTPVLVHAGPFANIAHGCNSIIADEVGLKLVGKNGFVCTEAGFGSDIGMEKFCNIKCRT  
SGRKP NAMVLVATVRAIKMHGGAPVTPGAPLNKQYTEENLELVQKGLPNLLQHIENGKA  
FGMPVVVSLNAHSADTPAEHELVKKAAL EAGAFAAVVSTHWADGGAGAVQLADAVIKACE  
QGNQFRLLYDLELPLVDKMNKIATTTYGAGKVVLSPAAEEKVKRLTDAGFGNLPICMSKV  
SGSFTGDAKIKGAPKGFTLDVEDVYVSAGAGFVAMCGEVTKMPGLPTRPAIYDIDLNTE  
TGEIEGLF

>P09440

MLSRLSLLSNSRAFQQRWRIYRLKVSPTVHASQYHILSGRKLQASIREKANDEIQAIKL  
KHPNFKPTLKIIVQGARPDSSYVVMKLGASKDSNVDCIEKLPAEITEVELLKKISDIN  
DDDSIHGLLIQLPLPRHLDETTITNAVDFKKDVGDFHRYNAGELAKKGGKPYFIPCTPYG  
CMKLLLEEAHVKLDGKNAVVLGRSSIVGNPIASLLKNANATVTVCHSHTRNIAEVVSQADI  
VIAACGIPQYVKS DWIKEGAVVIDVGINYVPDISKKSQKLVGDVDFDSVKEKTSYITPV  
PGGVPMTVAMLVSNVLLAAKRQFVESEKLPVIKPLPLHLESPVPSDIDISRAQSPKHIK  
QVAEELGIHSHELELYGHYKAKISPNIKFRLESRENGKYVLVAGITPTPLGEGKSTTMG  
LVQALSAHLGKPSIANVRQPSLGP TLGVKGAAGGGYAQVIPMDEFNLHLTGDIHAISAA  
NNLLAAAI DTRMFHEATQKNDSTFYKRLVPRKKGIRKFTPSMQRR LKRLDIEKEDPDALT  
PEEVKRFARLNINPDTITIRRVVDINDRMLRQITIGEAATEKGFTRTTGFDITVASELMA  
ILALSKSLHEMKERIGRMVIGADYDNKPVTVEDIGCTGALTALLRDAIKPNLMQTLEGTP  
VMVHAGPFANISIGASSVIADLMALKLVGSEKNPLNDKNIHEPGYVVTEAGFDFAMGGER  
FFDIKCRSSGLVPDAVVLVATVRALKSHGGAPNVKPGQSLPKEYTEENIDFVAKGVSNLV  
KQIENIKTFGIPVVVA INRFETDSQAEIEVIKKAALNAGASHAVTSNHWMEGGKGAVELA

HAVVDATKEPKNFNFLYDVNSSIEDKLTSIVQKMYGGAKIEVSPEAQKKIDTYKKQGFGN  
LPICIAKTQYSLSHDPSLKGVPRGFTFFPIRDVIRASIGAGYLYALAAEIQTIPGLSTYAGY  
MAVEVDDDDGEIEGLF

>P04003

MHPPKTPSGALHRKRKMAAWPFSRLWKVSDPILFQMTLIAALLPAVLGNCGPPPTLSFAA  
PMDITLTETRFKTTGLKYTCLPGYVVRSHSTQTLTCNSDGEWVYNTFCIYKRCRHPGELR  
NGQVEIKTDLDFSGSQIEFSCSEGFLLIGSTTSRCEVQDRGVGWSHPLPQCEIVKCKPPPD  
IRNGRHSGEENFYAYGFSVTYSCDPRFSLLGHASISCTVENETIGVWRPSPPTCEKITCR  
KPDVSHGEMVSGFGPIYNYKDTIVFKCQKGFVLRGSSVIHCDADSKWNPSPPACEPNSCI  
NLPDIPHASWETYPRPTKEDVYVVGTVLRYRCHPGYKPTTDEPTTVICQKNLRWTPYQGC  
EALCCPEPKLNNGEITQHRKSRPANHCVYFYGDEISFSCHETSRSFSAICQGDGTWSPRTP  
SCGDICNFPPKIAHGHYKQSSSYFFKEEIIIECDKGYILVGQAKLSCSYSHWSAPAPQC  
KALCRKPELVNGLSVDKDQYVEPENVTIQCDSGYGVVGPQSITCSGNRTWYPEVVKCEW  
ETPEGCEQVLTGKRLMQCLPNPEDVKMALEVYKLSLEIEQLELQRDSARQSTLDKEL

>P08607

MCAKQQQTLPLPTRAHGRLLHRNRDVVAWPFSTLCRVSGPTLQMTFTAALWVAVFGKCGP  
PPAIPNALPASDVNRTDFESHSTLKYECLPGYGRGISRMMVYCKPSGEWEISVSCAKKHC  
RNPGYLDNGYVNGETITFGSQIEFSCQEGFILVGSSTSSCEVRGKGVASNPFFPECVIVK  
CGPPPDISNGKHSGETDFYPYNHGISYTCDFGFRVLVGSFFIGCTVNVKTPVWSSSPPTC  
EKIICSQPNIHGVIVSGYKATYTHRDSVRLACLNGTVLRGRHVEICQNGNWSLPTCE  
FDCDLPPAIVNGYYTSMVYSKITLVTYECDKGYRLVGKAIISCSFSKWKGTAPQCKALCQ  
KPEVGNGLTSDKEDQYVESENVTIQCDSGFAMLGSSISCSSESGTWYPEVPRCEQEASED  
LKPALTGKNTMQYVPNSHDVKMALEIYKLTLEVELLQLQIQKEKHTEAH

>P08641

MGRRWGSPALQRFVPLVLLLLLQVCGRRCDEAAPCQPGFAAETFSFSVPQDSVAAGRELG  
RVSFACSGRPWAVYVPTDTRFKVNGDGVVSTKRPLTLYGRKISFTIYAQDAMGKRHSAR  
VTVGRHRHRHHHHHLLQDTPPAVLTFPKHDPGFLRRQKRDWVIPPISCLENHRGPYPMR  
LVQIKSNKDKESKVYYSITGQGADSPVGFIFIIERETGWLEVTEQLDREKIDRYTLLSHA  
VSASGQPVEDPMEIITVMDQNDNKPVFKEVVFVGYIEENAKPGTSVMTVNATDADDAVN  
TDNGIVSYSIVSQPPRPHQPMFTIDPAKGIISVLGTGLDRETPNYTLIVQATDQEGKG  
LSNTATAIIEVTDANDNIPIFNPMTYEGVVEENKPGTEVARLTVTDQDAPGSPAQAVYH  
IKSGNLDGAFSIIITDPSTNNGILKTAKGLDYETKSRYDLVVTVENKVPLSVPITLSTASV  
LVTVLVDVNEPPVFPVPPIKRVGVPEDLPVGGQVTSYTAQDPDRDMRQKITYRMGSDPAGWL  
YIHPENGIVTATQPLDRESVHAINSTYKAIILAVDNGIPDTTGTGTLLLLLQDVNDNGPT  
PEPRSFIECSRQPEKQILSIVDKDLPPHTYFPKAALEHGSSNNWTVEIRGQDELAMGLKK  
ELEPGEYNI FVKLTDSQGAQVTQVKAQVCECEGTAKNCERRSYIVGGLGVPAILGILGG  
ILALLILLLLLLLFFARRRKEVEKEPLLPEDDMRDVNYNDEEGGGEEDQDYDLSQLHRGL  
DARPEVIRNDVAPPLMAAPQYRPRPANPDEIGNFIDENLKAADTDPTAPPYDSSLVFDYE  
GGGSEATSLSSLNASSASDQDQDYDYLNEWGNRFKKLAELYGGGEDDE

>P30944

MGLKRPWLLGAVVLLTLIQVQGGLAEWQTCRMGFSKEKYSFLVPKNLETDKALGRVIFNS  
CEGPVRIQFASKDPNFEIHKDGTVYIKNPAKMKDNRKTFRVLAWETKGHVYSTNITLKRE  
GHRHRQDLFSGKSHHPKSETGLKRQKRDWVIPP IIVSENEKGFPPKRIVQIKSSYAKEV  
KVYYSITGQGADTPPEGVFAIGREDGWLNVTRPLDREAIDNYVLF SHAVSSNGANVEDPM  
EIIIKVQDQNDNDPVFTQSVFEGSVPEGSKPGTAVMTVSATDADDSVDMYNGVITYSILN  
QEPKEPTNKMFTIHSEGLISVLTGLDREKNPVYTLTIQAADGEFGKDRTTTATALIVV

MDTNDNPPVFDPTQYTAKVPENEVGYEVARLTVTDEDIEGTDNAVYKIIKGNENYF  
IQTDTGNIIGLLKTVKGLDYELKKQYILSVIVTNKANFSVPLQTSSTATVTVSVEDVNEAPI  
FLPPVKEVSVSEDLPSGQVVATYTAQDPDKEQNQKITYVIGNDPAGWVSVNKDNGIVTGN  
GNLDRESKFVNLNNTYKVIILAADSGSPSATGTGTLVNLNLLDVNDNGPFLEPQQESFCQKD  
PGFRVFTIIDRDLSPNTYPYKAELTGESNENWTAIVTGQSILELRPKKELEIGQYDVMIT  
LLDSFGLSNVTKLHITICQCDGDKMQCEEKAAIAGGLGISAIVGIILGILALLLLLLLLLLL  
LFVRRKKVVKEPLLPEDETRDNVFSYDEEGGGEEDQDFDLSQLHRGLDARPDVIRNDVA  
PVLAAPQYRPRPANPDEIGNFIDENLNAADNDPTAPPYDSSLVFDYEGSGSEAAASLSSLN  
SPNSDLQDYSALNDWGPRFTKLADMYGGDED

>Q99N28

MGAPSALPLLLLLLACSWAPGGANLSQDDSQPWTSDETVVAGGTVVVKCQVKDHEDSSLQW  
SNPAQQTLYFGEKRALRDNRIQLVSSSTPHELSSISISNVALADEGEYTCISIFTMPVRTAKS  
LVTVLGIPQKPIITGYKSSLREKETATLNCQSSGSKPAAQLTWRKGDQELHGDQTRIQED  
PNGKTFTVSSVSFQVTRREDDGANIVCSVNHESLKGADRSTSQRIEVLVYPTAMIRPEPA  
HPREGQKLLHCEGRGNPVPQQYVWVKEGSEPLKMTQESALIFPFLNKSDSGTYGCTAT  
SNMGSYTAYFTLVNDPSPVPSSSSTYHAIIGGIVAFIVFLLLILLIFLGHYLIRHKGTY  
LTHEAKGSDDAPDADTAIINAEGGQSGGDDKKEYFI

>P30754

YRAGPRYIQAQVGPIGPRGPPGPPGSPGQQGYQGLRGEFGDSGPMGPIGKRGPPGPAGIA  
GKSGDDGRDGEPPGRGGIGPMGPRGAGGMPGMPGPKGHRGFRGLSGSKGEQKSGNQPD  
GGPGPAGPSGPIGPRGQTGERGRDGKSGLPGLRGVDGLAGPPGPPGPIGSTGSPGFPGTP  
GSKGDRGQSGIKGAQGLQGPVGLSGQPGVAGENGHPGMPGMDGANGEPGASGESGLPGPS  
GFPPGPRGMPGTAGSPGQAGAKGDGGPTGEQGRPGAPGVKGSPPGPDVGAPGHAGEAGKR  
GSPGSPGAGSPGPGQDRGLPGSRGLPGMTGASGAMGIPGEKGPSGEPGAKGPTGDTGRQ  
GNQGTPIAGLPGNPGSDGRPGKDGRPGIRGKDGKQGEQGPQGLAGLQGRAGPPGAR  
GEPGKNGAPGEPGAHGEQGDAGKDGETGAAGPPGAAGPTGARGPPGPRGQQGFQGLAGA  
GTPGEAGKTGERGAVGATGPPSGPAGPGERGAPGDRGNVGPGRMPGERGATGPAGPTGSP  
GVAGAKQGGPPGAGLVGLPGERGPKGVGGSKSRGDI GPRGKAGERGKDGGERGERGEN  
GLPGPSGLAASKGERGDMGSPGERGSPGAGERGPAGSQGIQGPQPPGDAGPAGTKGDI  
GFPGERGTRGATGKQGARGPRGLAGKRGLRGAGGSRGETGAQGEIGLPGSPGQPLPGPS  
GQPGPSGPAGTAGKQGVKGARGSPGLVGKQGDRGSDGEPGRDGTGGERGEDGPPGVSGPT  
GAPGQQGERGMPGMVGLRGETGPMGGQGMKGDGGPPGPGSGDRGERGNAGPQGP TGP SGQA  
GAPGQEGAPGKDGLPGLAGRPERGEPGVAGRAGSQGLAGLMGQRGLPGAAGPPGDRGER  
GEPGGQGVQGPVGPAGSQGPAGIMGMKGEAGGKGAKGDKGWTGLPGLQGLQGT PGHSGES  
GPPGAPGPRGARGEAGGRGSQGP PGKDGQPGPSGRVGPGRGPGSDDGRSGPPGPPGPPGPP  
GNSDYGA

>P40881

MMFNKQIFITILILSLSLALAGSGCISEGAEDNVAQEITVDEFNSIRENPVTPWNPEPSAP  
VIDPTAYIDPQASVIGEVITIGANVMVSPMASIRSDEGMPIFVGDRSNVQDGVVLHALETI  
NEEGEPIEDNIVEVDGKEYAVYIGMNVSLAHQSQVHGPAAVGDDTFIGMQAFVFKSKVGN  
NCVLEPRSAAI GVTIPDGRYIPAGMVVTSQAEADKLP EVTDDYAYSHTNEAVVYVNVHLA  
EGYKETS

>Q50940

MPRFPRTLPRLTAVLLLACTAFSAAAAGNHTHWGYTGHDSPESWGNLSEEFRLCSTGKNQ  
SPVNI TETVSGKLP AIKVNYKPSMVDVENNGHTIQVNYPEGGNTLTVNGRTYTLKQFHFH  
VPSENQIKGRTFPMEAHFVHLDENKQPLVLAVLYEAGKTNGRLSSIWNVMPMTAGKVKLN

QPFDASTLLPKRLKYRFAGSLTTPPCTEGVSWLVLKYDHDIDQAQAEKFTRAVGSENNR  
PVQPLNARVVIE

>P27140

MSTAPLSGFFLTSLSPSQSSLQKLSLRTSSTVACLPPASSSSSSSSSSSSRSVPTLIRNE  
PVFAAPAPIIAPYWSEEMGTEAYDEAIEALKKLLIEKEELKTVAATAKVEQITAALQTGTS  
SDKKAFDPVETIKQGFIFKKEKEYETNPALYGELAKGQSPKYMVFACSDSRVCPSHVLDLDF  
QPGDAFVVRNIANMVPFDFKVKYGGVGAAYAVLHLKVENIVVIGHSACGGIKGLMSFP  
LDGNNSTDFIEDVWKICLPAKSKVISELGD SAFEDQCGR CEREA VNVSLANLLTYPFVRE  
GLVKGTLALKGGYYDFVKGAFELWGLEFGLSETSSVKDVATILHWKL

>P20508

MPQQLSPINIETKKAISNARLKPLDIHYNESKPTTIQNTGKLVRLINFKGGYISGGFLPNE  
YVLSLHIYWGEDDYGSNHLIDVYKYSGEINLVHWNKKKYSSYEEAKKHDDGLIIISIF  
LQVSDHKNVYFQKIVNQLDSIRSANTSAPFDSVFYLDNLLPSTLDYFTYLGTTIKHSADA  
VWIIFFTPINIHSQKFRLLSSSNHDKPYYITENYRNPYKLNDDTQVYYSGEIIRA  
ATTSPARENYFMRWLSDLRETCFSYYQKYLEGNKTFAIIAIVFVFLTAILFLMSRRYSR  
EKQN

>P60584

MDFNLNDEQELFVAGIRELMASENWEAYFAECDRDSVYPERFVKALADMGIDSLLIPEEH  
GGLDAGFVTLAAVWMELGRLGAPTYVLYQLPGGFNTFLREGTQEIQIDKIMAFRGTGKQMW  
NSAITEPGAGSDVGLKTTYTRRNGKIYLNKSKCFITSSAYTPYIVVMARDGASPKPVY  
TEWFDMSKPGIKVTKLEKLGRLMDSCEITFDDVELDEKDMFGREGNGFNRVKEEFDHE  
RFLVALTNYGTAMCAFEDAARYANQRVQFGEAIGRFQLIQEKFAHMAIKLNSMKNMLYEA  
AWKADNGTITSGDAAMCKYFCANAAFEVVD SAMQVLGGVGIAGNHRISRFRDLRVDRVS  
GGSDMQILTLGRAVLKQYR

>O86447

MSILGLNGAPVGAELG SALDRMKKAHLEQGPANLELRSLRDLRAIAMLLENREAIADAV  
SADFGNRSREQTLLCDIAGSVASLKDSREHVAKWMEPEHHKAMFPGAEARVEFQPLGVVG  
VISPNWFPIVLAFGPLAGIFAAGNRAMLKPSSELTPTRTSALLAELIARYFDETELTTVLGD  
AEVGFALFSAQPFDLIFTGGTAVAKHIMRAAADNLVPVTLELGGKSPVIVSRADMDVA  
QRVLTVKTFNAGQICLAPDYVLLPEESLDSFVAEATRFVAAMYPSLLDNPDYTSIINARN  
FDRHLHRYLTDAQAKGRVIEINPAAEELGDSGIRKIAPTILVNVSDMLVNLNEIFGPLL  
PIKTYRDFDSAIDYVNSKQRPLASYFFGEDAVEREQVLKRTVSGAVVNDVM SHVMMDTL  
PFGGVGHSGMGAYHGIYGFRTF SHAKPVLVQSPVGE SNLAMRAPYGEAIHGLLSVLLSTE  
C

>P61517

MKDIDTLISNNALWSKMLVEEDPGFFFEKLAQAQKPRFLWIGCSDSRVPAERLTGLEPGEL  
FVHRNVANLVIHTDLNCLSVVQYAVDVLEVEHIIICGHYCGGVQAAVENPELGLINNWL  
LHIRDIWFKHSSLLGEMPQERRLDLCELNVMEQVYNLGHSTIMQSAWKRGQKVTIHGWA  
YGIHDGLLRDL DVTATNRETLEQRYRHGISNLKCLKHANHK

>P50477

MAFSARFPLWLLLVGVL LASVSASFHSGHSGGEAEDESEESRAQNNPYLFRSNKFLTLF  
KNQHGLRLLQRFNEDTEKLENLRDYRVLEYCSKPNTLLLP HHS DSDLLVLVLEGGAILV  
LVNPDGRD TYKLDQGD AIKIQAGTPFYLINPDNNQNLRIKFAITFRRPGTVEDFFLSST  
KRLPSYLSAFSKNFLEASYDSPYDEIEQTLLQEEQEGVIVKMPKDQIQEISKHAQSSSRK

TLSSQDKPFNLSRDP IYSNNYGLYEITPEKNSQLRDLIDLNCLQMNEGALFVPHYNS  
RATVILVANEGRAEVELVGLQEQEQGLESMQLRRYAATLSEGD IIVIPSSFPVALKAAS  
DLNMVGIGVNAENNERNFLAGHKENVIRQIPRQVSDLTFPGSGEEVEELLENQKESYFVD  
GQPRHIDAGGKARRAHLPNLFRTFY

>Q01518

MADMQNLVERLERAVGRLEAVSHTSDMHRGYADSPSKAGAAPYVQAFDSLLAGPVAEYLK  
ISKEIGGDVQKHAEMVHTGLKLERALLVTASQCQQAENKLSDLLAPISEQIKEVITFRE  
KNRGSKLFNHL SAVSESIQALGWVAMAPKPGPYVKEMNDAAMFYTNRVLKEYKDVDKHHV  
DWVKAYLSIWTELQAYIKEFHHTGLAWSKTGPVAKELSGLPSPSAGSGPPPPPPCPCPP  
PVSTISCSYESASRSSLFAQINQGESITHALKHVSDMKTHKNPALKAQSGPVRSGPKPF  
SAPKPQTSPPKRATKKEPAVLELEGGKWRVENQENVSNLVIDTELKQVAYIYKCVNTT  
LQIKGKINSITVDNCKKLGLVDFDDVVGIVEI INSKDVKVQVMGKVP TISINKTDGCHAYL  
SKNSLDCEIVSAKSSEMNVLIPTTEGGDFNEFPVPEQFKTLWNGQKLVTTVTEIAG

>P17555

MPDSKYTMQGYNLVKLLKRLEEATARLEDTVITYQEGYIQNKLEASKNNKPSDSGADANTT  
NEPSAENAPEVEQDPKCITAFQSYIGENIDPLVELSGKIDTVVLDALQLLKGGFQSQLTF  
LRAAVRSRKP DYSSQTFADSLRPINENI I KLGQLKESNRQSKYFAYLSALSEGAPLFSWV  
AVDTPVSMVTD FKDAAQFWTNRILKEYRESDPNAVEWVKFLASF DNKAYIKEYHTTG V  
SWKKDGMDFADAMAQSTKNTGATSSPSPASATAAPPPPPPPAPPASVFEISNDTPATSS  
DANKGGIGAVFAELNQGENITKGLKKVDKSQQTHKNPELRQSSTVSSSTGSKSGPPRPKK  
PSTLKTTRPPRKELVGNKWF IENYENETESLVIDANKDESIFIGKCSQVLVQIKGKVNAI  
SLSETESCSVVL DSSISGMDVIKSNKFGIQVNHSLPQISIDKSDGGNIYLSKESLNTEIY  
TSCSTAINVNLPIGEDDDYVEFPPIPEQMKHSFADGKFKSAVFEHAG

>P81831

MQLSATSGRTSFRVSDLRTPANFLSGLRDDDSLRLRQVFFSILRHHHPNLAAKVDVIYA  
LSQAWCTSQSDNDFELMVKYVSDLKPEERILVASSFSHMLNLHNLTEEVNSSQIGRAVRL  
GEMDSPTRDTNHSLLKLT TTTNGFTPQQVYDTLCSQTVELVLT AHPTQALRASLLKKYAIV  
RRELDTLHSKRMSEYEKIETLEAIRAAVQAAWRTDEIRR SKPTPQDEMRSGLSYFSTVIF  
DVVPVFHRRVDTALEKLG LPRPLDRALFKFGSWMGDRDGNPNVTAETTRD VVVLARLE  
AVNVYFRQVEGLMFDLSIWRCSPEMKELAERLAAAESRDAARVAEERKRRNYVDFWAPIP  
PTEPFRVVL AHMRDRLYNTRQVLHQCLIHTHMSVRGALEEAGAYVDIEDMARPLKLMYDS  
LMSTGDES VANARLLDLLRQIRTFGLCMMGLDVRQESTRHTEVMDAVTTYLGLGSYASWD  
EPKRLAFLLGELQGRPLMPGMDMSPEVKEVVRTLRILSELPGDSL GAYIISMAKTASD  
VLAVVLLQRETGVRPALRVVPLFETLDDLHNAPGMTTLLGNDWYRGHINGVQECMIGYS  
DSGKDAGRLAAAWALYETQEKLVEVAAGCGVRLVLFHGRGGTVGRGGGPTHMAIRSQPSG  
TINGHLRVTVQGEIEEQFGKEVCFRTL DLYTSAVLEAALDPPPAPAQEWRDLMSLLAT  
ESCDMYRSVVYRTPEFYDYFMQSTAASELGRLNIGSRPSSRKS GG IETLRAIPWIFAWTQ  
QRLHLPVWLGIGEALEAAIDKGYGPVLQDMYANWPF FTSTLDLVEMVLAKADSRLSAFYE  
RTLVDSSLAPLGQRLRELLAKTQQNILIVVRKSVLLEGNTPSQMSTPNLDEKIRLRSPIY  
APLNVLQALSQGLRKFRDGGDTEYNPSDPEIIDL LSRDPHKKGEGAQHFPVSAMDDCLM  
ITIKGIAAGMQNTG

>P04711

MASTKAPGPGEKHHSIDAQLRQLVPGKVSEDDKLI EYDALLVDRFLNILQDLHGPSLREF  
VQECYEVSADYEGKGD TTKLGELGAKLTGLAPADAILVASSILHMLNLANLAEVQIAHR  
RRNSKLLKGGFADEGSATTESDIEETLKRVLSEVGSPEEVFEALKNQTVDLVFTAHTPQ  
SARRSLQKNARIRNCLTQLNAKIDTDDDKQELDEALQREIQAAFR TDEIRRAQPTPQAE



MRYGMSYIHETVWKGVPKFLRRVDTALKNIGINERLPYNVSLIRFSSWGGDRDGNPRVT  
PEVTRDVCLLARMMAANLYIDQIEELMFELSMWRCNDELRVRAEELHSSSGSKVTKYYIE  
FWKQIPPNEPYRVILGHVRDKLYNTRERARHLLASGVSEISAESSFTSIEEFLEPLELCY  
KSLCDCGDKAIADGSLDLLRQVFTFGLSLVKLDIRQESERHTDVIDAITTHLGIGSYRE  
WPEDKRQEWLLSELRGKRPLLPDLPQTDEIADVIGAFHVLAEPLPDSFGPYIISMATAP  
SDVLAVELLQRECGVRQPLPVVPLFERLADLQSAVASVERLFSVDWYMDRIKKGQQVMVG  
YSDSGKDAGRLSAAWQLYRAQEEMAQVAKRYGVKLTFLFHGRGGTVGRGGGPTHLAISQP  
PDTINGSIRVTVQGEVIEFCFGEHLCFQTLQRFTAATLEHGMHPPVSPKPEWRKLMDEM  
AVVATEEYRSVVVKEARFVEYFRSATPETEYGRMNIGSRPAKRRPGGGITTLRAIPWIFS  
WTQTRFHLPVWLVGAAFKFAIDKDVRNFQVLKEMYNEWPFRRVTLDDLEMFVAKGDPGI  
AGLYDELLVAEELKPFQKQLRDKYVETQQLLLQIAGHKDILEGDPFLKQGLVLRNPYITT  
LNVFQAYTLKRIRDPNFKVTPQPPLSKEFADENKPAGLVKLNPASEYPPGLEDTLILTMTK  
GIAAGMQNTG

>P00864

MNEQYSALRSNVSMGLKVLGETIKDALGEHILERVETIRKLSKSSRAGNDANRQELLTTL  
QNLSNDELLPVARAFSQFLNLANTAQYHSISPKGEAASNPEVIARTLRKLNQPELSED  
TIKKAVESLSLELVLTAHPTEITRRTLIHKMVEVNACLKQLDNKDIADYEHNQLMRRLRQ  
LIAQSWHTDEIRKLRPSPVDEAKWGFVAVVENSLSWQGVPNYLRELNEQLEENLGYKLPVEF  
VPVRFTSWGGDRDGNPNVTADITRHLVLLSRWKATDLFLKDIQVLVSELSMVEATPELL  
ALVGEEGAEPYRYLMKNLRSRLMATQAWLEARKGEELPKPEGLLTQNEELWEPLYACY  
QSLQACGMGIIANGDLLTLRRVKCFGVPLVRIDIRQESTRHTEALGELTRYLGIGDYES  
WSEADKQAFILRELNSKRPLLPNWPQSAETREVLDTQVIAEAPQGSIAAYVISMAKTP  
SDVLAVHLLLKEAGIGFAMPVAPLFFETLDDLNNANDVMTQLLNIDWYRGLIQGKQVMVIG  
YSDSAKDAGVMAASWAQYQAQDALIKTCEKAGIELTLFHGRGGSIGRGGAPAHALLSQP  
PGSLKGGRLRVTEQGEMIRFKYGLPEITVSSLSLYTGAILLEANLLPPPEPKESWRRIMDEL  
SVISCDVYRGYVRENKDFVPYFRSATPEQELGKPLGSRPAKRRPTGGVESLRAIPWIFA  
WTQNRMLPAWLGAAGTALQKVVEDGKQSELEAMCRDWPFFSTRLGMLEMFVAKADLWLAE  
YYDQRLVDKALWPLGKELRNLEEDIKVVLAIANDSLMLADLPWIAESIQLRNIYTDPLN  
VLQAELLHRSRQAEKEGQEPDPRVEQALMVTIAGIAAGMRNTG

>Q59757

MLPPLQIEIEGTGISRPLSEHVNLGGLLGQVIQEMAGPEMLELVETLRRRLCKQAAQENR  
PEFREQAYTRIH SATYDELLWLLRAYTAFHVLVNQAEQQEIRINRERAQQSTPERPRPE  
SIDEAILALKQQGRTLDDVLTLLERLDIQPTVTAHPTEARRRSILYKQQHIAQMLSQQRR  
CQLTPEEQETLLLDLHNQITLLLGTAEVREERPTVRDEVEQGLYFIQSTIWEAVPRIYED  
VRRALRRYYGADVDFRPFLLRYSWIGSDRDGNPYVTPEITRWALTQRRRLALQRYMEELR  
QLRRRLSLSDRYVAPPEELRRSLARDAREVSLPPHVLRQFRHESFRLKISYIMGRLHGLL  
QALDDPTQPAPDYDADAFVEDLRLLRQCLEACGLER IARHDQLTRLLVLAQTFGFHLVTL  
DVRQHSSVHEAAVAELLRLAGVENDYRALPESRRQELLAEELSNPRPLLPGARVSEATR  
QVLETFAVIRELVQLDPRLVGSYIVSMHTVSDLLEPMLLAKEVGLWHYERDPRGTGKPGH  
VRCPIDFVPLFETIEDLEAAA SRMEAILSHPVYRMQVAARGGFQIIMLGYSDSTKGGYV  
MANWALHRAQEQLAEVCLRHGVDFRFLFHGRGGTVGRGGGRANQA I LAMPVHVHNGRIRFT  
EQGEVISFRYALPEIAHRHLEQIVNAMLRVVGLPAASGTDGTD PATRNRLMDELAARSMR  
AYRRLIDAPDFWSWYTRITPIDQISRLPIASRPVSRSSAREVDFESLRAIPWVFAWTQVR  
YLIPGWF GIGQALDELLQTSPEHLETLRTWYRSWPFRRTVLQNAQREMVRARLEIAAYYD  
RLLDGDP TAFHQMI EEDYHRARTAILRITDQESLLDHDPIIRKSVQLRNPYTDVNLVQL  
ELMRRIRSGAEADREPLRRALFLSINGIAAAMQSTG

>P51060

MSDPFEALKAEVDLLGRLLGEAIRKVSGERFFALVEEVRLLSKARRQGDGAAAEVLSQRV  
ERMPVEEMEALVRAFTHYFHLVNLAEERHRVRVNRLRTEGETLENRPEGFALAKALKE  
RGLSLEEAEHLNRLALLLTFTAHTPTETRRRTLRRHHLERLQEELEGGDRERLLARVLLY  
ATEEVRKARPSVEDEIKGGLYYLPTTLWRAIPKVVEGLEAALERVYGKRPHLRSPVRFRS  
WMGGDRDGNPYVTPVETAFAAGRYAREVAKGRYLEELEALVRDLSLSEARIPVPKEVREGG  
EGVERFPGEYRRYFAALYRALEGEALSTEGLARALKVAEKGLEGVGLAQVAQAFLRPLE  
ARLSAFGLELAPLDLREESGKLLLEAAAELLRLGGVHPDFLALSPEEKEALLTEELKTARP  
LLPVGEVPOGEALRVALGALRAWGDKGAHVSMTHHPADLLAVFLLAREVGLYRPGKPLP  
FDVVPLFETLEDLERAPEVLRRLLANPVFRAHAQGRGGVEVMIGYSDSNKDAGFLMANLA  
LYQAQEALHAVGEAQGIPVFFFHGRGTSTARGGGPAGRAIAGLPPKSVGHRLRLTEQGEA  
LADRYAHPDLAVRHLEQLLYHFAQAALGDGVEPKAHWREALGEAGERSMARYRALLSQEG  
FFPFFFAFTPIREIGELPIASRPVYRHGRVDIRDLRAIPWMAWTQVRLLLPGWYGLSA  
LEGLPMLLREMYREWPFATTLESAAMALAKADLGIAERYLKLVPGLQGFYHHLAEFY  
RRTVALLEAIFEAPLLHNQKTLERQIALRNPYVDPINFVQVELLARYRAPGGREDEGVRR  
ALLLSLLGVAAGLRNAG

>Q13948

MAANVGSMFYWKRFDLQQLQRELDATATVLANRQDESEQSRKRLIEQSREFKKNTPEDL  
RKQVAPLLKSFQGEIDALSKRSKEAAEAFNLVYKRLIDVPDPVPALDLGQQQLQKVRQLH  
DIETENQKLRETLEEYKFEAEVKNQEVTIKALKEKIREYEQTLKNQAETIALEKEQKQ  
NDFAEKERKQETQMSTTSKLEEAHKVQSLQTALEKTRTELFDLTKYDEETAKADEI  
EMIMTDLERANQRAEVAQREAEATLREQLSSANHSLQLASQIQKAPDVEQAI EVLTRSSLE  
VELAAKEREIAQLVEDVQRLQASLTKLRENSASQISQLEQQLSAKNSTLKQLEEKLGQA  
DYEEVKKELNILKSMEFAPSEGAGTQDAAKPLEVLLLEKNRSLQSENAALRISNSDLSGR  
CAELQVRITEAVATATEQRELIARLEQDLSIIQSIQRPAEGAAEHRLEKIPPIKEATA  
LFYGAAPASGALPEGQVDSLSSIISQRERFRARNQELEAENRLAQHTLQALQSELDL  
RADNIKLFKIKFLQSYPRGSGSDDTELRYSSQYEERLDPFSSFSKRERQRKYLSPW  
DKATLSMGRVLVLSNKMARTIGFFYTLFLHCLVFLVLYKLAWSMESMERDCATFCAKKFADH  
LHKFHENDNGAAAGDLWQ

>P26825

MKFNLIIDIEDWNRKPYFEHYLNAVRCITYSMTANIEITGLLREIKLKGLKLYPTLIYIIT  
VVNRHKEFRCTCFDQKGLGYWDSMNPSYTVFHKDNETFSSIWTEYDENFPRFYNYLEDI  
RNYSVDVLFMPKTGEPANTINVSSIPWVNF'TGFNLNIYNDATYLIPIF'TLGKYFQQDNKI  
LLPMSVQVHHAUCDGYHISRFFNEAQELASNYETWLGEK

>Q9C168

MSNIISQAGQKAKEALTSAPSSKKVDDLKNEFKETDKSARLTTDYGVKQTTADDWLRIVS  
DDKIGPSLLEDPFARERIMRFDHERIPERVHARGSGAFGKFKVYESASDLTMAPVLTDT  
SRETPVVFVRFSTVLGSRGSADTVRDVRFVAVKIFYTEEGNWDLVGNNIPVFFIQDAIKFPD  
VIHAGKPEPHNEVPQAQSAHNNFWDQFNHTEATHMFTWAMSDRAIPRSLRMMQGFVNT  
YTLINAQGRHFVVKFHWTPELGVHSLVWDEALKLAGQDPDFHRKDLWEAIENGAYPKWKF  
GIQAI AEEDEHKFDLIDATKIWPEDLVPVRYIGEMELNRNPDEFFPQTEQIAFCTSHV  
VNGIGFSDDPLLQGRNFSYFDTQISRLGVNFQELPINRPVCPVMNFRDGMARHTISRGT  
VNYYPNRFDACPPASLKEGGYLEYAQKVAGIKARARS AKFKEHFSQAQLFYNSMSPIEKQ  
HMINAFFGELDHCEDPVYGRMVQRLADIDLGLAQ'TIAEMVGGAPTT'NHPNHGRKTIN  
LSQTEFPATPTIKSRRVAIIADGYDNVAYDAAYAAISANQAIPLVIGPRRSKVTAANG  
STVQPHHHLEGFRSTMVDAIFIPGGAKAAETLSKNGRALHWIREAFGHLKAI GATGEAVD  
LVAKAIALPQVTVSSEAEVHESYGVVTLKVKVPESTDAVKIAKGAAGFLGEGFFYIAIQH  
RNWDRELDGLHSMIAY

>P00485

MNFNKIDLDNWKRKEIFNHYLNQQTTFSSITTEIDISVLRYRNIKQEGYKFYPAFIFLVTRV  
INSNTAFRTGYNSDGELGYWDKLEPLYTIFDGVSKTFSGIWTVPKNDKFKEFYDLYLSDVE  
KYNGSGKLFPKTPIPENAFSLSIIPWTSFTGFNLNINNNSNYLLPIITAGKFINKGNSIY  
LPLSLQVHHSVCDGYHAGLFMNSIQELSDRPNDWLL

>P22615

MNFTRIDLNTWNRREHFALYRQQIKCGFSLTTKLDITALRTALAETGYKFYPLMIYLIISR  
AVNQFPEFRMALKDNELIYWDQSDPVFTVVFHKETETFSALSCRYFPDLSEFMAGYNAVTA  
EYQHDTRLFPQGNL PENHLN ISSLPWVSFDGFNLNITGNDYFAPVFTMAKFQQEGDRVL  
LPVSVQVHHAVCDGFHAARFINTLQLMCDNILK

>P00486

MTFNI IKLENWDRKEYFEHYFNQQTYSITKEIDITLKFDMIKKKGYE IYPSLIYAIMEV  
VNKNKVFRGTGINSENKLGWDLNPLYTVFNKQTEKFTNIWTESDNNFTSFYNNYKNDLL  
EYKDKEEMFPKKPI PENTIPISMI PWIDFSSFNLNIGNNSNFFLLPIITIGKFYSENNKIY  
IPVALQLHHAVCDGYHASLFMNEFQDI IHKVDWDWI

>P00487

MFKQIDENYL RKEHFHHYMTLTRCSYSLVINL DITKLHAILKEKKLKVYPVQIYLLARAV  
QKIPEFRMDQVNDDELGYWEILHPSYTI LNKETKTFSSIWTFPF DENFAQFYKSCVADIETF  
SKSSNLFPKPHMPENMFN ISSLPWIDFTSFNLNVSTDEAYLLPIFTIGKFKVEEGKIILP  
VAIQVHHAVCDGYHAGQYVEYLRWLI EHCDEWLNDSLHIT

>P22782

MQFTKIDINNWTRKEYFDHYFGNTPTYSMTVKLDISKLKKDGKKLYPTLLYGVTTI INR  
HEEFRTALDENGQVGVFSEMLPCYTVFHKETETFS SIWTEFTADYTEFLQNYQKDIDAFG  
ERMGMSAKPNPPENTFPVSMIPWTSFEGFNLNLKKG DYLLPIFTFGKYYEEGGKYYIPL  
SIQVHHAVCDGFHVCRFLDELQDLLNK

>P11504

MVFEKIDKNSWNRKEYFDHYFASVPCTYSMTVKVDITQIKEKGMKLYPAMLYYIAMIVNR  
HSEFRTAINQDGELGIYDEMIPSYTIFHNDTETFS SLWTECKSDFKSF LADYESDTQRYG  
NNHRMEGKPNAPENIFNVSMIPWSTFDGFNLNLQKGYDYLLPIFTMGKIIKKDNKIILPL  
AIQVHHAVCDGFHICRFVNELQELIIVTQVCL

>P62577

MEKKITGYTTVDISQWHRKEHF EAFQ SVAQCTYNQTVQLDITAF LKTVKKNKHKFYPAFI  
HILARLMNAHPEFRMAMKDGELVIWDSVHPCYTVFHEQTETFS SLWSEYHDDFRQFLHIY  
SQDVACYGENLAYFPKGF IENMFFVSANPWVSFTSF DLNVANMDNFFAPVFTMGKYYTQG  
DKVLMPLAIQVHHAVCDGFHVGRMLNELQQYCDEWQGGA

>P20074

MDAPIPTPAPIDLDTWPRRQHFDHYRRRV PCTYAMTVEVDVTAFAAALRRSPRKS YLAQV  
WALATVVNRHEEFRMCLNSSGDP AVVWPV VHPAFTVFNPERETFA CLWAPYDPDFGT FHDT  
AAPLLAEHSRATDFFPQGNPPPNAFDVSSLPWVSFTGF TLDIRDGWDHLAPIFTLGRYTE  
RDTRL LLLPLSVQIHAAAADGFHTARLTNELQ TLLADPAWL

>P18123

MTMDPTKFRPSSSHDTTVTTT NAGAPVWNDNEALTVGPRGPILLEDYHLIEKVAHFARER  
IPERVVHARGASAKGFFECTHDVTSLTCADFLRAPGVRTPVIVRFSTVIHERGSPETIRD  
PRGFAVKFYTREGNWDL LGNNFPVFFIRDGIKFPDVIHAFKPNPRSHVQEYWRVDFLSH  
LPESLHTFFFLFDDVGVPSDYRHMEGFGVNTYTFVSAAGKAQYVKFHWKPTCGVRCILTD  
EEAALVGGRNHSHATQDLYDSIAAGSFPEWTLVYVQVMDPDTEEQYDFDPLDDTKTWPEDL  
LPLRPVGRLLVDRNVDNFFNENEQLAFGPGLVVPGIYYSDDKMLQCRVFAYADTQRYRLG  
PNYLMLPVNAPRCAHHNNHYDGAMNFMHRDEEVDYYP SRHAPLRQAAPPTPLPPRPVAGR  
REKATIRKPNDFKQPGERYRSWDADRQDRFVRRFADSLGHPKVSQELRSIWIDLLAKCDA  
SLGMKIATRLNMKANM

>P07773

MEVKIFNTQDVQDFLRVASGLEQE GGNPRVKQI IHRVLS DLYKAI EDLNITSDEYWAGVA  
YLNQLGANQEAGLLSPGLGFHDYLDMRMDAEDAALGIENATPRTIEGPLYVAGAPESVGY  
ARMDDGSDPNGH TLI LHGTIFDADGKPLPNAKVEIWHANTKGFYSHFDPTGEQQAFNMRR  
SII TDENGQYRVRTILPAGYGC PPEGPTQQLLNQLGRHG NRPAHIHYFVSADGHRKLT TQ  
INVAGDPYTYDDFAYATREGLVVD AVEHTDPEAIKANDVEGPF AEMVFDLKLTRLVDGVD  
NQVVDRPRLAV

>P45737

MENKKLTAANGRP IADNONSQTAGPRGPIMLQDPWLI EKLAHFDREVI PERRMHAKGSGA  
YGTFTVTHDITKYTRAAIFSQVGKQTECFVRFSTVAGERGAADAERDIRGFAMKFYTEEG  
NWDLVGNNTPVFFLRDPLKFPDLNHAVKRDPRNNMRSANNNWDFWTLLEALHQVTITMS  
PRGIPASYRHMHGFGSHTYSFLNAENKRIWVKFHLKTMQGIKNLTDQEAEAI IAKDRESH  
QRDLYESIERGDFPKWK FQIQLMTEEEADNYRINPFDLTKVWPHKDFPLQDVGILELNRN  
PENYFAEVEQSAFNPMNIVEGIGFSPDKMLQGR LFSYGDAQRYRLGVNSEQIPVNKPRCP  
FHAFHRD GAMRVDGNYGSAKGYEPNSYGEWQDSPEKKEPPLKVHGDVFNYNEREYDDDDY  
SQPGDLFRLMPADEQQLLFENTARAMGDAELFIKQRHVRNCYKADPAYGTGVAQALGIDL  
EEALKE

>P14412

MENQNRQNAAQCPFHGSVTNQSSNR TTNKDWWPNQLNLSILHQHDRKTNP HDEEFNYAEE  
FQKLDYWALKEDLRKLMTESQDWWPADYGHYGPLFIRMAWHSAGTYRIGDGRGGASTGTQ  
RFAPLNSWPDNANL DKARRLLWP IKKKYGNKISWADLFI LAGNVAIESMGKTI GFGGGR  
VDVWHPEEDVYWGSEKEWLASERYSGDRELENPLAAVQMGLIYVNP EGPDKPDPKAAAR  
DIRETFRRMGMNDEETVALIAGGHTFGKAHGAGPATHVGP EPEAAP IEAQGLGWISSY GK  
GKGSDTITSGIEGAWTPTPTQWDTSYFDMLFGYDWWLTKSPAGAWQWMAVDPDEKDLAPD  
AEDPSKKVPTMMMTTDLALRFDPEYEKIARRFHQNPEEFAEAFARAWFKLTHRDMGPKTR  
YLGPEVPKEDFIWQDPIPEVDYELTEAEIEEIKAKILNSGLTVSELVKTAWASASTFRNS  
DKRGGANGARIRLAPQKDWEVNEPERLAKVLSVYEDIQREL PPKVSIADLIVLGGSAAVE  
KAARDAGFDVKVPFFPGRGDATQEQT DVESFAVLEPFADGFRNYQKQEYSVPPEELLVDK  
AQLLGLTAPEMTVLVGGLRVLGANYRDLPHGVFTDRIGVLTNDFFVNLLDMNYEWVPTDS  
GIYEIRDRKTGEVRWTATRVDLIFGSNSILRSYAEFYAQDDNQEKFVRDFINAWVKMNA  
DRFDLVKKARESUTA

>P00432

MADNRDPASDQMKHWKEQRAAQKPDVLT TGGGNPVGDKLNSLTVGPRGPLLVQDVVFTDE  
MAHFDREIRIPERVVHAKGAGAFGYFEVTHDITRYSKAKVFEHIGKRTPIAVRFSTVAGES  
GSADTVRDPGRGFAVKFYTEDGNWDLVGNNTPIFFIRDALLFPSPFIHSQKRNPQTHLKDPD  
MVWDFWLSRPESLHQVSFLFSDRGI PDGHRHMNGYGSHTFKLVNANGEAVYCKFHYKTDQ  
GIKNLSVEDAARLAHEDPDYGLRDLFNAIATGNYP SWTLYIQVMTFSEAEIFPFNPFDLT

KVWPHGDYPLIPVVGKLVLRNRPVNYFAEVEQLAFDPSNMPPGIEPSPDKMLQGRLFAYPD  
THRHRLGPNYLQIPVNCYPYRVRVANYQRDGPMMMDNQGGAPNYYPNSFSAPEHQPSALE  
HRTHFSGDVQRFNNSANDDNVTQVRTFYLVKVLNEEQKRKRLCENIAGHLKDAQLFIQKKAVK  
NFSDVHPEYGSRIQALLDKYNEEKPKNAVHTYVQHGSLSAREKANL

>P0A327

MTDRPIMTTSAGAPIPDNQNSLTAGERGPIILMQDYQLIEKLSHQNRERIPERAVHAKGWG  
AYGTLTITGDISRYTKAKVLQPGAQTPMLARFSTVAGELGAADAERDVRGFALKFYTQEG  
NWDLVGNNTPVFFVRDPLKFPDFIHTQKRHRPRTLRSATAMWDFWSLSPESLHQVTILMS  
DRGLPTDVRHINGYGSHTYSFWNDAGERIYVVKFHFKTMQGHKHWNAEAEQVIGRTREST  
QEDLFSAIENGEFPPKWKVQVQIMPELDADKTPYNPFDLTKVWPHADYPPIDIGVMELNRN  
PENYFTEVENAAAFSPSNIVPGIGFSPDKMLQARIFSADAHHRHLGTHYESIPVNQPKCP  
VHHYHRDGQMNVYGGIKTGNPDAYYEPNSFNPGVPEQPSAKEPPLCISGNADRYNHRIGND  
DYSQPRALFNLFDAAQKQRLFSNIAAAMKGVPGFIVERQLGHFKLIHPEYEAGVRKALKD  
AHGYDANTIALNEKITAAE

>O59651

MAETPNSDMSGATGGRSKRPKSNQDWWPSKLNLEILDQNARDVGPVEDDFDYAEFEQKLD  
LEAVKSDLEELMTSSQDWWPADYGHYGPLFIRMAWHSAGTYRTADGRGGAAGGRQRFAP I  
NSWPDNANLKDARRLLLP IKQKYGQKISWADLMILAGNVAIESMGFKTFGYAGGREDAFE  
EDKAVNWGPEDEFETQERFDEPGEIQEGLGASVMGLIYVNPEGPDGNPDPEASAKNIRQT  
FDRMAMNDKETAALIAGGHTFGKVHGADDPEENLGPEPEAAPIEQQGLGWQNKNGNSKGG  
EMITSGIEGPWTQSPTIEWDMGYINNLLDYEWEPKGGPGAWQWAPKSEELKNSVPAHDP  
DEKQTPMMLTTDIALKRDPDYREVMETFQENPMEFGMNFAKAWYKLTHRDMGPPERFLGP  
EVPDEEMIWQDPLPADADYDLIGDEEIAELKEEILDSDLVSVQLVKTAWASASTYRDSDKR  
GGANGARLRLEPQKNWEVNEPEQLETVLGTLENIQTEFNDSRSDGTQVSLADLIVLGGNA  
AVEQAAANAGYDVEIPFEPGRVDAGPEHTDAPSFDAKPKVDGVRNYIQDDITRPAEEVL  
VDNADLLNLTASELTALIGGMRSIGANYQDIDLGVFTDEPETLTNDFFVNLLDMGTEWEP  
AADSEHRYKGLDRDTGEVKWEATRIDLIFGSNDRLRAISEVYGSADAEEKLVHDFVDTWS  
KVMKLDLRFDL E

>P29422

MEHQKTTPHATGSTRQNGAPAVSDRQSLTVGSEGP IVLHDTHLLETHQHFNRMNIPERRP  
HAKGSGAFGEFEVTEDEVSKYTKALVFQPGTKTETLLRFSTVAGELGSPDTWRDVRGFALR  
FYTEEGNYDLVGNNTPIFFLRDPMKFTHFIRSQKRLPDSGLRDATMQWDFWTNNPESAHQ  
VTYLMGPRGLPRTWREMNGYGSHTYLWVNAQGEKHWVKYHFISQQGVHNLNSNDEATKIAG  
ENADFHRQDLFESIAKGDHPKWDLYIQAIPIYEEGKTYRFNPFDLTKTISQKDYPRIKVG T  
LTLNRNPNENHFAQIESAAAFSPSNTVPGIGLSPDRMLLGRAFAFHDAQLYRVGAHVNLQLPV  
NRPKNAVHNYAFEGQMWDHTGDRSTYVPSNNGDSWSDETGPVDDGWEDGTLTREAQAL  
RADDFFGQAGTLVREVFSDQERDDFVETVAGALKGVRQDVQARAFYWKNV DATIGQRI  
EDEVKRHEGDGIPGVEAGGEARM

>P11934

AAAQRRQNDSSVFLAIMVAAAVESESSLTDGDAGALLLQDISEWDEVFRFRLEAVERAA  
HAAAAAFGAFVARGDWTASAAAAFQAAGKQIAFMAAFSTVAGAKGSATVRDADAF AAKF  
ASAAALQELVGNNSPISFFIFDILLFAAILFASKAKAANQAAFAAAAELAAESL FVRLPSL  
HQVSFFALAGFAA VAHRHMNGYGSHTFKLVAKDGSVYCSKFWYKADQGQAAEVWKDAEE  
VAAEDVDYFRDLNFQAEAAAGRYPLWELASQVMTFSDFEIDPFNENIPTKVVPRESVPLIV  
DAELLLNRNPLNMF AEVEQVFMVAAAASKGADEVEDPLIQRFAYIDTHLSEL TASYGIP  
VCRPYATV LNDQEDGARYDDVDVLVIAPNAF SASAVEVQIPAAAAFNLAAARVAAAGDV

RVNAVVEADQRKQSRQFWASDVNAQKKRLVDAFRMEVASAVSASIQVDVTVEFSFVAAAA  
AARIAAAVGSAAAGALANRRQIKVVIASLAVLAKADAKVRQKNALESSSQAVAVDAKAAAQ  
DIVDSSDAANVTVAREFAVLPQTAAADAAEFVAAAASAKAFSSFPAMEVISVAAAAGAVA  
EPARASLDLNMAMFFSRIVASRGAAANAIAALVKASRDGVFVAAVLAKAAAANNRAAEAI F  
KFEVRQAVDA

>P30263

MSNPPVFTTSQGPCVSDPFTTQRIPLDSTGYKYAPP IGPLLLQDFKLI DTLSHFDRERIP  
ERVVHAKGAGAYGVFEVTDITDVCSAKFLDVTGKKTTRIFTRFSTVGGEGKSADTARDPR  
GFATKFYTEDGNLDLVYNNTPIFFIRDP IKFPHFIHTQKRNPATNLKDPNMFWDYLTAND  
ESLHQVMYLF SNRGT PASYRTMNGYSGH TYKWYNSKGEWVYVQVHF IANQGVHNLLEEA  
GRLAGEDPDHSTRDLWEAIEKGDYPSWECYIQTM TLEQSKKLPFSVFDLTKVWPHKDFPL  
RHFGRFTLNENPKNYAETE QIAFSPSHTVPGMEPSNDPVLQSRLFSYDPDTHRHR LGPNY  
HQIPVNCPLKSGSFNP INRDGPMCVDGNLGGTPNYANAYNCP IQYAVSPKASGNKPDEKY  
TGEVVPYHWEHTDYDYFQPKMFVKVLGRTPGEQESLVKNVANHVSA ADEFIQDRVYEFYS  
KAEP IIGDLIRKKVQELKRKASSPSKI

>P37743

MDGKDKATGKCPVMHGAMTAAGVSNTS WWPNALNLDILHQHDTKGNPLNGFDYRAAVKGL  
DVGLRADLHALMTDSQPWWPADWGHYGLMIRMAWHAAGSYRAADGRGGGNTGKPARFAP  
LNSWPDNVSLDKARLLWP IKKKYGNVSWADLILFAGTVAYESMGLKTFGFGFGREDIW  
APEKDVYWGAEKDWLAPSDGRYGLAKPETMENPLAAVQMGLIYVNP EGVNGQPDPARTA  
LHIRETFARMGMNDEETVALTAGGHTV GKAHNGDAKALGPDPEAADTVRALAGRTRIW  
AARRRRPSPRGSRAPGPRIRRAGTWAISRCSSGHDWELTKSPAGAWQWKPV TIAEEAKPL  
DATDLTTRHDPLMTDADMAMKVD PSTMRSVRSSWP IRPPSTTL SRAPGSSCC IATWGRRR  
ATSAPMCPPRIWSAGPGAAGPTGWDVAKVKAQIAASGLSVADLVATAWDSARTFRQSDYR  
GGANGARIRLAPQKDWAGNEPERLAGACGARTDRGGAGASVADVIVLAGNLGVEQAAAGV  
SRWRCPSPVAAMRAAMTDGPSLTCWSRCMTASATG

>P15202

MSKLGQEKNEVNYSDVREDRVVTNSTGNP INEPFVTQRI GEHGPLLLQDYNLIDSLAHFN  
RENIPQRNPHAHGSGAFGYFEVTDITD ICGSAMFSKIGKRTKCLTRFSTVGGDKGSADT  
VRDPRGFATKPHYTEEGNDWVYNNTPVFFF IRDPSKFPHF IHTQKRNPQTNLRDADMFWDF  
LTTPENQVAIHQVMILFSDRGTPANYRSMHGYSGH TYKWSNKNGDWHYVQVHIKTDQG I K  
NLTIIEEATKIAGSNPDYCCQDLFEAIQNGNYPSWTVYIQTMTERDAKKLPFSVFDLTKVW  
PQGQFPLRRVGKIVLNENPLNFFAQVEQAAFAPSTTVPYQEASADPVLQARLFSYAD AHR  
YRLGPNFHQIPVNCPYASKFFNPAIRDGPMNVNGNFGSEPTYLANDKSYTYIQQDRPIQQ  
HQEVWNGPAIPYHWATSPGDVDFVQARNLYRVLGKQPGQKNLAYNIGIHVEGACPQIQQ  
RVYDMFARVDKGLSEA IKKVAEAKHASELSSNSKF

>Q92405

MRLTFIPSLIGVANAVCPYMTGELNRRDEISDGDAAAATEEFLSQYLLNDNDAFMTSDVG  
GPIEDQNSLSAGERGPTLLEDFIFRQKIQRFDHERVPERAVHARGAGAHGVFTSYGDFSN  
ITAASFLAKEGKQTPVVFVRFSTVAGSRGSSDLARDVHGFA TRFYTDEGNFDIVGNNIPVF  
FIQDAILFPDLIHAVKPRGDNEIPQAATAHDSAWDFFSQQPSTMHTLLWAMSGHGIPRSF  
RHVDGFGVHTFRFVTDGASKLVKFHWKSLQ GKASMVWEEAQQTSGKNPDMRQDLHDAI  
EAGRYPEWELGVQIMDEEDQLRFGFDLLDPTKIVPEEFVPI TKLGKMQLNRNPRNYFAET  
EQVMFQPGHIVRGVDFTEDPLLQGR LFSYLD TQLNRHGGPNFEQLP INQPRVPVHNNNRD  
GAGQMFIPLNPHAYSPKTSVNGSPKQANQTVGDGFFTAPGR TTS GKLVRAVSSSFEDVWS  
QPRLFYNSLVPAEKQFVIDAIRFENANVKSPVVKNNVI IQLNRIDNDLARRVARAIGVAE

PEPDPTFYHNNKTADVGTFGTKLKKLDGLKVGVLGSLVQHPGSVEGASTLRDRLKDDGVDV  
VLVAERLADGVDQTYSTSDAIQFDVAVVAAGAESLFAASSFTGGSANSASGASSLYPTGR  
PLQILIDGFRFGKTVGALGSGTAALRNAGIATSRDGVYVAQSVTDDFANDLKEGLRTRFKF  
LDRFPVDH

>P07774

MELRHLRYFVTVVEEQSISKAAEKLKICIAQPPLSRQIQKLEEEELGIQLFERGFRPAKVTEA  
GMFFYQHAVQILTHTAQASSMAKRIATVSQTLRIGYVSSLLYLLEPEIYLFRRQONPEIH  
IELIECGTKDQINALKQKIDLGFGRLKITDPAIRRIVLHKEQLKLAHKKHHHLNQFAAT  
GVHLSQIIDEPMLLYPVVSQKPNFATFIQSLFTELGLVPSKLTETIREIQALGLVAAGEGV  
CIVPASAMDIGVKNLLYIPILDDDDAYSPI SLAVRNMDSNYIPKILACVQEVFATHHIRP  
LIE

>P06115

MPIRSISSASQMNVFGKKEEKQEKVYSLQNGFPYSHHPYASQYSRDPGPILLQDFHLLN  
IASFDRERVPERVVHAKGGGCRLEFELTDSLSDITYAAPYQNVGYKCPGLVRFSTVGGES  
GTPDTARDPRGVSFKFYTEWGNHDWVFNNTPVFFLRDAIKFPVFIHSQKRDPQSHLNQFQ  
DTTIYWDYLTLPESIHQITYMFGDRGTPASWASMNAYSGHFSIMVNKEGKDTYVQFHV  
SDTGFETLTGDKAAELSGSHPDYNQAKLFTQLQNGEKPKNFCYVQMTPEQATKFRYSVN  
DLTKIWPHEKFLRKFGTITLTENVDNYFQIEIQVAFSPTNTCIPGIKPSNDSVLQARLF  
SYPDTQRHRLGANYQQLPVNRPRNLGCPYSKGDQSYTAEQCPFKAVNFQRDGPMSYYNFG  
PEPNYISSLPNQTLKFKNEDNDEVSDKFKGIVLDEVTEVSVRKQEQQDIRNEHIVDAKIN  
QYYYYVYGISPLDFEQPRALYEKVVNDEQKKLFFVHNVVCHACKIKDPKVKKRVTQYFGLLN  
EDLGKVI AECLGVPWEPVDLEGYAKTWSIASAN

>O46550

MGLETEKADVQLCMDDDAYSRRHSAVDFGDLEQLADSGSDRDRRLNSHLQVGFEDVIAEP  
VSTHSFDKVVICSHALFEVSKYVIYKFLTLLLAMPMAFAAGVLFATLSCLHIWIIMPFVK  
TCLMVLPSVQTIWKSVDIAVIAPLCSSVGRSFSVSLQVSHD

>P54965

MCTGLALETKDGLHLFGRNMDIEYSFNQSIIFIPRNFKCVNKSNNKELTTKYAVLGMGTI  
FDDYPTFADGMNEKGLGCAGLNFPVYVSYSKEDI EGKTNIPVYNFLLWVLANFSSVEEVK  
EALKNANIVDIPISENIPNTTLHWMSDITGKSI VVEQTKELNVFDNNIGVLTNSPTFD  
WHVANLNQYVGLRYNQVPEFKLGDQSLTALGQGTGLVGLPGDFTPASRFIRVAFLRDAMI  
KNDKDSIDLIEFFHILNNVAMVRGSTRTVEEKS DLTQYTS CMCLEKGIYYNTYENNQIN  
AIDMNKENLDGNEIKTYKYNKTL SINHVN

>O87696

MKLYIIGAGPGDPDLITVKGLKLLQQADVVLVYADSLVSDLI AKSKPGA EVLKTAGMHLE  
EMVGTMLDRMREGKMVVRVHTGDPAMYGAIMEQM VLLKREGVDIEIVPGVTSVFAAAAAA  
EAELTIPDLTQTIVILTRAEGRTPVPEFEKLTDLAKHKCTIALFLSATLTKKVMKEFINAG  
WSEDTPVVVVYKATWPDEKIVRTTVKDLDDAMRTNGIRKQAMILAGWALDPHIHDKDYRS  
KLYDKTFTHGFRKGVKSE

>Q05593

MNGKLYALSTGPGAPDLITVRAARILGSLDILYAPAGRKGGDSLALSIVRDYLG EQTEVR  
CCHFPM S ADGAEKEAVWNEVAAALTA E VEAGKQVGFITLGDAMLFSTWIFLLQRIGCPEW  
LEIVPGVTSFAAIAARAKMPLAIERQSLAVISCTAPEAEIAQALQQHDSLVL MKVYGRFA  
RIKALLAQAGLLECALMMSEATLPGEQCWRHLHEVNDDRPLPYFSTILVNKQWEYAE

>O26249

MIPDDEFIKNPSVPGPTAMEVRCCLIMCLAEPGKNDVAVDVGCCTGGVTLELAGRVRVRYA  
IDRNPEAISTTEMNLQRHGLGDNVTLMEGDAPEALCKIPDIDIAVVGSGGELQEILRII  
KDKLKPGGRIIVTAILLETKEFEAMECLRDLDGFDVNI TELNIARGRALDRGTMMVSRNPVA  
LIYTGVSHENKD

>P61816

MTEKLGILAIHGSKLPYNKEVVQTQIADYIARKHSDVVVRAGFMENSEPTLGEAIEGFSG  
TGVTKIAAVPVFLASGVHITKDI PRILSLDENGCGTLEIDGKTVPLCYANPLGADELIAD  
LVFKRVQEAL

>O27448

MDSNSNQPKIGVLLVGHGSRLPYGEEVINGIADIYRQEADHPVAVGFMNMSRPSIPEAI  
NELAAMGVEKII VTPVFLAHGVHTKHDIPHILGLDNGAEGHHHEHEHEHEEFEFDGEIV  
YTEPLGADPRIAEIIRDRVKSAI

>O97438

MSAGKTVVIALGGNAMLQAKEKGDYDTQRKNVEIAASEIYKIHKAGYKVVLTSGNAPQVG  
AIKLQNAAGVSPEMPLHVCGAMSQGF IGYMMSQAMDNVFCANNEPANCVTCVTQTLVD  
PKDQAFNTNPTKPRWRFYTEQEAKDLMAANPGKILREDAWPAGWRVVVPSRPLEIVEYGV  
IKTLIDNNVLVICTNGGGIPCKRENKVISGVDVIDKDLATSLAKTLNSDYLMILTDVL  
NACINYKKPDERKLEEKLSEILALEKDGHF AAGSMGPKVRAAIEFTQATGKMSIITSLS  
TAVDALNGKCGTRIIKD

>O96432

MRIVVALGGNALLQRGMKGTFFDQQAACRLAMSQIVKIVKDGNELVMTHGNGPQC GAIFL  
QNVAGEQEKPAMPLHVCGAETQGFLGELLQQE LDGALRAEGIKKNVVSIVTQSFVDPKD  
PAFQNP TKPIGPFYSKEEA EFLRNERGYNMVEDAGRGYRMIVPSPVPQKFVEKEAIKTLV  
NSGFIVVCSGGGGIPVILDEQENRIEGVDAVIDKDLGASVLA AATNADAFMILTDVPEAL  
LNYRKENETAIRQATVAEMEKYIEEGHF IKGSM LPKVQACLRFVKSTGK PALITALDCAL  
QALKGERG TKIVPN

>Q9R171

MLGVVELLLLGTAWLAGPARGQNETEPIVLE GKCLVVCDSNPTS DPTGTALGISVRSGSA  
KVAFSAIRSTNHEPSEMSNR TMIYFDQVLVNI GNNFDSE RSTFIAPRKG IYSFNFHVVK  
VYNRQTIQVSLMLNGWPVISAFA GDQDVTRE AASNGVLIQMEKGD RAYLKL ERGNLMGGW  
KYSTFSGFLVFPL

>P06621

MRPSIHRTAIAAVLATAFVAGTALAQKRDNVLFQAATDEQPAVIKTLEKLVNIETGTGDA  
EGIAAAGNFLEAELKNLGFVTVTRSKSAGLVVGDNI VGIKGRGKNLLLSHMDTVYLKG  
ILAKAPFRVEGDKAYGPGIADDKGNAVILHTLKL LKEYGVRDYGTITVLFNTDEEKGSF  
GSRDLIQEEAKLADYVLSFEPTSAGDEKLSLGTSGIAYVQVNI TGKASHAGAAPELGVNA  
LVEASDLVLR TMNIDDKAKNLRFNWTIAKAGNVSNIIPASATLNADVR YARNEDFDAAMK  
TLEERAQQKLP EADV KVI VTRGRPAFNAGEGKKLV DKAVAYYKEAGGTLGVEERTGGG  
TDAAYAALSGKPVIESLGLPGFGYHSDKA EYVDISAI PRRLYMAARLIMDLGAGK

>P80092

MDLVEKLNKNDVREIEDWIIQIRRKIHEYPELSYKEYNTSKLV AETLRKLGVEVEEGVGLP



TAVVVGKIRGSKPGKTVALRADMDALPVEENTDLEFKSKVKGMHACGHDTHVAMLLGGAY  
LLVKNKDLISGEIRLIFQPAEEDGGLGGAKPMIEAGVMNGVDYVFGIHISSSYPSGVFAT  
RKGPIMATPDAFKIIVHGKGGHGSAPHETIDPIFISLQIANAIYGITARQIDPVQPFIIIS  
ITTIHSGTKDNIIPDDAEMOGTIRSLDENVRSKAKDYMRRIVSSICGIYGATCEVKFMED  
VYPTTVNNPEVTDEVMKILSSISTVVETEPVLGAEDFSRFLQKAPGTYFFLGTREKKGC  
IYPNHSSKFCVDEDVLKLGALAHALLAVKFSNK

>P35520

MPSETPQAEVGP TGCPHRSGPHSAKGSLEKGSPEDEKAKEPLWIRPDAPSRCTWQLGRPA  
SESPHHHTAPAKSPKILPDILKKIGDTPMVRINKIGKKFGLKCELLAKCEFFNAGGSVKD  
RISLRMIEDAERDGTLPKPGDTIIIEPTSGNTGIGLALAAAVRGYRCIIVMPEKMSSEKVDV  
LRALGAEIVRTPTNARFDSPEHSVGVAVRLKNEIPNSHILDQYRNASNPLAHYDTTADDEI  
LQQCDGKLDMLVASVGTGGTITGIARKLKEKCPGCRIGVDPEGSILAEPEELNQTEQTT  
YEVEGIGYDFIPTVLDRTVVDKWFKSNDEEAFTFARMLIAQEGLLCGGSAGSTVAVAVKA  
AQELQEQRCVVILPDSVRNYMTKFLSDRWMLQKGFLEEDLTEKKPWWWHLRVQELGLS  
APLTVLPTITCGHTIEILREKGFQAPVVD EAGVILGMVTLGNMLSSLLAGKVQPSDQVG  
KVIYKQFKQIRLTDTLGRLSHILEMDHFALVVHEQIQYHSTGKSSQRQMVFGVVTAIDLL  
NFVAAQERDQK

>P83916

MGKKQNKKKVEEVLEEEEEYYVVEKVLDRRVVKGKVEYLLKWKGFSDENTWEP EENLDC  
PDLIAEFLQSQKTAHETDKSEGKRRKADSDSEDKGEE SKPKKKKEESEKPRGFARGLEPE  
RIIGATDSSGELMFLMKWKN SDEADLVPKAEANVKCPQVVISFYEERLTWHSYPS EDDDK  
KDDKN

>O28126

MKVEEILEKALELVIPDEEEVVRKGREAEELRRRLDELGVEYVFGSYARNTWLKGSLEI  
DVFLLFPEEFSKEELRERGLEIGKAVLDSYEIRYAEHPYVHG VVKGVEVDVVP CYKLKEP  
KNIKSAVDRTPFHHKWLEGRIGKGENEVRLKGF LKANGIYGAEYKVRGFSGYLCELLIV  
FYGSFLETVKNARRWTRRTVIDVAKGEVRKGE EFFFVDPVDEKRNVAANLSLDNLARFVH  
LCREFMEAPSLGFFKPKHPLEIEPERLRKIVEERGTA VFAVKFRKPDIVDDNLYPQLERA  
SRKIFEFLE RENFMPLRS AFKASEEFCYLLFECQIKEISR VFRRMGPQFEDERNVKKFLS  
RNRAFRPFIENGRWWAFEMRKFTTPEEGVRSYASTHWHTLGKNVGESIREYFEIISGEKL  
FKEPVTAELCEMMGVKD

>P77978

MIEEEVLKIIKPT EEDKKGIEKVLEIIRERL NKLD FEVEGSFRKGTWLRQD TDVDVVFVY  
PKDVGKEYLERNALNDIINRIKDLDYTLAYAEHPYVIVNINNVEVDIVPALRVESGDRAI  
TAVDRTPFHHTKYVTSHLDERGKDEVRL LKR FMKIGVYGAELKVQGFSGYATELLVIYYG  
SFRKVL EAASKWKHP IKIELTKPMRAFSEPLIIPDPVDRRNVTAAVSLKNIATFSVAAK  
YYLKNPSMEFFFFPSKKVEEKIKGDVLIILRLNLDEKSSEDIW GQIKRSVNKIERALKQSG  
FRVIDIQAWGDTSNIVIAVQLESKNIGQYYLNIGPQYYSETIDDFIQKNDNIWVGEDGRL  
YSIKERKEYNAEAI AKKNIVLVKYNIESYWLQNTEDQQIMKFLRKTPTWLK

>Q10423

MATVKLSFLQHICKLTGLSRSGRKDELLRRIVDSP IYPTSRVLGIDLGIKNFSYCFASQN  
EDSKVI IHNWSVENL TEKNGLDIQWTEDFQPSSMADLSIQLFNTLHEKFNPHVILMERQR  
YRSGIATIP EWTLRVNMLESMLYALHYAEKRNSIEQKI QYPFLLSLSPKSTYSYWASVLN  
TKASF SKKSRVQMVKELIDGQKILFENEEALYKWNNGSRVEFKKDDMADSALIASGWMR  
WQAQLKHRYNFCKQFLKQ

>Q03702

MSTAQKAKILQLIDSCCQNAKSTQLKSLSFVIGAVNGTTKEAKRTYIQEQCEFLEKLRQQ  
KIREGRINILSMDAGVSNFAFSKMQLLMNDPLPKVLDWQKINLEEKFFQNLKKSLSLNP  
TSELVFNLTTEYLFESMPIPDMFTIERQRTRTMSRRHILDPILKVNILEQILFNSLENKMK  
YTNKIPNTSKLRYMVCSSDPHRMTSYWCIPREETPTSSKKLKSNNKHSKDSRIKLVKKILS  
TSILEGNSTSSTKLVEFIGVWNNRIRNALTKKKSFKLCIDILEIQDNSGVRKDDDLADSFL  
HCLSWMEWLKNYESITELLNSKTLVKTQFGQVFEFCENKVQKLLKFLQNTYNNND

>Q9NNX6

MSDSKEPRLQQLGLLEEEQLRGLGFRQTRGYKSLAGCLGHGPLVLQLLSFTLLAGLLVQV  
SKVPSSISQEQSRQDAIYQNLTLQKAAVGESEKSKLQEIYQELTQKAAVGEPEKSKL  
QEIYQELTRLKAAVGEPEKSKLQEIYQELTWLKAAVGEPEKSKMQEIYQELTRLKAAV  
GELPEKSKQEIYQELTRLKAAVGEPEKSKQEIYQELTRLKAAVGEPEKSKQEIYQ  
ELTQKAAVERLCHPCPWEWTFQGNCFYMSNSQRNWHDSITACKEVGAQLVVIKSAEEQ  
NFLQLQSSRSNRFTWMGLSDLNQEGETWQWVDGSPLLPSFKQYWRNRPNNVGEEDCAEFS  
GNGWNDKCNLAKFWICKKSAASCSRDEEQFLSPAPATPNPPPA

>P10747

MLRLLLLALNLFPSIQVTGNKILVKQSPMLVAYDNAVNLSCYKSYNLFSSREFRASLHKGLD  
SAVEVCVVYGNYSQQLQVYSKTGFNCDGKLGNESVTFYLNLYVNQTDIYFCKIEVMYPP  
PYLDNEKSNGTIIHVKGKHLCPSPLPFGPSKPFWVWVVGVLACYSLLVTVAFIIFWVR  
SKRSRLHSDYMNMTPRRPGPTRKHYPYAPPRDFAAYRS

>P29965

MIETYNQTSRPSAATGLPISMKIFMYLLTVFLITQMIGSALFAVYLHRRLDKIEDERNLH  
EDFVFMKTIQRCNTGERSLSLLNCEEIKSQFEGFVKDIMLNKEETKKENSFEMQKGDQNP  
QIAAHVISEASSKTTSVLQWAEKGYTMSNNLVTLNKGKQLTVKRQGLYYIYAQVTFCSN  
REASSQAPFIASLCLKSPGRFERILLRAANTHSSAKPCGQSIHLGGVFELQPGASVFN  
VTDPSQVSHGTGFTSFGLLKL

>Q07108

MSENCFVAENSSLHPESQENDATSPHFSTRHEGSFQVPVLCVMMNVVFITILIALIA  
LSVGQYNCPGQYTFSMPSDSHVSSCEDWVGQYRKYFISTVKRSWTSANACSEHGATL  
AVIDSEKDMNFLKRYAGREEHWVGLKKEPGHPWKWSNGKEFNWVFNVTGSDKCVFLKNT  
VSSMECEKNLYWICNPKPYK

>P37217

MSENCSITENSSSHLERGQKDHGTSIHFEKHHEGSIQVSIWAVLIVVLITSLIALIA  
LNVGKYNCPLYEKLESSDHHVATCKNEWISYKRTCYFFSTTTKSWALAQRSCEDAATL  
AVIDSEKDMTFLKRYSGELEHWIGLKNEANQTKWANGKEFNWVFNLTGSGRCVSVNHKN  
VTAVDCEANFHWVCSKPSR

>P21854

MAEAITYADLRFVKAPLKKSISRLGQDPGADDDGEITYENVQVPAVLGVPSSSLASSVLG  
DKAAVKSEQPTASWRAVTSAPVGRILPCRTTCLRYLLLGLLLTCLLLGVTAICLGVRYLQ  
VSQQLQQTNRVLEVTNSSLRQQLRLKITQLGQSAEDLQGSRRRLAQSQEALQVEQRAHQ  
AEGQLQACQADRQKTKETLQSEEQQRRALEQKLSNMENRLKPFPTCGSADTCCPSGWI  
MQSCFYISLTSKNWQESQKQCE TLSSKLATFSEIYPQSHSYFLNSLLPNGGSGNSYWTG  
LSSNKDWKLTDDTQRTRTYAQSSKCNKVHKTWSWWTLESESCRSSLPYICEMTAFRFPD

>P21855

MADAITYADLRFVKVPLKNSASNHLGQDCEAYEDGELTYENVQVSPVPGGPPGLASPALA  
DKAGVGSEQPTATWSSVKSSALRQIPRCPTVCLQNFLGLLLSCLMLGVAVICLGVRYLQ  
VSQQFQEGTRIWEATNSSLQQQLREKISQLGQKEVELQESQKELISSQDTLQEKQRTHKD  
TEQQLQACQAERAKTKENLKTEEERRDLQRLTSTRETLRRLSSCSSDTCCPCGWIPYQ  
ERCFYISHTLRSLEESQKYCTSLSSKLAADFDEPSKYYYYEVSLPSGLEELLDRSKSYWIQM  
SKKWRHDYDSQSRYPDKIKKYYQKWKRTFSECAELHPCICESEAFRFPDGIHLN

>P19079

MNRQELITEALKARDMAYAPYSKFQVGAALLTKDGKVYRGCNIENAAYSMCNCAERTALF  
KAVSEGDTFQMLAVAADTPGPVSPCGACRQVISELCTKDVI VVLTNLQGQIKEMTVEEL  
LPGAFSSEDLHDERKL

>P0ABF6

MHPRFQTAFAQLADNLQSALEPILADKYFPALLTGEQVSSLKSATGLDEDALAFALLPLA  
AACARTPLSNFNVAIARGVSGTWYFGANMEFIGATMQQTVHAEQSAISHAWLSGEKALA  
AITVNYTPCGHCRQFMNELNSGLDLRIHLPGREAHALRDYLPDAFGPKDLEIKTLLMDEQ  
DHGYALTGDALSQAATAAANRSHMPYSKSPSGVALECKDGRIFSGSYAENAAFNPPLPL  
QGALILLNLKGYDYPDIQRAVLAEKADAPLIQWDATSATLKALGCHSIDRVLLA

>P32320

MAQKRPACTLKPECVQQLLVCSQEAKKSAYCPYSHFPVGAALLTQEGRIFKGCNIENACY  
PLGICAERTAIQKAVSEGYKDFRAIAIASDMQDDFISPCGACRQVMREFGTNWPVYMTKP  
DGTIVMTVQELLPSFSGPEDLQKTQ

>Q06549

MKVGGIEDRQLEALKRAALKACELSYSPYSHFRVGC SILTNNDVIFTGANVENASYSNCI  
CAERSAMIQVLMAGHRSGWKCMVICGDSQCVSPCGVCRQFINFVVKDFPIVMLNSTG  
SRSKVMTMGELLPMAFGP SHLN

>O58308

MGENMKKKVVIIGGGAAGMSAASRVKRLKPEWDVKVFEATEWVSHAPCGIPYVVEGLSTP  
DKLMYYPPEVFIKKRGIDLHLNAEVI EVD TG YVRVRENGGEKSYEWDYLVFANGASPQVP  
AIEGVNLKGVFTADLPPDALAIREYMEKYKVENVVIIGGGYIGIEMAEFAAQKKNVTMI  
VRGERVLRFSDFKEVTDILEEKLKHHVNLRLQEITMKIEGEERVEKVVT DAGEYKAELVI  
LATGIKPNIELAKQLGVRIGETGAIW TNEKMQTSVENVYAAGDVAETRHVITGRRVWVPL  
APAGNKMGYVAGSNIAGKELHFPVGLGTA VTKFMDVEIGKTGLTEMEALKEGYDVRTAFI  
KASTRPHYYPPGREIWLKGVVDNETNRLLG VQVVGSDILPRIDTAAAML MAGFTTKDAFF  
TDLAYAPPFAPVWDPLIVLARVLKF

>O52582

MPKIVVVGAVAGGATCASQIRRLDKESDIIIFEKDRDMSFANCALPYVIGEVVEDRRYAL  
AYTPEKIFYDRKQITVKTYHEVIAINDERQTVSVLNRKTNEQFEESYDKLILSPGASANSL  
GFESDITFTLRNLED TDAIDQFIKANQVDKVLVVGAGYVSLEVLLENLNERGLHPTLIHRS  
DKINKLMDADMNQPI LDEL DKREIPYRLNEEINAINGNEITFKSGKVEHYDMIIEGVGTH  
PNSKFI ESSNIKLD RKGFI PVNDKFETNVPNIYAIGDIATSHYRHVDLPASVPLAWGAHR  
AASIVAEQIAGNDTIEFKGFLGNNIVKFFDYTFASVGVKPNELKQFDYK MVEVTQGAHAN  
YYPGNSPLHLRVYYDTSNRQILRAAAVKGEGADKRIDVLSMAMMNQLTVDELTEFEVAYA  
PPYSHPKDLINMIGYKAK

>P38221

MSDNPEMKPHGTSKEIVESVTDATSKAIDKLOEELHKDASESVTPVTKESTAATKESRKY  
NFFIRTVWTFVMISGFFITLASGHAWCIVLILGCQIATFKECIAVTSASGREKNLPLTKT  
LNWYLLFTTIYYLDGKSLFKFFQATFYEYPVLFNFIVTNHKFICYCLYLMGFVLFVCSLRK  
GFLKFQFGSLCVTHMVLVLLVVFQAHLI IKNVNLNGLFWFLLPCGLVIVNDIFAYLCGITFG  
KTKLIEISPCKTLEGFLGAWFFFTALASII LTRILSPYTYLTCPVEDLHTNFFSNLTCELN  
PVFLPQVYRLPPIFFDKVQINSITVKPIYFHALNLATFASLFAPFGGFFASGLKRTFKVK  
DFGHSIPGHGGITDRVDCQFIMGSFANLYYETFISEHRITVDTVLSTILMNLNDKQIIEL  
IDILIRFLSKKGIISAKNFEKLADIFNVTKKSLTNHS

>O76337

MAKDIYKTFKRSVSGIVGNNINGEGSSSPSTAPQVKYRGGTGRTWIHPPDYLINGHVE  
YVARFLGCVETPKANGSDVAREAIHAIRFQDLKRSEQTRETAKLQKVEIRISIDNVI IA  
DIKTKAPMYTFPLGRISFCADDKDDKRMFSFIARAEGASGKPCYAF TSEKLAEDITLTI  
GEAFDLAYKRFLDKNRTSLENQKQIYILKKKIVELE TENQVLIERLAEALRANSKADYEN  
TGPPIYPGLGPPALPLSPMPQGPPPNIPPSSIYSMPRANDLPPTEMAP TLPQISTSSNGA  
SPSVSPASTSPSGPAPSIPPPRPPALAPPPVAPRRNPVSPKNSTAGLLDGLELGS AEP  
AKKAPSNIFFDDSFDP RAGEKKSTAAEYNPFADFLSGIQNGKEAPPSASAELLASEAIAR  
LPKPSSSVPPKKTAAEYDAMINEVEKKLAAMSSGSF EFGQLQTGDLGGIEGESDYGTPS  
DRLNPKMMNLKQ

>Q29026

MESRGRSANS PKADAKATTEARAPPAVDGKVP SAKKQEAQKA EKQEPPAAPTLP PAKKTS  
ALLDNHNSNLKPAPAAPSSPDAAPEPKGPGDGAEEAEAPSGGPGGRGPCPFENLNPLLVAG  
GIAMAAAALILGVVFLARKK

>Q9UPQ3

MNYQQQLANSAAIRAEIQRFESVHPNIYSIYELLERVEEPVLQNQIREHVIAIEDAFVNS  
QEWTLRSRVPKLVGIVGNLASGKSALVHRYLTGT YVQEE SPEGGRFKKEIVVDGQSYLL  
LIRDEGGPPEAQFAMWVDAVIFVFSLEDEISFQTVYHYYSR MANYRNTSEIPLVLVGTQD  
AISSANPRVIDDARARKLSNDLKRCTYYETCATYGLNVERVFQDVAQKIVATRKKQQLSI  
GPCKSLPNSPSHSSVCSAQVSAVHISQTSNGGGSLSDYSSSV PSTPSTSQKELRIDVPPT  
ANTPTPVRKQSKRRSNLFTSRKGS DPKKKGLESRADSIGSGRAIP IKQGMLLKRSGKS  
LNKEWKKKYVTLCDNGVLTYPHPSLHDMQNVHGKEIDLLR TTVKVPGRPPRATSACAPI  
SSPKTNGLSKDMSSLHISPNSGMVTSASGSQMASGISLVSFNSR PDGMHQRSYSVSSADQ  
WSEATVIANS AISSDTGLGDSVCSSP SISSTTSPKLDPPP SPHANRKKHRRKKSTSNFKA  
DGLSGTAEQEENFEFIIIVSLTGTWHFEATTYEERDAWVQAIESQILASLQSCSSKNK  
SRLTSQSEAMALQSIRNMRGNSHCVDCE TQNPWASLNLGALMCI EC SG IHRNLGTHLSR  
VRSLDLDWVPELIKVMSSIGNELANSVWEESSQGR TKPSVDSTREEKERWIRAKYEQKL  
FLAPLPCTELSLGQHLLRATADEDLRTA ILLLAHGSRDEVNETCGEGDGR TALHLACRKG  
NVVLAQLLIWIYGV DVTARDAHGNTALAYARQASSQECIDVLLQY GCPDERFVLMATPNLS  
RRNNNRNNSGRVPTII

>P07199

MGPKRRQLTFREKSRIIQEVEENPDLRKGEIARRFNIPPSTLSTILKNKRAILASERKYG  
VASTCRKTNKLSPYDKLEGLLIAWFQQIRAAGLPVKGIILKEKALRIAEELGMDDFTASN  
GWLDRFRRRHGVVSCSGVARARARNAAPRTPAAPASPAAVPSESGGSTTGW RAREEQPP  
SVAEGYASQDVF SATETSLWYDFLPDQAAGLCGGDGRPRQATQRLSVLLCANADGSEKLP  
PLVAGKSAKPRAGQAGLPDYTANSKGGVTTQALAKYLKALDTRMAAESRRVLLLAGRLA

AQSLDTSGLRHVQLAFFPPGTVHPLERGVVQQVKGHYRQAMLLKAMAALEGQDPSGLQLG  
LTEALHFVAAAQAVEPDSIAACFREAGFGGGPNATITTSLKSEGESEEEEEEEEEEEEEEG  
EGEEEEEGEEEEEGEGEELGEEEEVEEEGDVDSDEEEEEDEESSSEGLEAEDWAQGV  
VEAGGSFGAYGAQEEAQCP TLHFLEGGEDSDSDSEEEDEEEDEDEDEDDDDDEEDGDEVP  
VPSFGEAMAYFAMVKRYLTSFPIDDRVQSHILHLEHDLVHVTRKNHARQAGVRGLGHQS

>Q13352

MPVKRSLKLDGLLEENSFDPSKITRKKSVITYSPTTGTCQMSLFASPTSSEEQKHRNGLS  
NEKRKLNHPSLTESKESTTKDNDEFMMLLSKVEKLSEEIMEIMQNLSSIQALEGSRELE  
NLIGISCASHFLKREMOKTKELMTKVNKQKLFKSTGLPHKASRHLDSEFLKAILN

>P15244

MKIGLVKANFPGERRVPLLPKDIKDFKNEILVEEGFGKFLDIDDQEYSDKGCHILSRAEV  
FAESEAI FSLKLIQPTDYHLREGQMIIGWTHPFGSGQSFMKEQALPKKLI VVDLDSNSP  
CIYYENEIFESGIPKGLLYKNSFYAGYAGVLDALLQYGLIPTEETKIAILGSGNVAQGA  
SSISKYSSNIRMYRKTMSIFKENYTKYDIIINGIEIGKDDDPILSFSEQKSLKGTLLII  
DVAADAGNTIEGSHFTSIDAPIYENAGKYVVVVPNTPSLIYRNVSQELSKILSENI FRKD  
CSRFIKVKPLNK

>Q86XR8

MAAASVSAASGSHLSNSFAEPSRSNGSMVRHSSSPYVVYPSDKPFLNSDLRRSPSKPTLA  
YPESNSRAIF SALKNLQDKIRRELELERIQAEESVKTL SRETIEYKVKLDEQIQERENSKN  
EESKHNQELTSQLLAAENKCNLLEKQLEYMRNMIKHAEMERTSVLEKQVSLERERQHDQT  
HVQSQLEKLDLLEQEYNKLTMMQALAEKKMQELEAKLHEEEQERKRMQAKAAELQTGLET  
NRLIFEDKATPCVPNARRIKKKKSKPPEKKSSRNYFQAQPHYRLCLGDMPFVAGKSTSPS  
HAVVANVQLVHLMKQHSKALCNDRVINSIPLAKQVSSRGKSKKLSVTPPSSNGINEEL  
SEVLQTLQDEFGQMSFDHQQLAKLIQESPTVELKDKLECELEALVGRMEAKANQITKVRK  
YQAQLEKQKLEKQKELKATKKTLDDEERNSSSRSGITGTNTNKKDFMKLRPGEKRRKNLQL  
LKDMQSIQNSLQSSSLCWDY

>P18757

MQKDASSSGFLPSFQHFATQAIHVGPEPEQWSSRAVVLPI SLATTFKQDSPGQSSGFVYS  
RSGNPNTRNCLEKAVAALDGAHKCLTFARGLAATTTITHLLKAGDEVICMDEVYGGTNRYP  
RRVASEFGLKISFVDCSKTKLLEAAITPQTKLVWIEPTNPTLKLADIKACAQIVHKHKD  
IILVVDNTFM SAYFQRPLALGADICMCSATKYMNGHSDVVMGLVSVTSDDLNERLRF LQN  
SLGAVPSPFD CYLCCRGLKTQIRMEKHFRNGMAVARFLESNPRVEKVIYPGLPSHPQHE  
LAKRQCTGCPGMVSFYIKGTLQHAQVFLKNIKLFALAESLGGYESLAE LPAIMTHASVPE  
KDRATLGISDTLIRLSVGLEDEKDLLEDLGQALKAAHP

>P61604

MAGQAFRKF LPLFDRVLVERSAAETVTKGGIMLPEKSQ GKVLQATVVAVGSGSKGKGGEI  
QPVSVKVGDKVLLPEYGGTKVVLDDKDYFLFRDGDILGKYVD

>O65282

MAATQLTASPVTMSARSLASLDGLRASSVKFSSSLKPGTLRQSQFRRLVVKAASVVAPKYT  
SIKPLGDRVLVKIKEAEKTLGGILLPSTAQSKPQGGEVAVGEGRTIGKNKIDITVPTG  
AQIIYSKYAGTEVEFNDVKHLILKEDDIVGILETEDIKDLKPLNDRVFIKVAEAEKTAG  
GLLLTETTKEKPSIGTVIAVGPGLSDEEGKITPLPVSTGSTVLYSKYAGNDFKGDGSNY  
IALRASDVMAILS

>P17411

MSQKLVVTTIGGGSSYTPELLEGFIKRYHELVPVSELWLV DVEGGKPKLDIIFDLCQRMID  
NAGVPMKLYKTLDRREALKDADFTVTTQLRVGQLPARELDERIPLSHGYLGQETNGAGGLF  
KGLRTIPVIFDIVKDVEELCPNAWVINFTNPAGMVTEAVYRHTGFKRFIGVCNIPIGMKM  
FIRDVLMKSDDDL SIDLFLGLNHMVFIKDVLINGKSRFAELLDGVASGQLKASSVKNIFD  
LPFSEGLIRSLNLLPCSYLLYYFKQKEMLA IEMGEYKGGARAQV VQKVEKQLFELYKNP  
ELKVKPKELEQRGGAYYS DAACEVINAIYNDKQAEHYVNI PHHGQIDNIPADWAVEMTCK  
LGRDGATPHPRITHFDDKVMGLIHTIKGFE IAASNAALS GEFNDVLLALNLSPLVHSDRD  
AELLAREMILAHEKWLPNFAD CIAELKKAH

>Q01134

MKTKFCTGGEAEPSP LGLLLSCGGSAAPTPGV GQQORDAAGELESKQLGGRSQPLALPPP  
PPPLPLPPPPSPPLADEQPEPRTRRRAYLWCKEFLPGAWRGLREDQFHISVIRGGLSNML  
FQCSLPDSIASVGDEPRKVLRLRYGAILKMRSCNKEGSEQAQNENEFQGAEMVLESVMF  
AIIAERSLGP KLYGIFPQGRLEQFIPSRRLDTEELCLPDISAEIAEKMATFHGMKMPFNK  
EPKWLFGTMEKYL NQVRLKFSREARVQQLHKFLSYNLPLELENLRSLLQYTRSPVVFCH  
NDCQEGNILLLEGEQENSEKQKLMLIDFEYSSYNYRGFDIGNHFCEWMDYTYEKYPPFRA  
NIQKYPTRKQQLHFISSYLTTFQNDFESLSSEEQSATKEDMLLEVNRFALASHFLWGLWS  
IVQAKISSIEFGYMEYAQARFDAYFDQKRKLG V

>Q03311

MQTQHTKV TQTHFLWILL LCMPPFGKSHTEEDFIITTKTGRVRGLSMPVLGGTVTAFLGI  
PYAQPP LGSRLFKKQP LNKWPD IHNATQYANSCYQNI DQAFP GFQGSEMWNPN TNLSED  
CLYLNWVIRVPKPKNATVMVWIYGGGFQGTG TSSLPVYDGKFLARVERVIVVSMNYRVGAL  
GFLAFP GNPDPAGNMG LFDQQLALQWVQRNIAAFGGNPKSITIFGESAGAASVSLHLLCP  
QSYPLFTRAIL ESGSSNAPWAVKHPEEARNRTL TLAKFTGCSKENEMEMIKCLRSKDPQE  
ILRNERFVLP SDSILSINFGPTVDGDFLTDMPHTLLQLGKVKKAQILVGVNKDEGTAFLV  
YGAPGFSKDNDSLITRKEFQEGLNMYFP GVSRLGKEAVLFYYVDWLGEQSPEVYRDALDD  
VIGDYNII CPAL EFTTKKFAELENNAFFYFFEHRSSKLPWPEWMGMHGYEIEFVFG LPLG  
RRVNYTRAE E IFSRSIMKTWANFAKYGHPNGTQGNSTMWPVFTSTEQKYLTLNTEKSKIY  
SKLRAPQCQFWRLFFPKVLEMTGDI DETEQEWKAGFHRWSNYMMDWQNFNDYT SKKESC  
TAL

>P42517

MTHFVAIF FSSLFMCSNVFAGSVSSVSLGSLSSALNERMQVMKAVAGYKALHHLPIEDLP  
REQVVL DHMLQNAQQAGLEPHSVEPFVHALMNASKTIQYRYRADWLSSPDSAVPVRDLTE  
TRQQIQQLD TQLLTAISQRLMTGAFS QEDKEFLMSHLTAPHLSESDKNLSL FASLSRIQRQ  
H

>P32178

MDFTKPETV LNLQNIRDELVRMEDSII FKFIERSHFATCPSVYEANHPGLEIPNFKGSFL  
DWALSNLEIAHSRIRRFESPDETPFFPKDIQKSFLPSINYPQILAPYAPEVNYNDKIKKV  
YIEKIIPLISKRDGDDKNNGFSVATRDI ECLQSLSRRIHF GK FVAEAKFQSDIPLYTKLI  
KSKDVEGIMKNITNSAVEEKILERLTKKAEVYGVDP TNE SGERRITPEYLVKIYKEIVIP  
ITKEVEVEYLLRRLEE

>Q5PXQ6

MSTPVSAEQQAREQDLVERVLR SFDATADPRLKQVMQALTRHLHAF LREVRLTEAEWETG  
IGFLT D AGHVTNERRQEFILLSDVLGASMQTIAMNNEAHGDATEATVFGPFFVEGSPRIE  
SGGDIAGGAAGEPCWVEGTVTD TDGNPVPDARIEVWEADDDGFYDVQYDDDR TAARALL

SGPDGGYAFWAITPTYPYP I PHDGPVGRMLAATGRSPMRASHLHFMVTAPGRRTLVTHIFV  
EGDELLDRDSVFGVKDSLKSFERQPAGAPTPGGREIDGPWSRVRFDIVLAPA

>Q9Y4C5

MSRSPQRALPPGALPRLQLQAAPAAAPRALLPQWPRRPGRWPASPLGMKVFRKALVLCAGYALLLVLTMLNLLDYKWHKEPLQQCNPDGPLGAAAAGAAGGSWGRPGPPPAGPPRAHARL  
DLRTPYRPPAAAVGAAPAAAAGMAGVAAPPNGTRGTGGVGDKRQLVYVFTTWRSGSSFF  
GELFNQNPVEFFLYEPVWHVWQKLYPGDAVSLQGAARDMLSALYRCDLSVFLYSPAGSG  
GRNLTTLGIFGAATNKVVCSSPLCPAYRKEVVGLVDDRVCCKCQPQLARFEEECRKYRT  
LVIKGVRFVDVAVLAPLLRDPALDLKVIHLVRDPRAVASSRIRSRHGLIRESLQVVRSD  
PRAHRMPFLEAAGHKLGAKEGVPADYHALGAMEVICNSMAKTLQTALQPPDWLQGHY  
LVVRYEDLVGDPVKTLRRVYDFVGLLVSPEMEQLFALNMTSGSGSSSKPFVVSARNATQAA  
NAWRTALTFQOIKQVEEFCYQPMAVLGYERVNSPEEVKDLKSKTLLRKPRL

>P72292

MRGQRRWAHPFTLIRRLFNAVFSSLTRRIVFFNLVALVVLVGGIMYLNQFREGIDARV  
ESLLTQGEIIAGAISASASVDTNSITIDPEKLELQAGESITPLPSDEDELFPIIQERVA  
PVLRRLLISPTRTRARLFDADADLLLSRHLVSGGQVLRFDLPPVDPESSLADEFGTWFWN  
RLLQPGDLPLYKEPPGGNGSIYPEVMNALTGVRGAVVRVTEKGEIVSVAVPVQRFRAVL  
GVLLSTQAGDIDKIVHAERLAIIRVFGVAALVNVILSLLSSTIANPLRRLSAAAIRVR  
RGGAKEREEIPDFSSRQDEIGNLSVALREMTTALYDRIAAIENFAADVSHLKNPLTSLR  
SAVETLPLARNEESKRLMDVIQHDVRRLDRLISDISDASRLDAELARADAKKVDLEKLL  
GDLVEISRQIRGSKKPVLLDFVDRKDNPRASFIVSGYELRIGQIITNLIENARSFVPEQ  
NGRIVVRLTRSRLRCIVYVEDNGPGIQAEDIDRIFERFYTDREGEDEFGQNSGLGLSISR  
QIAEAHGGTLRAENIAGKDGRISGARFVLSLPAGPHP

>Q58787

MMVRIFDFTLRDGEQTPGVSLTPNDKLEIAKKLDELGVDVIEAGSAITSKGEREGIKLIT  
KEGLNAEICSFVRALPVDIDAALCEDVDSVHLVVPVPTSP IHMKYKLRKTEDEVLETALKAV  
EYAKEHGLLIVELSAEDATRSDVNFLLIKLFNEGEKVGADRVCVCDTVGVLTTPQKSQELFKK  
ITENVNLPVSVHCHNDFGMATANTCSAVLGGAVQCHVTVNGIGERAGNASLEEVVAALKI  
LYGYDTKIKMEKLYEVSRIVSRLMKLPVPPNKAIVGDNAFAHEAGIHVDGLIKNTEYEP  
IKPEMVGNRRIILGKHSGRKALKYKLDLGMINVSDQLNKIYERVKEFGDLGKYSADAD  
LLAIVREVTGKLVEEKIKLDELTVVSGNKITPIASVKLHYKGEDITLIE'TAYGVPVDA  
INAVRKAISGVADIKLVEYRVEAIGGGTDALIEVVVKLRKGTETIVEVRKSDADIRASVD  
AVMEGINMLLN

>Q9NZ45

MSLTSSSSVRVEWIAAVTIAAGTAAIGYLAYKRFYVKDHRNKAMINLHIQKDNPKIVHAF  
DMEDLGDKAVYCRRCWRSKKFPFCDGAHTKHNEETGDNVGPLI IKKKE

>P20115

MVFFRSVSAFTRLRSRVQGGSSLSNSVRWIQMSSDLDLKSQQLIPEQQDRLKLLK  
SEHGKVQLGNITVDMVIGMGRGMTGLLWETSLLDPEEGIRFRGLS IPECQKVLPTAQSGA  
EPLPEGLLWLLLLTGKVPKQVEALS KDLANRAAVPDYVYNAIDALPSTAHMPTQFASGV  
MALQVQSEFQKAYENGIHKSKEFWPTYEDCLNLIARVPVAAVYRRMYKNGDSIPSDKS  
LDYGANF SHMLGFDDEKVKELMRLYITIHSDHEGGNVAHTGHLVGSALSDPYLSFAAAL  
NGLAGPLHGLANQEVLLWIKSVVEECGEDISKEQLKEYVWKTLSNGKVIPGYGHGVLNRT  
DPRYVCQREFALKHLPDDPLFQLVSKLYEVVPPVLTTELGVKNPWPVNDVDAHSGVLLNHYG  
LTEARYYTVLFGVSRSLGICSLIWDRALGLALERPKSVTMDWLEAHCKKASSA

>O34002

MTEPTIHKGLAGVTADVTAISKVNSDTNSLLYRGYPVQELAAKCSFEQVAYLLWNSSELPN  
DSELKAFVNFERSHRKLDENVKGAIDLLSTACHPMDVARTAVSVLGHANHARAQDSSPEAN  
LEKAMSLLATFPSSVAYDQRRRRGEELIEPREDLDYSANFLWMTFGEEAAPEVVEAFNVS  
MILYAEHSFNASTFTARVITSTLADLHSAVTGAI GALKGPLHGGANEAVMHTFEEIGIRK  
DESLDEAATR SKAWMVDALA QKKKVMGFGHRVYKNGDSRVPTMKSALDAMI KHDRPEML  
GLYNGLEAAMEEAKQIKPNLDYPAGPTYNLMGFDTEMFTPLFIAARITGWTAHIMEQVAD  
NALIRPLSEYNGPEQRQVP

>P20901

MSASQKEGKLSSTATISVDGKSAEMPVLSGTLGPDVIDIRKLPALQGVFTFDPGYGETAAC  
NSKITFIDGDKGVLLHRGYPIAQLDENASYEEVIYLLLNGLGELPNKVQYDFTNTLTNHTL  
LHEQIRNFFNGFRDAHPMAILCGTVGALSAYFPDANDIAIPANRDLAAMRLIAKIPTIA  
AWAYKYTQGEAFIYPRNDLNYAENFLSMMFARMSEPYKVNPNVLARAMNRILILHADHEQN  
ASTSTVRLAGSTGANPFACIAAGIAALWGPAGHGGANEAVLKMLARIGKKENIPAFIAQVK  
DKNSGVKLMGFGHRVYKNFDPRAKIMQQTCEVLTTELGIKDDPLLDLAVELEKIALSDDY  
FVQRKLYPNVDFYSGIILKAMGIPTSMFTVLFVAVARTTGWVSQWKEMIEEPGQRISRPRQ  
LYIGAPQRDYVPLAKR

>P27660

MVNTNQFIPGLEGVIASETKISFLDTVNSEIVIKGYDLLALSCTKGYLDIVHLLLEGTIP  
NEAEKQHLEETLKQEYDVPDEIIQVLSLLPKTAHPMDALRTGVSVLASFDTPELLNREHST  
NLKRAYQLLGKIPNIVANSYHILHSEEPVQPLQDLSYSANFLYMITGKKPTELEEKIFDR  
SLVLYSEHELPNSTFTARVIASTLSDLYGALTGAVASLKGHLHGGANEAVMEMLQDAQTV  
EGFKHLLHDKLSKKEKIMGFGHRVYMKKMDPRAAMMKEALKELSAVNGDLLLLQMCEAGE  
QIMREEKGLFPNLDYYAAPVYWKLGIPIPLYTPIFFSSRTVGLCAHVMEQHENNRIFRPR  
VLYTGARNLRVED

>P26491

MTTATESEAPRIHKGLAGVVVDTTAISKVVPETNSLTYRGYPVQDLAAQCSFEQVAYLLW  
HGELPTDQLALFSQRERASRRIDRSMQALLAKLPDNCHPMDVVRTAISYLGAEEDLEEDVD  
TAEANYAKSLRMFAVLPTIVATDIRRQGLTPIPPHSQLGYAQNFNLNCFGEVPEPVVVR  
AFEQSMVLYAEHSFNASTFAARVVTSTQSDIYSAVTAAIGALKGSLHGGANEAVMHDMLE  
IGSAEKAPEWLHGKLSRKEKVMGFGHRVYKNGDSRVPTMKVALEQVAQVRDGRWLDIYN  
TLESAMFAATRIKPNLDFPTGPAYYLMDFPIESFTPLFVMSRITGWTAHIMEQAASNALI  
RPLSEYSGQPQRSLV

>P00889

MALLTAAARLFGAKNASCLVLAARHASASSTNLKDI LADLIPKEQARIKTFRQQHGNTVV  
GQITVDMMYGGMRGMKGLVYETSVLDPDEGIRFRGYSIPECQKMLPKAKGGEEPLPEGLF  
WLLVTGQIPTEEQVSWLSKEWAKRAALPSHVVTMLDNFPTNLHPMSQLSAAITALNSEN  
FARAYAEGIHRTKYWELIYEDCMDLIAKLPVAAKIYRNLYREGSSIGAIIDSKLDWSHNF  
TNMLGYTDAQFTELMRLYLTIHSDHEGGNVSAHTSHLVGSALSDPYLSFAAAMNGLAGPL  
HGLANQEVLVWLTQLQKEVKGKDVSDKLRDIWNTLNSGRVVPYGYGHAVLRKTDPRYTCQ  
REFALKHLPDPMFKLVAQLYKIVPNVLEQKAKNPWPNVDAHSGVLLQYYGMTEMNYY  
TVLFGVSRALGVLAQLIWSRALGFPLERPKSMSTDGLIKLVDSK

>Q53554

MNTEKYLAKGLEDVYIDQTNICYIDGKEGKLYYRGYSVEELAEELSTFEVYVLLWVGKLP



SLSELENFKKELAKSRGLPKEVIEIMEALPKNTHPMGALRTIISYLGNIDDSGDIPVTPE  
EVYRIGISVTAKIPTIVANWYRIKNGLEYVPPKEKLSHAANFLYMLHGEEPPKEWEKAMD  
VALILYAEHEINASTLAVMTVGSTLSDYYSAILAGIGALKGPIHGGAVEEAIKQFMEIGS  
PEKVEEWWFFKALQOKRKIMGAGHRVYKTYDPRARIFKKYASKLGDKKLFEIAERLERLVE  
EYLSKKGISINVDYWSGLVIFYGMKIPIELYTTIFAMGRIAGWTAHLAEYVSHNRIRPRL  
QYVGEIGKKYLPIELRR

>P09948

MTNGNNNNLEFAELKIRGKLFKLPILKASIGKDVIDISRVSAEADYFTYDPGFMSTASCQ  
STITYIDGDKGILWYRGYDIKDLAEKSDFLEVAYLMIYGELPSSDQYCNFTKKVAHHSLV  
NERLHYLFQTFCSSHPMAIMLAAVGSLSAFYPDLLNFNETDYELTAIRMIAKIPTIAAM  
SYKYSIGQPFYIPDNSLDFTENFLHMMFATPCTKYKVNPIKKNALNKIFILHADHEQNAS  
TSTVRIAGSSGANPFACISTGIASLWGPAGGANEAVINMLKEIGSSENIPKYVAKAKDK  
NDPFRLMGFGHRVYKSYDPRAAVLKETCKEVLELQGLDNNPLLQIAIELEALALKDEYF  
IERKLYPNVDFYSGIYKAMGIPSQMFTVLFALARTVGMMAQWKEMHEDPEQKISRPRQL  
YTGYPVHREYKCIVERK

>P80148

MSVVSCKLENNVVIKVTNLTFIDGKGLRYPYGYNIEDLVNYSYEETIYLMLYGKLPYTKK  
ELNDLKAKLNEEYEVPEVLDTIYLMPEKADAIGLLEVGTAALASIDKNFKWKENDKEKA  
ISIIAKMATLVANVYRKEGNKPRIPEPSDSFAKSFLASFAREPTTDEINAMDKALILY  
TDHEVPASTTAALVAASTLSDMYSSLTAALAALKGPLHGGAAEEAFKQFIEIGDPNRVQN  
WFNDKVVNQKRLMGFGHRVYKTYDPRAKIFKKLALTLIERNADARRYFEIAQKLEELGI  
KQFSSKGIYPNTDFYSGIVFYALGFVYMFALTALFALSRTLGLWLAHIEYVEEQHRLIRPR  
ALYVGPPEYQYVVSIDKR

>P24118

MRSINQLLKQASLSQKSQYNFSQTNLKKVIAEIIIPQKQAELEKVKYGDVVGQYTVKQ  
VIGGMGRGMKGLMSDLSRCDPYQGIIFRGYTIPOQLKEFLPKADPKAADQANQEPLEPIFIW  
LLMTGQLPHTHAQVDALKHEWQNRGTVNQDCVNFILNLPKDLHSMTMLSMALLYLQKDSKF  
AKLYDEGKISKDYWEPFYEDSMDLIAKIPRVAIIYRHKYRDSKLISSDSKLDWAGNYA  
HMMGFQHVVKECIRGYLSIHCDHEGGNVSAHTTHLVGSALSADPYLSYSAGVNGLAGPLH  
GLANQEVLEKLLQFIEEKGTKVSDKIDEDYVDHVISSGRVVPYGHAVLRDTPRFFHHQV  
DFSKFHLKDDQMIKLLHQCADVIPKKLLTYKKIANPYPNVDCSHSGVLLYSLGLTEYQYYT  
VVFVAVSRALGCMANLIWSRAFGLPIERPGRSADLKWFHDKYRE

>P21553

MPETEEISKGLEVDNIKWTRLTTIDGNKGILRYGGYSVEDIIASGAQDEEIQYLFYGNL  
PTEQELRKYKETVQKGYKIPDFVINAIRQLPRESDAVAMQMAVAAMAASETKFKWNKDT  
DRDVAAEMIGRMSAITVNVYRHIMNMPAELPKPSDSYAESFLNAAFGRKATKEEIDAMNT  
ALILYTDHEVPASTTAGLVAVSTLSDMYSGITAALAALKGPLHGGAAEAAIAQFDEIKDP  
AMVEKWFNDNIINGKKRLMGFGHRVYKTYDPRAKIFKGIKAEKLSKPKPEVHKVYEIATKL  
EDFGIKAFGSKGIYPNTDYFSGIVYMSIGFPLRNNIYTALFALSRTVGTWQAHFIEYVEEQ  
QRLIRPRAVYVGAERKYVPIAERK

>P52687

MSIYPMYTRKITHWFARRSFQNRIFLLILFTSTIVMLAMSWYLTDTITEERLHYQVGQRAL  
IQAMQISAMPELVEAVQKRDLARIKALIDPMRSFSDATYITVGDASGQRLYHVNPDIEGK  
SMEGGDSDEALINAKSYVSVRKGSLGSSLRGKSPIQDATGKVIIGIVSVGYTIEQLENWLS  
LQISSLLIPMAIMLLELLELFCARRFSLHIKKQMLNMEPQQLSQLLIQQSVLFESVFEGLIA

IDS DYKITA INQTARRLLNLSQPEPTLIGKR ISSVISQEVFFYDAPQTNKKDEIVTFNQI  
KVIASRM AVILNNEPQGWVISFRSKDDINTLSLQLSQVQQYADNLR AVQHEHRNLISTIA  
GLLFLKRYNQALELIQQQSESHQKVIDFIARNFQDNHLAGLLIGKYRAKELGLELIFDP  
ACFVDRLPTALSHNEWISIVGNLLDNAYNASLRQPQGSKQIECLINSDGQEVII E IADQG  
CGIDEALRDRIFERGVTTSSASKDHGIGLWLVR SYVEQAGGSIVVENNIPFGTIFFTLYIPL  
TRDEHHG

>Q9RUZ0

MNAPPALLRSVLFAPGNRADLIAKLPRSAPDAVVIDLEDAVPGTAEAKAAARPVAHDAAR  
DLIAAAPHLAVFVRVNALHSPYFEDDLSVLTPELSGVVVPKLEMGAEARQVAQMLQERSL  
PLPILAGLETGAGVWNAREIMEVPEVAWAYF GAEDYTTDLGGKRTPGGLEVL YARSQVAL  
AARLTGVAALDIVVTALNDPETFRADAEQGRALGYSGLKCIHPAQVALAHEYFGPTEADR  
ARARALLDAAAAAQRGHGAFSFEQGMVDEPMLAKARTLLSHEA

>O06162

MNLRAAGPGWLFPCADRPERFAKAAAAADVVIDLEEDGVAEAQKPAARNALRDTPLDPER  
TVVRINAGGTADQARDLEALAGTAYTTVMLPKAESAAQVIELAPRDVIALVETARGAVCA  
AEIAAADPTVGMWGAEDLIATLGGSSRRADGAYRDVARHVRSTILLAASAFGRLLDA  
VHLDILDVEGLQEEARDAAAVGFDVTVCIHPSQIPVVRKAYRPSHEKLAWARRVLAASRS  
ERGAFAFEGQMVDS PVLTHAETMLRRAGEATSE

>Q2HXU8

MSEEVTYATLTFQDSAGARNNRDGMNLRKRHPAPSP IWRHAALGLVTLCLMLLIGLVTL  
GMMFLQISNDINSDSEKLSQLQKTIQQQQDNLSQQLGNSNNLSMEEEF LKSQISSVLKRQ  
EQMAIKLCQELI IHTSDHRCNCPKMWQWYQNSCYFFTTNEEKTWANSRKDCIDKNSTLV  
KIDSLEEKDFLMSQPLLMFSFFWLGLSWDSSGRSFWWEDGSVPSPLFSTKELDQINGSK  
GCAYFQKGNIIYISRCSAEIFWICEKTAAPVKTEDLD

>P37019

MKTDTPSLETPQAARLRRRQLIRQLLERDKTPLAILFMAAVVGTLVGLAAVAFDKGVAWL  
QNQRMGALVHTADNYPLLLTVAFLCSAVLAMFGYFLVRKYAPEAGGSGIPEIEGALEDQR  
PVRWVRVLPVKFFGGGLGTLGGGMVLGREGPTVQIGGNIGRMVLDIFRLKGDEARHTLLAT  
GAAAGLAAAFNAPLAGILFII EEMRPQFRYTLISIKAVFIGVIMSTIMYRIFNHEVALID  
VGKLSDAPLNTLWLYLILGIIFGIFGPIFNKWVLGMQDLLHRVHGGNITKWVLMGGAIGG  
LCGLLGFVAPATSGGFNLIP IATAGNFSMGMVLFIFVARVITTL LCFSSGAPGGIFAPM  
LALGTVLGTAFGMVAVELFPQYHLEAGTFAIAGMGALLAASIRAPLTGIILVLEMTDNYQ  
LILPMIITGLGATLLAQFTGGKPLYSAI LARTLAKQEAEQLARSKAASASENT

>Q96DZ5

MTKTD PAMPAPPRGEEEEEEEEDEPVP EAPSPTQERRQKPVVHPSAPAPLPKD YAF TFF  
DPNDPACQEILFDPQTTIPELFAIVRQWVPQVQHKIDVIGNEILRRGCHVNDRDGLTDMT  
LLHYACKAGAHGVGDPA AAVRLSQQLLALGADVTLRSRWTNMNALHYAAYFDVPDLVRVL  
LKGARPRVVNSTCSDFNHGSALHIAASSLCLGAAKCLLEHGANPALRNRKGQVPAEVVDP  
PMDMSLDKAEAAALVAKELRTLLEEAVPLSCALPKVTL PNYDNVPGNMLLSALGLRLGDRV  
LLDGQKTGTLRF CGTTEFASGQWVGVELDEPEGKNDG SVGGVRYFICPPKQGLFASVSKI  
SKAVDAPPSSVTSTPRTPRMDFSRV TGKRREHKGKKKTPSSPSLGS LQQRDGAKAEVGD  
QVLVAGQKQGI VRFYKTD FAPGYWYGIELDQPTGKHDG SVFGVRYFTCPPRHGVFAPAS  
RIQRIGGSTDSPGDSV GAKKVHQTMTQPKRTFTTVRTPKDIASENSISRLLFCWF PPM  
LRAEMQS

>P63284

MRLDRLTNKFQLALADAQSLALGHDNQFIEPLHLMSALLNQEGGSVSPLLTSAGINAGQL  
RTDINQALNRLPQVEGTGGDVQPSQDLVRLNLCDKLAQKRGDNFISSELFVLAALERSG  
TLADILKAAGATTANITQAI EQMRGGESVNDQGAEDQRQALKKYTIDLTERAEQGKLDPV  
IGRDEEIRRITIQVLQRRTKNNPVLIGEPGVGKTAIVEGLAQRINGEVPEGLKGRVRLAL  
DMGALVAGAKYRGEFEERLKGVLNLDLAKQEGNVILFIDELHTMVGAGKADGAMDAGNMLK  
PALARGELHCVGATTLEDEYRQYIEKDAALERRFQKVFVAEPSVEDTIAILRGLKERYELH  
HHVQITDPAIVAAATLSHRYIADRQLPKAIDLIDEAASSIRMQIDSKPEELDRDLRRII  
QLKLEQQALMKESDEASKKRLDMLNEELSDKERQYSELEEEWKA EKASLSGTQTIKAELE  
QAKIAIEQARRVGD LARMSELQYGKIPELEKQLEAATQLEGGKTMRLLRNKVTD AEIAEVL  
ARWTGIPVSRMMESEREKLLRMEQELHHRVIGQNEAVDAVSNAIRR SRAGLADPNRPIGS  
FLFLGPTGVGKTELCKALANFMFDSDEAMVRIDMSEFM EKHSVSRVLV GAPPYVGYEEGG  
YLTEAVRRRPYSVILLDEVEKAHPDVFNILLQVLDDGRLTDGQGR TVDFRNTVVIMTSNL  
GSDLIQERFGELDYAHMKELVLGVVSHNFRPEFINRIDEVVVFHPLGEQH IASIAQIQLK  
RLYKRLEERGYEIHISDEALKLLSENGYDPVYGARPLKRAIQQQIENPLAQQILSGELVP  
GKVIRLEV NEDRIVAVQ

>Q9RA63

MNLERWTQAAREALAQAVLAQRMKHQAIDLPHLWAVLLKDESLAWRLLEKAGADPKAL  
KELQERELARLPKVEGA EVGQYLTSRSLSGALNRAEALMEELKDRYVAVD TLVLALAEATP  
GLPGL EALKGALKELRGGRTVQTEHAESTYNAL EQYGIDLTRLAAEGKLDPVIGRDEEIR  
RVIQILLRRTKNNPVLIGEPGVGKTAIVEGLAQRIVKGDVPEGLKGRIVSLQMGSLLAG  
AKYRGEFEERLKA VIQEVVQSQGEVILFIDELHTVVGAGKAEGAVDAGNMLK PALARGEL  
RLIGATTLEDEYREIEKDPALERRFQPVYVDEPTVEETISILRGLKEKYE VHHGVRISDSA  
IIAAATLSHRYITERRLPDKAIDLIDEAAARLRMALESAP EEDALERKKLQLEIEREAL  
KKEKDPDSQERLKAIEAEIAKLTEEIAKLRAEWEREREILRKLRE AQHRLDEVRRIEIELA  
ERQYDLNRAAELRYGELPKLEAEVEALSEKLRGARFVRLEVT EEDIAEIVSRWTGIPVSK  
LLEGEREKLLRLEEEELHKRVVQGDEAIRAVADAI RRARAGLKDPNRPIGSFLFLGPTGVG  
KTELAKTLAATLFDTEEAMIRIDMTEYMEKHAVSRLIGAPPYVGYEEGGQLTEAVRRRP  
YSVILFDEIEKAHPDVFNILLQILDDGRLTDSHGRTVDFRNTV IILTSNLGSPLILEGLQ  
KGWPYERIRDEVFKVLQQHFRPEFLNRLDEIVVFRPLTKEQIRQIVEIQLSYLRARLAEK  
RISLELTEAAKDFLAERGYDPVFGARPLRRVIQRELETP LAQKILAGEVKEGDRVQVDVG  
PAGLVFAV PARVEA

>Q06528

MTAEPTVAARPQQIDALRTLIRLGLSHTPMVVRTAATLRLVDHILAGARTVKAL AARTDT  
RPEALLRLIRHLVAIGLLEEDAPGEFVPTEVGELLADDHPAAQRA WHDLTQAVARADISF  
TRLPDAIRTGRPTYESIYGKPFYEDLAGRPDLRASFD SLLACDQDVAFDAPAAA YDWTNV  
RHVLDVGGGKGGFAAAIARRAPHVSATVLEMAGTVDTARSYLKDEGLSDRVDVVEGDFFE  
PLPRKADAIILSFVLLNWPDHDAVRILTRCAEAL EPGGRIILIHERRDDLHENSFNEQFTEL  
DLRMLVFLGGALRTREKWDGLAASAGLVVEEVRQLPSPTIPYDLSLLVLAPAATGA

>Q94F88

MAPKRKR PATKDDTTKSI PKPKKRAPKRAKTVKEEPVTVVEEGEKHVARFLDEPIPESEA  
KSTWPDYKPIEVQPPKASSRKKTKDDEKVEIIRARCHYRRRAIVDERQIYELNDDAYVQS  
GEGKDPFICKIIEMFEGANGLYFTARWFYRPSDTVMKEFEILIKKKRVFFSEIQDTNEL  
GLLEKKNLNI MIPLNENTKETIPATENCDFFCDMNYFLPYDTFEAIQQETMMAISESSTI  
SSD TDIREGAAAISEIGECSQETEGHKKATLLDLYS GCGAMSTGLCMGAQLSGLNLVTKW  
AVDMNAHACKSLQHNHPETNVRNMTAEDFLFLKWEKLCIHFSLRNSPNSE EYANLHGL  
NNVEDNEDVSESENEDEDDGEVFTVVDKIVGISFGVPKLLKRG LYLKVRWLN YDDSHDTWE

PIEGLSNCRGKIEEFVKLGYKSGILPLPGGVDVVCVGGPPCQGISGHNRFRNLLDPLEDQK  
NKQLLVYMNIVEYLKPKFVLMENVVDMKMAKGYLARFAVGRLLQMNQVRNGMMAAGAY  
GLAQFRLRFFLWALPSEIIPQFPLPTHDLVHRGNIVKEFQGNIVAYDEGHTVKLADKLL  
LKDVISDLPAVANSEKRDEITYDKDPTTFFQKFIRLRKDEASGSQSKSKKHVLYDHH  
LNLNINDYERVCQVPRKRGANFRDFPGVIVGPGNVVVKLEEGKERVKLESGKTLVDPYALT  
YVDGKSCPKFGRLLWDEIVPTVVTTRAEPHNQVI IHPEQNRVLSIRENARLQGFDDYKLF  
GPPKQKYIQVGNVAVPVAKALGYALGTAFQGLAVGKDPDLLTLPFGFAFMKPTLPSELA

>Q86VU5

MTQVPVRLSVPAAALALGSAALGAAFATGLFLGRRCPWRGRREQCLLPPEDSRLWQYLLS  
RSMREHPALRSLRLLTLEQPQGDMMTCEQAQLLANLARLIQAKKALDLGTFGTGYSALAL  
ALALPADGRVVTCEVDAQPELGRPLWRQAEAEHKIDLRLKPALETLEDELLAAGEAGTFD  
VAVVDADKENCSSAYYERCLQLLRPGGILAVLRVLRGKVLQPPKGDVAAECVRNLNERIR  
RDVRVYISLLPLGDGLTLAFKI

>Q96KN2

MDPKLGRMAASLLAVLLLLLLEGMFSSPSPPPALLEKVFQYIDLHQDEFVQTLKEWVAIE  
SDSVQPVPRFRQELFRMMAVAADTLQRLGARVASVDMGPQQLPDQSLPIPPVILAEGLS  
DPTKGTVCIFYGHLVQPADRGDGLWTDYVVLTEVDGKLYGRGATDNKGPVLAWINAVSAF  
RALEQDLVNIKFIIEGMEEAGSVALEELVEKEKDRFFSGVDYIVISDNLWISQRKPAIT  
YGTRGNSYFMVEVKCRDQDFHSGTFGGILHEPMADLVALLGSLVDSSGHILVPGIYDEVV  
PLTEEEINTYKAIHLDLLEEYRNSRVEKFLFDTKEEILMHLWRYPSSLIHGIEGAFDEPG  
TKTVIPGRVIGKFSIRLVPHMNVSAVEKQVTRHLEDVFSKRNSSNKMVVSMTLGLHPWIA  
NIDDTQYLAAKRAIRTVFGTEPDMIRDGSTIPIAKMFQEVHKSVVLIPLGAVDDGEHSQ  
NEKINRWNYIEGTKLFAAFFLEMAQLH

>Q28279

MKKNIINTWYSFVNIPNVIVPDIEKEIRRMEGARSSFSDDDGDSSASMFESENETPH  
ARDSCRNNSQRRDPSQREQYLPGAIALFNVNNSNKEQEPKEKKKKKKKKKSKSGDKNEN  
KKDSEKKKKKEKEKEKKNKEEKGKDKKEEKKVVIDPAGNMYYNWLFICITLPMYNWT  
MVIARACFDELQSDYLEYWIIFDYLSDIVYLLDMFVRTRTGYLEQGLLVREEAKLIEKYK  
SNLQFKLDFLSVIPTDLLYFKLGNWYPEIRLNRLLRISRMFEFFQRTETRTNYPNIFRIS  
NLVMIYVIIHWNACVYFSISKAIGFNDTWVYDPVNDPEFGRLARKYVYSLYWSTLTLT  
TIGETPPPVRDSEYVFFVVDFLIGVLIFATIVGNIGSMISNMNAARAEFQARIDAIAKQYM  
HFRNVSKDMEKRVIKWFDYLWTKKTVEDEKVLKYLDPDKLRAEIAINVHLDTLKKVRIFA  
DCEAGLLVELVLKLPQVYSPGDYICKKGDIGREMYIIEGKLAVVADDGITQFVVLSDG  
SYFGEISILNIKGSKAGNRRTANIKSIGYSDLFCLSKDDLMEALTEYPAKTMLEEKGKQ  
ILMKDGLLDINIANAGSDPKDLEEKVTRMEGSVDLLQTRFARILAEYESMQQKQKQLTK  
VERFLKPIIDTEFSALEGTGDESRLDSTQD

>Q39054

MEGQGCCGGGGKTEMIPTTEALRIVFGVSKRLPPVIVSLYEALGKVLAEIRAPDPLPP  
YPASVKDGYAVVASDGPGEYPVITESRAGNDGLGVTVPPTVAYVTTGGPIP DGADAVVQ  
VEDTKVIGDVSTESKRVKILIQTKKGTDIRRVGCDIEKDATVLT'TGERIGASEIGLLATA  
GVTMVKVYPMPIVAAILSTGDELVEPTAGTLGRGQIRDSNRAMLVAAMVQQQCKVVDLGI  
RDDRKELEKVLDEAVSSGVDIILTSGGVSMGDRDFVKPLLEEKGVYFVSKVLMKPGKPLT  
FAEIRAKPTESMLGKTVLAFLPGNPVSCLVCFNIFVVPVPTIRQLAGWTSPLRVRRLRQ  
EPIKSDPIRPEFHRAIKWKDNDGSGTDPGFVAESTGHQMSRLLSMRSANALLELPATGN  
VLSAGSSVSAIIVSDISAFSIDKKASLSEPGSIRKEKKYDEVPGPEYKVAAILTVSDTVSA  
GAGPDRSGPRAVSVVDSSEKLGAKVVATAVVPDEVERIKDILQKWSVDVEMDLILTLG

GTGFTPRDVTPEATKKVIERETPGLLFVMMQESLKITPFAMLSRSAAGIRGSTLI INMPG  
NPNVAEACMEALLPALKHALKQIKGDKREKHPKHIPHAEATLPPTDQSYKSAYETGEK  
KEEAGCSCTH

>Q02388

MTLRLLLVAALCAGILAEAPRVRAQHRERVCTRLYAADIVFLLDGSSSIGRSNFREVRSE  
LEGLVLPFSGAASAQGVRFATVQYSDDPRTEFGLDALGSGGDVIRAIRELSYKGNTRTG  
AAILHVADHVFLPQLARPGVPKVCILITDQKSDLVDTAAQRLKGGQVCLFAVGIKNADP  
EELKRVASQPTSDFFFFVNDIFSILRLLPLVSRVCTTAGGVPVTRPPDDSTSAPRDLVL  
SEPSSQSLRVQWTAASGPVTGYKVQYTPLTGLGQPLPSEVNVVPAGETSVRLRGLRPL  
TEYQVTVIALYANSIGEAVSGTARTTALEGPETIQNTTAHSLLVAVRSVPGATGYRVTW  
RVLSGGPTQQQELGPGQGSVLLRDLEPGTDYEVTVSTLFGRSVGPATSLMARTDASVEQT  
LRPVILGPTSILLSWNLVPEARGYRLEWRRETGLEPPQKVVLPSDVTRYQLDGLQPGTEY  
RLTLYTLLEGHEVATPATVVPTGPELVPSPVTDLQATELPGQVRVSWSPVPGATQYRII  
VRSTQGVERTLVLPGSQTAFDLDDVQAGLSYTVRVSARVGPREGSASVLTVRREPETPLA  
VPGLRVVSDATRVRVAWGPVPGASGFRISWSTGSGPESSQTLPPDSTATDITGLQPGTT  
YQVAVSVLRGREGPAAVIVARTDPLGPVTVHVTVQASSSSVTITWTRVPGATGYRVSWH  
SAHGPEKSQLVSGEATVAELDGLEPDTEYTVHVRHVAGVDGPPASVVVRTAPEPVGRVS  
RLQILNASSDVLRIITWVGVTGATAYRLAWGRSEGGPMRHQILPGNTDSAEIRGLEGGVSY  
SVRVTVLVDREGTPVSVIVTTTPEAPPALGTLHVVRQGEHSLRLRWEVVPRAQGFLHWH  
QPEGQEQSRVLGPELSSYHLDGLEPATQYRVRLSVLGPAGEGPSAEVTARTESPRVPSI  
ELRVVDTSIDSVTLAWTPVSRASSYILSWRPLRGPGQEVPGSPQTLPGISSSQRVTLGEP  
GVSYIFSLTPVLDGVRGPEASVTQTPVCPVGLADVVFLPHATQDNAHRAEATRRLERLV  
LALGPLGPQAVQVGLLSYSHRPSPLFPLNGSHDLGIIILQIRDMPYMDPSGNNLGTAVVT  
AHRVMLAPDAPGRRQHVPVGMVLLVDEPLRGDIFSPIREAQASGLNVMLGMAGADPEQL  
RRLAPGMDSVQTFFAVDDGPSLDQAVSGLATALCQASFTTQPRPEPCPVYCPKGQKGEPE  
EMGLRGQVGGPPGDPGLPGRTGAPGPQGGPSATAKGERGFPADGRPGSPGRAGNPPTPG  
APGLKGSPLPGPRGDPGERGPRGPKGEPGAPGQVIGGEGPGLPGRKGDGPPSGPPGPRG  
PLGDPGPRGPPGLPGTAMKGDKDRGERGPPGPGEGGIAPGEPGLPGLPGSPGPQGPVGP  
PGKKGEKGDSEGDGAPGLPGQPGSPGEGQPRGPPGAIKPKGDRGFPGLGEAGEKGERGPP  
GPAGSRGLPGVAGRPGAKGPEGPPGPTGRQGEKGEPRGPDPAVVGPAVAGPKGEKGDVG  
PAGPRGATGVQGERGPPGLVLPDGPDPKGDGDRGPIGLTGRAGPPGDSGPPGEKGDGPR  
PGPPGPVGRGRDGEVGEKGDGEGPPGDPGLPGKAGERGLRGAPGVRGPVGEKGDQGDGPE  
DGRNGSPGSSGPKGDRGEPGPPGPPGRLVDTGPGAREKGEPEGDRGQEGPRGPKGDPGLPG  
APGERGIEGFRGPPGPPGQDGPVVRGPAKEKDRGPPGLDGRSGLDGKPGAAGPSGPNGAAG  
KAGDPGRDGLPGLRGEQGLPGSPGPPGLPGKPGEDGKPLNGKNGEPGDPGEDGRKGEK  
DSGASGREGRDGPKGERGAPGILGPQGGPPGLPGVGGPPGQGFPGVPGGTGPKGDRGETGS  
KGEQGLPGERGLRGEPSVNVDRLLLETAGIKASALREIVETWDESSGSFLPVPERRRGP  
KGDSEQGGPPGKEGPIGFGERGLKGDGRDGPQGGPPGLALGERGPPGPPSGLAGEPGKPG  
IPGLPGRAGGVGEAGRPGERGERGEKGERGEQGRDGPGLPGTPGPPGPPGPKVSVDEPG  
PGLSGEQGPPGLKGAKEGPGSNGDQGPKGDRGVPGIKGDRGEPGPRGQDGNPGLPGERGM  
AGPEGKPLQGRGPPGPPVGGHDPGPPGAPGLAGPAGPQGPSGLKGEGETGPPGRGLT  
GPTGAVGLPGLPGSPGLVGPQGGSPGLPGQVGETGKPGAPGRDGASGKDGRGSPGVPGSP  
GLPGVGPKEGPGPTGAPQAVVGLPGAKGEKGAAGLAGDLVGEPAKGDRLPGPRGE  
KGEAGRAGEPGDPGEDGQKGAAPGPKGFKGDPGVGVPVGGPPGPPGKGLGLPGLPGAP  
GVVGFPGQTGPRGEMGQPGPSGERGLAGPPGREGIPGLPGLPPGPPGPPGASGLKGDK  
GDPVGLPGRGERGEPGIRGEDGRPGQEGPRGLTGPPGSRGERGEKGDVGSAGLKGDKG  
DSAVILGPPGPRGAKGDMGERGPRGLDGDGKPRGDNNDGDKGSKGEPGDGKSAGLPGLR  
GLLGPQGGPGAAGIPGDPGSPGKDGVPVIRGEKGDVGFMPRGLKGERGVKACGLDGEK  
GDKGEAGPPGRPGLAGHKGEMGEPVPGQSGAPGKEGLIGPKGDRGFDGQPGPKGDQGEK

GERGTPGIGGFPGPSGNDGSAGPPGPPGSGVGRGPEGLQGQKGERGPPGERVVGAPGVPG  
APGERGEQGRPGPAGPRGEKGEAALTEDDIRGFVRQEMSQHCACQGQFIASGSRPLPSYA  
ADTAGSQLHAVPVLRVSHAEEEEERVPPEDDEYSEYSEYSVEEYQDPEAPWSDDDPCSLPL  
DEGSCTAYTLRWYHRAVVTGSTEACHPFVYGGCGGNANRFGTREACERRCPPRVVQSQGTG  
TAQD

>Q03692

MLPQIPFLLLVSLNLVHGVFYAERYQMPTGIKGPLPNTKTQFFIPYTIKSKGIAVRGEQG  
TPGPPGAPGRGHPGSPGPPGKPGYGSPLQGEFGLPGPPGPSAVGKPGVPLPGKPGER  
GPYGPKGVDVGPAGLPGPRGPPGPPGIPGPAGISVPGKPGQQGPTGAPGPRGFPGEKGA  
VPGMNGQKGEEMGYGAPGRPGERGLPGPQGPPTGPSGPPGVGKRGENGVPQPGIKGDRG  
GEMGPIGPPGPPGPPGERGPEGIGKPGAAGAPQPGIPGTPKGLPGAPGIAGPPGPPGFG  
PGLPGLKGERGPAGLPGGPGAKGEQGPAGLPGKPLTGPNGMGPQGPKGIPGSHGLPGP  
KGETGPAGPAGYPGAKGERGSPGSDGKPGYPGKPLDGPKNPGLPGPKGDPGVGGPPGL  
PGPVGPAGAKGMPGHNGEAGPRGAPGIPGTRGPIGPPGIPGFFPGSKGDPGSPGPPGPA  
ATKGLNGPTGPPGPPGPRGHSGEPLPGPPGPPGPPGQAVMPEGF IKAGQRPSLSGTPLV  
SANQGVVTGMPVSAFTVILSKAYPAIGTPIPFDKILYNRQQHYDPRTGIFTQCIPGIYYFS  
YHVHVKGTHVWVGLYKNGTPVMYTYDEYTKGYLDQASGSAIIDL TENDQVWLQLPNAESN  
GLYSSEYVHSSFSGFLVAPM

>Q81VX4

MIFVLDVGNNTNAVLGVFEEGELRQHWRMETDRHKTEDEYGMVLVKQLLEHEGLSFEDVKGI  
IVSSVPPIMFALERMCEKYFKIKPLVVGPGIKTGLNIKYENPREVGADRIVNAVAGIHL  
YGSPLIIVDFGTATTYCYINEEKHYMGGVITPGIMISAEALYSRAAKLPRIEITKPSSV  
GKNTVSAMQSGILYGYVGVQVEGIVKRMKEEAKQEPKVIATGGLAKLISEESNVIDVDPF  
LTLKGLYMLYERNANLQHEKGE

>Q9HWC1

MILELDCGNSLIKWRVIEGAARSVAGGLAESDDALVEQLTSQQALPVRACRLVSVRSEQE  
TSQLVARLEQLFPVSALVASSGKQLAGVRNGYLDYQRLGLDRWLALVAHHLAKKACLVI  
DLGTAVTSDLVAADGVHLGGYICPGMTLMRSQLRTHTRRIRYDDAEARRALASLQPGQAT  
AEAVERGCLLMLRGFVREQYAMACELLGPDCEIFLTGGDAELVRDELAGARIMPDLVFG  
LALACPIE

>Q9WZY5

MYLLVDVGNTHSVFSITEDGKTRRRWRLSTGVFQTEDELFSHLHPLLGDAMREIKGIGVA  
SVVPTQNTVIERFSQKYFHI SPIWVKAKNGCVKWNVKNPSEVGADRVANVFAFVKEYGKN  
GIIIDMGTTATVLDLVVNGSYEGGAILPGFFMMVHSLFRGTAKLPLVEVKPADFVVGKDE  
ENIRLGVVNGSVYALEGIIIGRIKEVYGDLPVVL TGGQSKIVKDMIKHEIFDEDLTIKGVY  
HFCFGD

>P21632

MSGLLIAAPASGSGKTTVTGLMRALKRRGVAIAPGKAGPDYIDPAFHAAATGEPFCFNYD  
PWAMRPELLLANASHVASGGRTLIVEAMMGLHDGAADGSGTPADLAATLNLAVILVVDCA  
RMSQSVAALVRGYADHRDDIRVVGVILNKVGS DRHEMMLRDALGKVRMPVFGVLRQDSAL  
QLPERHLGLVQAGEHSALEGFIEAAAARVEAACDLDAIRLIATIFPQVPAADAERLRPL  
GQRIAVARDIAFAFCYEHLLYGWRQGGAEISFFSPLADEGPDAAADAVYLPGGYPELHAG  
QLSAAARFRSGMHSAAERGARIFGECGGYMLGEGGLVAADGTRYDMLGLLPLVTSFAERR  
RHLGYRRVVPVDNAFFDGPMTAHEFFHYATIVAEGAADRLFVAVSDAAGEDLQAGLRRGPV  
AGSFMHLIDVAGAA

>P21639

MSGVGVGRLIGVGTGPGDPELLTVKAVKALGQADVLAIFYAKAGRSNGRAVVEGLLKPD  
VELPLYYPVTTEIDKDDGAYKTQITDFYNASAEVAHAHLAAGRTVAVLSEGDPLFYGSYM  
HLHVRLANRFPVEVPIPGITAMSGCWSLAGLPLVQDDVLSVLPGTMAEAEELGRRLLADTEA  
AVIMKVGRNLPKIRRALAASGRLDQAVYVERGTMKNAAMTALAELKADDEAPYFSLVLPV  
G WKDRP

>P29931

MSSLGAGPVLVLGGARSGKSSFSERLVEASGFTMHYVATGRAWDDEMRERIDHHRTRRGE  
GWTTHEEPLDLVGILRRIDDP SHVVLIDCLTLWVTNLMLEERDMTAEFAALVAYLPEARA  
RLV FVSNEVGLGIVPENRMAREFRDHAGRLHQIVA EKSAEVYFVAAGLPLKMKG

>P29932

MTRRIMLQGTGSDVGKSVLVAGLCRLAANQGLKVRPFKPNMSNNAAVSDDGGEIGRAQW  
LQALAAARVPSSVHMNPVLLKPKQSDVGSQIVVQGVAGQARGREYQALKPKLLGAVMESFE  
QISAGADLVVVEGAGSPAELNLRPGDIANMGFATRANVPVVLVGDIDRGGVIASLVGTHA  
ILPEEDRRMVTGYLINKFRGDVTLFDDGIAAVNRYTGWPCFGVVPWLKAAARLPAEDSVV  
LEKLTRGEGRALKVAVPVLSRIANFDDLDPLAAEPEIDL V FVRPGSPIPVDAGLVVIPGS  
KSTIGDLIDFRAQGWDRDLERHVRRGGRVIGICGGYQMLGRRVTDPLGIEGGERAVEGLG  
LLEVETEMAPEKTVRNSRAWSLEHDVVLEGYE IHLGKTQGADCGRPSVRIDNRADGALSA  
DGRVMGTYLHGLFTSDAYRGALLKSFGEIEGGANNYRQSVDAALDDVANELEAVLDRRWLD  
ELLRH

>Q05603

MQTLHALLRDIAPAPDAEAMARAQQHIDGLLKPPGSLGRLETLAVQLAGMPGLNGTPQVGE  
KAVLVMCADHGVWDEGVAVSPKIVTAIQANMTRGTTGVCVLAQAQAKVHVIDVGIDAE  
PIPGVVNMRVARGCGNIAVGPAMSRLQAEALLLEVSRYTCDLAQRGVTLFGVGE LGMANT  
TPAAAMVSVFTGSDAKEVVGIGANLPPSRIDNKVDVRRRAIAINQPNPRDGI DVLSKVG  
FDLVGMTGVM LGAARCGLPVLLDGFLSYSAALAACQIAPAVRPYLI PSHFSAEKGARIAL  
AHL S ME PYLHMAMRLGEGSGAALAMPIVEAACAMFHNMGELAASNIVLPEGNANAT

>P0AE76

MMILVTGGARSGKSRHAEALIGDSSQVLYIATSQILDDEMAARIEHHRQGRPEHWR TVER  
WQHLDELIHADINPNEVVLLC VTTMVTNLLFDYGGDKDPDEWDYQAMEQAINAEIQSLI  
AACQRCPAKVVLVTNEVGMGIVPESRLARHFRDIAGRVNQQLA AAAANEVWL VVSGIGVKI  
K

>P29935

MSASGLPFDDFRELLRNLPDPDAAALVAARERDAQLTKPPGALGRLEEIAFWLAAWTGKA  
PVVNRPLVAIFAGNHGVTRQGVTFPFPSSVTAQMVENFAAGGAAINQICVSHDLGLKVF DL  
ALEYPTGDITEEAALSERDCAATMAFGMEAIAGGTDLLCIGEMGIGNTTIAAANLGLY  
GTAE EWVPGTGSEGEVLKRKIAAVEKAVALHRDHLSDPLELMRRLGGREIAAMAGAILA  
ARVQKVPVIIDGYVATAAASILKAANPSALDHCLIGHVSGEPGHLRAIEKLGKTPLLALG  
MRLGEGTGAALAAGIVKAAAACHSGMATFAQAGVSNKE

>Q5TAT6

MVAERTHKAATGARGPGELGAPGTVALVAARAERGARLPSPGSCGLLTLALCSLALSLL  
AHFR TAE LQARVLRLEAERGEQQMETA I LGRVNQLLDEKWKLHSRRRREAPK TSPGCNCP  
PGPPGPTGRPGLPGDKGAIGMPGRVGS PGDAGLSIIGPRGPPGQPGTRGFPGFP GPIGLD

GKPGHPGPKGDMGLTGPPGQPGPQGGKGEKQCCGEYPHRECLSSMPAALRSSQI IALKLL  
PLLNSVRLAPPPVIKRRTFQGEQSQASIQGPPGPPGPPGPGSGPLGHPGLPGPMGPPGLPG  
PPGPKGDPGIQGYHGRKGERGMPGMPGKHGAKGAPGIAVAGMKGEPGIPGTKGEKGAEGS  
PGLPGLLGQKGEKGDAGNSIGGGRGEPGPPGLPGPPGPKGEAGVDGQVGGPPGQPGDKGER  
GAAGEQGPDPGPKGSKGEPGKGMVDYNGNINEALQEIRTLALMGPPGLPGQIGPPGAPGI  
PGQKGEIGLPGPPGHDGEEKGPRGKPGDMGPPGPPGPKDGGPPGKGENGHPGSPGEKGE  
KGETGQAGSPGEKGEAGEKGNPGAIEVPLPGPEGPPGPPGLQGVPGPKGEAGLDGAKGEK  
GFQGEKGDRLPLGLPGASGLDGRPGPPGTPGPIGVPGPAGPKGERGSKGDPGMTGPTGAA  
GLPGLHGPPGDKGNRGERGKKGSRGPKGDKGDQGAPGLDAPCPLGEDGLPVQGCWNK

>P25955

MNEKGFTLVEMLIVLFIISILLITIPNVTKHNQTIQKKGCEGLQNMVKAQMTAFELDHE  
GQTPSLADLQSEGYVKKDAVCPNGKRIIITGGEVKVEH

>Q03380

MELLRQGEHLHSTSRSTLESKCRKYKLIMQNDGNLVLYIGSLKSQSDEYCLWSSASCCKG  
HGYPYRLSMQEDGNLVIYDSRNSAIWASGTMGHGVRGHYSMKLRSSGQIVVYDKYKQILYS  
SKPCTRDHLLSLPCAOKPSGHPQSAAYPPQPGYGYPAQPGYPPQPGYPPQHGYPPQHGYPPQ  
QPGYY

>Q810Y4

MGAGERAAGGGGTQDPGAGCGARALGALCLLLSVGSATACLLLGAQAAALHGRVAALEQE  
RELLRRAGPSGALAAWAETHLERLLREKLDGVAKLRTVREAPSECICPPGPPGRRGKPGR  
RGDPGPPGQSGRDGYPGPLGLDGKPLPGPKGEKGA PGDFGPRGAQGDGAAGPPGPPGP  
PGARGPPGDTGKDGPRGAQGPPEGPRGESGQDQDGMGMPGPPGPKGEPGTPGKKGDDGIPSQ  
PGLPGPPGPKGEPGDVGPQGETGVGDGAPGLKGEHPGTDGAI GPRGPPGLKGEQGD TVV  
IDYDGRILDALKGPPGPPGAPGPPGIPGAKGELGLPGAPGIDGEEKGPKGPKGDPGEPGPA  
GPKGETGEMGLSGLPGADGPKGEKGESASDHLQESLAQIIVEPGPPGPPGPPGPMGLQGI  
QGPKGLDGAKGEKGASGERGPHGLPGPVGPPGLI GLPGTKGEKGRPGEPGLDGFPGPRGE  
KGDRSERGEKGERGVPGRKGVKQKGEPPGGLDQPCPVGPDGLPVPGCWHK

>P55915

ADTIVAVELDTYPNTDIGDPSYPHIGIDIKSVRSKKTAKWNMQNGKVGTAHIIYNSVGKR  
LSAVVSYPNGDSATVSYDVDLDNVLPWVVRVGLSASTGLYKETNTILSWSFTSKLKSNST  
HETNALHFMFNQFSKDQKDLILQGDATTGTEGNLRLTRVSSNGSPQGS SVGRALFYAPVH  
IWESSAVVASFEATFTFLIKSPDHPADGIAFFISNIDSSIPSGSTGRLLGLFPDAN

>P43254

MEEISTDPVVPVAVKPDPRSTSSVGEANRHENDDGGSGGSEIGAPDLDKDLLCPICMQIIK  
DAFLTACGHSFCYMCIIITHLRNKSDCPCCSQHLLTNNQLYPNFLLDKLLKKT SARHVSHTA  
SPLDQFREALQRGCDVSIKEVDNLLTLAERKRKMEQEEAERNMQILLDFLHCLRKQKVD  
ELNEVQTDLQYIKEDINAVERHRIDLRYRARDRYSVKLRMLGDDPSTRNAWPHEKNQIGFN  
SNSLSIRGGNFVGNYNKQKVEGKAQGS SHGLPKKDALSGSDS QSLNQS TVSMARKKRIHA  
QFNDLQECYLQKRRQLADQPNKQENDKSVVRREGYSNGLADFQSVLTTFTTRYSRRLVIA  
EIRHGDIFHSANIVSSIEFDRDDEL FATAGVSRICKVDFSSVNEPADMQCP I VEMSTR  
SKLSCLSWNKHEKNHIASSDYEGIVTVVDVTTTQSLMEYEEHEKRAWSVDFSRTEP SMLV  
SGSDCKVKVWCTRQEASVINIDMKANICCVKYNPGSSNYIAVGSADHHIHYDLRNISQ  
PLHVFSGHKKA VSYVKFLSNMELASASTDLRLWDVKNL PVRTFRGHTNEKNFVGLTV  
NSEYLACGSETNEVYVYHKEITRPVTSHRFGSPDMDAEEEGAGSYFISAVCWKSDSPTML  
TANSQGTIKVLVLA



>O15431

MDHSHHMGMSYMSNSTMQPSHHHTTSASHSHGGGDSMMMMPMTFYFGFKNVLELLFSG  
LVINTAGEMAGAFVAVFLLAMFYEGLKIARESLLRKSQVSI RYNSMPVPGPNGTILMETH  
KTVGQQMLSFPHLLQTVLHI IQVVISYFLMLIFMTYNGYL CIAVAAGAGTGYFLFSWKKA  
VVVDITEHCH

>P0A2R8

MLSAFQLEKNRLTRLEVEESQSLIDAVWVDLVEPDDDERLRVQSELGQSLATRPELEDIE  
ASARFFEDDGLHIHSFFFFEDAEDHAGNSTVAFTIRDGRLFTLRERELPAFRLYRMRAR  
SQAMVDGNAYELLLDLFETKIEQLADEIENIYSDLEKLSRVIMEGHQGDYDEALSTLAE  
LEDIGWKVRLCLMDTQRALNFLVRKARLPGGQLEQAREILRDIESLLPHNESLFQKVNFL  
MQAAMGFINIEQNRI IKIFS VVS VVFLPPTLVASSYGMNFEFMPPELKWSFGYPGAI IFMI  
LAGLAPYLYFKRKNWL

>Q9WZ31

MEEKRLSAKKGLPPGTLVYTGKYREDFEIEVMNYSIEEFREFKT'TDVESVLPFRDSSPT  
WINITGIHRTDVVQRVGEFFGIHPLVLEDILNVHQRPKVEFFENYVFI VLKMFYDKNLH  
ELESEQVSLILTKNCVLMFQEKIGDVFDPVRRERIRYNRGI IRKKRADYLLYSLIDALVDD  
YFVLLLEKIDDEIDVLEEEVLERPEKETVQORTHQLKRNLVELRKT IWPLREVLSSLYRDVP  
PLIEKETVPYFRDVYDHTIQIADTVETFRDIVSGLLDVYLSVSNKTNEVMKVLT I IATI  
FMPLTFIAGIYGMNFEYMPPELRWKWGYPVVLAVMGVIAVIMVVYFKKKKWL

>O86109

MRILKIQTLRGPNYWSIRRHKLIVMRDLLET LAETPSNEIPGFYEGLVEALPSLEGHYCS  
PGCHGGFLMRVREGTMMGHIVEHVALELQELAGMHVGFGRTRTATPGIYQVVI EYLNEE  
AGRYAGRAAVRLCQSIVDRGRYPKAELEQDIQDLKDLWRDASLGPSTEAI VKEAEKRGIP  
WMQLSARFLIQLGYG VNHKRMQATMTDKTGILGVELACDKEATKRILAASGVVPRGTVI  
NFLDDLEEAEI EYVGGYP IVIKPLDGNHGRGITIDIRSWEEAEAA YEAAARQVSRSI IVERY  
YVGRDHRVLVVDGKVVAVAERVPAHVIGNRSTIAELIEEINQDPNRGDGHDKVLTKIEL  
DRTSYQLLERAGYTLNSVPPKGTICYLRATANLSTGGTAVDRTDEIHPENI WLAQRVVKI  
IGLDIAGLDIVTTDISRPLRELDGVI VEVNAAPGFRMHVAPSQGI PRNVAGAVMDMLFPN  
EQSGRIPILSVTGTNGKTTTTTRLLAHIYKQTGKVVG YTTTDTGTYIGDYLVESGDNTGPPQS  
AHVILQDPTVEVAVLETARGGILRSGLGFESANVGVVLNVAADHLGIGDIDTIDQLANLK  
SVVAESVYPDGYAVLNADRRVAAMA ETKANIA YFTMNPDSELVRKHIQKGGVA AVYEN  
GYLSIVKGDWTHRIERA EQIPLTMGGRAPFMIANALAA SLAAFVQNVSIEQIRAGLRTRFR  
ASVSQTPGRMNLFN LGNYHALVDYAHNPASYEAVGAFVRNWTSGQRIGVVGPGDRRDED  
FVTLGKLA AEIFDYI IVKEDDDTRGRPRGSASALITKGITQVKPDARYESILDE TQAINK  
GLDMAPANGLVVILPESVSRAIKLIKLRGLVKEEIQQN PSTTVIDNQN GVASSSVINTL  
L

>P95474

MGRVVI ALGGNALQQRGQKGSYEEMDNVRKTARQIAEII ARGYEVVITHGNGPQVGS  
LLHMDAGQATYGI PAQPM DVAGAMSQGWIGYMIQQALKNELRKRGM EKKVVTIITQTIVD  
KNDPAFQNP TKPVGPFYDEETAKRLAREKGWIVKEDSGRGWRRVVPSPDPKGHVEAETIK  
KLVERGVIVIASGGGVPILEDGEIKGVEAVIDKDLAGEKLAEV NADIFMILTDVNGA  
ALYYGTEKEQWLREVKVEELRKYEEEGHFKAGSMGPKVLA AIRFIEWGGERAII AHLEKA  
VEALEGKTGTQVLP

>P04574

MFLVNSFLKGGGGGGGGGGGLGGGLGNVLGGLISGAGGGGGGGGGGGGGGGGGTAMRIL  
GGVISAISEAAAQYNPEPPPPRTHYSNIEANESEEVQRRLFAQLAGDDMEVSATELMN  
ILNKVVTRHPDLKTDGFGIDTCRSMVAVMDSDTTGKLGFEFKYLWNNIKKWQAIYKQFD  
VDRSGTIGSSELPGAFAEAGFHLNEHLYSMIRRYSDDEGNMDFDNFISCLVRLDAMFRA  
FKSLDKDGTGQIQVNIQEWLQLTMYS

>P38487

MQQITDLERTKILQNGGEKVKPTFSKEEMTRRNTRLREYMAKAGIDAVMFTSYHNINYYS  
DFLYTSFNRSYALVVTQDKHVTVSANIDAGMPWRRSFDENIVYTDWKRDNFLYAVKKVLN  
EGGFSSGRLGVENDHMTLDLRRQVQDALPNTELVDVVSQAVMGHRMFKSDEEIDLKNGAR  
IADIGGAAVVEAIREGVPEYEVALHGTEAMVREIARTYPHAELRDTWIWFQSGINTDGAH  
NWATSRKLRQGDILSLNCFPMIAGYYTALERTLFLEEVSDRHLELWEINCKVHRRGLELI  
KPGARCMDIAAELNEIYREHDLNANRTFGYGHSGVLSHYYGREAGLELREDIETVLEPG  
MVVSMPEMIMIPEGEPGAGGYREHDILVISENGTENITKFPFGPEHNIKK

>Q9VWW0

MDNSIVEENGNSAASGSNDVVDVVAQQAAAAGGGGGGGGGGGGNPQQQQNPQSTTA  
GGPTGATNNAQGGGVSSVLTTTANCNIQYPIQTLAQHGLQVSIWGPGAWCQLSSVRCYGS  
QPEVATKDVQSVIQANPSGVIQTAAGTQQQQALAAATAMQKVYVAKPPNSTVIHTTPG  
NAVQVRNKIPPTFPCKIKPEPNTQHPEDSDESLSDDDSQHHRSELTRRPSYNKIFTEISG  
PDMGASLPMSDGVLNSQLAGTGAGGNAANSSLMQLDPTYLSNRMSYNTNNSGIAEDQT  
RKREIRLQKNREAAARECRKKKEYIKCLENRVAVLENQNKALIEELKSLKELYCQTKND

>P06205

MKTFHGPTCGTAVSLCLLLFLTSALEEGEITSKVKFPPSSSPFPRLVMVGTLPDLQEIT  
LCYWFKVNRLKGTLMHFSYATAKKNELLTLIDEQGDFLFNVHGAPQLKVQCPNKIHIGK  
WHHVCHTWSSWEGEATIAVDGFHCKGNATGIAVGRTLSQGLVVLGQDQDSVGGKFDATQ  
SLEGELSELNLWNTVLNHEQIKYLSKCAHPSERHIYGNIIQWDKTQFKAYDGVVLSPNEI  
CA

>P48199

MEKLLWCLLITISFSQAFGHEDMSKQAFVFPVGSATAYVSLEAESKKPLEAFTVCLYAHA  
DVSRSFSIFSATKTSFNEILLFWTRGQGSIAVGGPEILFSASEIPEVPTHICATWESA  
TGIVELWLDGKPRVRKSLQKGYIVGTNASIILGQEQDSYGGGFNDQSFVGEISDVHMWD  
FVLSPEQINAVYVGRVFSPNVLNWRALKYETHGDVFIKPQLWPLTDCCES

>Q07203

MERFALWFIFLAGSLAQEDLVGNVFLFPKPSVTTYAILKPEVEKPLKNLTVCLRSYTTLT  
RFHSLLSLATSINPLQDNAFLLFKPPNQCSIYINQEENVFVDP TAVEWKHTCVSWDSVS  
GVVELWIDGKLYPRTVSKKASSIGFPSSIIQGQEQDSFGGGFNIDQSFVGEISDVHMWDY  
VLTPDHIQKVL FANMDFNGNII SWRSLQYELRGQATTQPKRQCKTLEHHYGLFAKCYK

>Q9FYT6

MAPPPLPLFSPSLKAPPPPPWLHGSSTQSRDSAPPVPPPLPAEATPSKFRIDSPKPAPARK  
NTKTAAKPLTAGVPGGRTHRVLGI IRRVRSLELSDAPSPNSVHTSNSGAAAAAFHLTIE  
LSPPREPGQYVVEKEKSRAVPWAAARDEGLKVALRREKKPREPTRAETELETHELRLRLRR  
LARGIGRWARAKKAGVTDEVVKEVRREWASGEELA AVRIVEPLRRSMDRAREILEIKTGG  
LVVWTKGDMHFVYRGSKYQQNAKHSHTFLT NVHKDDAFQENDQSICGQKDEEPVKGTLYE  
REVNRLLDTLGPRFVDWWWDTPLPVDADLLPEFVPGSKTPYRLCPPGVRPTLADEELTYL  
RKLARLLPTHFALGRNTRLQGLAAA IILKLWEKSLIAK IAVKIGIQNTNNEQMAWNLKHLT

GGTVILRNKDFIILYRGKDFLPGGVAQTVIQREAVHDEQVKEEEARLKAVDLSLQMVGEL  
SEESSLGTFREYQGFHAKFVHENTENSNTMIELEAEKYRLEKELKDHEWKLSVLNKKIER  
SNQALAKLHSSWSPSEQSADREHLTEEEKIMFRRIGRKMMDGLVLLGRRGIFDGVIEEIHQ  
HWKHKEVVKVITKQNTQIMYAASLLEVETGGILIAVEKLTTSHAIIILYRGKNYRRPAK  
SSFSNLLTKREALRRSIEVQRRGSMKYFVRERQKSILELKRKLRYVTRQIRYRTP

>Q46925

MNVFNPAQFRAQFPALQDAGVYLD SAATAALKPEAVVEATQQFYSL SAGNVHRSQFAEAQR  
LTARYEAAREKVAQLLNAPDDKTIVWTRGTTESINMVAQCYARPR LQPGDEIIVSVAEHH  
ANLVPWLMVAQQTGAKVVKLPLNAQRLPDVDLLPELITPRSRILALGQMSNVTGGCPDLA  
RAITFAHSAGMVMVDGAQGAHVFPADVQQLDIDFYAFSGHKLYGPTGIGVLYGKSELLE  
AMSPWLG GGMVHEVSFDGFTTQSAPWKLEAGTPNVAGVIGLSAALEWLADYDINQAESW  
SRSLATLAEDALAKRPGFRSFRQCDSLLAFDFAGVHHSMDVTL LLAEYGI ALRAGQHCAQ  
PLLAELGVTGTLRAS FAPYNTKSDVDALVNAVDRALELLVD

>P32400

MTETSGTFNDIEARLAAVLEEA FEAGTSIYNERGFKRRIGYGNRPAVIHIDL ANAWTQPG  
HPFSCPGMETIIPNVQRINEAARAKGVPVFYTTNVYRNRDASSGTNDMGLWYSKIPTE TL  
PADSYWAQIDDRIAPADGEVVI EKNRASAFPGTNLELFLTSNRIDTLIVTGATAAGCVRH  
TVEDIAIAKGRPIIPRETIGDRVPGVVQWNLYDIDNKFGDVESTDSVVQYLDALPQFEDT  
VPKTLSDPQPEVEAPADPVFAEQH

>Q05048

MYRTKVGLKDRQQLYKLIISQLLYDGYISIANGLINEIKPQSVCAPSEQLLHLIKLGMEN  
DDTAVQYAIGRSDTVAPGTGIDLEFDADVQTMSP EASEYETCYVTSHKGP CRVATYSRDG  
QLIATGSADASIKILDTERMLAKSAMP IEVMMNETAQQNMENHPVIRTLYDHVDEVTCLA  
FHPTEQILASGSRDYTLKLF DYSKPSAKRAFKYIQEAEMLR S ISFHPSGDFILVGTQHPT  
LRLYDINTFQCFVSCNPQDQHTDAICSVNYNSSANMYVTGSKDGC IKLWDGVSNR C ITTF  
EKAHDGAEVCSAIFSKNSKYILSSGKDSVAKLWEISTGR TLVRYTGAGLSGRQVHRTQAV  
FNHTEDYVLLPDERTISLCCWDSRTAERRNLLSLGHNNIVRCIVHSPTNPGFMTCSDDFR  
ARFWYRRSTTD

>Q12996

MSGDGATEQAAEYVPEKVKKA EKKLEENPYDLDAWSILIREAQNQPIDKARKTYERLVAQ  
FPSSGRFWKLYIEAEIKAKNYDKVEKLFQRCLMKVLHIDLWKC YLSYVRETKGKLP SYKE  
KMAQAYDFALDKIGMEIMSYQI WVDYINFLKGVEAVG SYAENQRITAVRRVYQRGCVNPM  
INIEQLWRDYNKYEEGINIHLAKKMIEDRSRDYMNARRVAKEYETVMKGLDRNAPSVP PQ  
NTPQEAQQVDMWKKYIQWEKSNPLRTEDQTLITKRVMFAYEQCLLV LGHHPDIWY EAAQY  
LEQSSKLLAEKGMNNAKLFSD EAAANIYERAI STL LKKNMLLYFAYADY EESRMKYEKVH  
SIYNRL LAIEDIDPTLVYIQYMKFARRAEGIKSGRMI FKKAREDRTRHHVYVTAALMEY  
YCSKDKSVAFKIFELGLK KYGDIPEYVLAYIDYLSHLNEDNTRVLFERVLTSGSLPPEK  
SGE IWARFLAFESNIGDLASILKVEKRRFTAFKEEYEGKETALLVDRYKFM DLYPCSASE  
LKALGYKDVSRAKLAAIIPDPVVAPSIVPVLKDEVD RKPEYKPD TQQMIPFQPRHLAPP  
GLHPVPGGVFPVPPAAVVL MKLLPPPICFQGPVQVDELMEIFRRCKIPNTVEEAVRIIT  
GGAPELAVEGNPVESNAVLTKAVKRP NEDSDEDEEKGAVVPPVHDIYRARQQKRIR

>O46036

MDKNLMMPKRSRIDVKGNFANGPLQARPLVALLDGRDCS IEMPILKDVATVAF CDAQSTS  
EIEHKVLNEAVGALMWHTIILTKEDLEKFKALRIIVRIGSGTDNIDVKAAGELGIAVCNV  
PGYGVEEVADTTMCLILNLYRRTYWL ANMVREGKKFTGPEQVREAAHG CARIRGDTLGLV

GLGRIGSAVALRAKAFGFNVIFYDPYLPDGDIDKSLGLTRVYTLQDLLFQSDCVSLHCTLN  
EHNHHLINFTIKQMRPGAFLVNTARGGLVDDETLALALKQGRIRAAALDVHENEPYNVF  
QGALKDAPNLICTPHAAFFSDASATELREMAATEIRRAIVGNIPDVLNRNCVNKEYFM RTP  
PAAAAGGVAAAVYPEGALHHRAHSTTPHDGPHSTTNLGSTVGGGPTTVAQAAAAAVAAAA  
AAALLPSPVPVSHLSPQVGGPLPLGIVSSQSPLSAPDPNNHLSSSSIKTEVKAESTEAP

>Q9Y5B0

MEVPAAGRVPAGAPTAAVAEVRCPGPAPLRLLLEWRVAAGAAVRIGSVLAVFEAAAQAQS  
AGASQSRVASGGCVRPARPERRLRSEERAGVVRELCAQPGQVVAPGAVLVRLEGCSHPVVM  
KGLCAECGQDLTQLQSKNGKQVPLSTATVSMVHSVPELMSSEQAQLGREDDQRLHRN  
RKLVLMDLDQTLIHTTEQHCQMSNKGIFHFQLGRGEPMLHTRLRPHCKDFLEKIAKLY  
ELHVFTFGSRLYAHTIAGFLDPEKCLFSHRILSRDECIDPFSGTGNLRNLFP CGDSMVIC  
IDDREDVWKFAFNLIITVKKYVYFQGTGDMNAPPGSRESQTRKKNHRSRGTEVSEPSPPVR  
DPEGVTQAPGVEPSNGLEKPAARELNGSEAAATPRDSRPRGKPDERDIWPPAQAPTSSQELA  
GAPEPQGSQAQGGRRVAPGQRPAQGATGTDLDFDLSSDSESSSESEGTKSSSSASDGESEG  
KRGRQKPKAAPEGAGALAQSSLEPGRPAAPSLPGEAEPGAHAPDKEPELGGQEEGERDG  
LCGLGNGCADRKEAETESQNSELSGVTAGESLDSMEEEEEEDTDEDDHLIYLEEILVRV  
HTDYAKYDRYLNKEIEEAPDIRKIVPELKS KVLADVAIIFSGLHPTNFP IEKTRHYHA  
TALGAKILTRLVLSPDAPDRATHLIAARAGTEKVLQAQECGHLHVNPDWLW SCLERWDK  
VEEQLFPLRDDHTKAQRENSPAAFPDREGVPPTALFHPMPVLPKAQPGPEVRIYDSNTGK  
LIRTGARGPPAPSSSLPIRQEPSSFRAVPPPQPMFGEELPDAQDGEQPGPSRRKRQPSM  
SETMPLYTLCKEDLESMDKEVDDILGEGSDDSDSEKRRPEEQEEEPQPRKPGTRRGADAR  
APASSERSAAGGRGPRGHKRKLNEEDAASESSRESSNEDEGSSEADEMAKALEAE LNDL  
M

>Q9USV7

MNHGGNSTMRHCSMKMTFNTDYDNLCIVFKSWHIGNLSQFLLSLLAIAAILGYL FERLRSF  
TSLKETEFQRGYAGQQSEGLLTHHSKSLKSGRPFRLCALYAVQLVFSYFLMLVAMTYNAY  
VILAIAIGAAGFYRRSHCDTVQTVGLCH

>Q54HG2

MAGKDWEIVQEKAFTAWVNSVLDKRGEKISDVGKDLSDGVKLIFFLLELISKKFNKKYDF  
EPKARINMIQNVALALKFLDEELKIKVQGGIGSEDFVDNKKMILGFLWTLYRKYRIAVIS  
EGDKSSEEGLLLWCKNTTTGYDGVNITSFTKSFRDGLAFLALSHKFEPESFKFQEF EAMD  
PIARLNAAFDFAEKGLGVPKLLAEAEVMRGTTDERSLVLYTSLFFHAYRAKEEKARLESS  
KNEMANRLAGLENSLESEKVSREQLIKQKQDQLNSLLASLESEGAEREKRLRELEAKLDET  
LKNLELEKLARMELEARLAKTEKDRAILELKLAEAIDEKSKLEQQIEATRIRGAAEAQGL  
GLLRKNLDTHVHDLKWKQKLT MENS SSSSIDDQIIVEVSGLPFGEQVKHLATKLEAENLA  
IMKLLNQKEDDLKAQKLSKSKK

>P0A9G4

MNISDVAKITGLT SKAIRFYEEKGLVTPPMRSENGYR TYTQQHLNELTLLRQARQVGFNL  
EESGELVNLFNDPQRHSADV KRRTLEKVAEIERHIEELQSMRDQLLALANACPGDSDADC  
PIIENLSGCCHHRAG

>P19667

MAAKFLLTILVTFAAVASLGMADNVLLSGQTLHADHSLQAGAYTLTIQNKCNLVKYQNGR  
QIWASNTDRRGSGCRLTLLSDGNLVIYDHNNDVWGSACWGDNGKYALVLQK DGRFVIYG  
PVLWLSLGPNGCRRVNGGITVAKDSTEPQHEDIKMINN

>P93009

MASSLTTRL SAVIGSRRSFP IVGAFCVLSTLSISSLSSSSPFKSGCAQSF SVVPLLRSKF  
SSKAFSSSIRMEESSKTVPSIVVYVTVPNREAGKKLANSIVQEKLAAACVNIVPGIESVYE  
WEGKVQSDSEELLI IKTRQSLLEPLTEHVNANHEYDVPEVIALPITGGSDKYLEWLKNST  
RN

>P69488

MLDEKSSNTASVVVLCTAPDEATAQDLAAKVLAEKLAACATLIPGATSLYYWEGKLEQEY  
EVQMILKTTVSHQQALLECLKSHHPYQTPPELLVLPVTHGDTDYLSWLNASLR

>O60888

MSGGRAPAVLLGGVASLLLSFVWMPALLPVASRLLLLPRVLLTMASGSPPTQPSPASDSG  
SGYVPGSVSAAFVTCPNEKVAKIARAVVEKRLAACVNLI PQITS IYEWKGI EEDSEVL  
MMIKTQSSLPALTD FVRSVHPYEVAEVIALPVEQGNFPYLQWVRQVTE SVSDSITVLP

>O58720

MIIVYTTFPDWESA EKVVKTLLKERLIACANLREHRAFYWWEKIEEDKEVGAILKTRED  
LWHEELKERIKELHPYDVP AIIRIDVDDVNEDYLKWLIEETKK

>Q9X0E6

MILVYSTFPNEEKALEIGRKLLEKRLIACFNAFEIRSGYWWKGEIVQDKEWAAIFKTTEE  
KEKELYEELRKLHPYETPAIFTLKVENVLTEYMNWLRESVL

>P07143

MFSNLSKRWAQRTLSKSFYSTATGAASKSGKLTQKLV TAGVAAA GITASTLLYADSLTAE  
AMTAAEHGLHAPAYAWSHNGPFETFDHASIRRGYQVYREVCAACHSLDRVAWRTL VGVS  
TNEEVRNMAEEFEYDDEPDEQGNPKKRPGKLSDYIPGPYPNEQAARAANQ GALPPDLSLI  
VKARHGGCDYIFSLLTGYPDEPPAGVALPPGSNYNPYFP GGSIAMARVLFDDMVEYEDGT  
PATTSQMAKDVTTFLNWCAEPEHDERKRLGLKTVIILSSLYLLSIWVKKFKWAGIKTRKF  
VFNPPKPRK

>P0A4Y0

MAARKCGAPPIAADGSTRRPDCVTAVRTQARAPTQHYAESVARRQVLTITAWLAVVVTG  
SFALMQLATGAGGWYIALINVFTAVTF AIVPLLRHFGGLVAPLTFIGTAYVAIFAIGWDV  
GTDAGAQQFFFLVAAALVLLVGLIEHTALAVGLAAVAAGLVIALEFLVPPDTGLQPPWAMS  
VSFVLTTVSACGVAVATVWFALRDTARAEAVMEAEHRSEALLANMLPASIAERLKEPER  
NIIADKYDEASVLFADIVGFTERASSTAPADLVRFLDRLYSAFDELVDQHGLEKIKVSGD  
SYMVVSQVPRPRPDHTQALAD FALDMTNVAAQLKDPRGNP VPLRVGLATGPVVAGVVGSR  
RFFYDVWGD AVNVASRMESTDSVGQIQVPDEVYERLKDDFVLRERGHINVKGKGV MRTWY  
LIGRKVAADPGEVRGAEPRTAGV

>P27580

MSTEHTNTPRADSPQSAAEAVRGARQHAPAATPAESDPILELAEAMEGPLRIPAHTPEAV  
RDTVASLEKRLIGGQREFRRREVASEAGVSLHSARKLWRAIGFP ELSDDDEVFFTEADKKA  
LGTVMGMVREGALTEETAISLMRSVGMQMTDRMVVWQIEALVEDMIANQNLSDRQARRQLF  
SLLPEIIPAIEDLLYSWRRQLNSAVHRMALRVETGVAAYNQDRGEDDGGTPLPLARAVG  
FADLVSYTSLSRMNERTLAQLVQRFEAKCAEII SVGGRLVKTIGDEVLYVAETPQAGA  
QIALSLSRELAKDELFPQTRGAVVWGRLLSRLGDIYGPTVNMAARLTS LAEPGTVLTD AI  
TANTLRNDARFVLT AQEITAVRGGFDIQPYELSAGEGAGLV ID

>P22143

MSSSEVKANGWTAVPVSAKAIVDLSLGLKLDVSSYSVEDIAFPAAADKLVAEAQAFVKARLS  
PETYNHSMRVFYWGTVIARRLLPEQAKDLSPSTWALTCLLHDVGTAEAYFTSTRMSFDIY  
GGIKAMEVLKVLGSSTDQAEAVAEAIIRHEDVGVGNITFLGQLIQLATLYDNVNGAYDGI  
DDFGSWVDDTTRNSINTAFPRHGWCWSWFACTVRKEESNKPWCHTTHIPQFDKQMEANTLM  
KPWE

>P09437

MFKSQLRTATARSSFRSLASKLNPQRFNSSKTPLLNATRGSNRSKNSLIALAIISLSAVSS  
SYYLYQKDKFISADVPHWKDIELTPEIVSQHNKKDDLWVVLNGQVYDLTDFLPHHPGGQK  
IIRYAGKDATKIFVPIHPPDTIEKFIPPEKHLGPLVGEFEQEEEELSDEEIDRLERIER  
KPPLSQMINLHDFETIARQILPPPALAYYCSAADDEVTLRENHNAYHRIFFNPKILIDVK  
DVDISTEFFGEKTSAPFYISATALAKLGHPEGEVAIAKAGREDVVQMISTLASCSEFDEI  
ADARIPGQQQWYQLYVNADRSITEKAVRHAEEERGKGLFITVDAPSLGRREKDMKMKFEA  
DSDVQGDDEDIDRSQGASRALSSFIDPSLSWKDIAFIKSITKMPIVIKGVQRKEDVLLAA  
EHGLQGVLVLSNHGGRQLDYTRAPVEVLAEVMPILKERGLDQKIDIFVDGGVRRGTDVLKA  
LCLGAKGVGLGRPFLYAMSSYGDKGVTKAIQLLKDEIEMNMRLLGVNKIEELTPELLDTR  
SIHNRVAVPAKDYLIEQNYQRMSGAEFRPGIED

>P00175

MLKYKPLLKISKNCEAAILRASKTRLNNTIRAYGSTVPSKSKSFEQDSRKRTQSWTALRVGA  
ILAATSSVAYLWNHNGQIDNEPKLDMNKQKISPAEVAKHNKPDDCWVINGVYVYDLTRFL  
PNHPGGQDVIKFNAGKDVTAIFEPLHAPNVIDKYIAPEKKLGPLQGSMPPELVCPPYAPG  
ETKEDIARKEQLKSLPLDNIINLYDFEYLASQTLTKQAWAYYSSGANDEVTHRENHNA  
YHRIFFKPKILVDVRKVDISTDMLGSHVDVFPFVVSATALCKLGNPLEGEKDVARGCGQGV  
TKVPQMISTLASCSPREEIEAAPSDKQIQWYQLYVNSDRKITDDLKVNVEKLGVKALFVT  
VDAPSLGQREKDMKLFKSNTKAGPKAMKKTNVEESQGASRALSKFIDPSLTKWDIEELKK  
KTKLPIVIKGVQRTEDEVKAAEIGVSGVLSNHGGRQLDFSRAPIEVLAETMPILEQRNL  
KDKLEVFVDGGVRRGTDVLKALCLGAKGVGLGRPFLYANSCYGRNGVEKAIIEILRDEIEM  
SMRLLGVTSAELKPDLLDLSTLKARTVGVVNDVLYNEVYEGPTLTFEFEDA

>P00163

MAFRKSNVYLSLVNSYIIDSPQPSSINYWWMGSLGLCLVIQIVTGIFMAMHYSSNIEL  
AFSSVEHIMRDVHNGYILRYLHANGASFFFMMFMHMAKGLYGSYRSPRVTLWNVGVII  
FILTIATAFLGYCCVYQMSHWGATVITNLFSAIPFVGNDIVSWLWGGFVSNSPTIQRF  
ALHYLVFFIIAAMVIMHLMALHIHGSSNPLGITGNLDRIPMHSYFIFKDLVTVFLFMLIL  
ALFVVFYSPNTLGHDPNYIPGNPLVTPASIVPEWYLLPFYAILRSIPDKLLGVIITMFAAIL  
VLLVLPFTDRSVVRGNTFKVLSKFFFFIFVFNFVLLGQIGACHVEVPYVLMGQIATFIYF  
AYFLIIVPVIISTIENTVLFYIGRVNK

>P81040

GEAQPASGRFDQVGGAFGWKPHKLDPKCECAQVAYDGYWYKGFSGCGGAFYSIVGLMGEKY  
GAPYNQFPFAMLEANKGGISDWGTIYGALYGAAATFSLFWGRKEVHPMVNELFRWYEVTK  
LPIFNPGDAAQGVKGLPMSASDSVLCHISVSKWCYENKIEATSKQRSERAGRLTADAAF  
KAAEIIINTKIDQKDFKSTFPMQASVSSCGECHMTKGNANWAKGIMDCTPCHSGTAATQ  
NKFVNHP

>P31373

MTLQESDKFATKAIHAGEHVDVHGSVIEPISLSTTFKQSSPANPIGTYEYSRSQNPENREN  
LERAVAALENAQYGLAFSSGSATTATILQSLPQGSHAVSIGDVYGGTHRYFTKVANAAGV

ETSFTNDLLNDLPQLIKENTKLVWIETPTNPTLKVTDIQKVADLIKKHAAGQDVILVVDN  
TFLSPYIISNPLNFGADIVVHSATKYINGHSDVVLGVLATNNKPLYERLQFLQNAIGAIPS  
PFDAWLTHRGLKTLHLRVRQAALSANKIAEFLAADKENVVAVNYPGLKTHPNYDVVLKQH  
RDALGGGMISFRIKGGAEAAASKFASSTRLFTLAESLGGIESLLEVPVAVMTHGGIPKEARE  
ASGVFDDLVRISVGIEDTDDLLEDIKQALKQATN

>P45600

MKLQQLRYIVEVNVHNLNVSSTAEGLYTSQPGISKQVRMLEDELGIQIFARSGKHLTQVT  
PAGQEIIRIAREVLSKVDAIKSVAGEHTWPKGSLYVATTHTQARYALPGVIKGFIERYP  
RVSLMHMQGSPTQIAEAVSKGNADFIAIATEALHLYDDLVMPCYHWNRSIVVTPEHPLAT  
KGSVSIIEELAQYPLVTYTFGFTGRSELDTAFNRAGLTPRIVFTATDADVIKTYVRLGLGV  
GVIASMAVDPVSDPDLVKLDANGIFSHSTTKIGFRRSTFLRSYMYDFIQRFAPHLTRDVV  
DTAVALRSNEDIEAMFKDIKLPEK

>P0A9D4

MSCEELEIVWNNIKAARTLADCEPMLASFYHATLLKHENLGSALSYMLANKLSSPIMPA  
IAIREVVEEAYAADPEMIASAACDIQAVRTRDPAVDKYSTPLLYLKGFHALQAYRIGHWL  
WNQRRALAIIFLQNVSVTFQVDIHPAAKIGRGIMLDHATGIVVGETAVIENDVSIQSV  
TLGGTGKSGGDRHPKIREGVMIGAGAKILGNIEVGRGAKIGAGSVVLQVPPHTTAAGVP  
ARIVGKPDSDKPSMDMDQHFNGINHTFEYGDGI

>P01034

MAGPLRAPLLLLAILAVALAVSPAAGSSPGKPPRLVGGPMDASVEEEGVRRALDFAVGEY  
NKASNDMYHSRALQVVRARKQIVAGVNYFLDVELGRTTCTKTQPNLDNCFHDQPHLKRK  
AFCSFQIYAVPWQGTMTLSKSTCQDA

>O76096

MRAAGTLAFCCLVLSTTGGPSPDTCSQDLNSRVKPGFPKTIKTNDPGVLQAARYSVEKF  
NNCTNDMFLFKESRITRALVQIVKGLKYMLEVEIGRTTCKKNQHLRLDDCDFQTNHTLKQ  
TLSCYSEVWVVPWLQHFVVPVLRCH

>P23965

MALAAARRVLLQAGSRLGRRGAVDGARRFSNKRVLVEKEGEAGIAVMKFKNPPVNSLSLE  
FLTEFVISLEKLENDKSIRGVILTSEKPGIFSAGLDLMEMYGRNPAHYAEYWKAVQELWL  
RLYLSNLTLISAINGASPAGGLMALTCDYRIMADNSKYTIGLNESSLGIVAPFWLKDNY  
VNTIGHRAAERALQLGTLFPPEALKVGLVDEVPEDQVHASKARSVMKWF TIPDHSRQL  
TKSMMRKATADNLIKQREADIQNFTSFISRDSIQKSLHVYLEKCLKQKKG

>P19938

MGYTLWNDQIVKDEEVKIDKEDRGYQFGDGVYEVVKVYNGEMFTVNEHIDRLYASAEKIR  
ITIPYTKDKFHQLLHELVEKNELNTHGHIYFQVTRGTSAPRAHQFPENTVKPVIIGYTKENP  
RPLENLEKGVKATFVEDIRWLRCDIKSLNLLGAVLAKQEAHEKGCYEAILHRNNTVTEGS  
SSNVFGIKDGILYTHPANMILKGITRDVVIACANEINMPVKEIPFTTHEALKMDELFTV  
STTSEITPVIEIDGKLIRDGKVGWTRKLLKQKFETKIPKPLHI

>Q9ZBA9

MSKFDTSALEAFVRHIPQNYKGGVAVVKDGEVVLQHAWGFADLRTRTPMTLDTRMPI  
CSVSKQFTCAVLLDAVGEPELLDDALEAYLDKFEDEPFAVRDLCNNQSGLRDYWALSVC  
GADPEGVFLPAQAQSLRLKTTTFEPGSHSYCNNGFRILADLIEAHTGRTLVDILSER  
IFAPAGMKRAELISDTALFDECTGYEGDTRVGRFLPATNRIQWMDAGICASLNDMIAWEQ

FIDATRDESGLYRRLSGPQTFKDGVAAPYGFGLNLHETGGKRLTGHHGALRGWRCQRWH  
CADERLSTIAMFNFEFGGASEVAFKLMNIALGVSSSEVSRVEADSAWFGSWLDDDETGLVLS  
LEDAGHGMRKARFGTSPMEMDVVSANEARSAVTTIRRDGETIELVRASENLRLSMKRKVG  
EAKHDIIGRYHSDELADLLLVSEGGAIYGAFEGFLGKSDMYPLYSVGSDVWLLPVQRSM  
DAPSPGEWKLVFRRDDKGEITGLSVGCWLARGVEYRRVQP

>P0A6L2

MFTGSIVAIVTPMDEKGNVCRASLKKLIDYHVASGTSIAIVSVGTTGESATLNHDEHADVV  
MMTLDLADGRIPVIAGTGANATAEAIISLTQRFNDSGIVGCLTVTPYYNRPSQEGLYQHFK  
AIAEHTDLPQILYNVPSRTGCDLLPETVGR LAKVKNIIGIKEATGNLTRVNQIKELVSDD  
FVLLSGDDASALDFMQLGGHGVI SVTANVAARDMAQMCKLAAEGHFAEARVINQRLMPLH  
NKL FVEPNPIPVK WACKELGLVATDTLRLPMTPI TDSGRET VRAALKHAGLL

>P04036

MHDANIRVAIAGAGGRMGRQLIQAAALALEGVQLGAALERE GSSLLGSDAGELAGAGKTGV  
TVQSSLD AVKDDFDVFI DFTRPEGLNLHLAF CRQHKGKMGVIGTTGFDEAGKQAIRDAAAD  
IAIVFAANFSVGVNMLKLLLEKAAKVMGDYTDIEIEIEAHHRHKVDAPSGTALAMGEAIAH  
ALDKDLKDCAVYSREGHTGERVPGTIGFATVRAGDIVGEHTAMFADIGERLEITHKASSR  
MTFANGAVRSALWLSGKESGLFDMRDVLDLNNL

>P56220

MQQQLQNVIESAFERRADITPANVDTVTREA VNVQVIGLLDSGALRVAEKIDGQWVTHQWLK  
KAVLLSFRINDNKVMDGAETRYYDKVPMKFADYDEARFQKEGFRVPPATVRQGAFIARN  
TVLMP SYVNI GAYVDEGTMVD TWATVGS CAQIGKNVHLSGGVIGGVLEPLQANPTI IED  
NCFIGARSEVVEGVIVEEGSVISMGVYLGQSTR IYDRETGEIHYGRVPAGSVVSGNLPS  
KDGSYSLYCAVIVKKVDAKTRGKVGINELLRTID

>P08821

MNKTELINAVAEASELSKKDATKAVDSVFDTILDALKN GDKIQLIGFGNFVRRERSARKG  
RNPQTGEEIEIPASKVPAFKPGKALKDAVAGK

>P17615

MAYNKSDLVSKIAQKSNLTKAQAEAAVNAFQDVFVEAMKSGEGLKLTGLFSAERVKRAAR  
TGRNPRTGEQIDIPASYGVRISAGSLLKKA VTE

>P05514

MNKGELVDAVAEKASVTKKQADAVLTAAL ETIIEAVSSGDKVTLVGFGSFE SRERKAREG  
RNPKTNEKMEIPATRVPAFSAGKLFREKVAPPKA

>P02345

MVGISELSKEVAKKANTTQKVARTVIKSFLDEIVSQANGGQKINLAGFGIFERRTQGPRK  
ARNPQTKKVIEVPSKKKVFVFRASSKIKYQQ

>P19436

AAKKTVTKADLVDQVAQATGLKKKDVKAMVDALLAKVEEALANGSKVQLTGFGTFEVRKR  
KARTGVKPGTKEKIKIPATQYPAFKPGKALKDKVKK

>Q10586

MARPVSDRTPAPLLLGGPAGTPPPGGGALLGLRSL LQGT SKPKEPASCLLKEKERKAALPA  
ATTPGPGL ETAGPADAPAGAVVGGSPRGRPGVPAPG LLAPLLWERTLPFGDVEYVDLD



AFLLEHGLPPSPPPPGGSPPEPSPARTPAPSPGPGSCGSASPRSSPGHAPARAALGTASG  
HRAGLTSRDTSPVDPDTVEVLMTFEPDPADLALSSIPGHETFDPRRHRFSEELKPQPI  
MKKARKIQVPEEQKDEKYWSRRYKNNAAKRSRDARRLKENQISVRAAFLEKENALLRQE  
VVAVRQELSHYRAVLSRYQAQH GAL

>Q44185

MTRQMILAVGQQGPIARAETREQVVGRLLDMLTNAASRGVNFIVFPELALTTFFPRWHFT  
DEAELDSFYETEMPGPVVRPLFETAELGIGFNLGYAELVVEGGVKRRFNTSILVDKSGK  
IVGKYRKIHLPGHKEYEAYRPFQHLEKRYFEPGDLGFPVYDVDAAKMGMFICNDRRWPET  
WRVMGLKGAEIICGGYNTPTHNPPVPQHDHLTSFHLLSMQAGSYQNGAWSAAAGKVGME  
EGCMLLGHSCIVAPTGEIVALTTTTLEDEVITAAVDLDRCRELREHIFNFKAHRQPQHYGL  
IAEF

>P14748

MASSTPSSSATSSNAGADPNTTNLRPTTYDTWCGVAHGCTRKLGLKICGFLQRTNSLEEK  
SRLVSAFKERQSSKNLLSCENS DRDGRFRRETDFSNLFARDLLPAKNGEEQTVQFLLLEV  
VDILLNYVRKTFDRSTKVLDFFHHPHQLLEGMEGFNLELSDHPESELEQILVDCRDTLKYGV  
RTGHPRFFNQLSTGLDII GLAGEWLTSTANTNMFTYEIAPV FVLMEQITLKKMREIVGWS  
SKDGDGIFSPGGAISNMYSIMAARYKFFPEVKTKGMAAVPKLVLF TSEHSHYSIKKAGAA  
LGFGTDNVILIKCNERGKII PADLEAKILEAKQKGYVPLYVNATAGTTVYGAFDPIQEIA  
DICEKYNLWLHVDAAWGGGLLSRKHHRKLSGIERANSVTWNP HKMMGVLLQCSAILVKE  
KGILQGCNQMCAGYLFQPKQYDVS YDTGDKAIQCGRHVDIFKFWLMWKAKGT VGFENQI  
NKCLELAEYLYAKIKNREEFEMVFDGEPEHTNVCFWYIPQSLRGIPD SPERREKLRHVAP  
KIKALMMESGTTMVGYQPQGDKANFFRMVISNPAATQSDIDFLIEEIERLGQDL

>P20228

MSLNPNGYKLSERTGKLTAYDLMPTTVTAGPETREFLLKVIDVLLDFVKATNDRNEKVLD  
FHHPEDMKRLLDLDVPDRALPLQQLIEDCATTLKYQVKTGHPHFFNQLSNGLDLIS MAGE  
WLTATANTNMFTYEIAPV FVILMENVVLTMKMREIIGWSSGDSILAPGGSISNLYAFLAARH  
KMFPNYKEHGSVGLPGTLVMFTSDQCHYSIKSCAAVCGLGDHCIVVPSDEHGKMITSEL  
ERLILERKAKGDI PFFVNATAGTTVLGAFDDINTIADICQKYN CWMHIDA AWGGGLLSR  
KHRHPRFTGVERADSVTWNPHKLMGALLQCSTIHFKE DGLLISCNQMSAEYLFMTDKQYD  
ISYDTGDKVIQCGRHNDIFKLWLQWRAKGT EGFQQDRLMELVQYQLKRIREQSDRFHL  
ILEPECVNVSFWYVPKRLRGVPHDAKKEVELGKICPIIKGRMMQKGTLMVGYQPDDRRPN  
FFRSIISSAAVN EADVDFMLDEIHLRGDDL

>Q07346

MVLSKTVSQSDVSIHSTFASRYVRTSLPRFKMPDNSIPKEAAYQIINDELMLDGNPRLNL  
ASFVTTWMEPECDKLMMS INKNYVDMDEYPVTTTELQNR CVNMI AHLFNAPLEDGETAVG  
VGTVGSSEAIMLAGLAFKRKWKQNKMAQ GKPCDKPNI VGTGANVQVCWEKFARYFEVELKE  
VKLSEGYVMDPEKAVEMVDENTICVAAILGSTLNGEFEDVKRLNDLLVEKNKETGWDTP  
IHVDAASGGFIAPFIYPELEWDFRLPLVKSINVS GHKYGLVYAGIGWVVWRNKDDL PDEL  
IFHINYLGADQPTFTLNFSKSSQVIAQYYQLIRLGYEGYKNVMENCQENASV LREGLEK  
TGRFNII SKEIGVPLVAFSLKDNRQHNEFEISETLRRFGWIVPAYTMPNAQHITVLRVV  
IREFSRTLAE RLVRDIEKVLHELDTLPARVNAKLAVAE EQAAAANGSEVHKKTDSEVQLE  
MITAWKKFVEEKKKKKTNRVC

>P69908

MDQKLLTDFRSELLDSRFGAKAISTIAESKRFP LHEMRDDVAFQIINDELYLDGNARQNL  
ATFCQTWDDENVHKLMDLSINKNWIDKEEYPQSAAIDLRCVNMVADLWHAPAPKNGQAVG

TNTIGSSEACMLGGMAMKWRWRKRMEAAAGKPTDKPNLVCGPVQICWHKFARYWDVELREI  
PMRPGQLFMDPKRMIEACDENTIGVVPTFGVTTYTGNIEFFPQLHDALDKFQADTGIDIDM  
HIDAASGGFLAPFVAPDIVWDFRLPRVKSISASGHKFGGLAPLGCWVIWRDEEALPQELV  
FNVDYLGQIGTFAINF SRPAGQVIAQYYEFLRLGREGYTKVQNASYQVAAYLADEIAKL  
GPYEFICTGRPDEGIPAVCFKLDGEDPGYTYLDLSERLRLRGWQVPAFTLGGEATDIVV  
MRIMCRRGFEMDFAELLLLEDYKASLKYLSDHPKLGIAQQNSFKHT

>P19113

MMEPEEYRERGREMVDYICQYLSTVRERRVTPDVQPGYLRAQLPESAPEDPDSWDSIFGD  
IERIIMPGVVHWQSPHMHAYYPALTSWPSLLGDM LADAINCLGFTWASSPACTELEMNVM  
DWLAKMLGLPEHFLHHHPSSQGGV LQSTVSESTLIALLAARKNKILEMKTSEPDADESC  
LNARLVAYASDAQHSSVEKAGLISLVKMKFLPVDDNFSLRGEALQKAI EEDKQRGLVPVF  
VCATLGTGVCFAFDCLSELGPI CAREGLWLHIDAAYAGTAF LCP EFRGFLKGI EYADSFT  
FNPSKMMMVFHDCTGFVWKDKYK LQQTFSVNP IYLRHANS G VATDFMHWQIPLSRRFRSV  
KLWVIRSFVGNLQAHVRHGTEMAKYFESLVRNDPSFEIPAKRHLGLVVFRLKGNCLT  
ENVLKEIAKAGRLFLIPATI QDKLIIRFTVTSQFTTRDDILRDWNLIRDAATLILSQHCT  
SQPSPRVGNLISQIRGARAWACGTS LQSVSGAGDDPVQARKI IKQPQRVGAGPMKRENGL  
HLETLLDPVDDCFSEEAPDATKHKLS SFLFSYLSVQT KKKTVRSLSCNSVPVSAQKPLPT  
EASVKNGGSSRVRIFSRFPEDMMLKKS AFKKLIKFY SVPSFPECSSQCGLQLPCCPLQA  
MV

>P05034

MTLSINDQNKLD AFWAYCVKNQYFNIGY P ESADFDYTNLERFLRFS INNCGDWGEYCNYL  
LNSFDFEKEVMEYFADLFKIPFEQSWGYVTNGGTEGNMFGCYLGREIFPDGTLYYSKDTH  
YSVAKIVKLLRIKSQVVESQPNGE IDYDDL MKKIADDKEAHP IIFANIGTTVRGAID DIA  
EIQKRLKAAGIKREDYYLHADAALSGMILPFVDDAQPF T FADGIDSIGVSGHKMIGSPIP  
CGIVVAKKENVDRI SVEIDYISAHDKTITGSRNGHTPLMLWEAIRSHSTE EWKRRITRSL  
DMAQYAVDRMQKAGINAWRNKNSITVVFPCPSERVWREHCLATSGDVAHLITTAHHLDTV  
QIDKLIDDVIADFNLHAA

>P23234

MRTPYCVADYLLDRLTDCGADHLFGVPGDYNLQFLDHVIDSPDICWVGCANELNASYAAD  
GYARCKGFAALLTTFGV GELSAMNGIAGSYAEHVPVLHIVGAPGTAAQQRGELLHHTLGD  
GEFRHFYHMSEPI TVAQAVL TEQNACYEIDRVLT TMLRERRPGYLMLPADVAKKAATPPV  
NALTHKQAHADSACLKAFRDAAENKLAMSKRTALLADFLVLRHGLKHALQKWVKEVPMAH  
ATMLMGKGI FDERQAGFYGTYSGSASTGAVKEAIEGADTVLCVGTFRFTDTLTAGFTHQLT  
PAQTIEVQPHAA RVGDVWFTGIPMNQAIETLVELCKQH VHAGLMSSSSGAI PFPQPDGSL  
TQENFWRTLQTFIRPGDI ILADQGTSAFGAIDLRLPADVNFIVQPLWGSIGYTLAAAFGA  
QTACPNRRVIVLTGDGAAQLTIQELGSM LRDKQHP IILVLNNEG YTV ERAIHGAEQR YND  
IALWNWTHIPQALS LDPQSECWRVSEAEQLADVLEKVAHHERLSLIEVMLPKADIPPLLG  
ALTKALEACNNA

>P21161

MSPNPTNIHTGKTLRLLYHPASQPCRS AHQFMYEIDVPFEEEVVDISTDITERQEFRDKY  
NPTGQVPILVDGEFTVWESVAIARYVNEKFDGAGNWFGRGTQERAQINQFLQWYAYTLRL  
GGGAFHWNIFGLIYGEKPYSPKFTA EQNKGR TLLYEAMGTLENYWLRDREYVCGDEVSY  
ADLAAFHEFVSHEAGKIIPDRVWQGF PKIAAWFKKLSERPHAKTVSEWQYTNV GKIIRGE  
LTASMFKRKTA VLKGT E VFSGHNHGIPYLN EKAEDYFKRVEKEGAAVA

>P43387

MSTKLRYLHHPASQPCRAVHQFMLENNIEFQEEIVDITTDINEQPEFRERYNPTGQVPIL  
VDGDFTIWESAAIVYYLSEKYDCSSSWWGSTLEERGHIIQQYMHWAYTLRLGGGAFHWTI  
FAPMIYGYDKDFTVEVTKGRFLLYESFDILEKYWLKGDYLCGNTLSYPLDLCQDLVSH  
DAGRIIPTSMWDSHPKVKAWFARMMDREHAKTVSAWQYENVRKYLDDGVKLNFRKTAVL  
KGTEVYSGHNNGIINYNGDDDSFVTQHG

>P16006

MKASTVLQIAYLVSQESKCCSWKVGAVIEKNGRIISTGYNGSPAGGVNCCDYAAEQWLL  
NPKKHAI IQGHKPECVSFGSTDRFVLAKEHRSASHEWSSKNEIHAELNAIILFAARNGSSI  
EGATMYVTLSPCPDCAKAI AQSGIKKLVYCETYDKNKPGWDDILRNAGIEVFNVPKKNLN  
KLNWENINEFCGE

>P32321

MSEVSCKKRDDYLEWPEYFMAVAFLSAQRSKDPNSQVGACIVNSENKIVGIGYNGMPNGC  
SDDVLPWRRRTAENKLDTKYPVCHAELNAIMNKNSTDVKGCSMYVALFPCNECAKLI IQA  
GIKEVIFMSDKYHDSDEATAARLLFNMAGVTRFKFIPKCSKIVIDFDSINSRPSQKLQ

>P32395

MSKRETFNETFLKAARGEKADHTPVWYMRQAGRSQPEYRKLKEKYGLFEITHQPELCAVY  
TRLPVEQYGVDAAILYKDIMTPLPSIGVDVEIKNGIGPVIDQPIRSLADIEKLGQIDPEQ  
DVPYVLETIKLLVNEQLNVPLIGFSGAPFTLASYMI EGGPSKNYNKTKAFMYSMPDAWNL  
LMSKLABMI IVYVKAQIEAGAKAIQIFDSWVGALNQADYRTYIKPVMNRI FSELAKENVP  
LIMFVGASHLAGDWHDLPLDVVGLDWRLGIDEARSKGITKTVQGNLDPSILLAPWEVIE  
QKTKEILDQGMESDGFIFNLGHGVFPDVSPEVLKKLTA FVHEYSQNKKMGQYS

>P06132

MEANGLGPQGFPPELKNDFLRAAWGEETDYTPVWCMRQAGRYLPEFRETRAADFFSTCR  
SPEACCELTLQPLRRFPLDAAIIFSDILVVPQALGMEVTMVPKGPSFPEPLREEQDLER  
LRDPEVVASELGYVFQAITLTRQRLAGRVP LIGFAGAPWTLMTYMVEGGSSSTMAQAKRW  
LYQRPQASHQLLRILTDALVPYLVGQVVAGA QALQLFESHAGHLGPQLFNKFALPYIRDV  
AKQVKARLREAGLAPVPMIIFAKDGHFALEELA QAGYEVVGLDWTVAPKKARECVGKTVT  
LQGNLDPCALYASEEEIGQLVKQMLDDFGPHRYIANLGHGLYPDMDPEHVGA FVDAVHKH  
SRLLRQN

>Q42967

MMSCNYSFSSISPSSKSAFTSPSNFNLNPR LICCSAGGTVAEPKAINATQPLLLDAVRGK  
EVERPPVWLMRQAGRYMKS YQLLCEKYPLFRDRSENVDLVVEISLQPKVFRPDGVILFS  
DILTPLSGMNIPFDI IKGKGPVIFDPLRTAADVEK VREFIPEKSVPYVGEALTILRKEVN  
NQAAVLGFGVAPFTLASYVVEGGSSKNFTKIKRLAFAEPKVLHALLQKFATSMAYIRYQ  
ADSGAQAVQIFDSWATELSPVDFEEFSLPYLKQIVDSVKLTHPNLPLILYASGSGGLLER  
LPLTGVDVVS LDWTVDMADGRRRLGPNVAIQGNVDPGVLFGSKEFITNRINDTVKKAGKG  
KHILNLGHGIKVGTPEENFAHF FEIAKGLRY

>P27718

MNASEFRRRGKEMVDYVADYLEGIEGRQVFPDVPDGYLRPLIPTTAPQEPETFEAIEDI  
EKIIMPVTHWHSPYFFAYFPTASSYPAMLADMLCGAIGCIGFSWAASPACTELETVMMD  
WLGKMLQLPEAFLAGEAGEGGGVIQGTASEATLVALLAARTKVTRHLQAASPELMQAAIM  
EKLVAAYASDAQHSSVEKAGLIGGVRLKAIPSDGKFAMRASALQEALERDKAAGLIPFFV  
ATLGTTSCCSFDNLLLEVGPICHEEGLWLHVDAAYAGSAFICPEFRHLLNGVEFADSFNFN  
PHKWLLVNFDCSAMVWKKRTDLTGAFRLDPVYLRHSHQDSGLITDYRHWQLPLGRRFRSL

KMWFVFRMYGVKGLQAYIRKHVQLSHAFEALVRQDTRFEICAEVILGLVCFRLKGSNKLN  
EALLESINSAKKIHLVPCSLRDRFVLRFAICSRVVELAHVQLAWEHIQEMAATVLRAQGE  
EKAEIKN

>P17770

MGSIDSTNVAMSNPVGFEFKPLEAEFEFRKQAHMVDFIADYYKNVETYPVLSEVEPGYLR  
KRIPETAPYLPPEPLDDIMKDIQKDIIPGMTNWMSPNFYAFFPATVSSAAFLGEMLSTALN  
SVGFTWVSSPAATELEMIVMDWLAQILKLPKSFMSGTGGGVIQNTTSESILCTIIAARE  
RALEKLGPD SIGKLV CYGSDQHTMFPKTKCLAGIYPNNIRLIPTTVETDFGISPQVLRK  
MVEDDVAAGYVPLFLCATLGTSTTATDPVDSLSEIANEFGIWIHVDAAYAGSACICPEF  
RHYLDGIERVDSLSPHKWLLAYLDCTCLVWKQPHLLLRALTTNPEYLKNKQSDLDKVV  
DFKNWQIATGRKFRSLKLWLILRSYGVVNLQSHIRSDVAMGKMFEEWVRSRFEIVVPR  
NFSLVCFRLKPDVSSLHVEEVNKKLLDMLNSTGRVYMTHTIVGGIYMLRLAVGSSLTEEH  
HVRVWDLIQKLTDDLKEA

>P05031

MSHIPISNTIPTKQTDGNGKANISPDKLDPKV SIDMEAPEFKDFAKTMVDFIAEYLENIR  
ERRVLPEVKPGYKPLIPDAAPEKPEKWQDVMQDIERVIMPGVTHWHSPKFHAYFPTANS  
YPAIVADMLSGAIACIGFTWIASPACTELEVVMMDWLGKMLELPAEFLACSGGKGGGVIQ  
GTASESTLVALLGAKAKKLEVKELHPEWDEHTILGKLVGYCSDQAHSSVERAGLLGGVK  
LRSVQSENHRMRGAALKAIEQDVAEGLIPFYAVVTLGTTNSCAFDYLDECGPVGKHNHNL  
WIHVDAAYAGSAFICPEYRHLMKGIESADSFNPNPHKWMLVNFDCSAMWLKDP SWVNAF  
NVDPLYLKHD MQGSAPDYRHQIPLGRRFRALKLWFVLRRLYGVENLQAHIRRHCNFAKQF  
GDLCVADSRFELAAEINMGLVCFRLKGSNERNEALLKR INGRGHIHLVPAKIKDVYFLRM  
AICSRFTQSEDMEYSWKEVSAAADEMEQE

>Q9QWY8

MRSSASRLSSFSRDSLWNRMPDQISVSEFIAETTEDYNSPTTSSFTTRLHNCRNTVTLL  
EEALDQDR TALQKVKKSVKAIYNSGQDHVQNEENYAQVLDKFGSNFLSRDNPDLGTAFVK  
FSTLTKE LSTLLKNLLQGLSHNVI FTLD SLLKGD LKGVKGD LKKPF DKAWKDYETKFTKI  
EKEKREHAKQHGMIRTEITGAEIAEEMEKERRLFQLQMCEYLKVN EIKTKKGVDLLQNL  
IKYYHAQC NFFQDGLKTADK LKQYIEKLAADLYNIKQTQDEEKKQLTALRDLIKSSLQLD  
PKEVGGLYVASRANSRRDSQSRQGGYSMHQLQGNKEYGSEKKGFLLKSDGIRKVVQRR  
KCAVKNGILTISHATSNRQPAKLNLLTCQVKPNAEDKKSFDLISHNR TYHFQAEDEQDYI  
AWISVL TNSKEEAL TMAFRGEQSTGENSLEDLTKAIIEDVQRLPGNDICCD CGSSEPTWL  
STNLGILTCIECSGIHREMGVHISR IQSLELDKLG TSELLLAKNVGNNSFNDIMEANLPS  
PSPKPTPSSDMTVRKEYITAKYVDHRFSRKT CASSAKLNELLEAIKSRDLLALI QVYAE  
GVELMEPLLEPGQELGETALHLAVRTADQTS LHLVDFLVQNCGNLDKQTSVGN TVLHYCS  
MYGKPECLKLLLRSKPTVDIVNQGETALDI AKRLKATQCEDLLSQAKSGKFNPVHVEY  
EWNLRQDEMD ESDDDLDDKPSPIKKERSPRPQS FCHSSSISPQDKLALPGFSTPRDKQRL  
SYGAFTNQIFASTSTDLPTSPTSEAPPLPPRNAGKGPTGPPSTLPLGTQTSSGSSTLSKK  
RPPPPPPGHKRTLSDPPSPLPHGPPNKGAIPWGN DVGPSSSSKTANKFEGLSQQASTSSA  
KTALGPRVLPKLPQKVALRKTETSHHLSLDR TNIPPETFQKSSQLTELPQKPP LGELPPK  
PVELAPKPQVGELPPKPGELPPKPQLGDLPPKPQLSDLPPKPQMKDLPPKPQLGDL LAKS  
QAGDVSAKVQPPSEVTQRSHTGDLSPNVQSRDAIQKQASEDSNDLTP TLPETPVPLPRKI  
NTGKNKVRVVKTIYDCQADNDELTFIEGEVIVTGEEDQEW WIGHIEGQPERKGVFPVS  
FVHILSD

>Q9FV53

METLFRVSLRLLPVSAAVTCRSIRFPVSRPGSSHLLNRKLYNLPTSSSSSLSTKAGWLLG

LGEKKKKVDLPEIVASGDPVLHEKAREVDPGEIGSERIQKI IDDMIKVMRLAPGVGLAAP  
QIGVPLRIIVLEDTKEYISYAPKEEILAQERRHFDLMVMVNPVLKERSNKKALFFEGCLS  
VDGFRAAVERYLEVVTGYDRQGKRIEVNASGWQARILQHECDHLDGNLYVDKMPRTFR  
TVDNLDLPLAEGCPKLGPO

>P0ABP8

MATPHINAEMGDFADVVLMPGDPLRAKYIAETFLLEDAREVNNVRGMLGFTGTYYKGRKISV  
MGHGMGIPSCSIYTKELITDFGVKKIIRVGSCGAVLPHVKLRDVIIGMGACTDSKVNRI  
FKDHDFAAIADDFMVRNAVDAAKALGIDARVGNLFSADLFYSPDGEMFDVMEKYGILGVE  
MEAAGIYGVAAEFGAKALTICTVSDHIRTHEQTTAAERQTTFNMIKIALESVLLGDKE

>Q8JIS3

MEPDLSFRGRRALVTGAGKIGRAVAVALCKAGARVTALSRTAADLESVRECPGIEPLC  
LDLADWDATEAAVGAAGPFELLVNNAAVAMLQPFLQVTTREAVERSFDVNFRAVLHVSQIV  
ARQMIAOQLPGAIVNVSSQASQRALRDHAVYCSTKSALDMLSKVMAMELGPHKIRVNTVN  
PTVVMTDMGRINWSDPQKSAAMINRIPLGKFAEVDVNSILFLLSDKSAMTTGSSLMVD  
GGFLVS

>Q9YGV1

MAELWLSLSCMFSLLLLTNS SPLTFQERMLLKALGLNTRPNPIAPAPVPKSLRDI FEKGI  
NQDNPCMMEGFGVPGNIVRSYRDQGTIAAIEEPQGSCLKFFLFFDLSAVENKEQLTLGQ  
LEIKFKHNTYYGQFHLRLYRTLQLSLKGMRDSKMNRLKLVTSFRLLHKSLYFNLTQVA  
EDWKNPEKNMGLILEIYASSELAGNRSFVVEPIQSFYIYTSLLTVSLDPSNCKTQRAKR  
STHSSPPTPSNICKKRRLYIDFKDVGWQNWVIAPRGYMANCHGECYPPLTEMLRGTNHA  
VLQTLVHSVEPENTPLPCCAPTCLSPISMLYDNDNDNVVLRHYEDMVVDECGCK

>P15924

MSCNGGSHPRINTLGRMIRAESGPDRLRYEVTSGGGGTSRMYYSRRGVI TDQNSDGYCQTG  
TMSRHQNQNTIQELLQNCSDCLMRAELIVQPELKYGDGIQLTRSRELDECFQAQANDQMEI  
LDLSIREMRQMGQPCDAYQKRLQLQEQMRALYKAISVPRVRRASSKGGGGYTCQSGSGW  
DEFTKHVTSECLGWMRQORAEMDMVAWGVDLASVEQHINSHRGIHNSIGDYRWQLDKIKA  
DLREKSAIYQLEEEYENLLKASFERMDHLRQLQNI IQATSREIMWINDCEEEELLYDWS  
KNTNIAQKQEAFSIRMSQLEVEKEKELNKLKQESDQLVLNQHPPASDKIEAYMDTLQTQSW  
ILQITKCIDVHLKENAAYFQFFEEAQSTEAYLKGLQDSIRKKYPCDKNMPLQHLLLEQIKE  
LEKEREKILEYKRQVQNLVNKSKKIVQLKPRNPDYRSNKPIILRALCDYKQDQKIVHKG  
ECILKDNNSKWKYVTGPGGVDMLVPSVGLIIPPPNPLAVDLSCKIEQYEAIALALWNQL  
YINMKSLVSWHYCMIDIEKIRAMTIAKLTMRQEDYMKTIADLELHYQEFIRNSQGSEMF  
GDDDKRKIQSQFTDAQKHQTLVIQLPGYPQHQTVTTTEITHHGTCQDVNHNKVIETNRE  
NDKQETWMLMELQKIRRQIEHCEGRMTLKNLPLADQGS SHHITVKINELKSVQNSQAIA  
EVLNQLKDMLANFRGSEKYCYLQNEVFLGFQKLENINGVTDGYLNSLCTVRALLQAILQT  
EDMLKVYEARLTEEETVCLDLKVEAYRCGLKKIKNDLNLKKSLLATMKTELQKAQQIHS  
QTSQQYPLYDLDLGKFGKVTQLTDRWRQIDKQIDFRLWDLEKQIKQLRNYRDNQAFCK  
WLYDAKRRQDSLESKFGDSNTVMRFLNEQKNLHSEISGKRDKSEEVQKIAELCANSIKD  
YELQLASYTSGLTLLNIPIKRTMIQSPSGVILQEAADVHARYIELLTRSGDYRFLSEM  
LKSLEDLKLKNTKIEVLEELRLARDANSENCKNKFLDQNLQKYQAECSQFKAKLASLE  
ELKQAEALDGKSAQNLDKCYGQIKELNEKITRLTYEIEDEKRRRSVEDRFDQQKNDYD  
QLQKARQCEKENLGWQKLESEKAIKEKEYEIERLRVLLQEEGTRKREYENELAKVRNHYN  
EEMSNLRNKYETEINITKTTIKEISMQKEDDSKNLRNQLDRLSRENRLKDEIVRLNDSI  
LQATEQRRRAEENALQOKACGSEIMQKKQHLEIELKQVMQQRSEDNARHKQSLEEAAKTI  
QDKNKEIERLKAEFQEEAKRRWEYENELSKVRNNDYDEEISLKNQFETEINITKTTIHQL

TMQKEEDTSGYRAQIDNLTRENRLSSEEIKRLKNTLTQTTENLRRVEEDIQQQKATGSEV  
SQRKQOLEVELRQVTQMRTEESVRYKQSLDDAAKTIQDKNKEIERLKQLIDKETNDRKCL  
EDENARLQRVQYDLQKANS SATETINKLKVQE QELTRLRIDYERVSQERTVKDQDITRFQ  
NSLKELQLQKQKVEEELNRLKRTASEDSCKRKKLEEELEGMRRSLKEQA I K I T N L T Q Q L E  
QASIVKKRSEDDL R Q Q R D V L D G H L R E K Q R T Q E E L R R L S S E V E A L R R Q L L Q E Q E S V K Q A H L  
RNEHFQKAIEDKSRSLNESKIEIERLQSLTENLTKEHLMLEEELRNLRLLEYDDLRRGRSE  
ADSDKNATILELRSQ L Q I S N N R T L E L Q G L I N D L Q R E R E N L R Q E I E K F Q K Q A L E A S N R I Q E  
SKNQCTQVVQERESLLVKIKVLEQDKARLQRLEDELNRAKSTLEAETRVKQRLECEKQQI  
QNDLNQWKTQYSRKEEAIRKIESEREKSEREKNSLRSEIERLQAEIKRIEERCRRKLEDS  
TRETQSQLETERSRYQREIDKLRQRPYGGSHRETQTECEWTVDTSKLVFDGLRKKVTAMQL  
YEQQLIDKTTLDKLLKGGKSVVEEVASEIQPF LR G A G S I A G A S A S P K E K Y S L V E A K R K K L I  
SPESTVMLLEAQAATGGI IDPHRNEKLTVDSA I A R D L I D F D D R Q Q I Y A A E K A I T G F D D P F  
SGKTVSVSEAIKKNLIDRETGMRLLEAQ I A S G G V V D P V N S V F L P K D V A L A R G L I D R D L Y R  
SLNDPRDSQKNFVDPVTKKKVSYVQLKERCR I E P H T G L L L L S V Q K R S M S F Q G I R Q P V T V T  
ELVDSGILRPSTVNELESGQ I S Y D E V G E R I K D F L Q G S S C I A G I Y N E T T K Q K L G I Y E A M K I  
GLVRPGTALLELEAQAATGF I V D P V S N L R L P V E E A Y K R G L V G I E F K E K L L S A E R A V T G Y N  
DPETGNI I S L F Q A M N K E L I E K G H G I R L L E A Q I A T G G I I D P K E S H R L P V D I A Y K R G Y F N E E  
LSEILSDPSSDDTKGFFDPNTEENLTYLQ L K E R C I K D E E T G L C L L P L K E K K K Q V Q T S Q K N T  
LRKRRVVI V D P E T N K E M S V Q E A Y K K G L I D Y E T F K E L C E Q E C E W E E I T I T G S D G S T R V L V  
DRKTGSQYDIQDAIDKGLVDRKFFDQYRSGLSLTQFADMISLKNVGTSSSMGSGVSD  
VFSSSRHESVSKISTISSVRNLTIRSSSFSDTLEESSPIAAIFDTENLEKISITEGIERG  
IVDSITGQRLLEAQAQACTGGI IHPTTGQKLSLQDAVSQGV I D Q D M A T R L K P A Q K A F I G F E G  
VKGKKKMSAAEAVKEKWLPEYAGQRFLFQYLTGGLVDPEVHGRISTEEAIRKGFIDGRA  
AQLQDTSYAKILTCPKTKLKI SYKDAINRSMVEDITGLRLLLEAASVSSKGLPSPYNMS  
SAPGSRSGSRSGSRSGSRSGSRSGSRRGSF DATGNSSYSYSYSFS SSSSIGH

>P39653

MNNRMLSFP S M L F L L A F G I V L S V S A G T T H A D E L A N Q T A K V A D E A S I V V S T S Q A A V E Q T Q S  
QEKEI SPAMEEDT SNLSLKPNAQQESQSPDSSTELQDPAEQTPPETSDASAPATTSADSV  
EKYAQDATQ N Q S S T S N G P G V I R A T S A Q V T A T R S V V S S Q S G D A I V D L S A D K A S Y R Q G E D V N  
LSVDFKNTTDKEQDVTYADVYYIDNKLGTYKFSKHLKAGEGYKMOSGDLKIPASQFENN  
HGYYLLKVRVRDADNNTLSEVNKAI A V E S D W T K F P R Y G I V G G S Q D T N N S L L S K D A D R Y R A E  
IEKMKNMNINSYFFYDVYKTATNPFP S D E A T F K Q D W N T W S G S E I D T Q A V K D I V N Q V H D G G  
AVAMLYNMILAENTNTGEAPVLPETEYAYNSDDRGYGAQGPMSYTVKIPKDGQEEDVEI  
QRYYNPTSKLWQDYIADKMGQAMKNGGFDGWQGD T I G D N E V Y S Y A D K D S N D P S K K F W L T E  
GYAEFLRAIKEKLPNYLTVNDVNGEQIYRLKDGNDVIYNEIWPFGPALPSEMAAVKPN  
TVTSRPVLT K V R Q G D W K I S I V G A Y M E G S E N G G S K A D A E A G K S L Q T D A V L L T S A S I A A A G G  
YHMSLAALANQQDETDGGQIGVLQTAYYPTQSLKTSSSELTRKNNDYQQFITAYENVLRD  
GVENDDAQVNTFDSNGQKLSTDAKGITGNQVWTYGKKGDNFR TVQLLNLMGINSWKNED  
GSAANKTPDEQTNLTVKYALGDVSMEDAQRMANQTYVTSPDDWSKSNLQKVSASVKTDEN  
GKPVLVINVPKLTLDWVVYI SNANQESAPEADQAQT PAAQSSDDKVAENETSQPAAEDAK  
EQTSEPAQDQAAPAEQGGAINQAESPATEPEAEVTPATAEPAKVDAP EANQAADQAVSPE  
PASQEQAASQSQPEANQTPASNTPATQGNSEQPELNEPTAQTQPSSQVSPANTS V T P V A  
EQPTNQQAADKADQAPTNSTSTPESTSPVEPAATDQSSDTP I V T A G N L S V Q P A E T E T P T  
VPDKQGDSKANQSSTETPVADQVPAVAEQPQATEPNQAKPSVDKAAAPEALSLIQLKQQT  
PAIQAKEADDPEVDETKSEVTPDSGTDKAPEAGQVDSDKAPTVKPTPENNDNQPNAND  
ADKNKTNEADSNKANQDSTKGSADQSGKSTTPEDGPDNSSPEDPETKPSDPNTDTS D Q E  
QVKPSLPVVPNQTVDDPKTD D T P A N T D S A K S K K V A D A D K N K V A T D S E G R Q K S S E F P K E  
ATDLEKVGQPASPQVAGVKSSVATSPEKKSEPVSKTSTTSSSDKLPKTDGDKTVVLIIVL  
GLVFGMTGLLARHEKK

>Q55393

MFTTPLPPQKRLSTQTEAIAKNITAIRSLDWRDRFDIEFGLQNGTTYNSYLIQADKVAL  
VDSSEHKFRQLYLDLLQGLIDPQRIDYLI VSHTEPDHSGLVKDILQLNPRITVVATKVAL  
QFLDNFVHQPFERI QVKSGDRLDLGQGHDLDFVSAPNLHWPDTMLTYDPATEILFTCDVF  
GMHYCSDAVFDIDLKGIAPDYQFYDCLMGPNARSVLAAMKRMDNLGTISTVANGHGPLL  
RHNVGELLHRYRHWSSESQSKAEKTVVVVYVADYGYGDRLSQAI AKGITKTGVGVDMVDLS  
SADPQEI QELVGHASGVVLGMPPLQANADLSTNFGAVLAAMQPKQVFGLYESYGGDDEPI  
DPLRTKFLDLGLREAFKVIKVKDTPSESTYQLCDESGTDLGQNLIQAAKIKQLKSLSDSL  
EKAIGRISGGLYIITAQKGEVKGAMLASWVSQASFNPPGFTVAVAKDRAIESLMQVGDRF  
VLNILEEGNYQILMKHFLKRFPFGADRFAGVKTQTASNGSPILTDALAYLECEVASRMEC  
SDHWIVYSQVTNGRVAKAEGLTAVHHRKVGNY

>P15723

MAQIDFRKKINWHRRYRSPQGVKTEHEILRIFESDRGRI INSPAIRRLQKKTQVFPLERN  
AAVRTRLTHSMEVQQVGRYIAKEILSRLKELKLEAYGLDEL TGPFE SIVEMSCLMHDIG  
NPPFGHFGEAAINDWFRQLHPEDAESQPLTDDRC SVAALRLRDGEEPLNELRRKIRQDL  
CHFEGNAQGIRLVHTLMRMLTWAQVGGILKYTRPAWWRGETPETHHYLMKKPGYYLSEE  
AYIARLRKELNLALYSRFP L TWIMEAADDISYCVADLEDAVEKRIFTVEQLYHHLHEAWG  
QHEKGSLSL VVENAWEKSRNSLSRSTEDQFFMYLRVNTLNKLV P YAAQRFIDNLP AIF  
AGTFNHALLEDASECSDLLKLYKNVAVKHVFSHPDVERLELQGYRVISGLLEIYRPLLSL  
SLSDFTELVEKERVKRFP IESRLFHKLSTRHRLAYVEAVSKLP SDSPEFPLWEY YR CRL  
LQDYISGMTDLYAWDEYRRLMAVEQ

>P17556

MKIGIPKEIKNNENRVAMTPAGVVSLTHAGHERLAIETGGGIGSSFTDAEYVAAGAA YRC  
IGKEAWAQEMILKVKEPVASEYDYFYEGQILFTYLHLAPRAELTQALIDKKVVG IAYETV  
QLANGSLPLLTMPSEVAGKMATQIGAQYLEKNHGGKGILLGGVSGVHARKVTVIGGGIAG  
TNAAKIAVGMGADVTVIDLSPERLRQLEDMFGRDVQTLMSNPYNIAESVKHSDLVVGA VL  
IPGAKAPKLVSEEMI QSMQPGSVVVDIAIDQGGIFATSDRVTT HDDPTVYKHGVVHYAVA  
NMPGAVPRTSTIALTNNTIPYALQIANKGYKQACIDNPALKKGVNALEGHITYKAVAEAQ  
GLPYVNVDELIQ

>P45510

MSQFFFNQRTHLVSDVIDGAI IASPWNNLARLES DPAIRIVVRRDLNKNNVAVISGGGSG  
HEPAHVGF IGKGMTAAVCGDV FASPSVDAVLTAIQAVTGEAGCLLIVKNYTGDR LNFGL  
AAEKARRLGYNVEMLIVGDDISLPDNKHPRGIAGTILVHKIAGYFAER GYNLATV LREAQ  
YAASNTFSLGVALSSCHLPQETDAAPRHHPGHAELGMGIHGEPGASVIDTQNSAQV VNL M  
VDKLLAALPETGRLAVMINNLGGVSVAEMAIITRELASSPLHSRIDW LIGPASLV T ALDM  
KGFSLTAIVLEESIEKALLTEVETS NWPTPVPPREITCVVSSHASARVEFQPSANALVAG  
IVELVTATLSDL ETLNALDAKVG DGTGSTFAAAAAREIASLLHRQQLPLN NLATL FALI  
GERLTVVMGGSSGV LMSIFFTAAGQKLEQGANVVEALNTGLAQMKFYGGADEGDR TMIDA  
LQPALTSLLAQPKNLQAAFDAAQAGAERTCLSSKANAGRASYLSSESLLGNMDPGAQRLA  
MVFKALAESELG

>P76014

MSLSRTQIVNWLTRCGDIFSTESEYLTGLDREIGDADHGLNMNRGFSKVVEKLP A IADKD  
IGFILKNTGMTLLSSVGGASGPLFGTFFIRAAQATQARQSLTLEELYQMFRDGADGVISR  
GKAEPGDKTMCDVWVPVVESLRQSSEQNL SVPVALEAASSIAESAAQSTITMQARKGRAS  
YLGERSIGHQDPGATSVMMQMLALAAKE

>P37349

MMVNLVIVSHSSRLGEGVVELARQMLMSDSCKIAIAAGIDDPQNP IGTDAVKVMEAIESV  
ADADHVLVMMDMGSALLSAETALELLAPEIAAKVRLCAAPLVEGTLAATVSAASGADIDK  
VIFDAMHALEAKREQLGLPSSDTEISDTCPAYDEEARSLAVVIKRNRLHVRPASRLVYT  
LSTFNADMLLEKNGKCVTPESINQIALLQVRYNDTLRLIAKGPAAEALIAFRQLAEDNF  
GETEEVAPPTLRPVPPVSGKAFYYQPVLCTVQAKSTLTVEEEQDRLRQAIDFTLLDLMTL  
TAKAEASGLDDIAAIFSGHHTLLDDPELLAAASELLQHEHCTAEYAWQQVLKELSQQYQQ  
LDDEYLQARYIDVDDLHRTLVLHLTQTKEELPQFNSPTILLAENIYPSTVLQLDPAVVKG  
ICLSAGSPVSHSALIARELGIGWICQQGEKLYAIQPEETLTLDVKTQRFNRQG

>Q9CIW0

MKFYNSTNEIPEEMLKIDLTYPQLTYLPETGILYDNTYNEKTVPIISGGGSGHEPAHVG  
YVGSGLAAAVTGPLFIIPKSKNILKAIRQVNSGKGVFVI IKNFEADLKEFNIAIKEART  
EGIDVRYIVSHDDISVNAYNFHKRHRGVAGTILLHKILGAFKEGGSIDEIEQLALSLSLSP  
EITYTLGVALAPVHFPHQKTSFVLAEDVVSFGIGIHGEPGYRVEKFEFSERIAIELVNKLNK  
AEINWQKKANKNYILLVNLGSGTTLMELYSFQYDVMRLLLELEGLSVKFCKVGNLMTSCDM  
SGISLTLCSVKDPKWLVDYLNVP TGAF AW

>P57008

MKVGFBVWGRGMVGSVLMQRMKEENDFAHIPEAFFFTTSNVGGAAPDFGQAAKTLLDANDV  
AELAKMDIIVTCQGGDYTKSVFQPLRDSGWNGYWVDAASSLRMKDDAIVLDPVNRNVID  
NGLKNGVKNYIGGNCTVSLMLMALGGLFQNDLVEWATSMTYQAASGAGAKNMRELISGMG  
AIHAKVADELADPSSAILDIDRKVSDFLRSEDYPKANFGVPLAGSLIPWIDVDLNGGQSK  
EEWKGGVETNKILGRSDNPTVIDGLCVRIGSMRCHSQALTLKLLKDLVPSEIEAILAGAN  
DWVKVIPNEKEASIHELTPAKVTGTLSVPVGRIRKLEMGGEYISAF'TVGDQLLWGAAEPL  
RRVLRIVLGS L

>P13663

MAGKKIAGVLGATGQSVGRFILLLANHPHFELKVLGASSRSAGKKYVDAVNWKQTDLLPE  
SATDIIVSECKSEFFKECDIVFSGLDADYAGAI EKEFMEAGIAIVSNAKNYRREQDVPLI  
VPVNVPEHLDIVAQKLDTAKAQGKPRPGFIICISNCSTAGLVAPLKPLIEKFGPIDALTT  
TTLQAI SGAGFS PGVPGIDILDNIIPYIGGEEDKMEWETKKILAPLAEDKTHVKLLTPEE  
IKVSAQCNRVAVSDGHTECISLRFKNRPAPSVEQVKTCLKEYVCDAYKLGCHSAPKQTIH  
VLEQPDRPQPRLLDRNRDSGYVSVGR IREDPLLD FKMVVL SHNTIIGAAGSGVLIAEILL  
ARNLI

>P45513

MSYRMFDYLVPNVNFPGPNAISVVGGERCKLLGGKKALLVTDKGLRAIKDGAVDKTLTHLR  
EAGIDVVVFDGVEPNPKDTNVRDGLVFRKEHCDIIVTVGGGSPHDCGKIGIAATHEGD  
LYSYAGIETLTNPLPPIVAVNTTAGTASEVTRHCVL TNTKT KVKFVIVSWRNLP SVSIND  
PLMLLGKPAPLTAATGMDALTHAVEAYISKDANPVTDAAAIQAIRLIARNLRQAVLGSN  
LKARENMAYASLLAGMAFNANLGYVHAMAHQLGGLYDMPHG VANAVLLPHVARYNLIAN  
PEKFADIAEFMGENTDGLSTMDAAELAIHAIARLSADIGIPQHRLDLGVKEADFPYMAEM  
ALKDGNAFSNPRKNGEKEIAEIFRQAF

>Q9BPX1

MATGTRYAGKVVVVVTGGGRGIGAGIVRAVNSGARVVICDKDESGGRALEQELPGAVF I L  
CDVTQEDDVKTLVSETIRRFGRLCDVNVNAGHHPPPQRPEETSAQGFRQLLELNLGLTYT  
LTKLALPYLRKSGQNVINISL VGAI GQAQAVPYVATKGAVTAMTKALALDESPYGV RVN



CISPGNIWTPLEELAALMPDPRATIREGMLAQPLGRMGQPAEVGAAAVFLASEANFCTG  
IELLVTGGAELGYGCKASRSTPVDAPDIPS

>P14061

MARTVVLLITGCSSGIGLHLAVRLASDPSQSFKVYATLRDLKTQGRWLWEAARALACPPGSL  
ETLQLDVRDSKSVAAARERVTEGRVDVLCNAGLGLLGPLEALGEDAVASVLDVNVVGTV  
RMLQAFPLPDMKRRGSGRVLVTGSGVGLMGLPFNDVYCASKFALEGLCESLAVLLLLPFGVH  
LSLIECGPVHTAFMEKVLGSPEEVLDRDTHFTFHRFYQYLAHASKQVFREAAQNPEEVAEV  
FLTALRAPKPTLRYFTTTERFLPLLRMLDDPSGSNYVTAMHREVFVGDVPAKAEAGAEAGG  
GAGPGAEDAEGRSAVGDPELGDPPAAPQ

>P97852

MASPLRFDGRVVLVTGAGGGLGRAYALAFEAERGAALVVNDLGGDFKGVGKSSAADKVVVE  
EIRRRGGKAVANYDSVEAGEKLVKTALDTFGRIDVVVNAGILRDRSFSRISDEDWDIIQ  
RVHLRGSFQVTRAAWDHMKKQNYGRIIMTASASGIYGNFGQANYSAAKLGLLGLANTLVI  
EGRKNNIHCNTIAPNAGSRMTETVMPEDLVEALKPEYVAPLVLWLCHESCEENGGLFEVG  
AGWIGKLRWERTLGAIVRKRNPMTPEAVRDNWVKICDFSNASKPKSIQESTGGIEVLH  
KIDSEGISQNHTQQVASADASGFAGVVGHLKPSFSSSYTELQCMYALGVGASVKNPKDL  
KFVYEGSADFSCLPTFGVIVAQKSLMSGGLAEVPLSINFVKVLHGEQYLELYKPLPRSG  
ELKCEAVIADILDKGSGIVIVMDVYSYSGKELICYNQFSVFFVVGSGGFGKRTSEKPKAA  
VAVPSRPPDAVLRDTTSLNQAALYRLSGDSNPLHIDPSFASIAGFEKPIHLHGLCTFGFSA  
RHVLQQFADNDVSRFKAIKVRFKPVYPGQTLQTEMWKEGNRIHFQTKVQETGDIVISNA  
YVDLVPTSGVSAQTPSEGGALQSALVFGEIGRRLKDVGREVVKKVNAVFEWHITKNGNVA  
AKWTIDLKNGSGEVYQGPAGKSADTTITISDEDFMEVVLGKLNPNQNAFFSGRLKARGNIM  
LSQKLQMLKDYAKL

>P17584

MKIIAYGARVDEIQYFKQWAKDTGNTLEYHTEFLDENTVEWAKGFDGINSLQTPYAAGV  
FEKMAYGKIFLIRNVGTDNIDMTAMKQYGIKLSNVPAYSPAAIAEFALTDTLYLLRNM  
GKVQAQLQAGDYEKAGTFIGKELGQQTGVGMGTGHIGQVAIKLFGFGAKVIAYDPYPMK  
GDHPDFDYVSLEDLQSDVIDLHVPGIEQNTHINEAAFNLMKPGAIVINTARPNLIDT  
QAMLNLSKSGKLAGVGDIDTYEYETEDLLNLAKHGSFKDPLWDELGMPNVVLSPHIAYYT  
ETAVHNMVYFSLQHLVDLTKGETSTEVTGPAK

>Q9TV68

MALRWGIVSAGLISSDFTTVLGLTLPREHQVVAVAAARDLSRAKEFARKHDIPKAYGSYEE  
LAKDPNVEVAYIGTQHPQHKAAVLLCLAAGKAVLCEKPMGVNAAEVREMVAEARSRGLFL  
MEAIWTRFFPAIEALRAALSQGTGELRVARAEFGKNFTHIPRSVDWAQAGGGLLDLGIY  
CIQFISMVFGGQKPEKISAVGRRYETGVDDTVTVLLQYPGGIHGSFTCSISAQLSNMAFV  
SGTKGIGQILDPCWCPTLVLKGEHKEFPLPPAPSKEFNFTNGAGMAYEAKHVRECLRKG  
LKESPVIPLAESELLADILEEIRKAIGVTFPQDTR

>P27346

MSGKDVNVFEMAQSQVKNACDKLGMPEPAVYELLKEPMRVIEVSI PVKMDDGSIKTFKGFR  
SQHNDVAVGPTKGGIRFHQNVSRDEVKALSIWMTFKCSVTGIPYGGGKGGIIVDPSTLSQG  
ELERLSRGYIDGIYKLIGEKVDVPAPDVNTNGQIMSWMVDEYNKLTGQSSIGVITGKPVE  
FGGSLGRTAATGFGVAVTAREAAAKLGIDMKKAKIAVQGIGNVGSYTVLNCEKLGGTVVA  
MAEWCKSEGSYAIYNENGLDQAMLDYMKHEGNLLNFPGAKRISLEEFWASDVIDIVIPAA  
LENSITKEVAESIKAKLVCEAANGPTTPEADEVFAERGI VLTDPDILT NAGGVTVSYFEWV  
QNLGYGYWSEEEVEQKEEIAMVKAFESIWKIKEEYNVTMREAAVMHSIKKVAEAMKLRGW

Y

>P24295

MSKYVDRVIAEVEKKYADEPEFVQTVEEVLSSSLGPVVDAHPEYEEVALLERMVIPERVIE  
FRVPWEDDNGKVHVNTGYRVQFNGAIGPYKGGLRFAPS VNLSIMKFLGFEEQAFKDSLTTL  
PMGGAKGGSDFDPNGKSDREVMRFCAQAFMTELYRHIGPDIDVPAGDLGVGAREIGYMYGQ  
YRKIVGGFYNGVLTGKARSFGGSLVRPEATGYGSVYVEAVMKHENDTLVGKTVALAGFG  
NVAWGAACKLAELGAKAVTSLGPDGYIYDPEGITTEEKINYMLEMRASGRNKVQDYADKF  
GVQFFPGEKPPWGQKVDIIMPCATQNDVDLEQAKKIVANNVKYIIEVANMPTTNEALRFLM  
QQPNMVVAPSKAVNAGGVLVSGFEMSQNSERLSWTAEVDSKLVHVMQTDIHDGSAAAER  
YGLGYNLVAGANIVGFQKIADAMMAQGIWA

>P00365

MDSAPSAPVPAHKLVDRLKDQTPRHPSQPPTHVSYPKVNGNGHRVLRSATVGYVAPVFQ GK  
AEQMKQVKNIIVQGGWIPETLVLDGQIAWFYNELGIDDVYFQLENPQAVANHITSLYAAKV  
AAFSREDKREEIRLDMEASDHAIYIDTSEPGMTSFDGPRYEHRLSKYLDGDDTSKRFRV  
ETFRSPGVLGQKENSKAALRCYFVYQCLFVDSNADPKETRLEVISDRMFLAKATKNTKQI  
YQDIIQVAVSRHGPVIEVFDIEGSEEMRLVVAFRSRTAKGIFALSADLYHYGVTSRKY  
VEQFSNGITVMSIYLRPAANIDGKHPPLEQSIHQITKEISLLYCLPQNKFHNMFASGELS  
LQETIYAHCVVWFVQHFLNRLGTEYTSLIAALDPKNNSHVEILSKMKKRLRTETFTPDYI  
LEIISHPQLVRLYASFASVHLRVGSDYDRHLIAPTVMVLSVSDARLKEKITKDVSNH  
EEMVMTAFRVFNNAVLKTNFFPTTKVALSFRLNPSFLPEVEYPKPLYGMFLVITSESRGF  
HLRFKDIARGGIRIVKSRSEAYQINARNLFDENYGLASTQQRKNKDIPEGGSKGVILLD  
PKQQRHREAFKEYIDSILDLLLKAETPGIKNP IVDLYGKEEILFMGPDENTADLVDWAT  
EHARARGAPWWSFFTGKSPRLGGIPHDSYGMTTLSVREYVKGIRKLELDPKIRKMQT  
GGPDGDLGSNEILLSNETYTAIVDGSVGLCDPNGIDKDELRLRLAKARAMISNFDIAKLSK  
DGYRVLCDDTNVTLPNGEVVHNGTAFRNTYHLRDNGITDMFVPCGGRPESIDLSSVNKLI  
KDGKSTIPYIVEGANLFIQTDAKLRLEEAGCIVYKDASANKGGVTSSSLEVLASLSFDDK  
GFVTHMCHDSRGNAPFQYAVVKEVQNKIQDNARLEFEAIWREHEQTGLPRSVLSDKLSL  
AITSLDEDLQRSELWDNEKIRRSVLADALPNLLINKIGLDTI IERVPSYLRRAIFGSYLA  
SRFVYEFGSSPSQFAFYDFMSKRMGNINKE

>P33327

MLFDNKNRGALNSLNTPDIASLSSISSMSDYHVDFDPGKDLQREEVIDLLDQQGFIPDDLI  
EQEVDWFYNSLGIDDLFFSRESPQLISNI IHSLYASKLDFFAKSKFNIGIQRFLFSIKNKI  
ITNDNHAI FMESNTGVSISDSQQKNFKFASDAVGNDTLEHGKDTIKKNRIEMDDSCPPYE  
LDSEIDDLFLDNKSQKNCRVSVFWAPESELKLTFFVYESVYPNDDPAGVDISSQDLLKGD  
ESISDKTMYKVSSNENKLYGLLLKLVKEREQPVIKTTRSVENKDEIRLLVAYKRFTTKR  
YYSALNSLFHYKLPKSKFYLESFNVKDDDIIFSVYLNENQQLEDVLLHDVEAALKQVE  
REASLLYAI PNN SFHEVYQRRQFSPKEAIYAHIGAI F INHFVNRLGSDYQNLSSQITIKR  
NDTTLEI IVENLKRKL RNETLTQQT I INIMSKHYTI ISKLYKNFAQIHYYHNSTKDMEKT  
LSFQRLEKVEPFKNDQEF EAYLNKFI PNDSDDLILKTLNIFNKSILKTNFFITRKVAIS  
FRLDPSLVMTKFEYPETPYGIFVVGNTFKGFHIRFRDIARGGIRIVCSRNDIYDLNSK  
NVIDENYQLASTQQRKNKDIPEGGSKGVILLNPLVEHDQTFVAFSQYVDAMIDILINDP  
LKENYVNLKPKEEILFFGPDEGTAGFVDWATNHARVRNCPWWSFLTGKSPSLGGIPHDE  
YGMTSLGVRAYVNKIYETLNL TNSTVYKFQTTGGPDGDLGSNEILLSPPNECYLA I LDGSG  
VLCDPKGLDKDELCLAHKMI SDFDTSKLSNNGFFVSDAMDIMLPNGTIVANGTTFR  
NTFHTQIFKFDVHDVIFVPCGGRPN SITLNNLHYFVDEKTKGCKIPYIVEGANLFIQPA  
KNALEEHCILFKDASANKGGVTSSSMEVLASLALNDNDFVHKFIGDVS GERSALYKSYV  
VEVQSRIQKNAELEFGQLWNLNLQNLNGTHISEISNQLSFTINKLNDDLVLASQELWNLNKLK

RNYLLLDKIIIPKILIDVAGPQSVLENIPESYLKVLSSYLSSTFVYQNGIDVNIKGFLEF  
IGGLKREAEASA

>Q54KB7

MQSLARLSRTSLVQKGLVPQTIKKNYSSVSQAEIDNEPRFLECFKTFDFKAAGLTNLKPGV  
LNNMKECNVALRVEFPKNEHGDVDIIAGYRAQSHHRLPCKGGIRFSEEVDLQEVMA  
SLMTYKCAVVDVPPFGGAKGGVRIIDPKKYTVAQREKITRAYTLLLCQKNFIGPGVDVPAPD  
MGTGEQEMAWIRDYQAFNTNDVDSMACVTGKPISSGGIRGRTEATGLGVFYGIREFLSY  
EEVLKKTGLTPGIKGSIVIQGFQGNVGYFAAKFFEQAGAKVIAVAEHNGAVYNADGLNID  
ALNKYKLQHGTFIDFPGATNIVDSVKALEIPCDILIPAALAEKQIHIGNVADIQAKLIGEA  
ANGPMTPRADQILLNRGHVIPPDLNAGGVTVSYFEWLKLNLSHVRFGRLNKKWEESKK  
LLEFVESTVNKKLSEAERSLIHGADEIDIVRSGLEDTMQNAEATRKTANEKNTDYRS  
AALYNAIMKIKAVYESSGNVFS

>P54385

MYHLKSLARQGARRQELATLAKALPTAVMQSSRGYATEHQIPDRLKDVPTAKDPRFFDM  
VEYFFHRCQIAEESLVDMMKGLTRDEKKQKVKGILMLMQPCDHIEIAFPLRRDAGNY  
EMITGYRAQHSTHKTPKGGIRFSLDVSREVKALSALMTFFKACVDPVPPFGGAKAGLKIN  
PKEYSEHELEKITRRTLELAKKGFIPGPGVDVPAPDMGTGEREMSWIADTYAKTIGHLDI  
NAHACVTGKPINQGGIHRVSATGRGVFHGLENFINEANYMSQIGTTPGWGGKTFIVQGF  
GNVGLHTTRYLTRAGATCIGVIEHDGTLNPEGIDPKLLEDYKNEHGTIVGYQNAKPYEG  
ENLMFEKCDIFIPAAVEKVITSENANRIQAKIAEAANGPTTPAADKILIDRNILVIPPDL  
YINAGGVTVSFFEWLKNLNHVSYGRLTFKYERESNYHLLASVQQSIERIINDESQESLE  
RRFGRVGGRIPVTPSESFQKRISGASEKDIVHSGLDYTMERSARAIMKTAMKYNLGLDLR  
TAAYVNSIEKIIFTTYRDAGLAF

>O59650

MVEIDPFEMAVQQLERAAQFMDISEEAELEWLKRPMRIVEVSVPEMDDGSKVFTGFRVQ  
HNWARGPTKGGIRWHPAETLSTVKALATWMTWKVAVVDLPYGGGKGGIIVDPKLSEREQ  
ERLARSYIRAVYDVIGPWTIDIPAPDVYTNPKIMAWMMDEYETIMRRKGPAGFVITGKPPG  
VGGIVARMDATARGAAFTIREAAKALGWDDLKGTIAIQGYGNAGYYLHKIMSEEFGMKV  
VAVSDSKGGIYNPDGLPPADEVLKWKKEHGSVKDMPGTQNIITNEELLELEVDILAPSAIE  
GVITKENADNVKAKIVAEVANGPVTPPEADEILHEKGILQIPDFLCNAGGVTVSYFEWVQN  
INGFYWTVEETRKRLLDDKMTKAFWDVFNTHKEKNIHMRDAAVAVSRVYEAAMKHRGWVK  
K

>P96110

MPEKSLYEMAVEQFNRAASLMDLESDLAEVLRPKRVLIVEFPVRMDDGHVEVFTGYRVQ  
HNVARGPAKGGIRYHPDVTLDEVKALAFWMTWKTAVMNLPPFGGKGGVVRVDPKLSRNL  
ERLSRRFFSEIQVIIIGPYNDIPAPDVNTNADVMAWYMDTYSMNVGHTVLGIVTGKPVLEL  
GSKGREEATGRGVKVCAGLAMVDLIGIDPKKATVAVQGFQGNVQFAALLISQELGSKVVAV  
SDSRGGIYNPEGFDVEELIRYKKEHGTVVYTPKGERITNEELLELDVDILVPAALEGAIH  
AGNAERIKAKAVVEGANGPTTPEADEILSRRGILVVPDILANAGGVTVSYFEWVQDLQSF  
FWDLDQVRNALEKMMKGAFNDVMKVKEKYNVDMRTAAYILAIDRVAYATKKRGIYP

>P00370

MDQTYLSLESFLNHVQKRDPNQTEFAQAVREVMTTLWPFLEQNPKYRQMSLLERLIVEPERV  
IQFRVWVWDDRNQIQVNRAWRVQFSSAIGPYKGGMRFHPSVNLSILKFLGFQTFKNALT  
TLPMTGGGKGGSDFDPKGKSEGEVMRFCQALMTELYRHLGADTDVPAGDIGVGGREVGFM  
GMMKLSNNTACVFTGKGLSFGGSLIRPEATGYGLVYFTEAMLKRHGMGFEGMRVSVSGS

GNVAQYAIEKAMEFGARVITASDSSGTVVDESGFTKEKRLARLIEIKASRDGRVADYAKEF  
GLVYLEGQQPWSL PVDIALPCATQNELDVDAAHQLIANGVKAVAEGANMPTTIEATEL FQ  
QAGVLFAPGKAANAGGVATSGLEMAQNAARLGWKAEKVDARLHHIMLDIHHACVEHGGEG  
EQTNYVQGANIAGFVKVADAMLAQGVI

>P18819

MSNLPVEPEFEQAYKELASTLENSTLFEQHPYRRALQVVSVPERVIQFRVWVWENDKGEV  
QINRGYRVQFNSALGPYKGGRLRFHPSVNL SILKFLGFQIFKNALTGLNMGGGKGGSDFD  
PKGKSDSEIRRFCTAFMTELCKHIGADTDVPAGDIGVTGREVGF LFGQYRRIRNQWEGVL  
TGKGGSWGSLIRPEATGYGVVYVQHMIKHVTGGKESFAGKRVAISGSGNVAQYAALKV  
IELGGSVVSLSDSKGLIVKDESASFTPEEIALIADLKVARKQLSELATSSAFAGKFTYI  
PDARPWTNIPGKFEVALPSATQNEVSGEEAEHLIKSGVRYIAEGSNMGCTQAAIDIFEAH  
RNANPGDAIWYAPGKAANAGGVAVSGLEMAQNSARLSWTSEEVDARLKGIMEDCFKNGLE  
TAQKFATPAKGVLP SLVTGSNIAGFTKVAEAMKDQGDWW

>Q9S1F9

MSISKAIEKVEARYAHQPEFIQAVKEVAITIKPLYDAHPEYDKLKVFERLVEPDRVFGFR  
VNWEDDNGEIQINRGWRVQFSNALGPYKGGRLRFHPTVNSVLKFLGFQIFKNALTGLPI  
GGGKGGSDFDPKGKTDSEIRRF CYAFMRELHHYVVKDMDVPAGDIGVGGREVS YMFAMYK  
NLTRESTGVI TGKGVGF GGLMRTEATGYGAVYFLQNMLAAQNESIEGKKVLVSGAGNVS  
LHAAEKATLIGAIVLTVSDSKGTIYDAKGLNQEKIDWLKVQKDQHKPLADYVEVFGGEWM  
ADQKPWSIKADIAIP SATQNEINEEDAKLLVDNGVKYIVEGANMPLTAE AIDYIRLHRVH  
YAPGKAANAGGVAVSALEMSQNSVRQYQTFEQVDERLQGIMKDIHDSSAQASEMYGQTDE  
GYIDYMSGANMVGFKR VADALVAFGILN

>P07999

MYKDLEGKVVVITGSSTGLGKSMAIRFATEKAKVVVNYRSKEDANSVLEEEIKKVGGEA  
IAVKGDVTVESDVINLVQSAIKEFGKLDVMINNAGMENPVSSHEMSLSDWNKVIDTNLTG  
AFLGSREAIKYFVENDIKGTVINMSSVHEWKIPWPLFVHYAASKGGMKLMTETLAL EYAP  
KGIRVNNIGPAINTPINA EK FADPEQRADVESMIPMGYIGEP EEA AVAWLASSEASYV  
TGITL FADGGMTQYPSFQAGRG

>P36234

MSKKKILITWPLPEAAMARARES YDVIAHGDDPKITIDEMIETAKSVDALLITLNEKCRK  
EVIDRIPENIKCISTYSIGFDHIDL DACKARGIKVGNAPHGVTVATAEIAMLLLLGSARR  
AGEGEMIRTRSWPGWEPL ELVGEKLDNKTLGIYGFSGIQALAKRAQGFMDIDYFDTH  
RASSSDEASYQATFHDSLDSL SVSQFFSLNAPSTPETRYFFNKATIKSLPQGAI VVNTA  
RGDLVDNELVVAAL EAGRLAYAGFDVFAGEPNINEGYDLPNTFLFP HIGSAATQAREDM  
AHQANDLIDALFGGADMSYALA

>Q59516

MTKKVVFLDRESLDATVREFNFPHEYKEYESTWTPEEIVERLQGA EIAMINKVPMRADTL  
KQLPDLKLI AVAATGTDVVDKAAAKAQGITVNVIRNYAFNTVPEHV VGLMFALRR AIVPY  
ANSVRRGDWNKSKQFCYFDYPIYDIAGSTLGIIGYGALGKSI AKRAEALGMKVLAFDVFP  
QDGLVDLETILTQSDVITLHVPLTPDTKNMIGAEQLKMKRSAILINTARGGLVDEAALL  
QALKDGTIGGAGFDVVAQEPKDGNI L CDADLPNLIVTPHVAVASKEAMQI LADQLVDNV  
EAFVAGKPQNVVEA

>Q6QLL4

MAFLKKYLLTILMVFLAYYYY SANEFKFRPEMLQGGKVI VITGASKGIGREIAYHLAKMGAH

VVVTARSKEALQKVVARCLELGAASAHYIAGSMEDMTFAEEFVAEAGNLMGGLDMLILNH  
VLYNRLTFFHGEIDNVRKSMEVNFHFSFVVLVAAMPMLMQSQGSIAVVSSVAGKITYPELI  
APYSASKFALDGGFFSTLRSEFLVNKVNVSITLCLGLIDTETAIKATSGIYLGSPASPKEE  
CALEI IKGTALRQDEMYVYVGSRWVPYLLGNPGRKIMEFLSAAEYNWDNVLSNEKLYGRWA

>P14295

MARKIGI IGLGNVGA AVAHGLIAQGVADDYVVIDANEAKVKADQIDFQDAMANLEAHGNI  
VINDWAALADADVVI STLGNIKLQQDNPTGDRFAELKFTSSMVQSVGTNLKESGFHGVLV  
VISNPVDVITALFQHVTFGPAHKVIGTGTLLDTARMQRAVGEAFDLDP RSVSGYNLGEHG  
NSQFVAWSTVRVMGQPIVTLADAGDIDLAAIEEEEARKGGFTVLNGKGYTSYGVATSAIRI  
AKAVMADAHAE LVVSNRRDDMGMYLSYPAI IGRDGVLAETTLDDLTTDEQEKLQSRDYIQ  
QRFDEIVDTL

>P13154

MELFKYMETYDYEQVLFQDKESGLKAI IAIHDTTLGPALGGTRMWMYNSEEEALEDALR  
LARGMTYKNAAGLNLGGGKTVI IGDPRKDKNEAMFRAFGRFIQGLNGRYITAEDVGTTV  
ADMDI IYQETDYVTGISPEFGSSGNP SPATAYGVYRGMKAAAKEAFGSDSLEGKVAVVQG  
VGNVAYHLCRHLHEEGAKLIVTDINKEVVARAVEEFGAKAVDPNDIYGVECDIFAPCALG  
GIINDQTIPQLKAKVIAGSADNQLKEPRHGD IHEMGIVYAPDYVINAGGVINVADELYG  
YNRERAMKKIEQIYDNI EKVFAIAKRDNIP TYVAADRMAEER IETMRKARSPFLQNGHHI  
LSRRRAR

>P26829

MVLEPQIKSQLNQYLQLMEGDVLLKVSAGNDKVS E DMLS L VDELASMSRITVEKTNLER  
TPSFSVNRPGEDTGIVFAGIPLGHEFTSLVLALLQVSGRAPKAEQNVIDQIKNIEGEYHF  
ESYISLSCQNC PDVVQALNLM SVLNPGI SHTMIDGAAFKDEVESKDIMAVPTVYLN G E S F  
TSGRMTVEEILAQLGSGPDASELADKDPFDVLVVG GPAGASSAIYAARKGIRTGIVADR  
FGGQIMDTLSIENFISQKYTEGPKLAASLEEHVKEYDIDVMKLQRAKRLEKKDLIEIELE  
NGAVLKS KSVILSTGARWRNVGVPGEQEFKNKG VAYCPHCDGPLFEGKDVAVIGGNSGV  
EAAIDLAGIVNHVTVLEFMP ELKADEVLQERLNSLPNVTVIKNAQTKEITGDDK VNGISY  
MDRDTEEVHHIELAGVFVQIGLVPNTDWDGTLERNRFGEIVVDSHGATNVPGVFAAGDC  
TNSAYKQII IISMSGATAALGAFDYLI RNTTPAESAAAK

>P00386

MAITLSATSLPISAADHHPLPLTVGVLGSGHAGTALA AWFASRHVPTALWAPADHPGSIS  
AIKANEGVITTEGMINGPFRVSACDDLAAVIRSSRVLIIVTRADVHDSFVNELANFN GEL  
ATKDIVVVCVGHGFSIKYERQLRFKRIFETDNSPITSKLS DQKKNVNIKEMKASFGLSCF  
PIHRDDAGVIDLPEDTKNIFAQ LFSARI ICIPPLQV LFFSNCITHAVPAVMNIGRLRDP A  
NSLTKRAEKWLELDERTPRAEKGFFFYGEGSNTYVCNVQE QIDHERRKVAAACGLRLNS  
LLQECNDEYD TDYETLREYCLAPSPHN VHACPDNMEHRYFSEELCSLEDVAAIAIANI  
ELPLTHAFINI IHAGKGINPTGKSSSVIGNFSSSDLIRFGATHVFNKDEMVE

>P31116

MSTKVVNVAVIGAGVVGS AFLDQLLAMKSTITYNLVLLAE AERSLISKDF SPLNVGSDWK  
AALAASTTKTLPLDDLIAHLKTS PKPVILVDNTSSAYIAGFYTKFVENGISIATPNKKAF  
SSDLATWKALFSNKPTNGFVYHEATV GAGLP IISFLREI IQTGDEVEKIEGIFSGTLSYI  
FNEFSTSQANDVKFSDVVKVAKKLGYTEPDP RDDL NGLDVARKVTIVGRISGVEVESPTS  
FPVQSLIPKPLESVKSADEFLEKLS DYDKDLTQLKKEAATENKVLRF IGKVDVATKSVSV  
GIEKYDYSHPFASLKGSDNVISIKTKRYTNPVVIQ GAGAGAAVTAAGVLGDVIKIAQRL

>P0C002

MVTVFGILNLTEDSFFDESRRLLDPAGAVTAAIEMLRVGSVDVVDVGPAAASHPDARPVSPAD  
EIRRIAPLLDALSDQMHRVSIIDSFQPETQRYALKRGGVYLNLDIQGFDPALYPDIAEADC  
RLVVMHSAQRDGIATRGTGHLRPEDALDEIVRFFFEARVSALRRSGVAADRLLIDPDMGFLL  
SPAPETSLHVLNQLKLSALGLPLLVSVSRKSFLGATVGLPVKDLGPASLAAELHAIGN  
GADYVRTHAPGDLRSAITFSETLAKFRSRDARDRGLDHA

>P0AC13

MKLFAQGTSLDLSHPHVMGILNVTPDSFSDGGTHNSLIDAVKHANLMINAGATI IDVGGE  
STRPGAAEVSVEEELQRVIPVVEAIAQRFEVWISVDTSKPEVIRESAKVGAGHI INDIRSL  
SEPGALEAAAETGLPVCLMHMQGNPKTMQEAPKYDDVFAEVNRYFIEQIARCEQAGIAKE  
KLLLDPGFGFGKLNLSHNYSLLARLAEFHHFNLPLLVGMSRKS MIGQLLNVGPSERLSGSL  
ACAVIAAMQGAHI IRVHVDVKETVEAMRVVEATLSAKENKRYE

>Q51161

MARHVWQAGRFEIGLDKPKIMGIVNLTTPDSFSDGGVYSQNAQTALAHAEQLLKEGADILD  
IGGESTRSGADYVSPREEWARVEPVLAEVAGWGPISLDTRRTVIMEKALALGGIDI IND  
VAALNDEGAVELLARQADTGICLMHMQGLPKTMQINPKYQDVVGEVARYLKARSAECIAA  
GIAPQRIILDPGFGSGFGKPLQHNIALMRHLPELMAETGFPLLI GVSRKSTIGELTGEAN  
AAERVHGSVAAALASVARGAQIVRVHVDVKATADALKVWEALGINL

>O05701

MTKTKIMGILNVTPDSFSDGGKFNNEVASVTRVKAMMDEGADI IDVGGVSTRPGHEMITV  
EEELNRVLPVVEAIVGFDVKISVDTFRSEVAEACLKLGVDI INDQWAGLYDHRMFQVAK  
YDAEIVLMHNGNGNRDEPVVEEMLTSLLAQAHQAKIAGIPSNKIWLDPGIGFAKTRNEEA  
EVMARLDELVATEYPVLLATSRKRFTKEMMGYDTPVERDEVTAATTAYGIMKGVRAVRV  
HNVELNAKLAKGIDFLKENENARHNFS

>P05382

MSSKANHAKTVICGI INVTPDSFSDGGQFFALEQALQQARKLIAEGASMLDIGGESTRPG  
SSYVEIEEEIQRVVPVIKAIKESDVLISIDTWKSQVAEAAALAGADLVNDITGLMGDEK  
MAYVVAEARAKVVMFNPVMARPHPSLIFPHFGFGQTFTEKELADFE TLP IEDLMVAF  
FERALARAAEAGIAPENILLDPGIGFGLTKKENLLLLLRDLDKLHQKGYPIFLGVSRRKRFV  
INILEENGFEVNPETELGFRNRDTASAHVTSIAARQGVVVRVHVDVASHRMAVEIASAIR  
LADEAENLDLKQYK

>P0C0G0

MKIGKFVIDGNAAIMGILNVTPDSFSDGGSYTTVQKVLQQVDQLIAGGAKI IDVGGESTR  
PGYQFVSAADEIERVVPMIKAIKAKYDVLISIDTYKTETARAALAEAGADILNDVRAGLYD  
GEMLALAAEYDVPI ILMHNQKEEVYQDVTQDVCDFLSARAQAAIDAGVPKDNIWIDPGFG  
FPKSVQHNMELKGLDHVCQLGYPVLFGISRKGVDALLGGNTKAKERDGATAALSAYAL  
GKGCQLVRVHVDVKANQEIVAVLSQLM

>Q6UWP2

MARPGMERWRDRLLALVTGASGGIGAAVARALVQQGLKVVGCARTVGNIEELAAECKSAGY  
PGTLIPYRCDLSNEEDILSMFSAIRSQHSQVDICINNAGLARPD TLLSGSTSGWKDMFNV  
NVLALSICTREAYQSMKERNVDDGHI ININSMGHRVLP LSVTHFY SATKYAVTALTEGL  
RQELREAQTHIRATCISPGVVETQFAFKLHDKDPEKAAAATYEQMKCLKPEDVAEAVIYVL  
STPAHIQIGDIQMRPTEQVT

>Q06004

MTHTVPQNMKAAVMHNTREIKIETLPVVDINHDEVLIKVMAVGICGSDLHYTNGRIGNY  
VVEKPFILGHECAGEIAAVGSSVDQFKVGDRAVEPGVTCGRCEACKEGRYNLCPDVQFL  
ATPPVDGAFVQYIKMRQDFVFLIPDSLSYEEAALIEPFSVGIHAAARTKLQPGSTIAIMG  
MGPVGLMAVAAAFAFGAGTIIVTDLEPLRLEAAKKMGATHIINIREQDALEEIKTITNDR  
GVDVAWETAGNPAALQSALASVRRGGKLAIVGLPSQNEIPLNVPFADNEIDIYGIFRYA  
NTYPKGIEFLASGIVDTKHLVTDQYSLEQTQDAMERALQFKNECLKVMVYPNR

>Q00796

MAAAKPNLNSLVVHGPDLRLENYPIPEPGPNEVLLRMHSVGICGSDVHYWEYGRIGNF  
IVKKPMLGHEASGTVEKVGSSVKHLKPGDRVAIEPGAPRENDEFCKMGRYNLSPSIFFC  
ATPPDDGNLRCFYKHNAAFICYKLPDNTVFEEGALIEPLSVGIHACRRGGVTLGHKVLVCG  
AGPIGMVTLVAKAMGAAQVVVTDLSATRLSKAKEIGADLVLQISKESQEIARKVEGLL  
GCKPEVTIECTGAEASIQAGIYATRSGGTLVVLVGLGSEMTTVPLLHAAIREVDIKGVFRY  
CNTWPVAISMLASKSVNVKPLVTHRFPLEKALEAFETFKKGLGLKIMLKCDPSDQNP

>Q59787

MRLDGKTALITGSARGIGRAFAEAYVREGARVAIADINLEAARATAAEIGPAACAIALDV  
TDQASIDRCVAELLDWRWSIDILVNNAALFDLAPIVEITRESYDRLFAINVSGTLFMMQA  
VARAMIAGRRGGKIINMASQAGRRGEALVGVYCATKAAVISLTQSAGLNLIRHGINVNAI  
APGVVDGEHWDGVDKAFADYENLPRGEKKRQVGAAPVFGRMGRAEDLTGMAIFLATPEAD  
YIVAQTYNVDDGGNWS

>P16099

MARDPKHDILFEPIQIGPKTLRNRFYQVPHCIGAGSDKPGFQSAHRSVKAEGGWAALNTE  
YCSINPESDDTHRLSARIWDEGDVRNLKAMTDEVHKGALAGVELWYGGAHAPNMESRAT  
PRGPSQYASEFETLSYCKEMDLSDIAQVQQFYVDAAKRSRDAGFDIVYVYGAHSYLPQLQF  
LNPYYNKRTRDKYGGSLNRRARFWLETLEKVKHAVGSDCAIATRFVDTVYGPQIEAEVD  
GQKFVEMADSLVDMWDITIGDIAEWGEDAGPSRFYQQGHTIPWVKLVKQVSKKPVLGVGR  
YTDPEKMIIEIVTKGYADIIGCARPSIADPFLPQKVEQGRYDDIRVCIGCNVCISRWEIGG  
PPMICTQNATAGEEYRRGWHPEKFRQTKNKDSVLIAGVPSGSEAAARVLMESGYTVHLTD  
TAEKIGGHLNQAALPGLGEWSYHRDYRETQITKLLKKNKESQLALGQKPMTADDVLQYG  
ADKVI IATGARWNTDGTNCLTHDPIPGADASLPDQLTPEQVMDGKKKIGKRVVILNADTY  
FMAPSLAEKLATAGHEVTIVSGVHLANYMHFTLEYPNMMRRLHELHVEELGDHFCSRIEP  
GRMEIYNIWGDGSKRTYRGPVSPRDANTSHRWIEFDSLVLVTGRHSECTLWNLKARES  
EWAENDIKGIYLIIGDAEAPRLIADATFTGHRVAREIEEANPQIAIPYKRETIWGTPHMP  
GGNFKIEYKV

>P49365

MADNQIPSSVADAVLVKSIEMPEGSQKVEELDFNKFKGRPITVDDLQGMKHMFGQASSM  
CEAVRIINEMRAYRDPTTSEKTTIFLGYTSNLISSGLRGTLRYLQHKHVSIAIVTTAGGI  
EEDFIKCLGDTYMSSFSAVGADLRSGKLNRIGNLVVPSNYCAFEDWVVPILDKMLEEQE  
ASRGTEINEINWTPSKVIHRLGKEINDERSVYYWAWKNDIPVFCPALTDGSLGDMLYFHTF  
KASPQLRIDIVEDIRKINTI AVRAKRAGMIILGGGIVKHHIANACLMRNGAESAVYINT  
AQEFDGSDAGARPDEAVSWGKIKVGADAVKVYMEATAAFPPIVANTFAKEDGL

>Q9SC80

MGEALNVMESVRSIVFKESENLEGSATKIEGYDFNKGVNYAELFKSMASSTGFQAANLGD  
IQIVNQMLDWRLSHEQPMEDCSEEEERDVAYRESVTCKIFLGF'TSNLVSSGVRDTRYLQ  
HRMVDVVVTTAGGIEEDLIKCLAPTYKGFSLPGAVLRSKGLNRIGNLLVPNDNYCKFEN

WIIPFDQMYEEQIKEKVLWTPSKVIARLAKEINDETSYLYWAYKNRIPVFCPGLTDGSL  
GDMLYFHSFKKGGDPDNPDLNPLI IDIVGDIRAMNSEAVHAGSRKTGMI ILGGGLPKHHV  
CNANMMRNGADFAVYINTAQEFDGSDSGARPDEAVSWGKIRGGAKTVKVHCDATIAFPIL  
VAETFAAKRKELSHIRCQV

>P38791

MSDINEKLPELLQDAVLKASVIPDDFVKVQGIDYSKPEATNM RATDLIEAMKTMGFQAS  
SVGTACEI IDSMRSWRGKHIDELDDHEKKGCFDEEGYQKTTIFMGYTSNLISSGVRETLR  
YLVQHMKMVDVAVVTSAGGVEEDLIKCLAPTYLGEFALKGKSLRDQGMNRI GNLLVPNDNYC  
KFEEWIVPILDKMLEEQDEYVKKHGADCLEANQD VDSPIWTPSKMIDRFGKEINDESSVL  
YWAHKNKIPIFCPSLTDG SIGDMLFFHTFKASPKQLRVDIVGDIRKINSMSMAAYRAGMI  
ILGGGLIKHHIANACLMRNGADYAVYINTGQ EYDGS DAGARPDEAVSWGKIKAEAKSVKL  
FADVTTVLPLIVAATFASGKPIKKVKN

>O08808

MEPSGGGLGPRGTRDKKKGRSPDEL PATGGDGGKHKKFLERFTSMRIKKEKEKPNSAHR  
NSSASYGDDPTAQSLQDISDEQVLVLF EQMLVDMNLNEEKQQPLREKDIVIKREMVSQYL  
HTSKAGMNQKESSRSAMMYIQELRSGLRDMHLLSCL ESLRVSLNPNVSWVQTFGAEGLA  
SLLDILKRLHDEKEETSGNYDSRNQHEIIRCLKAFMNNKFGIKTMLETEEGILLVLRAM  
PAVPNMIDAAKLLSALCILPQPEDMNERVLEAMTERAEMDEVERFQPLLDGLKSGT SIA  
LKVGCLQLINALITPAEELDFRVHIRSELMRLGLHQVLQELREIENEDMKVQLCVFDEQG  
DEDFDLKGRLLDDIRMEDDFGEVFIILNTVKDSKAEPHFLSILQHLLVLRNDYEARPQ  
YYKLIIEECVSQIVLHKNGTDPDFKCRHLQIDIERLVDQMIDKTKVEKSEAKATELEKKLD  
SELTARHELQVEMKKMENDFEQKLQDLQGEKDALDSEKQQITAQKQDLEAEVSKLTGEVA  
KLSKELEDAKNEMASLSAVVAVPSVSSSAAVPPAPPLPGD SGTVIPPPPPPPPLPGGVVP  
PSPPLPPGTCIPPPPLPGGACIPPPPLPGSAAIPPPPLPGVASIPPPPLPGATAIP  
PPPPPLGATAIPPPPLPGGTGIPPPPLPGSVGVPPPPPLPGGGLPPPPPPFGAPG  
IPPPPPGMGVPPPPFGFGVPAAPVLPFGLTPKKVYKPEVQLRRPNWSKFVAEDLSQDCF  
WTKVKEDRFENNELFAKLTAFSAQTKTSKAKKDQEGGEEKKSVQKKVKELKVLD SKTA  
QNLSIFLGSFRMPYQEIKNVILEVNEAVLTESMIQNLIKQMPPEQLKMLSELKEEYDDL  
AESEQFGVVMGTVPRLRPRNLAILFKLQFSEQVENIKPEIVSVTAACEELRKSENFSSLL  
ELTLLVGNMAGSRNAGAFGFNISFLCKLRDTKSADQKMTLLHFLAELCENDHPEVLKF  
PDELAHVEKASRVAENLQKSLDQMKQIADVERDVQNFPAATDEKDKFVEKMTSFVKDA  
QEYQNKLRMMHSNMETLYKELGDYFVFDPKKLSVEEFFMDLHNFRNMFLQAVKENQKRRE  
TEEKMRRAKLAKEKAEKERLEKQKREQLIDMNAEGDETGVMDSLLEALQSGAAFRRRRG  
PRQVNRKAGCAVTSLLASELTKDDAMAPGVKVPKKSEGVPTILEEAKELVGRAS

>Q06143

MSTNAKESAGKNIKYPWWYGAAGIFATMVTHPLDLAKVRLQAAPMPKPTLFRMLESILA  
NEGVVGLYSGLSAAVLRQCTYTTVRF GAYDLLKENVIPREQLTNMAYLLPCSMFSGAIGG  
LAGNFADVVNIRMQNSALEAAKRRNYKNAIDGVYKIYRYEGGLKTLFTGWKPNMVRGIL  
MTASQVVTYDVFKNYLVTKLDFDASKNYTHLTASLLAGLVATTVCSPADVMKTRIMNGSG  
DHQPALKILADAVRKEGPSFMFRGWLPSFTRLGPFTMLIFFAIEQLKKHRVGMPEKEDK

>P69771

MSRNSAAGLENTLFQLKFTSKQLQKQANKASKEEKQETNKLKRALNENEDISR IYASNAI  
RKKNERLQLLKLASRVDSVASRVQTAVTMRQVSASMGQVCKGMDKALQNMNLQQITMIMD  
KFEQQFEDLDTSVNVYEDMGVNSDAMLVDNDKVD ELSKVDENGMELKQSAKLDNVPEI  
KAKEVNVDEKEDKLAQRLRALRG



>P11959

MVVGDFAIETETLVVVGAGPGGYVAAIRAAQLGQKVTIVEKGNLGGVCLNVGCIPSKALIS  
ASHRYEQAKHSEEMGIKAENVTIDFAKVQEWKASVVKLLTGGVEGLLKGNKVEIVKGEAY  
FVDANTVRVNVGDSAQTYTFKNAI IATGSRPIELPNFKFSNRILDSTGALNNGEVPKSLV  
VIGGGYIGIELGTAYANFGTKVTILEGAGEILSGFEKQMAAI IKKRLKKKGVEVVTNALA  
KGAEEREDGVTVTYEANGETKTIADADYVLVTVGRRPNTDELGLEQIGIKMTNRGLIEVDQ  
QCRTSVPNIFAIGDIVPGPALAHKASYEGKVAAEAIAGHPSAVDYVAIPAVVFSDEPCAS  
VGYFEQQAKDEGIDVIAAKFPFAANGRALALNDTDGFLKLVVRKEDGVIIGAQIIGPNAS  
DMIAELGLAIEAGMTAEDIALTIHAHPTLGEIAMEAAEVALGTPIHIIITK

>P09063

MQQTIQTLLIIGGGPGGYVAAIRAGQLGIPTVLVEGQALGGTCLNIGCIPSKALIHVAE  
QFHQASRFTEPSPLGISVASPRLDIGQSVAWKDGIVDRLTTGVAALLKKHGVKVVHGWA  
VLDGKQVEVDGQRIQCEHLLLATGSSSVELPMLPLGGPVISSTEALAPKALPQHLVVVGG  
GYIGLELGIAYRKLGAQVSVVEARERILPTYDSELTAPVAESLKKLGIALLHGHVSEGYE  
NGCLLANDGKGGQLRLEADRVLVAVGRRPRTKGFNLECLDLKMNGAAIAIDERCQTSMHN  
VWAIQDVAGEPMLAHRAMAQGEMVAEIIAGKARRFEPAAIAAVCF'TDPEVVVVGKTPEQA  
SQOGLDCIVAQFPFAANGRAMSLESKSGFVRRVARRDNHLILGWQAVGVAVSELSTAFQA  
SLEMGACLEDVAGTIHAHPTLGEAVQEAALRALGHALHI

>P31052

MTQKFDVVVIGAGPGGYVAAIKAAQLGLKTACIEKYTDAEGKLALGGTCLNVGCIPSKAL  
LDSSWKYKEAKESFNHVGISTGEVKMDVAAMVGRKAGIVKNLTGGVATLFGKANGVTSIQG  
HGKLLAGKKVEVTKADGTTEVIEAENVILASGSRPIDIPPAPVDQNVIVDSTGALEFQAV  
PKRLGVIAGVIGLELGSVWARLGAEVTVLEALDFTFLMAADTAVSKEAQKTLTKQGLDIK  
LGARVTGSKVNGNEVEVTYTNAEAGEQKITFDKLI VAVGRRPVTTDLAADSGVTIDERGY  
IFVDDYCATSVPGVYAIQDVVRGMMLAHKASEEGIMVVERIKGHKAQMNVDLIPSVIYTH  
PEIAWVGKTEQALKAEGVEVNVGTFPFAASGRAMAANDTGGFVKVIADAKTDRVLGVHVI  
GPSAAELVQOGAIAMEFGTSAEDLGMMVFSHPPTLSEALHEAALAVNGGAIHVANRKKR

>P31046

MKSYDVVIIGGGPGGYNAAIRAGQLGLTVACVEGRSTLGGTCLNVGCMPKALLHASELY  
EAASGDEFALHGIIEVKPTLNLAQMMKQKDESVTGLTKGIEYLFKRNKVDWIKGWGRLDGV  
GKVVVKAEDGSETALQAKDIVIATGSEPTPLPGVTIDNQRIDSTGALS LPQVPKHLVVI  
GAGVIGLELGSVWRRLSQVTVIEYLDRI CPGTDTE TAKTLQKALAKQGMVFKLGSKVTQ  
ATASADGVSLVLEPAAGGTAESLQADYVLVAIGRRPYTKGLNLESVGLTDRKGM LAQRT  
PPTSVPGVVWIGDVTSGPMLAHKAEDEAVACIERIAGKPHEVNYNLIPGVIIYTRPELATV  
GKTEEQLKAEGRAYKVGKFPFTANSRAKINHETEGFAKVIADAETDEV LGVHLVGPSVSE  
MIGEFVAMEFSASAEDIALTCHPHPTRSEALRQAAMNVDGMAMQI

>P0A9P0

MSTEIKTQVVVLGAGPAGYSAAFRCADLGLTIVIVERYNTLGGVCLNVGCIPSKALLHVA  
KVIEEAKALAEHGIIVFGPKTDIDKIRTWKEKVINQLTGGLAGMAKGRKVKVNVNGLGKFT  
GANTLEVEGENGKTVINFDNAIIAAGSRPIQLPFI PHEDPRIWDS'TDALELKEVPERLLV  
MGGGIIGLEMGTVYHALGSQIDVEMFDQVIPAADKDIVKVF'TKRISKKFNLMLETKVTA  
VEAKEDGIYVTMEGKKAPAEPQRYDAVLVAIGRVPNGKNLDAGKAGVEVDDRGRFIRVDKQ  
LRTNVPHIFAIGDIVGQPM LAHKGVHEGHVAAEVIAGKKHYFDPKVIPSIIAYTEPEVAWV  
GLTEKEAKEKGISYETATFPWAASGRAIASDCADGMTKLIFDKESHVIGGAIIVGTNGGE  
LLGEIGLAIEMGCAEDIALTIHAHPTLHESVGLAAEVFEGSITDLPNPKAKKK

>Q04829

MVVGDIATGTELLVIGAGPGGYVAAIRAAQNGIDTTLVEKDAYGGTCLNYGCIPSKALIT  
GANLAHEAGNAEEMGIHADPVVDMSQLRDWKSQVVDQLTGGVEKLCCKANGVNLVEGTARF  
KDENAURIAGGEGQGSETIEFEHCIIATGSRVIQIPGFDFGDEPVWSSRDALEADTVPE  
RLVVVGGGYIGMELSTTFAKLGADVTVVEMLDDILPGYESDVARVVRKRAEELGIDMHLG  
EGATGWREEDDGIMVTTETEDGEENEYRADKVLVAVGRSPVTDTMDIENAGLEADDRGFL  
SVDDRRRTDVEHIYAVGDVVEDTPMLAHVASKEGIVAAEHVAGEPVAFDSQAVPAAVFTD  
PEIGTVGMTEADAEAGFTPVVVGQMPFRASGRALTNNHADGFVRVVADEESGFVLGAQIV  
GPEASELIAELAFAIEMGATLEDVASTIHTHPTLAEAVMEAAENALGQAIHTLNR

>P09622

MQSWSRVYCSLAKRGHFNRISHGLQGLSAVPLRITYADQP IDADVTVIGSGPGGYVAAIKA  
AQLGFKTVCIKNETLGGTCLNVGCIPSKALLNNSHYHMAHGTDFASRGIEMSEVRLNL  
DKMMEQKSTAVKALTGGIAHLFKQNKVVHVNGYGKITGKNQVTATKADGGTQVIDTKNIL  
IATGSEVTPFPGITIDEDTIVSSTGALSCLKVPEKMMVIGAGVIGVELGSVWQRLGADVT  
AVEFLGHVGGVGDMEISKNFQRIILQKQGFKFLNTKVTGATKKSDGKIDVSI EAASGGK  
AEVITCDVLLVCIGRRPFTKNLGLLEELGIELDPRGRIPVNTRFQTKIPNIYAI GDVVAGP  
MLAHKAEDGEIICVEGMAGGAVHIDYNCVPSVIYTHPEVAWVGKSEEQLKEEGIEYKVGK  
FPFAANSRAKTNADTDGMVKILGQKSTDRVLGAHILGPGAGEMVNEAALALEYGASCEDI  
ARVCHAHPTLSEAFREANLAASFGKSNF

>Q04933

MFRRCFPIFNPDVVDVVGGGPGGYVAAIKAAQLGLKTACVEKRGALGGTCLNVGCIPSKA  
LLHATHMYHDAHANFERYGLMGGAGVTMDVAKMQQKEKSVNGLTSGVEYLLKKNKVTTY  
KGEAGFVTPNTLNVKIDGKDEAIEAKNTI IATGSEPTALPFLPFDEKVVLSSTGALALQ  
QVPKMMVIGGGVIGLELGSVWARLGSVDVTVVEFAPRCAPTLDSVDVDALVGALKRNGED  
EVPMTGIEGVNGTNNGSIALTLEVEQAGGQAEHLCDALLVSVGRRPYTAGLLEKNNVS  
LNERGFVKIGSHFETNAVGYAIGDVVDKGPMLAHKAEDGEVACAEILAGRPGHVNYDVI  
PGVIYTMPEVASVGKTEEELKAGVAYKVGKFFFNANSRAKAVATEDGFVKVLTDKATDR  
ILGVHIVCSAAGELIAGALLAMEYGASSEDVGRVCHAHPTMSEAVKEACMACFAKTINF

>P09624

MLRIRSLNKNKRAFSSVTRTLTINKSHDVVI IGGGPAGYVAAIKAAQLGFNTACVEKRGK  
LGGTCLNVGCIPSKALLNNSHLFHQMHTEAQKRGIDVNGDIKINVANFQKAKDDAVKQLT  
GGIELLFKKNKVTTYKNGSFEDETKIRVTPVDGLEGTVKEDHILDVKNII VATGSEVTP  
FPGIEIDEKIVSSTGALSLEIKPRLTI IGGGIIGLEMGSVYSRLGSKVTVVEFQPQIG  
ASMDGEVAKATQKFLKQGLDFKLSKVI SAKRNDDKNVVEIVVEDTKTNKQENLEAEVL  
LVAVGRRPYIAGLGAEKIGLEVDKRGLVIDDQFNSKFPPIKVVGDVTFGPMLAHKAE  
GIAAVEMLKTGHGHVNYNNIPSVMYSHPEVAWVGKTEEQLKEAGIDYKIGKFPFAANSRA  
KTNQDTEGFVKILIDSKTERILGAHI IGPNAGEMIAEAGLALALEYGASAEDVARVCHAHPT  
LSEAFKEANMAAYDKAIHC

>P37672

MKVTFEQLKAAFNRVLI SRGVDSETADACAEMFARTTESGVYSHGVNRFPRFIQQLENGD  
IIPDAQPKRITSLGAIEQWDAQRSIGNLTAKKMMDRALIELAADHGIGLVALRANANHWMRG  
GSYGWQAAEKGYIGICWTNSIAVMPPWGAKECRIGTNPLIVAIPSTPITMVDMSMSMFSY  
GMLEVNRLAGRQLPVDGGFDDEGNLTKEPGVIEKNRRILPMGYWKSGMSIVLDMIATLL  
SDGASVAEVTQDNSDEYGISQIFIAIEVDKILIDGPTRDAKLQRIMDYVTSERADENQAI  
RLPGHEFTTLLAENRRNGITVDDSVWAKIQAL

>P82957

LKAMDPTPPLWIKTESPSTPWTNVTLLCVATNTEELSFQVWKDGELLSTLPVVGLVGKFW  
LGPVTADNRGIYRCRILTSENDWTPLSAPVEVTGKEPLPAPSLHAEPGPWILPGLKTLH  
CRGMLLGMIFDLYQEGEQEPVKSSQTPSAEATFIVNSTGNYSCLYRAPASAPSVNSTPSE  
TIHVVIPDFLPKANFYILNDRDFRPGDIVTFSCWARFSEREYDLEFKLFDKGQETPVEVV  
PISDPMKVFFDLTAVGPKDGGKYSCRFRFRNGPPIWSEDSNVLELDLSTGQ

>P0ACB0

MAGNKPFNKQQAEPREPRDPQVAGLKVPPHSIEAEQSVLGGMLDNERWDDVAERVVADDF  
YTRPHRHIFTMARLQESGSPIDLITLAESLERQGLDSVGGFAYLAELSKNTPSAANIS  
AYADIVRERAVVREMISVANEIAEAGFDPQGRTSEDLLDLAESRVFKIAESRANKDEGPK  
NIADVLDATVARI EQLFQQPHDGVTVNTGYDDLNKKTAGLQPSDLIIVAARPSMGKTTF  
AMNLVENAAMLQDKPVLIFSLEMPSEQIMMRSLASLSRVDQTKIRTGQLDDEDWARISGT  
MGILLEKRNIYIDDSSGLTPTEVRSRARRIAREHGGIGLIMIDYLQLMRVPALSDNRTLE  
IAEISRSLKALAKELNVPVVALSQLNRSLEQRADKRPVNSDLRESGSIEQDADLIMFIYR  
DEVYHENSCLKGIAEIIIGKQRNGPIGTVRLTFNGQWSRFDNYAGPQYDDE

>P08622

MAKQDYIEILGVSKTAEEREIRKAYKRLAMKYHPDRNQGDKEAEAKFKEIKEAYEVLTD  
QKRAAYDQYGHAAFEQGGMGGGGFGGADFSDFGDVFGDIFGGGRGRQRAARGADLRYN  
MELTLEEAVRGVTKEIRIPTLEECDVCHGSGAKPGTQPQTCPTCHGSGVQMRQGFFAVQ  
QTCPHCQGRGTLIKDPCNKCHGHGRVERSCTLVSVKIPAGVDTGDRIRLAGEGEAGEHGAP  
AGDLYVQVQVQHPIFEREGNLYCEVPINFAMAALGGEIEVPTLDGRVKLKVPGETQTG  
KLFRMRGKGVKSVRGAQGDLLCRVVVETPVGLNERQKQLLQELQESFGGPTGEHNSPRS  
KSFFDGVKKFFDDLTR

>P32761

MSNFILKPGKLPQDKLEELKKINDAVKKTKNFSKYLIDLRLKFQIDEVQVTSESKLFLA  
GFLEGEASLNISTKKLATSFKFLVVDPEFNVTQHVNQVVKVLYLALAEVFKTGRIRHKS  
ATLVLTIIDNRQSLEEKVIPFYEQYVVAFFSSPEKVKRVANFKALLELFNNDHAHQDLEQLVN  
KILPIWDQMRKQQGQSNEGFNLEAAQDFARNYKKGKIK

>P05725

MNTKYNKEFLLYLAGFVDGDSIIAQIKPNQSYKFKHQLSLAFQVTQKTQRRWFLDKLVD  
EIGVGYVRDRGSVSDYILSEIKPLHNFLTQLQPFLKLLKQKQANLVLKI IWRLPSAKESPD  
KFLEVCTWVDQIAALNDSKTRKTTSETVRAVLDSLSEKKKSSP

>P30046

MPFLELDTNLPANRVPAGLEKRLCAAAAASILGKPADRVNVTVRPGLAMALSGSTEPCAQL  
SISSIGVVGTAEADNRSHSAHFFFLTKELALGQDRILIRFFPLESWQIGKIGTVMTFL

>P09172

MPALSRWASLPGPSMREAAFMYSTAVAIIFLVILVAALQGSAPRESPLPYHIPLDPEGSLE  
LSWNVSYTQEAIIHFQLLVRRLLKAGVLFGMSDRGELENADLVVLWTDGDTAYFADAWSDQK  
GQIHLDPQQDYQLLQVQRTPEGLTLLFKRPFGTCDPKDYLIEDGTVHLVYGILEEPPRSL  
EAINGSLQMGQLQRVQLLKPNIPEPELPSDACTMEVQAPNIQIPSQETTYWCYIKELPKG  
FSRHHIIKYEPIVTKGNEALVHHMEVFQCAPEMDSVPHFSGPCDSKMKPDRLNYCRHVLA  
AWALGAKAFYYPEEAGLAFGGPGSSRYLRLEVHYHNPLVIEGRNDSSGIRLYYTAKLRRF  
NAGIMELGLVYTPVMAIPPRETAFILTYCTDKCTQLALPPSGIHFASQLHHTLTGRKV  
VTVLVRDGREWEIVNQDNHYSHPHQEIRMLKVVSVHPGDVLITSCYNTEDRELATVGG

FGILEEMCVNYVHYYPQTQLELCKSAVDAGFLQKYFHLINRFNNEVDVCTCPQASVSQQFT  
SVPWNSFNRDVLKALYSFAPISMHCNKSSAVRFQGEWNLQPLPKVISTLEEPTPQCPTSQ  
GRSPAGPTVVSIGGGKG

>P16444

MWSGWLWPLVAVCTADFFRDEAERIMRDSPVIDGHNDLPWQLLDMFNRLQDERANLTT  
LAGTHTNIPKLRAGFVGGQFWSVYTPCDTQNKDAVRRRTLEQMDVVHRMCRMYPETFLYVT  
SSAGIRQAFREGKVASLIGVEGGHSIDSSLGVLRALYQLGMRYLTLTHSCNTPWADNWL  
DTGDSEPPQSQGLSPFGQRVVKELNRLGVLIDLAVSVATMKATLQLSRAPVIFSHSSAYS  
VCASRRNVPDDVLRVLVKQTDLSVMVNFYNNYISCTNKANLSQVADHLDDHIKEVAGARAVG  
FGGDFDGVPRVPEGLEEDVSKYPDLIAELLRRNWTEAEVKGALADNLLRVFEAVEQASNLT  
QAPEEPIPLDQLGGSCRTHYGYSSGASSLHRHWGLLLASLAPLVLCLSL

>Q9EPB1

MGLHPCSPVDHGVPSWVLVLLLLTLGLCSLQATADSVLDPDFRENYFEQYMDHFNFEFSN  
KTFGQRFLVSDKFWKMEGPIFFYTGNEGDIWLANNSGFIVELAAQQEALLVFAEHRY  
GKSLPFGVQSTQRGYTQLLTVQALADFAVLLQALRHNLGVQDAPTIAFGGSYGGMLSAY  
MRMKYPHLVAGALAAAPVIAVAGLGNPDQFFRDVTADFYGQSPKCAQAVRDAFQQIKDL  
FLQGAYDTISQNFQTCQSLSSPKDLTQLFGFARNAFTVLAMMDYPYPTNFLGPLPANPVK  
VGCERLLSEGQRIMGLRALAGLVYNSSGMEPCFDIYQMYQSCADPTGCCGTGSNARAWDYQ  
ACTEINLTFDSNNVTDMFPEIPFSDELQQYCLDTWGVWPRPDWLQTSFWGGDLKAASNI  
IFSNGDLDPWAGGGIQRNLSTSI IAVTIQGGAHHLDLRASNSEDPSPSVVEVRKLEATLIR  
EWVAAARLKQPAEAQWPGPK

>Q02323

MGGVDFEGFRKLQRADGFASILAIGTANPPNAVDQSTYPDFYFRITGNEHNTELKDKFKR  
ICERSAIKQRYMYLTEEILKKNPDVCAFVEVPSLDARQAMLAMEVPRLAKEAAEKAIQEW  
GQSKSGITHLIFCSTTTPDLPGADFEVAKLLGLHPSVKRVGVFQHGCFAAGTVLRMAKDL  
AENNRGARVLVICSETTAVTFRGPSETHLDSL VGQALFGDGASALIVGADPIPQVEKACF  
EIVWTAQTVPNSEGAIGKQREVGLTFQLKGAVPDLISANIENCMVEAFSQFKISDWNK  
LFWVVHPGGRAILDRVEAKLNLDPTKLIPTRHVMSEYGNMSSACVHFILDQTRKASLQNG  
CSTTGEGLMGVLFVGFPGPLTIETVVLSVPIQ

>Q12882

MAPVLSKDSADIESILALNPRTQTHATLCSSTSAKKLDKHKHWRNPDKNCFNCEKLENNFD  
DIKHTTLGERGALREAMRCLKCADAPCQKSCPTNLDIKSFI TS IANKNYGAAKMIFSDN  
PLGLTCGMVCPTSDLCVGGCNLYATEEGPINIGGLQQFATEVFKAMSIPQIRNPSLPPPE  
KMSEAYSAKIALFGAGPASISCASFLARLGYSIDITIFEKQEYVGGGLSTSEIPQFRLPYDV  
VNFEIELMKDLGVKIIICGKSLSVNEMTLSTLKEKGYKAAF IGIGLPEPNKDAIFQGLTQD  
QGFYTSKDFLPLVAKGSKAGMCACHSPLPSIRGVVIVLGAGDTAFDCATSALRCGARRVF  
IVFRKGFVNIRAVPEEMELAKEEKCEFLPFLSPRKVIVKGGRIVAMQFVRTEQDETGKWN  
EDEDQMVHLKADVVISAFGSVLSDPKVKKEALSPIKFNRWGLPEVDPETMQTSEAWVFAGG  
DVVGLANTTVESVNDGQASWYIHKYVQSQYGASVSAKPELPLFYTPIDLVDISVEMAGL  
KFINPFGLASATPATSTSMIRRAFEAGWGFALTKTFSLDKDIVTNVSPRIIRGTTSGPMY  
GPGQSSFLNIELISEKTAAYWCQSVTELKADFPDNIVIASIMCSYNKNDWTELAKKSEDS  
GADALELNLSCPHGMGERGMGLACGQDPELVRNICRWVRQAVQIPFFAKLTPNVTDIVSI  
ARAAKEGGANGVTATNTVSGLMGLKSDGTPWPAVGI AKRTTYGGVSGTAIRPIALRAVTS  
IARALPGFPILATGGIDSAESGLQFLHSGASVLQVCSAIQNQDFTVIEDYCTGLKALLYL  
KSIEELQDWDGQSPATVSHQKGPVPRIAELMDKKLPSFGPYLEQRKKIIAENKIRLKEQ  
NVAFSPLKRNCFIPKRPIPTIKDVIGKALQYLGTFGELSNVEQVAMIDEEMCINCGKCY

MTCNDSGYQAIQFDPETHLPTITDCTGCTLCLSVCPIVDCIKMVSRTTPYEPKRGVPLS  
VNPVC

>P97427

MSHQGKKSIPHITSRLLIRGGRIINDDQSFYADVYLEDGLIKQIGENLIVPGGVKTI EA  
NGRMVIPGGIDVNTYLQKPSQGMTSADDFQGTKAALAGGTTMIIDHVVPEPGSSLLTSE  
EKWHEAADTKSCCDYSLHVDITSWYDGVREELEVLVQDKGVNSFQVYMAKDYQMSDSQ  
LYEAFTFLKGLGAVILVHAENGLIAQEQRILEMGITGPEGHALS RPEELEAEAVFRAI  
AIAGRINCPVYITKVMKSAADI IALARKKGPLVFGEP IAASLGTGTHYWSKNWAKAAA  
FVTSPPSPDPTTPDYLTSLACGDLQVTGSGHCPYSTAQKAVGKDNFTLIPEGVNGIEE  
RMTVVWDKAVATGKMDENQFVAVTSTNAAKIFNLYPRKGR IAVGSDADVV IWDPKMKTI  
TAKSHKSTVEYNI FEGMECHGSPLVVISQKIVFEDGNISVSKGMGRFIPRKPFPEHLYQ  
RVRIRSKVFLHLSVSRGMYDGPVYV PATPKHAAPAPSAKSSPSKHQPPP IRNLHQSNFS  
LSGAQIDDNNPRRTGHRIVAPPGGRSNITSLG

>Q9EQF6

MLANSASVRILIKGGKVVNDCTHEADVYIESGIIQQVGRELMIPGGAKVIDATGKLVIP  
GGIDTSTHFHQTFMNATCVDDFYHGTKAALVGGTTMIIGHVLPDKETSLVEAYEKCRALA  
DPKVCCDYALHVGITWVAPKVAEMETLVREKGVNSFQMFMTYKDYMLRDSELYQVFHA  
CRDIGAIPRVHAENGELVAEGAKEALDLGITGPEGIEISHPEELEAEATHRVITIANRTH  
CPIYLVNVSSISAGDVIAAAKMQKVVLAETTNAHATLTGLHYHQDWSHAAA YVTVPPL  
RLDTNTSTYLMSELLANDTLNIVASDHRPFTTKQKAMGKEDFTKIPHGVSQVQDRMSVWVE  
RGVVGKMDENRFVAVTSSNAAKILNLYPRKGRIPGADADVVDPEATKTISASTQVQ  
GGDFNLYENMRCHGVPLVTISRGRVYENGVMCAEGTGKFCPLRSFPDIVYKLVQREK  
TLKVRGVDRTPYLGDVAIVVHPGKKEGTPPLADTPTRPVTRHGMRLHESSFSLSGSQI  
DDHVPKRASARILAPPGGRSSGIW

>Q55DL0

MLRVDQTGTILIKNGTVVND DRYFKSDVLVENGIIKEISKNI EPKEGIKVVDATDKLLLP  
GGIDTHTHFQLPFMGTVSDDFDIGTQAAVAGGTTFIIDFVIPTRGQSLLEAYDQWKKWA  
DEKVNCDYSLHVAITWVSEQVSREMEILVKERGVNSFKCFMAYKNSFMVTDQEMYHIFKR  
CKELGAI AQVHAENGMVFEGQKKMLEMGITGPEGHEL SRPEALEAEATNRAI VIADSV  
TPVYIVHVQSIGAADVICHRKEGVRVYGEPIAAGLVGDGSHMWNHWRHAAAFVMGPP I  
RPDPRTKGVLM DY LARGDLDCVGTDNCTFCADQKAMGKDDFTKIPNGVNGVEDRMSI VWE  
NGVNTGKLTWCQFVRATSSEAARIFNIYPRKGRIDVGCDDIV IWDPNQSKTISKDTHHH  
AVDFNIFEGIKVTGIAVTTIVAGNIVWSDNKLSCVKGSGRFVPRPPFGPVFDGIEQRDKV  
RNELLRKVDRKPYEDDNTKNSSK

>Q9P903

MPIYDLIIKNGI ICTASDIYAAEIAVNNGKVQLIAASIDPSLGSEVIDAEGAFITPGGID  
AHVHVDEPLKLLGDVVDTMEHATR SAVAGGTTTVVAFSTQDVSKKGPSALAESVKLDVDE  
YSEQTLYCDYGLHLILFQIEKPSVEARELLDVQLQAAYNDYGVSSVKMFMTYPGLQISDY  
DIMSAMYATRKNFTTMLHAENGMVKWMI EALEEQGLTDAYYHGVS RPSIVEGEATNRA  
ITLAT TMDTPILFVHVSSPQAAEVIKQAQTKGLKVYAE T CPQYALLSDAITRCHHHGEVE  
SYGVGIDLSSISESPFTNPD DRFIGSKYICSPPIRPEGTQKSIWKGMNNGTFTIVGSDHC  
SYNYYEKTSTASKHRAFDPENKNNGEFRIYIPNGLPGVCTRMP LLYDYGYLRGNLTSMMKL  
VEIQCTNPAKVYGMYPQKGSILPGVSDADLVIWY PDDSKKEYNSKPKLITNKLM EHNCDY  
TPFEGIEIKNWPRYTIVKGVIVYKEGEILKENADGKYLKRGKSF MCTPKNEWVTEWRPKY  
ES

>P34822

MHYFGVLAALSVFNIIACLTRGKPLENWKKLPVMEESDAFFHDPGEVEHDTDFKSFLE  
NMKTDLLRSLNLSRVPSQVKTKEEPPQFMIDLNRYTADKSSIPASNIVRSFSTEDVVS  
ISPEEHSFQKHILLFNISIPRYEEVTRAE LRIFISCHKEVGSRSRLEGNMVIYDVLGDH  
WENKESTKSLLVSHSIQDCGWEMFEVSSAVKRWVKADKMKTKNKLEVVIESKDLSGFPCG  
KLDITVTHDTKNLPLLVFSNDRSNGTKETKVELREMIVHEQESVLNKLKGNDSSEEEQ  
REEKAIARPRQHSSRSKRSIGANHCRRTSLHVNFKEIGWDSWIIAPKDYEA FECKGGCFF  
PLTDNVTPTKHAI VQTLVHLQNP KKASKACCVPTKLD AISILYKDDAGVPTLIYNYEGMK  
VAECGCR

>P55265

MNPRQGYSLSGYYTHPFQGYEHRQLRYQQPGPGSSPSSFLLKQIEFLKGGQLPEAPVIGKQ  
TPSLPPLPGLRPRFPVLLASSTRGRQVDIRGVPRGVHLGSQGLQRFQHPSPRGRSLPQ  
RGVDCLSSHFOELSIYQDQEQRI LKFL EELGEGKATTAHDL SGKLGTPKKEINRVLYSLA  
KKGK LQKEAGTPPLWKI AVSTQAWNQHSGVVRPDGHSQGAPNSDPSLEPEDRNSTSVSED  
LLEPFI AVSAQAWNQHSGVVRPDSHSQGSPNSDPGLEPEDSNSTSALEDPLEFLDMAEIK  
EKICDYLFNVSDSSALNLAKNIGLTKARDINAVLIDMERQGDVYRQGTTPPIWHLTDKKR  
ERMQIKRNTNSVPETAPAAIPETR RNAEFLTCNIPTSNASNMMVTTEKVENGQEPVIKLE  
NRQEARPEPARLKPPVHYNGPSKAGYVDFENGQWATDDIPDDLNSIRAAPGEFRAIMEMP  
SFYSHGLPRCSPYKKLTECQLKNPISGLLEYAQFASQTCEFNMI EQSGPPHEPRFKFQVV  
INGREFPPAEAGSKK VAKQDAAMKAMTILLEEAKAKDSGKSEESSHYSTEKESEKTAESQ  
TPTPSATSFFSGKSPVTTLLECMHKLGN SCEFRLLSKEGPAHEPKFYCVAVGAQTFPSV  
SAPSKK VAKQMAAEEAMKALHGEATNSMASDNQPEGMI SESLDNLES MMPNKVRKIGELV  
RYLNTNPVGG LLEYARSHGFAAEFKLVDQSGPPHEPKFVYQAKVGGWFPAVCAH SKKQG  
KQEAADAALRVLIGENEKAERMGFTEVTPVTGASLRRTMLLLSRSP EAQPKTLPLTGSTF  
HDQIAML SHRCFNLTNSFQPSLLGRKILAAIIMKKDSEDMGVVVS LGTGNRCVKGDSLS  
LKGETVNDCHAEIISRRGFIRFLYSELMKYNSQTAKDSIFEPAKGGEKLQIKKTVSFHLY  
ISTAPCGD GALFDKSCSDRAMESTESRHYPVFENPKQGKLR TKVENGEGTIPVESSDIVP  
TWDGIRLGERLRTMSCSDKILRWNVLGLQGALLTHFLQPIYLKSVTLGYLFSQGH LTRAI  
CCRVTRDGS AFEDGLRHPFIVNHPKVGRVSIYDSKRQSGKTKETS VNWCLADGYDLEILD  
GTRGTVDGPRNELSRVSKKNIFLLFKKLC SFRYRRDLLRLSYGEAKKAARDYETAKNYFK  
KGLKDMGYGNWISKPQEKNFYLCPV

>P0A6M4

MIALIQRVTRASVTVEGEVTGEIGAGLLVLLGV EKDDDEQKANRLCERVLGYRIFSDAEG  
KMNLNVQQAGGSVLVVSQFTLAADTERGM RPSFSK GASPDRAEALYDYFVERCRQQEMNT  
QTGRFAADMQVSLVNDGPVTFWLQV

>P84066

MLQAMDQGHLLVNNVDKYVRAGRGMVYIAFLSDRDSAPITDEALRHAVGVLLHTKIFTH  
FSPEKMINQPQSLEECPEMDILIVPQASLGGKVKGRSVQFHQLVAKDVGAALYDRFCHFV  
RVARGVDES RVDANGAPRSEG DAPKAEGWIKYNSRVISGTFGNRQGLRFESEGPFTHMFD  
I

>P00588

MLVRGYVVS RKL FASILIGALLGIGAPPSAHAGADDVVDSSKSFVMENFSSYHGTPGYV  
DSIQKGIQKPKSGTQGN YDDDWKGFYSTDNKYDAAGYSVDNENPLSGKAGGVVKV TY PGL  
TKVLAL KVDNAETIKKELGLSLTEPLMEQVGT EEFIKRFGDGASRVVLSL PFAEGSSSVE  
YINNWEQAKALSVELEINFETRGRGQDAMY EYMAQACAGNRVRRSVGSSLSCINLDWDV  
IRDKTKTKIESLKEHGP IKNKMSESPNKTVSEEKAKQYLEEFHQTALEHPELSELKTVTG

TNPVFAGANYAAWAVNVAQVIDSETADNLEKTTAALSILPGIGSVMGIADGAVHHNTEEI  
VAQSIALSSLMVAQAIPLVGLVDIGFAAYNFVESIINLFQVVHNSYNRPAYSPGHKTQP  
FLHDGYAVSWNTVEDSIIIRTGFQGESGHDIKITAENTPLPIAGVLLPTIPGKLDVNKSKT  
HISVNGRKIRMRCRAIDGDVTFCRPKSPVYVGNVHANLHVAFHRSSEKIHSEISSDS  
IGVLGYQKTVDHTKVNSKLSLFFFEIKS

>P33120

MKDLVDTTTEMYLRTIYELEEEGVTPLRARIAERLEQSGPTVSQTVARMERDGLVVVASDR  
SLQMTPTGRTLATAVMRKHRLAERLLTDIIGLDINKVHDEACRWEHVMSDEVERRLVKVL  
KDVSRSPFGNPIPGLDELGVGNSDAAVPGTRVIDAATSMPRKVRIVQINEIFQVETDQFT  
QLLDADIRVGSEVEIVDRDGHITLSHNGKDVELIDDLAHTIRIEEL

>P06968

MKKIDVKILDPRVGKEFPLPTYATSGSAGLDLRACLNDAVELAPGDTTLVPTGLAIHIAD  
PSLAAMMLPRSGLGHKHGIVLGNLVGLIDSDYQGQLMISVWNRGQDSFTIQPGERIAQMI  
FVPVVQAEFNLVEDFDATDRGEGGFHSGRQ

>P32518

MAENQINSPEITEPSPKVQKLDHPENGNVPPFRVKKLSENAVLP SRASSLAAGYDLSSAA  
ETKVPARGKALVPTDLSIAVPQGTYARIAPRSGLAWKYSIDVGAGVIDADYRGPVGVVLF  
NHSEVDFEVKVGDRIAQLIVQKIVTPEVEQVDDL DSTVRGSGGFSTGV

>P45568

MKQLTILGSTGSIGCSTLDVVRHNPEHFRVVALVAGKNVTRMVEQCLEFSPRYAVMDEEA  
SAKLLKTM LQQQSRTEVLSGQQAACDMAALEDDVQVMAAIVGAAGLLPTLAAIRAGKTI  
LLANKE SLVTCGRLFMDAVKQSKAQLLPVDSEHNAIFQSLPQPIQHNLYADLEQNGVVS  
ILLTGSGGPFRETPLRDLATMTPDQACRHPNWSMGRKISVDSATMMNKGLEYLEARWLFN  
ASASQMEVLIHPQSVIHSMVRYQDGSVLAQLGEPDMRTP IAHTMAWPNRVNSGVKPLDFC  
KLSALTFAAPDYDRYPCLKLAMEAFEQQAATTALNAANEITVA AFLAQQIRFTDIAALN  
LSVLEKMDMREPQCVDVLSVDANAREVARKEVMRLAS

>Q9X5F2

MSQPRTVTVLGATGSIGHSTLDLIERNLDRYQVIALTANRNVKDLADAAKRTNAKRAVIA  
DPSLYNDLKEALAGSSVEAAAGADALVEAAMMGADWTMAAIGCAGLKATLAAIRKGTKV  
ALANKE SLVSAGGLMIDAVREHGTLLPVDSEHNAIFQCFPHHNRDYVRRIIITASGGPF  
RTTSLAEMATVTPERAVQHPNWSMGAKISIDSATMMNKGLELIEAYHLFQI PLEKFEILV  
HPQSVIHSMV EYLDGSILAQIGSPDMRTP IGH TLAWPKRME TPAESLDFTKLRQMDFEAP  
DYERFPAL TLAMESIKSGGARPAVMNAANEIAVA AFLDKKIGFLDIAKIVEKTL DHYTPA  
TPSSLEDVFAIDNEARIQAAALMESLPA

>Q9RBN6

MTILENIRQPRDLKALPEEQHELSEIRQFLVHAVTRTGHLGPNLGVVELTIALHRVF  
ESPVD RILWDTGHQSYVHKLLTGRQDFSKLRGKGLSGYPSREESEHDVIENSHASTALG  
WADGLAKARRVQGEKGHVAVIGGRALTGGMAWEALNNIAAAKDQPLIIVVNDNERSYAP  
TIGGLANHLATLRTTDGYEKVLAWGKDVLLRTPIVGHPLYEALHGAKKGFKDAFAPQGMF  
EDLGLKYVGPIDGHDIGAVESALRRAKRFHGPVLVHCLTVKGRGYEPALAHEEDHFHTVG  
VMDPLTCEPLSPTDGP SWTSVFGEIVRIGAEREDIVAITAAMLHPVGLARFADRF PDRV  
WDVGIAEQHAAVSAAGLATGGLHPVVAVYATFLNRAFDQLLMDVALHRCGVTFVLDRAV  
TGVDGASHNGMWDMSVLQVVPGLRIAAPRDADHVRAQLREAVAVDDAPT LIRFPKESVGP  
RIPALDRVGGLDVLHRDERPEVLLVAVGVMAQVCLQTAELLRARGIGCTVVDPRWVKPVD

PVLPPLAAEHRLVAVVEDNSRAAGVGSVAVALALGDADVDVPVRRFGIPEQFLAHARRGEV  
LADIGLTPVEIAGRIGASLPVREEPAEEQPA

>Q9SMH5

MSSDSRKTFFVVTTIACAIAPAGQQDQYAAAYLGQDENGAIASF LDSTQNTLQAGVSGLGTG  
QLQLKLSNAAEFPEGCEFSVVL SKLRAGPIRTEDVPAGVAVATVAHSPLSSLYHTLKDVY  
SPLIKSQTAEQVPLDKR LSELLAQVQAGLGTAVRKGVPASAEVADPNQAPLQEVVTPL  
DEINFWAELTNSPNAGPIKSSALQVSSALEPLRQSFEQLSSDAPEGEGGSIGWEGAKELV  
DLTTNALRAAWPVKLP IGGWAMGQKRADNFLRVVGAALATYVQRRVDR LAAAGRGLWSA  
PFGEVRAVLV GASGLMTRWVQESTALVEDWRLGVD TGHDWEGAAFADAYVRSFQERLEE  
IYNMREMVDELAKLVGREEAGSLGVQQVFAPFQGLQALQVSDFNTHVWKA AHEDFERRMG  
PIEQRISQK LKELFASV IIPSLTSAIGPGRGGDRAAAGGSLIQPQQVFAEIKRYSSLMGR  
KNIASALQSEKETLAKQVDRHLDSVQAEFDAHRDSATGGAKVAPVGRVTASIVERIMWCM  
QTLQKLGKVSEVLKHMLRGGVAGDEGSGGAALRNTLGVVSELQKEVEIFRKEQYSAWEEW  
MSEELGEMANWKN SKLMTFDSQNSHVKTHFNDQLVLLLLREVRQLQSLGFGVRKDI LNEVE  
IANKFYRYGMVLKQRANFYNNIATEMVQCQKPMMLKDALDFEKVLMNPKDAQGKEITWRN  
AAALDGYVRR LNEVADRLAEKNRTL RKWHSVLSDKVVTLAGTDLVRHKDKWAAGVKEMRE  
IFGRLEAE GYSRESQQVWRQHWFQLYKALEVQYLSGLEMINKTLPEVEVKMVFQRHLQ  
YDPPLEELRIRHVKDL LNTFLGLPLRMKGVSDL SERPGFFRP IV DANPTGIARVYAAAES  
LFTQLADELKKYQDWMVLGTLDLDEFADANLLEVSDWELNFRMLKAASRDAEKL PNEIRI  
ECYKVS LAPVKGS IDEHMKKLQDTLVASLRRTVAEKDQIEDFMKNGRELFTRQANTVED  
IGLAGQEAKGLTAKLAEVQAARRR IDEKNKLLRQMAGGGRDAAFVVDL TEVNNSWDAFT  
NQLQQFDAHLEEQKGNLAVQISRQLEEFKGVAGMNSRWQELKPKSGPSGNPAVVLAKIQ  
EYANA IKELREESAKLYKEAEAFKIDVPDFELMTEMETDVMATKAHWDRYADFLRERDEM  
ANRDWLSMRDQVWKIEDFLAKWTKATAGKSDDPIAVILTQEIDNYTLCLPHLKSCLRGAG  
WEDTHWNQLFGLLG MKTSGPAAVSKETVTLTHFLEKADLVVKHADVIKSLDAQAQGEAVI  
RKALTELKMWGMAREFTFTESTQSVAGRQRRTP LIKEWRDAMTEVGDNQSLVASLKQSSY  
YNMFKDEVSSWENKLSFLQEGTL LNQIQRKWVYLEP IFGRGALPSQQQRFRNVDEEFRR  
TMTSLESTK KVVTFADIPGIRDKLPQMAQQLDVCQRALADFL EEKRSQFPRFYFLGDDDL  
LEILGQARNPAVIQSHLKKL FAGIQKVKFSQDQSTIQAMQSMEGEVVDLAPTVRIT EQIE  
TWLGDLTRSMKNTLQQQNEVLCAGRMNDEFRAAASQCLQLKEAVAFTEKAEVALKAGSSG  
LAKLVTEMRAQLMKLTGSDFTGHLLQLKKQALVLD F IHYCDVAEYLAKDKIGGTTEWGW  
TRQLRYYHRAEGSVKVAMAEATFDYTWEYQGNAAKLVYTP LTKCYLTLTQGMALGYGGN  
PYGPAGTGKTESVKALGQALARQVLVFNCD EEFDFKSMGRIFVGLVKCGAWGCFDEFNRL  
DEEVL SAVSQQIQTIQ LALKEGAKTMMFMDKTVEVDKNAGIFVTLNPAGKGYGGRSKLPD  
NLKQLFRSIAMTVPNNELIAEVL LLSSEGFNHAKDLARKLVSLFSLSRELLSPQQHYDWGL  
RALKTVLGIAGREL RDARKAGQNVDAEIEAEI IIRSVAA TKLP TLFDDNSRFKALINDL  
FPGAKLTDARNEALEKALAEAAAACKMELTQQQIDRMLQLHLACEQRIGVIIVGPSGSGK  
STLWELLEKAYERLGRKPIVYKMNPKAMPRQQLLGS MNMDTREWSDGVL TAAARKVVKEP  
LEQRSWIICDGDVDPEWIESLNSVLDNRLLTMPNGERIQFANNVNFIFECHSLEFASPA  
TVSRCGMLFMSDEAMEVERMLQRWLKVQATDNGDPGQMOSWMNDFDKAFQWALSHPRAV  
ETTKGGILD SGLSHLKLGP GSKQEFMAGLCRGLGSNMNPDIRNQFYNDMARM SGEIGIMD  
VGVATDPLIVLGD ELRERGMDEADGGLVVTPEVTQNL LMMAPWFKNRDPFLVVGPEGCGK  
GALLDYCFKRIMGVQAVVNC SAQTSAA NVVQKLVQVCGKPVTTTSGKALRPPDNTRVIL  
YLKDLNLPRPDKYNTCQLISFLQQLIAHHGYDENLDFIRVERVQIVGSMTPPGSVGRHA  
LSTRFTALVRIVTMGYPDRENLATIYTNMAQRVLANSKTASSVSPAALSKAMLEVYSSVR  
ERFTPN DYPHYEFNARELS DWINGIQRYSLEGGLTLVQAI AHEGLRVFRDRLVGDHQEQF  
TSMLYGTLSLLGYKPDATPWYTSTLGASAEERISGDLTKIKMLRWEQDTFAELVAEKLK  
GYEREHKE LNL LFPPEVLERSRFDRLVLSQQGGSLLLCGNSGVGRRSLMLLLAYMHNMDF  
ITPKMTKNYDLKSFRNDLKEVLR RAGVEAKPVMLFLEDHQLVNNAFLELVNSLLSGGEVP



GLFTPEELAKELAPLDKARDEDPLYTGPSNSYAFFSYRIRRNLHIVVSM DPSNEMFRSRC  
EANPALFTRCSVQWLEGEWSVKGLQQIAAARLTTELVESSPELMKLGKLDKLNHMIHIHASS  
GSQTTREYLALVSLYGQIYNRKRTQVLEQQNFKGGLGKLAEEAVTVDTLSAEAEKQRVV  
LKAKQAEADEALVHIQDSMLKAADRRKEVEVLKKRRTAIEEVEMKERRVKVEEELSEVQPL  
IDAARKAVGNIKKDNI AEIRSLKMPDPAIRDVLEGLMVLGQQDTSWNNMKTF LGKGSVK  
DDI INYDAHKITPEIRARCAKLLAAKGNSFEDAVIRRVSVAAAPMAQWFKANLEFSKVL E  
RVSPLESELHRLQSSLEESQRLIKQYEEELVQLDAAVASLKA EFSKKTSEAETLKI SVDK  
AESVLS SARQLLDGLRGEKVRWEITVGT LGEQLKELPLSSLLAAAFITYLPSHPEEHLK  
VTKDW CAYLGAAEFVTRF LSSSESEMLKWKAEGLPADGLSAQNAV VILNSTSRSP LIIDP  
STQASEWLKSHLRVTGQNV ETTMADQRFTTTLELAVRFGKTLVVAEVDKVEPI LYPLLR  
MDLDRQGRFVVQIGDKATDYNDTFRLFLVTRNPD PYPDPDARSLLAVTNFTVTRSGLEG  
QLLGLTLQKERPELEEQKSTMLRQEDECKVALAE LERNLLQTLATSTGNILENKD LLDKL  
NETKTRSATVEKALTESKTLQASLDQQRE VYRPIAARGSVMYFLLADLQALNQMYTFSLS  
VFLNLFKKALDRDTPPGGDVTARIAL LAESLLELVFAYVSRSLFNADRLTFGMH MARHLQ  
PSLFP EAQWAFFLGKPV PDSASPPPKPSWVREEQAGAFSALAAAF PQLVAAAE LADSALW  
AQWASGATDALPGKIAGGKVNPFQQLLLVKA FRPDRLQSAMSSFCGTLN IKSVP PPF S  
LKALIEGETRPDEPVLFITTPGADPSQELSEYAAQTMGKERWYFEVAMGQQA EKAVTLL  
RECAKNGDWLV LKNVHLAVSWLPSLEKELMLQKH DNFRIFLTSEPHPKFPSTLLEMSLK  
VTFEAPPGMKKNLQRTYEAWSAEY LASGPPIRAQLLFLVLAWFHAVVQERRTYIPQGWTKF  
YEF SFADLRSGMDVITL ATRAGTAPQWPLLLGLLDDAIYGGRLDNPFD SQVLLTFLRRLF  
SAETVGAAGGKVRPLPGSKVVVPTTNHRADYVSIISALPDVDT PGLFCMPDNIDRTAQQV  
NSARVISQLKAMSLRADAAGGFNRAQWQAQLG PLRLRLWDQLMSGASALKAAMKDIRARGT  
TDKGGAPIENFVALERYK GASLVALIDRTLGA IARVLKGTDTLSSGVQSSGAALLADVIP  
GSWDAAWEGPEAPMDY CRAVVAKALAI EGHWARCQQPGGGLLD GSGGAGPLELSSVFHP  
GTFLNALRQQSARTLGC SMDMLKAVT SWETAKL KAAAGGAPVALLGGLIMQGATFDGSRL  
SPVAAEAPAFRAVPAMSMAWLHKD SPMA YASYMEAPLYMTSDRSKLLARVQLPVSGPEEM  
DGWVLAGLSLFLSV

>Q9JJ79

MAGSLSDVRKLF LFTTTQNYFGLRPELWDQTPLSNCP EVNNFLDDGNQMLLRVQRSDAGL  
AFSNTIDFDDTKDKVLVFFKLRPEVITDGNLHTN I LVSSMLESPINSLYQAVRQVFAPML  
LKDQEWSRNFDPK LQNL LSELEAGLG VVLRKSDTNLPK LK LKEDDTRGILTPSDEFQFWI  
EQAHRGSKQISKERASYFKELFETIAREFYNLDSL SLELVVDLVETTRDVDDVWRQAEH  
DHYPESRMLHLLDVI GGSFGRFVQK KLGSLKLWEDPYLVKENL KAGISICEQWVIVCSH  
LTGQVWQRYVPHPWKSEKYFPETLDR LGKRLEEVLAIRTIHEKLLYFLPASEERIVCLSR  
VFEPFTGVNVPQYNPYTEPLWKA AVS QYEKIIAPAEQKIAGKLKNYISEIQDSPQQLLQA  
FLKYKELVKRPTISKELMLERETLLARLGDSAKDFRLDFENRCRGI PGDASGPLSGKNLS  
EVVNNIVWVRQLELKVDDTIKIAEALLSDLSGFRSFHRS AEDLLDQFKLYEQEQFDDWSR  
EVQSGLSDSRSGLCIEANSRIMELDPNDGALKVHYS DRLVILLREVRQLSALGFVIPAKI  
QQVANVAQKFCQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQI IKNSKAGSGGK  
SQITW DNPKELEGYIQKLQNA AERLATENRRLRKWHITFCEKVVILMNIDLLRQQQRWKD  
GLQELRTGLASVAAQGFQPSDMRAWRQHWNHQLYKALEHQYQMGLEALNENLPEINVDLT  
YKQGR LQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGGAGDESIF SVMIDRNASGFLT IY  
SKAEDLFRRLSAVLHQHKEWVVI GQVDMEALVEKNLSTVHDWEKNFKALKIKGKEVERLP  
SAVKVDCLNINCS PVKTVIDDLIQKLF D LVLVSLKKS IQTHIHEIDTFVTEAMKVLTVIP  
QSVEEIGD TNLQYSNLQDRRPEILPLFQEAEDKNRLLRTVAGGGVETVSNLR AKWDFEL  
MMESHQLMIKDQIEVMKGNVKSRLQIYYQELDKFKARWDQLKPGDDI IETGQQNTMDQSA  
KSIKEKKIEFDDLE VIRKKLVDDCHHFGLEESNFSLAYSISKDIESCAQIWALYEEFQQG  
LQEMAKEDWITYRTKIYIFEEFLINWHERLRKVEEHSVMTVKLQSEVDRYKIIPI LKYV  
RGEHLSPDHWLDFRLLGLPRGTSLEKLLFGD LLRVADTIVEKASDLKDLNSRAQGEVTI

REALRELDLWGVGAVFSLIDYEDSQNRTIKLIKDWKDIVNQVGDNRCLLQSLKDSPYYKG  
FEDKVS IWERKLAQLDEYLQNLNHIQRKWVYLEP IFRGALPKEQTRFNKVEDDFRSIMM  
DIRKDSRVTTLTTHAGIRNTLLTILDQLQRCQKSLNEFLEEKRSAPFRFYFIGDDDLLEI  
LGQSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMRSLEGEVVPFKSKVLLSNNVEAWL  
NDLALEMKQTLKQLLKECVTAGRSSQGAIDPSLFPSSQILCLAEQIKFTEDVEDAIRDHS  
HQIEAQLAAKLERYSVDTSSSEDPGNSESGILELKLKTLILDI IHNIDIVKQLNQAQVHT  
TDDWAWKKQVRFYMKSDHTCYVQMVDSSELQYTYEYQGNAPKLVYTPPLTDKCYLTLTQAMK  
MGLGGNPNYPAGTGTESVKALGGLLGRQVLVFNCDGIDVKSMGRIFVGLVKCGAWGCF  
DEFNRLEEAVLSAVSMQIQTIQDALKNHRSVCELLGKEVEVNANS GIFITMNPAGKGYGG  
RQKLPDNLKQLFRPVAMSRPDNDLIAEVILYSEGFKDAKELGRKLVAFNLSRELLTPQQ  
HYDWGLRALKTVLRGSGNLLRQLKKSQKQDVNENHIVVQALRLNTMSKFTFADCTRFDA  
LIKDVFPIDFKEVEYNELSSALKQVFEEANYEVIPNQMKKALELYEQLRQRTGVVIVGP  
SGAGKSTLWRMLRAALCKIGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSGVLTSARQ  
VVREPQDVSSWIIICDGDIDPEWIE SLNSVLDDNRLLTMPSEGERIQFGPNVNFVFE THDLS  
CASPATISRMGMIFLSDEETDLNSLIKSWLRNQPVYR SNLENWIGDYFSKALQWVLKQN  
DYVVETSLVGTVMNGLSHLHGCKYHDQFI INLIRGLGGLNMKSRLEFTKEVFNWARETP  
PDSHRPMDTYFDCDRGQLASYVLKKPESLTADDFSSGHSLPVIQTPDMQRGLDYFKPWLS  
SETKQPFILVGPPEGCGKMLLRYA FSQLRSTEIATIHCSAQTTSRHLLQKLSQTCMVIST  
NTGRVYRPKDCERLVLYLKDINLPKLDKWG TSTLVAFLLQVLTQYQGFYDENLEWVGLENI  
QIVASMSAGGRLGRHKLTRFTSIVRLCAVDYPEREQLOTIYGAYLEAVLHKNLKNHSIW  
GSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGSSNHPL  
DYVLEVVAYEARRLFDRKIVGVKELHLFDNILTSVLQGDWGS DILDNMADSFYVTWGAQH  
ISGAKIAPGQPLPPHGKPLGKLSSADLKDVIKGLIHYGRDNQNL DILLFQEVLEYMSRI  
DRVLSFPGGSLLLAGRSVGRRTVTSLVSHMHGAVLFSPKISRGYEPKQFRD LKHVHLHL  
AGIEAQQVVLLEEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQASQDGF  
FGPVFNFTYRIQQNLHIVLIMDSANLNF I INCESNPALHKKCRVLWMEGWS DSSMKKIP  
EMLFSEADIEEKYEKKRKDEKKKSSVDPDFIKSFLLIHESCKAYGATPSRYMTFLRVYSA  
ISSSKRKE LLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSILLRIKQDEADSALQEITV  
SMQDASEQKTELERLKHRIAEEVVKIEERKSKIDDELKEVQPLVNEAKLAVGNIRPESLS  
EIRSLRMPDVIDRILEGLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNIPKEIRE  
SVEELLFKNKASFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQSGLELNLK  
KTEDRKRKLEDLLNSVGQKVSELKEKFQSR TSEAAKLEAEVSKAQETIKAAEVLISQLDR  
EHRRWNAQVAEIAEELATLPKRAQLAAAFITYLSAAPEGLRKNCLEEWTKAAGLEKFDLR  
RFLCTESEQLIWKSEGLPSDDL SIENALVILQSRVCPFLIDPSSQATEWLKTHLKDSHLE  
VINQQDSNFITALELAVRFGKTLIIQEMDGV E PVL YPLLRDLVAQGPRYV VQIGDKIID  
YNEDFRFLSTRNPNPFI PPDAASIVTEVNFTTTRSGLRGQLLALTIQHEKPDLEE QKTK  
LLQOEE DKKIQLARLEESLLET LATSQGNILENKDLIESLNQTKASSALIQDSLKESYKL  
QISLDRERDAYLPLAESASKMYFII SDLSKINMYRFSLASFLRLRFQALQNKQDSESTE  
QRIQCLVNSLKHMVYEIICRCLFKADQLMFALHFVRGMHPEFFQENEWDTF TG VVGDML  
RKADSQQRIRDQLPSWIDQERSWAVATLKIISLPGLYQTLCFEDGTLWR TYHHSMCEQEF  
PSILAKKVSLFQQVLVVQALRPDR LQSAMALFACKALGLKELSPLPLNLKRLYKETLEIE  
PILIIISP GADPSQELQELANAERSSERYHQVAMGQGQADLAIQMLKECARNGDWLCLKN  
LHLVVS WLPVLEKELNTLQPKESFRLWLTAEVHPNFTPILLQSSLKITYESPGLKKNLM  
RTYESWTPEQISKKDNIHRAHALFSLAWFHAACQERRNFIPQGWTKFYEFSLSDLRAGYH  
VIDRLF DGSKDVQWEFVHGLENSIYGGRIDNYFDLRVLQSYLKQFFNSSIIDVLNQRNK  
KSIFPYSISLPDSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRM TSSQVISQLRIL  
GRSVTAGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVSPPNDRQGSPIILSFIILEQF  
NAIRLVQSVHQSLAALSKVIRGTTLLSSEVQK LASALLNQCPLTWQSKWEGPEDPLQYL  
RGLVARTLAIQNWVEKA EKQALLADTLDLSELFHPDFTFLNALRQETARATGCSVD SLKFV  
ASWKGR LQEA KLQIKISGLLLEGC SF DGSRLSENQHDS PVS SVLPCYMGWTPQGSYGPY

SPDECISLPVY TSAERDCVVTNIDVPCGGNQDQWIQCGAALFLKNQ

>P33279

MLGGSAGTRGGEAEGD GAGAVGAVAPPPAIDFPAEVSDPKYDESDVPAELQVLKEPLQQP  
AFPFVANQLLLLVS LLEHL SHVHEPNPLRSRQVFKLLCQTFIKMGLLSSFTCSDEFSSLR  
LHHNRAITHLMRSARERVRQDPCADNSHIQKIRSREVALEAQT SRYLNEFEELSILGKGG  
YGRVYKVRNKLDGQYYAIKKILIKGATKTDCMKVLRVVKVLAGLQHPNIVGYHTAWIEHV  
HVHVQADRVP IQLP SLEVLSDQEEDRDQYGVKNDASSSSSIIFAEFSPEKEKSSDECAVE  
SQNNKLVNYTTNLVVRDTGFEFESSTERQENGSI VERQLLFGHNSDVEEDFTSAEESSEED  
LSALRHTEVQYHMLHIQMQLCELSLWDWIAERNRRSRECVDESACPYVMVSVATKIFQE  
LVEGVFYIHNMGIVHRDLKPRNIFLHGPDQQVKIGDFGLACADI IQKNAARTSRNGERAP  
THTSRVGTCLYASPEQLEGSEYDAKSDMYSVGVILLELFPFGTEMERAEVLTGVRAGRI  
PDSL SKRCPAQAKYVQLL TRRNASQRPSALQLLQSELFQNSAHVNLTLQMKIIEQEREIE  
ELKKQLSLLSQARGVRS DRRD GELPA

>Q96AV8

MEVNCLTLKDLI SPRQPRLDFAVEDGENAQKENIFVDRSRMAPKTP IKNEPIDLSKQKKF  
TPERNPITPVKLVDRQQAEPWPTANLKMLISAASPDIRDREKKKGLFRPI ENKDDAFTD  
SLQLD VVGDSAVDEF EKQRP SRKQKSLGLLCQKFLARYPSYPLSTEKTTISLDEVAVSLG  
VERRRIYDIVNVLES LHLVSRVAKNQYGWHGRHSLPKTLRNLQRLGEEQKYEEQMAYLQQ  
KELDLIDYKFG ERKKDGD PDSQEQLLDFSEPDCPSSANSRKDKSLRIMS QKFVMLFLV  
SKTKIVTLDVA AKILIEESQDAPDHSKFKTKVRRLYDIANVLTSLALIKKVHVTEERGRK  
PAFKWIGPVDFSSSDEELVDVSASVLP ELKRETYGQIQVCAKQKLARHGSFN TVQASERI  
QRKVNSEPPSPYREEQGGYSLEIGSLAAVYRQKIEDNSQ GKAFASKRVVPPSSSLDPV  
APFPVLSVDPEYCVNPLAHPVFSVAQTDLQAF SMQNGLNQVDVSLASAASAVE SLKPAL  
LAGQPLVYVPSASLF MLYGSLQEGPASGSGSERDDRSSEAPATVELSSAPSAQKRLCEER  
KPQEEDEPATKRQSREYEDGPLSLVMPKKPSDSTDLASP KTMGNRASIP LKDIHVNGQLP  
AAEEISGKATANSLVSSEWGNPSRNTDVEKPSKENESTKEPSLLQYLCVQSPAGLNGFNV  
LLSGSQTPPTVGPSSGQLPSFSVPCMVLPSPPLGFPFVLYSPAMPGPV SSTLGALPNTGP  
VNFSLPGLGSIAQLLVGPTAVVNPKSSTLPSADPQLQS QPSLNLSPVMSRSHSVVQQPES  
PVYVGHVPVSVVKLQQSPVPVTPKSIQRTHRETFFKTPGSLGDPVLKRRERNQSRNTSSAQ  
RRLEIPSGGAD

>Q58FA4

MENQKENL FSEPHKRGLMK SPLHPSSKANMVLAEIQPDLGPLTTPTKPKEVSQGEPTPT  
ANLKMLISA VSPEIRSRDQK RGLSDNRSALPEARDCLHEHL SGDEF EK SQPSRKEKSLGL  
LCHKFLARYPKYPNPAVNNDICLDEVAEELNVERRRIYDIVNVLES LHMVSR LAKNRYTW  
HGRHNLTKTLGTLKSVGEENKYAEQIMMIKRKEYEQEFDFIKSCGIEDHV IKSHTGQNGH  
SDMCFVELPGVEFRAASVNSRDKSLRVMSQKFVMLFLVSTPQIVSLEIAAKILIGEDHV  
EDLDKSKYKTKIRRLYDIANVLSL DLIKKVHVTEERGRKPAFKWTGPEISPNNSGSSPI  
MPLPASLEAEQSAKENCAKNLFSTRGKPSFTRHPSLIKLVKSIENDRRKISSAPSSPVKS  
NKAESSQNSPPVPNKMAQLAAICKMQLEEQSSEPRKKVKVNLARS GHYKPLAPLDPTVNT  
ELELLTPSLIQPLGVVPLIP SPLSSAVPVILPQAPSGPSYAIY LQPAQAQMLTPPPGLSP  
TVCPTQPSNATGSKDPTDAPAEKTATDAATTGSLQPAPERHGAKHRSKETTGD RGTKRMI  
TAEDSGPSSVKKPKEDLKALENVPTPTPLFP SGYLIPLTQCSSLGPD SVLSNTENSGTPS  
PNHRIYGSPIAGVIPVASSEL TAVNFPFHVTP LKLMVSP TSMAAVPVGN SPALNSGHPA  
PAQNPSSAIVNFTLQHLGLISPGVQMSASPGPGAGTVPVSPRVEADNLSRQR RATNHDS  
PVLGQSQLNGQP VAGTGAQQPVPVTPKGSQLVAENFFRTPGGPTKPTSSPYTDFDGANKT  
SFGTLFVFPQRKLEVSTEDIH

>Q66K89

MEGAMAVRVTA AHTAEAQA EAGREAGEGAVAAVAALAPSGFLGLPAPFSEEDDDVHRC  
GRCQAEFTALEDFVQH KIQKACQRAPPEALPATPATTALLGQEVVPAAPGPEEPITVAHI  
VVEAASLAADISHASDLVGGGHIKEVIVAAEAELGDGEMAEAPGSPHQQGLGLAGEGEQA  
QVKLLLVNKDGRYVICALCHKTFK TGSILKAHMVTHSSRKDHECKL CGASFRTKGLIRHHR  
RHTDERPYKCSKCGKSFRESGALTRHLKSLTPCTEKIRFSVSKDVVSKEDARAGSGAGA  
AGLGTATSSVTGEP IETSPVIHLVTDAGKTVIHEVHVQM QELSLGMKALAPEPPVSQELP  
CSSEGSRENLLHQAMQNSGIVLERAAGEEGALEPAPAAGSSPQPLAVAAPQLPVLEVQPL  
ETQVASEASAVPRTHPCPQCSETFPTAATLEAHKRGHTGPRPFACAQC GKAFPKAYLLKK  
HQEVHVRERRFRCGDCGKLYKTIAHVGRHRRVHSDERPYPCKGKRYKTKNAQQVHFRT  
HLEEKPHVCQFCSRGFREKGS LVRHVRHHTGEKPFKCYKCGRGF AEHGT LNRHLR TKGGC  
LLEVEELLVSEDS PAAATTVLTEDPHTVLVEFSSV VADTQEYIIEATADDAETSEATEII  
EGTQTEVD SHIMKVQQIVHQASAGHQIIVQNVMTDEETALGPEAAAADTIT IATPESLT  
EQVAMTLASAI SEGTVLAARAGTSGTEQATVTMVSSEDI EILEHAGELVIASPEGQLEVQ  
TVIV

>P0A9B6

MTVRVAINGFGRIGRNVVRALYESGRRAEITVVA INELADAAGMAHLLKYDTSHGRFAWE  
VRQERDQLFVGD DAIRVLHERSLQSLPWRELGV DVVLDCTGVYGSREHGEAHIAAGAKKV  
LFSHPGSNDL DATVVYGVNQDQLRAEHRIVSNASCTTNCIIPV IKLLDDAYGIESGTVTT  
IHSAMHDQQVIDAYHPDLRRTRAASQSIIPVDTKLAAGITRFFPQFNDRFEAIAVRVPTI  
NVT AIDL SVTVKKPKV KANEVNL LLQKAAQGA FHGIVDYTELPLVSVDFNHDPHSAIVDGT  
QTRVSGAHLIKTLVWCDNEWGFANRMLDTTLAMATVAFR

>Q9BY08

MGAEWELGAEAGGSLLLCAALLAAGCALGLRLGRGQGAADR GALIWLCYDALVHFALEGP  
FVYLSLVGNVANS DGLIASLWKEYGKADARWVYFDPTIVSVEILTVALDGS LALFLIYAI  
VKEKYRHF LQITLCVCELYGCWMTFLPEWLTRSPNLNTSNWLYCWL YLFFFNGVWVLI P  
GLLLWQSWLELKKMHQKETSSVKKFQ

>P96807

MRTFESVADLAAAAGEKVGQSDWVTITQEEVNL FADATGDHQW IHVDPERAAAGPFGTTI  
AHGFMTLALLPRLQH QMYTVKGVKLA INYGLNKVRF PAPVPVGSRV RATSSLVGVEDLGN  
GTVQATVSTTVEVEGSAKPACVAESIVRYVA

>Q62651

MATAMTVSSKLLGLLMQQLRGTRQLYFNVSLRSLSSSAQEASKRIP EEVSDHNYESIQVT  
SAQKHVLHVQLNRPEKRNAMNRAFWR ELVECFQKISKDSDCRAVVVSGAGKMFTSGIDL M  
DMASDILQPPGDDVARI AWYLRDLISRYQKTF TVIEKCPKPVIAA IHGGCIGGGVDLISA  
CDIRYCTQDAFFQVKEVDVGLAADVGT LQRLPKVIGNRSLVNELTFTARKMMADEALDSG  
LVS RVFPDKDVMLNAAFALAADISSKSPVAVQGSKINLIYSRDHSVDES LDYMATWNMSM  
LQTQDI IKSVAAMEKKDSK SITFSKL

>P14604

MAALRALLPRACNSLLSPVRCPEFRRFASGANFYIITEKKGKNS SVGLIQLNRPKALNA  
LCNGLIEELNQALET FEEDPAVGAI VLTGGEKAFAAGADIKEMQNRTFQDCYSGKFLSHW  
DHITRIKKPVIAAVNGYALGGGCELAMMCDI IYAGEKAQFGQPEILLGTIPGAGGTQRLT  
RAVGKSLAMEMVLTGDRISAQDAKQAGLVSKIFPVETLVEEAIQCAEKIANNSK IIVAMA  
KESVNAAFEMTLTEGNKLEKKLFYSTFATDDRREGMSAFVEKRKANFKDH

>Q05871

MSQEIRQNEKISYRIEGPFFIIHLMNPDNLNALEGEDYIYLGELLELADRNRDVYFTIIQ  
SSGRFFSSGADFKGIKAQGGDDTNKYPSSETSKWVSNFVARNVYVTD AF IKH SKVLICCLN  
GPAIGLSAALVALCDIVYSINDKVYLLYPFANLGLITEGGTTVSLPLKFGTNTTYECLMF  
NKPFKYDIMCENGFISKNFNMPSSNAEAFNAKVLEELREKVKGLYLPSCLGMKKLLKSNH  
IDAFNKANSVEVNESLKYWVDGEPLKRFRLGSKQRKHRL

>P35195

MPKIFCLADVCMVPIGTDSASISDFVALIEKKIRESPLKSTLHSAGTTIEGPWDDVMGLI  
GEIHEYGHEKGYVRVHTDIRVGTRTDKHQTAQDKIDVVLK KISQ

>P23827

MKTILPAVLFAAFATTSAAWAESVQPLEKIAPYPQAEKGMKRQVIQLTPQEDESTLKVEL  
LIGQTLLEVDCNLHRLGGKLENKTLEGWGYDYVFDKVSSPVSTMMACPDGKKEK KFTAY  
LGDAGMLRYNSKLP IVVYTPDNVDVKYRVWKAEEKIDNAVVR

>Q92838

MGYPEVERRELLPAAAPRERGSQGC GCGGAPARAGEGNSCLLFLGFFGLSLALHLLTLCC  
YLELRSELRRERGAESRLGGSGTPTSGT LSSLGGLDPDSPITSHLGQPSPKQPLEPGE  
AALHSDSQDGHQMALLNFFFFPDEKPYSEEESSRRVRRNKRSKSNEGADGPVKNKKK GKKAG  
PPGPNP PPPGPPGPPGPGPPGPIPGIPGIPGTTVMGPPGPPGPPGPPGPPGLQGPSGAADK  
AGTRENQPAVVHLQGGSAIQVKNDLSGGVLNDWSRITMNPKVFKLHPRSSELEVLVDGT  
YFIYSQVEVYYINFTDFASYEVVDEKPF LQCTR SIETGKTNYN TCYTAGVCLLKARQKI  
AVKMHADISINMSKHTTFFGAIRLGEPAS

>Q15075

MLRRILQRTTPGRVGSQGSDDLSSATPINTVDVNNESSEGFICPQCMKSLGSADELFKHY  
EAVHDAGNDSGHGGSNLALKRDDVTLLRQEVQDLQASLKEEKWYSEELKKELEKYQGLQ  
QQEAKPDGLVTDSSAELQSLLEEAQTENFN IKQMKDLFEQKAAQLATEIADIKSKYD  
EERSLREAAEQKVTRLTEELNKEATVIQDLKTELLQRPGIEDVAVLKKELVQVQTLMDNM  
TLERERESEK LKDECKKLSQYASSEATISQLRSELAKGPQEVAVYVQELQKLKSSVNEL  
TQKNQTLTENLLKKEQDYTKLEEKHNEESVSKKNIQATLHQKDLDCQQQLQSRLSASETSL  
HRIHVELSEKGEATQKLKEELSEVETKYQHLKAEFKQLQQQREEKEQHGLQLQSEINQLH  
SKLLETTERQLGEAHGRLKEQRQLSSEK LMDKEQQVADLQLKLSRLEEQLKEKVTNSTELQ  
HQLDKTKQQHQEQQALQQSTTAKLREAQNDLEQVLRQIGDKDQKIQNLEALLQKSKENIS  
LLEKEREDLYAKIQAGEGETAVLNQLQEKNHTLQEQVTQLTEKLNQSESHKQAQENLHD  
QVQEQAHLRAAQDRVLSLETSVNELNSQLNESKEKVSQLDIQIKAKTELLLSAEAAKTA  
QRADLQNHLDTAQNALQDKQQELNKIT TQLDQVTAKLQDKQEHCSQLESHLKEYKEYLS  
LEQKTEELEGGQIKKLEADSLEV KASKEQALQDLQQQRQLNTDLELRATELSKQLEMEKEI  
VSSTRLDLQKKSEALESIKQKLTKEEKEKQILKQDFETLSQETKIQHEELNNR IQTTVTE  
LQVKMEKEALMTELSTVKDKLSKVSDSLKNSKSEFEKENQKGKAAILDLEKTCKELKHQ  
LQVQMENTLKEQKELKKSLEKEKEEASHQLKLELNSMQEQLIQAQNTLQNEKEEQQLQGN  
INELKQSSEQKKQIEALQGELKIAVLQKTELENKLQQQLTQAAQELAAEKEKISVLQNN  
YEKSQETFKQLQSDFYGRESELLATRQDLKSVEEKLSLAQEDLISNRNQIGNQNKLIQEL  
KTAKATLEQDSAKKEQQQLQERCKALQDIQKEKSLKEKELVNEKSKLAEIEEIKCRQEKEI  
TKLNEELKSHKLESIKEITNLKDAKQLLIQOKLELQKGADSLKAAVEQEKRNOQILKDQV  
KKEEEELKKEFIEKEAKLHSEI KEKEVEGMKKHEENEAKLTMQIT ALNENLGT VKKEWQSS  
QRRVSELEKQTD DLRGEIAVLEATVQNNQDERRALLERCLKGEGEIEKLQTKVLELQRKL  
DNTTAAVQELGRENQSLQIKHTQALNRKWAEDNEVQNCMACGKGF SVTVRRHHCRQC GNI  
FCAECSAKNALTPSSKKPVRVCDACFNDLQG

>P17813

MDRGTPLPLAVALLLASCSSLSPSTSLAETVHCDLQPVGPERGEVITYTTSQVSKGCVAPNA  
ILEVHVLFLEFPTGPSQLELTLQASKQNGTWPREVLLVLSVNSSVFLHLQALGIPLHLAY  
NSSLVTFQEPPGVNTTELPSFPKQTQILEWAAERGPITSAAELNDPQSILLRLGQAQGSLS  
FCMLEASQDMGRTLEWRPRTPALVRGCHLEGVAGHKEAHILRVLPGHSAGPRTVTVKVEL  
SCAPGDLDAVLILQGPPYVSWLIDANHNMQIWTGTGEYSFKIFPEKNIRGFKLPDTPQGLL  
GEARMLNASIVASFVELPLASIVSLHASSCGGRLQTSPAPIQTTPPKDTCSPPELLMSLIQ  
TKCADDAMTLVLKKELV AHLKCTITGLTFWDPSCAEADRDKFVLRSAVSSCGMQVSASM  
ISNEAVVNILSSSSPQRKKVHCLNMDLSLQGLYLSPHFQASNTIEPGQQSFVQVRVS  
PSVSEFLLQLDSCHLDLGPPEGTVELIQGRAAKGNCVSLSPSPGDPFRFSFLLHFYTVF  
IPKTGTLSCTVALRPKTGSQDQEVHRTVFMRLNIISPDLGCTSKGLVLPVAVLGITFGAF  
LIGALLTAALWYIYSHTRSPSKREPVVAVAAPASSESSSTNHSIGSTQSTPCSTSSMA

>P72010

MDPRKIQLPREIYTGPGVIEDTGRICRDLRFEGRAMVVTGPRTLQIAGEAAIESLQAEFG  
EVDQVTVDDATMASVRNVQDGLDGVSVVLGVGGGKVIDVAKMSATLEGLHFISVPTAASH  
DGIASPRASIRNGEGTASLEASSPIGVIADTEIISRAPFRLLASGCADIISNYTAIMDWK  
LAHRLLNERYSESAAALSMTAKMIKSADAIKEGLEESARLAVKSLISSGIAISIAGSS  
RPASGSEHKFSHALDMIAPKPALHGEQCGVGTIMMHLHGGDWQFIRDALARINAPTAA  
ELGIDPEYII EALTMAHNIRRERYTILGDRGLTREAAERLAKITEVI

>Q01380

MKLLVLCVFMAMATLAVSRRYQFVQHQYIRKA FEVALKVEIIAGFDRTLKWLNRNHGRGL  
NENQRKVLVYFVNRMYM QTHWQNYMLWIVKKTNALGRPPVADYRALGAEIGRRIDMGYFY  
NFLKNRVMIPKYL P YMRRLNMRPEDVPPVANRNP GK

>Q9Y6C2

MAPRTLWSCYLCCLLTAAAGAASYPPRGFSLYTGS S GALS PGGPQAQIAPRPASRHRNWC  
AYVVTRTVSCVLEDGVETVYKYQPCAWGQPQCPQSIMYRRFLRPRYRVAYKTVTDMEWRC  
CQGYGGDDCAESPAPALGPASSTPRPLARPARPNLSGSSAGSPLSGLGGEGPGESEKVQQ  
LEEQVQSLTKELQGLRGVLQGLSGRLAEDVQRAVETAFNGRQQPADAAARPGVHETLNEI  
QHQLQLLDTRVSTHDQELGHLNHHGGSSSSGSRAPAPASAPPGPSEELLRQLEQRLQE  
SCSVCLAGLDGFRRQQQEDRERLRAMEKLLASVEERQRHLAGLAVGRRPPQECCSPELGR  
RLAELERRLDVAVGSVTVLSGRRGTTELGGAAAGQGGHPPGYTSLASRLSRLEDRFNSTLGP  
SEEQEESWPGAPGGLSHWLPAARGRLEQLGGLLANVSGELGGRLDLLEEQVAGAMQACGQ  
LCSGAPGEQDSQVSEILSALERRVLDSEGQLRLVGSGLHTVEAAGEARQATLEGLQEVVG  
RLQDRVDAQDETA AEFTLRLNLTAARLGQLEGLLQAHGDEGCGACGGVQEELGRLRDGVE  
RCSCPLLPGRPGAGPGVGGPSRGP LDGFSVFGGSSGSALQALQGE LSEVILSFSSLNDS  
LNELQTTVEGQADLADLGATKDRII SEINRLQQEATEHATESEERFRGLEEGQAQAGQC  
PSLEGR LGRLEGV CERLDTVAGGLQGLREGLSRHVAGLWAGLRETNTTSQMQAALLEKLV  
GGQAGLGRRLGALNSSLQLLEDRLHQLSLKDLTGPAGEAGPPGPPGLQGGPPGAGPPGSP  
GKDGQEGPIGPPGPQGEQGVGAPAAPVPQVAFSAALS LPRSEP GTVPFDRVLLNDGGYY  
DPETGVFTAPLAGRYLLSAVLTGHRHEKVEAVLSRSNQGVARVDSGGYEPEGLENK PVAE  
SQPSPGTLGVFSLILPLQAGD TVCVLDLVMGQLAHSEEPLTIFSGALLYGDPELEHA

>P23895

MNPYIYLGGA ILAEVIGTTLMKFSEGFTRLWPSVGTIICYCASFWLLAQTLAYIPTGIA Y  
AIWSGVGIVLISLLSWGFFGQRLDLP AII GMLICAGVLI INLLSRSTPH

>Q04830

MSTITQFPSPGNTQYRIEFDYLRARTFVVVTLVNSSNPTLNRVLEVGRDYRFLNPTMIEMLV  
DQSGFDIVRIHRQTGTDLVVDFRNGSVLTASDLTTAELQAIHIAEEGRDQTVDLAKEYAD  
AAGSSAGNAKDSEDEARRIAESIRAAGLIGYMTRRSFEKGYNVTTWSEVLLWEEDGDYR  
WDGTLPKNVPAGSTPETS GGI GLGAWVSVGDAALRSQISNPEGAILYPELHRARWLDEKD  
ARGWGAKGDGVTDDTAALTSALNDTPVGQKINGNGKTYKVTSLPDISRFINTRFVYERIP  
GQPLYYASEEFVQGELFKITDTPYYNAWPQDKAFVYENVIYAPYMGSDRHGVSRLHVS  
KSGDDGQTWSTPEWLTDLHPDYPTVNYHCMSMGVCRNRLFAMIETRLAKNALTNALWD  
RPMRSLSLHLTGGITKAANQRYATIHPVDHGLFVGFVNFNSAVTGVSGDMTVATVIDKD  
NFTVLTTPNQQTSDLNAGKNWHMGT SFHKSPWRKTDLGLIPSVTEVHSFATIDNNGFAMG  
YHQGDVAPREVGLFYFPDAFNPSNYVRRQIPSEYEPDASEPCIKYYDGVLYLITRGRG  
DRLGSSLHRSRDIGQTWESLRFPHNVHRTTLPFAKVGDDLIMFGSERAENEWEAGAPDDR  
YKASYPRTFYARLNVNWNWADDIEWVNI TDQIYQGGIVNSGVGVGSVVVKDNYIYYMFGG  
EDHFNPTWYGDNSAKDPFKSDGHPSDLYCYKMKIGPDNRVSRDFRYGAVPNRAVPVFFDT  
NGVRTVPAPMEFTGDLGLGHVTIRASTSSNIRSEVLMEGEYGF IGKSIPTDNPAGQRIIF  
CGGEGTSSTTGAQITLYGANNTDSRRIVYNGDEHLFQSADVKPYNDNV TALGGPSNRFTT  
AYLGSNP IVTSNGGGGKQSR

>P15007

MSWTASVFLRTSTTSMKFLRLRWP LPRIPQNKSANVAPRFRSKSAVSQ LSSGFK FVQIRK  
STCDSNEMTIKAIKARQIYDSRGNPTVEVDLTTELGLFRAAVPSGASTGVHEALELRDND  
KANYHGKSVLKAVGHVNDTLGPELIKANLDVVDQASIDNFMIKLDGTENKSKFGANAILG  
VSLAVAKAGA AAKGVPLYKHIA DL LAGNKEIILPVP AFNVINGGSHAGNKLAMQEFMILPT  
GATSFTTEAMKMGSEVYHHLKNVIKAKFGLDATAVGD EGGFAPNIQSNKEALNLI SDAIAK  
AGYTGKIEIGMDVAASEFYKDGQYDLDFKNEKSDKSQWLPADKLANLYQEFIKDFPIVSI  
EDPFDQDHWEAWSNL TGCTDIQIVGDDLTVTNPKRIATAVEKKACNCLLLKVNQIGTVTE  
SIAAHL LAKKNGWGT MVSHRSGETEDSFIGDLVVGLSTGQIKTGAPCRSERLAKYNQILR  
IEEEIGAGVKFAGKSFRKPQ

>P0A6P9

MSKIVKIIIGREIIDS RGNPTVEAEVHLEGGFVGM AAAPSGASTGSREALELRDGD KSRFL  
GKGVTKAVAAVNGPIA QALIGKDAKDQAGIDKIMIDL DGTENKSKFGANAILAVSLANAK  
AAAAAKGMPLYEHIAELNGTPGKY SMPVPMNI INGGEHADNNVDIQEFMIQPVGAKTVK  
EAIRMGSEVFHHLAKVLKAKGMNTAVGDEGGYAPNLGSNAEALAVIAEAVKAAGYELGKD  
ITLAMCAASEFYKDGKYVLAGEGNKAF TSEEFTHFLEELTKQYPIVSI EDGLDES DWDG  
FAYQTKVLGDKIQLVGDDL FVTNTKILKEGIEKGIANSILIKFNQIGSLTETLAAIKMAK  
DAGYTAVISHRSGETEDATIADLAVGTAAGQIKTGSMRSRSDRVAKYNQLIRIEEALGEKA  
PYNGRKEIKGQA

>Q97QS2

MSIITDVYAREVLDSRGNPTLEVEVYTESGAFGRGMVPSGASTGEHEAVELRDGD KSRYG  
GLGTQKAVDNNVNI IAEAIIGYDVRDQQAIDRAMIALDGT PKNKGLGANAILGVSIAVAR  
AAADYLEIPLYSYLGGFNTKVLPTPMNI INGGSHSDAP IAFQEFMILPVGAPTFKEALR  
YGAEIFHALKKILKSRGLETAVGDEGGFAPRFEGTEDGVETILAAIEAAGYVPGKDVFIG  
FDCASSEFYDKERKVYDYTKFE GEGAAVRTSAEQIDYLEELVNKYPIITIEDGMENDWD  
GWKALTERLGKVKVLVGD DFFVTNTDYLARGIQEGAANSILIKVNQIGTLTETFEAIEMA  
KEAGYTAVVSHRSGETEDSTIADI AVATNAGQIKTGSLSRTRIAKYNQLLR IEDQLGEV  
AEYRGLKSFYNLKK

>P08113

MRVLWVLGLCCVLLTFGFVRADDEVDVDTVEEDLGKSREGSRTDDEVVQREEEAIQLDG  
LNASQIRELREKSEKFAFQAEVNRMMKLIINSLYKNKEIFLRELISNASDALDKIRLISL  
TDENALAGNEELTVKIKCDKEKNLLHVTDGTGVMTREELVKNLGTIAKSGTSEFLNKMTE  
AQEDGQSTSELIGQFGVGFYSAFLVADKVIIVTSKHNNDTQHIWESDSNEFSVIADPRGNT  
LGRGTTITLVLKEEASDYLELDTIKNLVRKYSQFINFPYVWSSKTETVVEEPLLEDEAAK  
EEKEESDDEAAVEEEEEKPKTKKVEKTVWDWELMNDIKPIWQRPSKEVEEDEYKAFYK  
SFSKESDDPMAYIHFTAEGEVTFKSILFVPTSAPRGLFDEYGSKKS DYIKLYVRRVFI TD  
DFHDMMPKYLNFVKGVVSDDDLPLNVSRETQOQHKLLK VIRKKLVRKTLDMIKKIADEKY  
NDTFWKEFGTNIKLGVI EDHSNRTRLAKLLRFQSSHSTDTITSLDQYVERMKEKQDKIYF  
MAGSSRKEAESSPFVERLLKKGYEVIYLTEPVDEYCIQALPEFDGKRFQNVAKEGVKFD  
SEKTKESREATEKEFEPLLNWMKDKALKDKIEKAVVSQRLTESPCALVASQYGWSGNMER  
IMKAQAYQTGKDI STNYYASQKKTFEINPRHPLIRDMLRRIKEDEDDKTVMDLAVVLFET  
ATLRSGYLLPDTKAYGDRIERMLRSLNIDPEAQVEEPEEPEEEDTSEDAEDSEQDEGEE  
MDAGTEEEEEETEKESTEKDEL

>P22413

MERDGCAGGSRGGEGGRAPREGPAGNGRDRGRSHAAEAPGDPQAAASLLAPMDVGEEPL  
EKAARARTAKDPNTYKVLVSLVSVCVLTTILGCI FGLKPSCAKEVKSCCKGRCFERTFGNC  
RCDAACVELGNCCLDYQETCIEPEHIWTCNKFRCGEKRLTRSLCACSDCKDKGDCCINY  
SSVCQGEKSWVEEPCESINEPQCPAGFETPPTLLFSLDGFRAEYLHTWGGLLPVI SKLKK  
CGTYTKNMRPVYPTKTFPNHYSIVTGLYPESHGIDNKMYDPKMNASFSLKSKEKFNPEW  
YKGEPIWVTAKYQGLKSGTFFWPGSDVEINGIFPDIYKMYNGSVPFEEIILAVLQWLQLP  
KDERPHFYTLYLEEPDSSGHSYGPVSSEVIKALQRVDGMVGMMDGLKELNLHRCLNLIL  
ISDHGMEQGSCKKYIYLNKYLGDVKNIKVIYGAARLRPSDVPDKYYSFNIEGIARNLSC  
REPNOHFYPYLKHF LPKRLHF AKSDRIEPLTFYLDPQWLALNPSERKYCGSGFHGSDNV  
FSNMQALFVGYGPGFKHGI EADTFENIEVYNLMCDLLNLTPAPNNGTHGSLNHLKKNPVY  
TPKHPKEVHPLVQCPFTRNPRDNLGCSCNPSILPIEDFQTQFNLTVAEEKIKHETLPYG  
RPRVLQKENTICLLSQHQFMSGYSQDILMPLWTSYTVDRNDSFSTEDFSNCLYQDFRIPL  
SPVHKCSFYKNNTKVSYGFLSPPQLNKNSSGIYSEALLTNIIVPMYQSFQVIWRYFHDTL  
LRKYAEERNGVNVVSGPVDFDYDGRCDLENLRQKRRVIRNQEILIPTHFFIVLTSCKD  
TSQTPLHCENLDTLAFILPHRTDNSESCVHGKHDSSWVEELMLHRARITDVEHITGLSF  
YQQRKEPVSDILKCLKTHLPTFSQED

>P15047

MDFSGKNVWVTGAGKGIGYATALAFVEAGAKVTGFDQAFTQEYQPFATEVMDVADAAQVA  
QVCQRLLAETERLDALVNAAGILRMGATDQLSKEDWQQTFAVNVGGAFNLFQQTMNQFRR  
QRGGAIVTVASDAAHTPRIGMSAYGASKAALKSLALSVGLELAGSGVRCNVVSPGSTDTD  
MQRTLWVSDDAEQRIRGFGEQFKLGIPLGKIARPQEIANTILFLASDLASHITLQDIVV  
DGGSTLGA

>P27427

MVDSTIRLVATIFLISLTTQQIEVCNKAQQQGPYTLVDYQEKPLNISRIQIKVVKTSVATK  
GLNFHIGYRAVWRGYCYNGGSLDKNTGCYNDLIPKSPTESELRTWSKSKCCTGPDVDA  
WGS DARICWAEWKMELCHTAKELKKYSNNNHAYHTCNLSWRCGLKSTHIEVRLQASGGL  
VSMVAVMPNGTLPIEGTRPTYWTEDSFAYLYDPAGTEKKTSTFLWCFKEHIRPTTELS  
GAVYDTHYLGTYDKNPQFNYYCRDNGYFELPANRLVCLPTSCYKREGAIVNTMHPNTW  
KVSEKLSASQFDVNNVVHSLVYETEGLRLALSQLDHRFATLSRFLFNRLTQSLAKIDDRL  
LGTLLGQDVSSKFI SPTKFMLSPLSTPEGDSNCHNHSIYRDGRVWHNSDPTQCFSLSKS  
QPVDLYSFKELWLPQLLDVNVKGVVADEEGWSFVAQSKQALIDTMTYTKNGGKGTSLLEDV  
LGYPGWINGLQGLLLNGAISWVVVIGVVLVGVCLMRRVF



>P84089

MSHTILLVQPTKRPEGRTYADYESVNECMEGVCKMYEEHLKRMNPNSPSITYDISQLFDF  
IDDLADLSCLVYRADTQTYQPYNKDWIKEKIYVLLRRQAQQAGK

>O75460

MPARRLLLLLTLPLGLGIFGSTSTVTLPETLLFVSTLDGSLHAVSKRTGSIKWTLKEDP  
VLQVPTHVEEPAFLPDPNDGSLYTLGSKNNEGLTKLPFTIPELVQASPCRSSDGILYMGK  
KQDIWYVIDLLTGEKQOTLSSAFADSLCPSTSLLYLGRTEYTTITMYDTKTRELNRWNATYF  
DYAASLPEDEGDYKMSHFVSNNGDLVVTVDSESGDVLWIQNYASPVVAFYVWQREGLRKV  
MHINVAVETLRYLTFMSGEVGRITKWYFPFKETEAKSKLTPPLYVVGKYSTSLYASPSMV  
HEGVAVVPRGSTLPLEGPQTDGVTIGDKGECVITPSTDVKFDPGLKSKNKLNYLRNYWL  
LIGHHETPLSASTKMLERFPNNLPKHRENVIPADSEKKSFEV INLVDQTSENAPTTVSR  
DVEEKPAHAPARPEAPVDSMLKDMATIILSTFLLIGWVAFIITYPLSMHQQQQLQHQQFQ  
KELEKIQLLQQQQQQLPFHPPGDTAQDGEELDTSGPYSESSGTSSPSTSPRASNHSLCSG  
SSASKAGSSPSLEQDDGDEETSVVIVGKISFCPKDVLGHGAEGTIVYRGMFDNRDVAVKR  
ILPECFSFADREVQLLRESDEHPNVIRYFCTEKDRQFYIAIELCAATLQYVEQKDFAH  
LGLEPITLLQQTTSGLAHLHSLNIVHRDLKPHNILISMPNAHGKIKAMISDFGLCKKLAV  
GRHSFSRRSGVPGTEGWIAPEMLSEDCKENPTYTVDIFSAGCVFYYVVSEGSHPFGKSLQ  
RQANILLGACSLDCLHPEKHEDVIARELIEKMIAMDPQKRPSANDVLKHPFFWSLEKQLQ  
FFQDVSDRIEKESLDGP IVKQLERGGRAVVKMDWRENITDPLQTDLRKFRITYKGGSVRDL  
LRAMRNKKHHYRELPAEVRETLGTL PDDFVCYFTSRFPHLLAHTYRAMELCSHERLFQPY  
YFHEPPEPQPPVTPDAL

>P30040

MAAAVPRAAFLSPLPLLLGFLLLSAPHGGSGLHTKGALPLDVTTFYKVIPKSKFVLVKF  
DTQYPYGEKQDEFKRLAENSASSDDLLVAEVGISDYGDKLNMELSEKYKLDKESYPVFYL  
FRDGFENPVYPYTGAVKVGAIQRWLKQGQVYLGMPGCLPVYDALAGEFIRASGVEARQAL  
LKQGQDNLSSVKETQKKWAEQYLIKIMGKILDQGEDFPASEMTR IARLIEKNKMSDGKKEE  
LQKSLNILTAFQKKGAKEEEL

>P27882

MKAIDKMTDNPPQEGLSGRKIIYDEDGKPCRSCNTLLDFQYVTGKISNGLKNLSSNGKLA  
GTGALTGEASELMPGSRTYRKVDPPDVEQLGRSSWTLHLSVAASYPAQPTDQQKGEMKQF  
LNIFSHIYPCNWCAKDFEKYIRENAPQVESREELGRWMCEAHNKVNKKLRKPKFDCNFW  
KRWKDGWDE

>Q12284

MKQIVKRSHAIRIVAALGIIGLWMFFSSNELSIATPGLIKAKSGIDEVQGAAAEKNDARL  
KEIEKQTIMPLMGDDKVKKEVGRASWKYFHTLLARFPDEPTPEEREKLHTFIGLYAELYP  
CGECSYHFVKLIEKYPVQTSRRTAAAMWGCHIHNVNEYLLKDDIYDCATILEDYDCGCS  
SDGKRVSLKEAKQHG

>Q53547

MTEPLILQPAKPADACVIWLHGLGADRYDFMPVAEALQESLLTTRFVLPQAPTRPVTING  
GYEMPSWYDIKAMSPARISLEELEVSAMVTDLIEAQKRTGIDASRIFLAGFSQGGAVV  
FHTAFINWQGPLGGVIALSTYAPTFGDELELSASQQRIPALCLHGQYDDVVQNAMGRSAF  
EHLKSRGVTVTWQEYPMGHEVLPQEIHDIGAWLAARLG

>Q07792

MIRLLSLVLFCLSAASQASEKLLVLGDSL SAGYQMPIEKSWPSLLPDALLEHGQDVTVI  
NGSISGDTTGNGLARLPQLLDQHTPDLVLI ELGANDGLRGFPFKVITSNLSKMI SLIKDS  
GANVMMQIRVPPNYGKRYSDMFYDIYPKLAEHQQVQLMPFFLEHVITKPEWMMDDGLHP  
KPEAQPWIAEFVAQELVKHL

>P49333

MEVCNCIEPQWPADELLMKYQYISDFFIAIAYFSI PLELIYFVKKSAVFPYRWVLVQFGA  
FIVLCGATHLINLWFTTTHSRTVALVMTTAKVLTAVVSCATALMLVHIIPDLLSVKTREL  
FLKNKAAELDREMGLIRTQEETGRHVRMLTHEIRSTLDRHTILKTTLVELGRTLAL EECA  
LWMPTRTGLELQLSYTLRHQHPVEYTVPIQLPVINQVFGTSRAVKISPNSPVARLRPVSG  
KYMLGEVAVRVPLHLHSNFQINDWPELSTKRYALMVLMLPSDSARQWHVHELELVEVVA  
DQVAVALSHAAILEESMRARDLLMEQNVALDLARREAE TAIRARNDFLAVMNHMRTPMH  
AIIALSSLLQETELTPEQRLMVETILKSSNLLATLMNDVLDLSRLEDGSLQLELGTFLNH  
TLFREVLNLIKPIAVVKKLPITLNLAPDLPEFVVGDEKRLMQIILNIVGNAVKFSKQGS I  
SVTALVTKSDTRAADFFVVP TGSHFYLRVKVKDSGAGINPQDIPKIFTKFAQTQSLATRS  
SGGSGGLGLAISKR FVNLMEGNIWIESDGLGKGCTAIFDVKLGISERSNESKQSGIPK VPA  
IPRHSNFTGLKVLVMDENGVS RMVTKGLLVHLGCEVTTVSSNEECLRVVSHEHKVVFMDV  
CMPGVENYQIALRIHEKFTKQRHQRP LLVALSGNTDKSTKEKCMSFGLDGVLLKPVSLDN  
IRDVLSDLLEPRVLYEGM

>Q8WZM3

MYSVLKQSIRPRLLATHNQFRMTITAQAVLYTQHGE PKDVLFTQSFEIDDDNLAPNEVIV  
KTLGSPVNP SDINQIQGVYPSKPAKTTGFGTTEPAAPCGNEGLFEVIKVGSNVSSLEAGD  
WVIPS HVNFGTWRTHALGNDDDFIKLPNPAQSKANGKPNGLTINQGATISVNPLTAYLML  
THYVKLTPGKDWFIQNGGTSAVGKYASQIGKLLNFNSISVIRDRPNLDEVVASLKELGAT  
QVITEDQNN SREFGPTIKEWIKQSGGEAKLALNCVGGKSSTGIARKLNNNGMLTYGGMS  
FQPVTIPTSLYIFKNFTSAGFWVTELLKNNKELKTSTLNQIIAWYEEGKLTDAKS IETLY  
DGTKPLHELYQDGVANSKDGKQLITY

>P38071

MLPTFKRYMSSSAHQIPKHFKSLIYSTHEVEDCTKVL SVKNYTPKQDLSQSIVLKT LAFP  
INPSDINQLQGVYPSRPEKTYDYSTDEPAAIAGNEGVFEVVSLPSGSSKGD LKLGDRVIP  
LQANQGTWSNYRVFSSSSDLIKVNDLDFLSAATVSVNGCTGFQLVSDYIDWNSNGNEWII  
QNAGTSSVSKI V TQVAKAKGIKTL SVIRDRDNFDEVAKVLEDKYGATKVI SESQNNDKTF  
AKEVLSKILGENARVRLALNSVGGKSSAS IARKLENNALMLTYGGMSKQPVTLP TSLHIF  
KGLTSKGYVWTEKNKNPQSKIDTISDFIKMYNYGHIISPRDEIETLTWNTNTTTDEQLL  
ELVKKGITGKGKKKMVVLEW

>P0ACZ4

MNAIIIDDHPLAIAAIRNLLIKNDIEILAELTEGGSAVQRVETLKPDI VIIDVDIPGVNG  
IQVLET LRKRQYSGIIIVSAKNDHFYGGKHCADAGANGFVSKKEGMNIIAAIEAAKNGY  
CYFPFSLNRFVGS L TSDQQKLDLSKQEISVMRYILDGKDNNDIAEKMFISNKTVSTYKS  
RLMEKLECKSLMDLYTFAQRNKIG

>P50503

MDPRKVELRAFVKMCRQDPSVLHTEEMRFLREWVESMG GKVPPATHKAKSEENTKEEKR  
DKTTEDNIKTEEPSSEESDLEIDNEGVI EADTDAPQEMGDENAEITEAMMDEANEKKGAA  
IDALNDGELQKAIDLFTDAIKLNPRLAILYAKRASVFKLQKPNAAIRD CDRAIEINPDS  
AQPYKWRGKAHRL LGHWEAARDLALACKLDYDEDASAMLREVQPRAQKIAEHRRKYERK  
REEREIKERI ERVKKAREEHEKAQREEEARRQSGSQFGSFPGGFPGGMPGNFPGMPGMG

GAMPGMAGMPGLNEILSDPEVLAAMQDPEVMVAFQDVAQNPSNMSKYQNNPKVMNLI SKL  
SAKFGGHS

>P19112

MVDHAPFETDISTLTRFVLEEGRKAGGTGEMTQLLNLSLCTAIKAISSAVRQAGIAQLYGI  
AGSTNVTGDQVKKLDILSNDLVINMLKSSYATCVLVSEEDTHAIIEPEKRGKYVVCFD  
LDGSSNIDCLASIGTIFGIYRKTSANEPSEKDALQPGRNLVAAGYALYGSATMLVLMNC  
GVNCFMLDPSIGEFILVDRDVKIKKKGNISINEGYAKDFDPAINEYIQRKKFPDINSAP  
YGARYVGSMAVADVHRTLVIYGGIFLYPANKKNPSGKLRLLYECNPIAYVMEKAGGLATTGN  
EDILDIVPTEIHQKAPVIMGSTEDVQEFLEIYNKDKAKSRPSLPLPQSRARESPVHSICD  
ELF

>P22418

MASIGPATTTAVKLRSSIFNPQSSTLSPSQQCITFTKSLHSFPTATRHNVASGVRCAA  
GAAATETKARTRSKYEIETLTGWLLKQEMAGVIDAELTIVLSSISLACKQIASLVQRAGI  
SNLTGIQGAUNIQQEDQKKLDVVSNEVFSSCLRSSGRTGIIASEEEDVPVAVEESYSGNY  
IVVFDPLDGSSNIDAAVSTGSIFGIYSPNDECIVDSHDHDESQLSAEEQRCVVNVCQPGD  
NLLAAGYCMYSSSVIFVLTIGKGVYAFTLDPMYGEFVLTSEKIQIPKAGKIYSFNEGNYK  
MWDDKLLKMYMDDLKEPGESQKPYSSRYIGSLVGFHRTLTYGGIYGYPRDAKSKNGKLR  
LYECAPMSFIVEQAGGKSGDGHQRILDIQPTTEIHQRVPLYIGSVEEVEKLEKYLA

>P0A993

MKTLGEFIVEKQHEFSHATGELTALLSAIKLGAKIHRDINKAGLVDILGASGAENVQGE  
VQOKLDFANEKKAALKARDIVAGIASEEEDIVVFEGCEHAKYVVLMDPLDGSSNIDV  
NVSVGTIFSIYRRVTPVGTPTVEEDFLQPGNKQVAAGYVYVGSSTMLVYTTGCGVHAFTY  
DPSLVGFCLCQERMRFPEKGTYSINEGNYIKFPNGVKKYIKFCQEEDKSTNRPYTSRYI  
GSLVADFHRNLLKGGIYLYPSTASHPDGKLRLLYECNPMFLAEQAGGKASDGKERILDI  
IPETLHQRRSFFVGNHDMVEDVERFIREFPDA

>Q59943

MAQSTTSETHTRDLDRDCTTLSRHVLEQLQSFSPAQDLAALMQRIGLAAKLIARRLSHA  
GLVDDALGFTGEINVQGEAVKRMDVYANQVVISVFRQSGLVCRRLASEEMEKPYIIPENCP  
IGRYTLLYDPLDGSANVDVLDNVGSIFAVRRQEFYDESHEAKDLLQPGDRQIAAGYVLYG  
ASTLLVYSMGQGVHVFVLDPSLGEFVLAQSDIQLPNSGQIYSVNEGNFWQWPEGYRQYIR  
EMHRREGYSGRYSGALVADFHRILMQGGVFLYPETVKNPTGKLRLLYEAAPMAFLAEQAG  
GKASDGQKPIILLRQPQALHERCPLIIGSAADVDFVEACLAESVP

>P26285

MSGNPASSEQNNSYETKASLRISEKKCSWASYMTNSPTLIVMIGLPARGKTYVSKKLT  
RYLWNWIGVPTKVFNLGVYRRQAVKSYKSYDFFRHDNEEAMKIRKQCALVALKDVKAYLTE  
ESGQIAVFDATNTTRERRDLILNFAEENSFKVFFVESVCDDPDVIAANILEVKVSSPDYP  
ERNRENVMDDFLKRIECYKVTYQPLDPDSDHKDLSFIKVINVGQRFLVNVKQDYIQSKIV  
YYLMNIHVHPRTIYLCRHGESEFNLLGKIGGDSGLSVRGKQFAQALRKFLLEEQEIADLKV  
WTSQLKRTIQTAESLGVTYEQWKILNEIDAGVCEEMTYAEIQEQYPDFALRDEEKYLYR  
YPGGESYQDLVQRLEPVMELERQGNVLVISHQAVMRCLLAFYLDKGADELPLYLRCPPLHT  
IFKLTTPVAYGCKVETIKLNVEAVNTHRDKPTNMFPSQTPVRRMRRNSFTPLSSNTIRRP  
RNYSVGSRPLQPLSPLRALDTQEGADQPKTQAETSRAAHLRPSAPPTSPS

>P03951

MIFLYQVVHFILFTSVSGECVTQLLKDTCFEGGDIITTVFTPSAKYCVVCTYHPRCLLFT

FTAESPSEDPTRWFTCVLKDSVTETLPRVNRATAAISGYSFKQCSHQISACNKDIYVDLDM  
KGINYNSSVAKSAQECQERCTDDVHCHFFTYATRQFPSELEHRNICLLKHTQTGTPTRITK  
LDKVVSGFSLKSCALSNLACIRDIFPNTVFADSNIDSVMAPDAFVCGRICTHHPGCLFFT  
FFSQEWPKESQRNLCLLKTSEGLPSTRIKSKALSQSGFSLQSCRHSIPVVFCHSSFYHDTD  
FLGEELDIVAAKSHEACQKLCTNAVRCQFFTYTPAQASCNEGKGCYLKLSNNGSPTKIL  
HGRGGISGYTLRLCKMNECTTKIKPRIVGGTASVRGEWPQVTLHTTSPQRHLGGSI  
IGNQWILTAAHCFYGVESPKILRVYSGILNQSEIKEDTSFFGVQEII IHDQYKMAESGYD  
IALLLKLETTVNYTDSQRPICLPSKGDNRNVIYTDWCWVTGWYRKLKLDKIQNTLQKAKIPLV  
TNEECQKRYRGHKITHKMICAGYREGGKDACKGDSGGPLSCKHNEVWHLVGITSWGEGCA  
QRERPGVYTNVVEYVDWILEKTQAV

>P97612

MVLSEVWTTLSGVSGVCLACSLLSAAVVLRTGRQKARGAATRARQKQRASLETMDKAVQ  
RFRLQNPDL DSEALLTLPLQLVQKLQSGELSPEAVFFTYLGKAWEVNKGTNCVTSYLT  
CETQLSQAPRQGLLYGVPVSLKECF SYKGHDSLGLSLNEGMPSESDCVVQVLKLGAV  
PFVHTNVPQSMLSFDCSNPLFGQTMNPWKSSKSPGGSSGGEGALIGSGGSPGLGTDIGG  
SIRFPFAFCGICGLKPTGNRLSKSGLKGCYVYGQTAVQLSLGPMARDVESLALCLKALLCE  
HLFTLDPTVPPLPFREEVYRSSRPLRVGYETDNYTMPSPAMRRAL IETKQRLEAAGHTL  
IPFLPNNIPYALEVLSAGGLFS DGGRSFLQNFKGFVDPCLGDLILILRLPSWFKRLLSL  
LLKPLFPRLAAFLNSMRPRSAEKLWKLQHEIEMYRQSVIAQWKAMNLDVLLTPMLGPALD  
LNTPGRATGAI SYTVLYNCLDFPAGVVPVTTVTAEDDAQMELYKGYFGDIWDI ILLKAMK  
NSVGLPVAVQCVALPWQEELCLRFMREVEQLMTPQKQPS

>P0A953

MKRAVITGLGIVSSIGNNQEVLASLREGRSGITFSQELKDSGMRSHVWGNVKLDTTGLI  
DRKVVRFMSDASIYAFLSMEQAIADAGLSPEAYQNNPRVGLIAGSGGSPRFQVFGADAM  
RGPRGLKAVGPYVVTKAMASGVSAACLATPFKIHGVNYSISSACATSAHCIGNAVEQIQLG  
KQDIVFAGGGEELCWEMACEFDAMGALSTKYNDTPEKASRTYDAHRDGFVIAGGGGMVVV  
EELEHALARGAHIYAEIVGYGATSDGADMVAPSGEGAVRCMKMAMHGVDTPIDYLN SHGT  
STPVGDVKELAAIREVFGDKSPAISATKAMTGHS LGAAGVQEAIYSLMLLEHGF IAPSIN  
IEELDEQAAGLNIVTETTDRELTTVMSNSFGFGGTNATLVMRKLKD

>P0AAI5

MSKRRVVVTGLGMLSPVGNTVESTWKALLAGQSGISLIDHFDTSAYATKFAGLVKDFNCE  
DIISRKEQRKMDAFIQYGIVAGVQAMQDSGLEITEENATRIGAAIGSGIGGLGLIEENHT  
SLMNGGPRKISPFVFPSTIVNMVAGHLTIMYGLRGPSSISIATACTSGVHNIGHAARI IAY  
GDADVMVAGGAEKASTPLGVGGF GAARALSTRNDNPQAASRPWDKERDGFVLGDGAGMLV  
LEEYEHAKKRGAKIYAELVGFMSDAYHMTSPPENGAGAALAMANALRDAGIEASQIGY  
VNAHGTSTPAGDKAEAQAVKTI FGEAASRVLVSSTKSMTGHLLGAAGAVESIY SILALRD  
QAVPPTINLDNPDEGCDLDFVPHEARQVSGMEYTL CNSFGFGGTNGSLIFKKI

>P73283

MANLEKKRVVVTGLGAI TPIGNTLQDYWQGLMEGRNGIGPITRFDASDQACRFGGGEVKDF  
DATQFLDRKEAKRMDRFCHFVAVCASQQAINDAKLVINELNADEIGVLI GTGIGGLKVLED  
QQTILLDKGPSRCSPFMIPMMIANMASGLTAINLGAKGPNNCTVTACAAGSNAIGDAFRL  
VQNGYAKAMICGGTEAAITPLSYAGFASARALSFRNDDPLHASRPFDKDRDGFVMGEGSG  
ILILEELESALARGAKIY GEMVGYAMTCDAYHITAPVPDGRGATRAIAWALKDSGLKPEM  
VSYINAHGTSTPANDVTETRAIKQALGNHAYNIAVSSTKSMTGHLLGGSGGIEAVATVMA  
IAEDKVPPTINLENPDPECDLDYVPGQSRALIVDVALSNSFGFGGHNVTLAFKKYQ

>Q93X62

MATTVAATKLTSLKAVKKLGFREIRQVRQWSPLQSAMPHFGMLRCGSRQSFATSTVVKAQ  
ATAVEQSTGEAVPKVESPVVVVTGASRGIGKAIALSLGKAGCKVLVNYARSAKEAEEVSK  
QIEAYGGQAITFGGDSKEADVEAMMKT AIDAWGTIDVVVNNAGITRD TLLIRMKKSQWD  
EVIDLNL TG VFLCTQAATKIMMKKRKGRI INIASVVGLIGNIGQANYAAA KAGVIGFSKT  
AAREGASRNINNVNVC PGFIASDMTAKLGEDMEKKILGTIPLGRYGPEDVAGLVEFLAL  
SPAASYITGQAFTIDGGIAI

>P0AEK2

MNFEGKIALVTGASRGIGRAIAETLAARGAKVIGTATSENGAQAI SDYLGANGKGLMLNV  
TDPASIESVLEKIRA EFGVDILVNNAGITRDNLLMRMKDEEWNDI IETNLSSVFRLSKA  
VMRAMMKKRHGRI ITIGSVVGTMGNGGQANYAAA KAGLIGFSKSLAREVASRGI TVNVVA  
PGFIETDMTRALSDDQRAGILAQVPAGRLGGAQE IANAVAF LASDEAA YITGETLHVNGG  
MYMV

>P0A6R0

MYTKI IGTGSYLPEQVRTNADLEKMVDTSDEWIVTRTGIRERHIAAPNETVSTMGFEAAT  
RAIEMAGIEKDQIGLIVVATTSATHAFPSAACQIQSMLGIKGC PAFDVAAACAGFTYALS  
VADQYVKS GAVKYALVVGSDVLARTCDPTDRGTII IFGDGAGAAVLAASEEPGI ISTHLH  
ADGSYGELLTLPNADRVNPENSIHLTMAGNEVFKVAVTELAHIVDETLAANNLDRS QLDW  
LVPHQANLRI ISATAKKLGMSMDNVVVT LDRHGNTSAASVPCALDEAVRDGR IKPGQLVL  
LEAFGGGFTWGSALVRF

>P0A574

MTEIATTSGARSVGLLSVGAYRPERVV TNDEICQHIDSSDEWIYTRTG IKTTRRFAADDES  
AASMATEACRRALS NAGLSAADIDGVI VTTNTHFLQTPPAAPMVAASLGAKGILGFDLSA  
GCAGFGYALGAAADMIRGGGAATMLVVGTEKLSPTIDMYDRGNCFIFADGAAAVVGETP  
FQGIGPTVAGSDGEQADAIRQDIDWITFAQNPSPGPRPFVRL EGPVFRWAAF KMGDVGRR  
AMDAAGVRPDQIDVFVPHQANSRINELLVKNLQLRPDAVVANDIEHTGNTSAAS I PLAMA  
ELLTTGAAKPGDLALLIGYGAGLSYAAQVVRMPKG

>P68795

MNVGIKGF GAYAPEKI IDNAYFEQFLDTSDEWISKMTGIKERHWADDDQDTS DLAYEASV  
KAIADAGIQPEDIDMI IVATATGDMFPPTVANMLQERLGTGKVASMDQLAACSGFMYSMI  
TAKQYVQSGDYHNILVVGADKLSKITDLTDRSTAVLFGDGAGAVI IGEVSEGRGII SYEM  
GSDGTGGKHL YLDKDTGKLMNGREVF KFAVRIMGDASTRVVEKANLTSDDIDLFI PHQA  
NIRIMESARERLGISKDKMSVSVNKYGN TSAAS I PLSIDQELKNGK LKDDDTIVLVGFGG  
GLTWGAMTIKWGK

>Q54206

MSKIKPAKGAPYARILGVGGYRPTRVVPNEVILETIDSSDEWIRSRSGIQTRHWANDEET  
VAAMSIEASGKAIADAGITAAQVGAVIVSTVTHFKQTPAVATEIADKLG TNKAAAFDISA  
GCAGFGYGLTLAKGMIVEGSAEYVLVIGVERLSDLTDLEDRATAFLFGDGAGAVVVGPSN  
EPAIGPTIWGSEGDKAETIKQTVPWTDYREGGVERFPAITQEGQAVFRWAVFEMAKVAQQ  
ALDAAGVAAADLDVFI PHQANERIIDSMVKTLKLPESVTVARDVRTTGNTSAAS I PLAME  
RLLATGEAKSGDTALVIGFGAGLVYAASVVTL P

>P0A3C5

MAFAKISQVAHYVPEQVVTNHDLAQIMDTNDEWISSRTGIRQRHISRTESTSDLATEVAK  
KLMAKAGITGEELDFIILATITPDSMMPSTAARVQANIGANKAFDFDLTAACSGFVFALS

TAEKFIASGRFQKGLVIGSETLSKAVDWSDRSTAVLFGDGAGGVLLEAQQEHFLAESLN  
SDGSRSECLTYGHSGLHSPFSDQESADSFLKMDGRTVFDFAIRDVAKS IKQTIDESPIEV  
TDLDYLLHLHQANDRILDKMARKIGVDRAKLPANMMEYGN TSAASIPILLSECVEQGLIPL  
DGSQTVLLSGFGGLTWGTLILTI

>P80094

PQTVRGVIARSKGAPVELTDIVIPDPGPSEVTAL IATCAVCHTDLTYREGGINDEFPFLL  
GHEAAGTVESVGEVDSVQPGDYVVLNWRAVCGQCRAKGRPQYCFSTFNATQKMTLTD  
GTELT PALGIGAFADKTLVHAGQCTKVDPAADPAVAGLLGCGVMAGLGA AVNTGAVSRGD  
SVAVIGCGAVGDAVIAGARLAGANKI IAVDRDAKKLEWATELGATHTVNATETDVVEAVQ  
ALTGGFGADVVIDAVGRPETWKQAFYARDLAGTVVLVGVPTPDMRLEMPLLDFFSRGGAL  
KSSWYGDCLEPERDFPVLIDLHLQGRPLDKFVTERISLDDVEKAFHTMHAGEVLR SVVVW

>P45382

MRTRAAVALEAGKPLEVMEVNLEGP KAGEVMVEIKATGICHTDEF T LSGADPEGLFPSIL  
GHEGAGVVVEVGPVTSVKPGNHV IPLYTPECRQCASC LSGKTNLCTAIRATQGGQLMPD  
GTSRFSMLDGTPIFHYMGCSTFSNYTVLPEI AVAKVREDAPFDKICYIGCGVTTGIGAVI  
NTAKVEIGAKAVVFG LGGIGLNLVQLGRLLAGADMIIGVDLND DKKPMAEHFGMTHFINPK  
NCENVVQEI VNLTKTQFDQIGGADYSFDCTGNVKVMRDALECTHRGWGQSI IIGVAPAGA  
EISTRPFQLVTRGVWKGTAFFGGARGRTDVPQIVDWYMDGKIEIDPMITH T LSLDDINKGF  
DLMHAGESIRSVVLY

>P46154

MSGNRGVVYLGSGKVEVQKIDYPKMQDPRGKKIEHGVILKVVSTNICGSDQHMRGRTTA  
QVGLVLGHEITGEVIEKGRDVENLQIGDLVSVPFNVACGRCSRCKEMHTGVCLTVNPARA  
GGAYGYVDMGDWTGGQAEYLLVPYADFNLLKLPDRDKAMEKIRDLTCLSDILPTGYHGAV  
TAGVGPSTVYVAGAGPVGLAAAASARLLGAAVVIVGDLNPARLAHAKAQGF EIADLSLD  
TPLHEQIAALLGEPVDCAVDAVGF EARGHGHEGAKHEAPATV LNSLMQVTRVAGKIGIP  
GLYVTEDPGAVDAAAKIGSL SIRFGLGWAKSHSFHTGQTPVMKYNRALMQAIMWDRINIA  
EVVGVQV ISLDDAPRGYGEFDAGVPKKFVIDPHKTF SAA

>P10384

MSQKTLFTKSALAVAVALISTQAWSAGFQLNEFSSSGLGRAYS GEGAIADDAGNVSRNPA  
LITMFD RPTFSAGAVYIDPDVNI SGTSPSGRSLKADNIAPTAWVPNMHFVAPINDQFGWG  
ASITSNYGLATEFNDTYAGG SVGGTTDLETMNLNLSGAYRLNNAWSFGLGFNAVYARAKI  
ERFAGDLGQLVAGQIMQSPAGQTQQGQALAAATANGIDSNTKIAHLNGNQWFGWNAGILY  
ELDKNNRYALTYRSEVKIDFKGNYSDDLNR AFNNYGLPIPTATGGATQSGYLTLNLP EMW  
EVSGYNRVDPQWAIHYSLAYTSWSQFQQLKATSTSGDTL FQKHEGFKDAYRIALGTTYYY  
DDNWTFRGTGIAFD DDPVPAQNRSISIPDQDRFWLSAGTT YAFNKDASVDVGVSYMHGQSV  
KINEGPYQFESEKAWLFGT NFN YAF

>P12276

MEDVVIAGIAGKLPESENLQEFWENLLNGVDMVTEDDRRWKPGIYGLPKRNGK LKDIKKF  
DASFFGVHPKQAHTMDPQLRLLLEVS YEAILDGGINPTALRGTD TG VVWGASGSEALEAL  
SQDPEELLGYSMTGCQRAMLANRISYFYDF TGP SLTIDTACSSSLMALENAYKAIRHGQC  
SAALVGGVNILLKPN TSVQFMKLGMLSPDGACKAFDVSGNGYCRSEAVVVVLLTKK SMAK  
RVYATIVNAGSNTDGFKEQGVTFPSGEMQQQLVGS LYRECGIKPGDVEYVEAHGTGTKVG  
DPQEVNGIVNVFCQCEREPLLIGSTKSNMGHPEPASGLAALAKVILSLEHGLWAPNLHFN  
DPNPDI PALHDGSLKVVCKPTPVKGLVVSINSFGFGGSNAHVILRPNEKKCQPQETCNLP  
RLVQVCGRTQEAVEILIEESRKHGGCSPFLSLLSDISAVPVSSMPYRGYTLVGTESDITE

IQVQASGRPLWYICSGMGTQWKMGLSLMKLDLFRQSILRSDEALKSTGLKVSDLLLNA  
DENTFDDTVHAFVGLAAIQIAQIDVLKAAGLQPDGILGHSVGEACGYADNLSHEEAVL  
AAYWRGRVCVKEAKLPPGGMAAVGLTWEECKQRCPNVPVACHNSEDTVTVSGPLDSVSEF  
VTKLKKDGVFAKEVRRAGVAFHSYYMASIAPALLSALKKVIPHPKPRSARWISTSIPE  
SQWQSDLARNSSAEYHVNNLVNPFVLFHEGLKHIPENAVVVEIAPHALLQAILRRTLKPTCTI  
LPLMKKDKHKNLEFFLTQTGKIHLTGINVLGNLFPVPEYVVPVGTPLISPYIKWDHSQD  
WDVPAEDFPSPGSKGSASASVYNIDVSPDSDHYLVGHCIDGRVLYPATGYLVLAWRTLA  
RSLGMVMEQTAVMFEEVTIHQATILPKKGSTQLEVRIMPASHSFVSGNGNLAVSGKISL  
LENDALKNFHNQLADFQSQANVTAKSGLLMEDVYQELHLRGNNGYPTFGQVLECNSEGS  
GKILWNGNWNVTFDITLLHLIVLAETGRSLRRLPTRIRSVYIDPVLHQEQVYQYQDNVEAFD  
VVVDRCLDSLKAGGVQINGLHASVAPRRQQRISPTLEKFSFVPIESDCLSSSTQLHAY  
LEHCKGLIQKLQAKMALHGVKLVIHGLETKGAAAGSPPAQKGLQHILTEICRLELNGNPH  
SELEQIVTQEKMHLQDDPLLNGLLDSSELKTCLDVAKENTTSHRMKIVEALAGSGRLFSR  
VQSILNTQPLLQLDYIATDCTPETLSDNETELHDAGISFSQWDPSSLPSGNLTNADLAVC  
NCSTSVLGNTAEIISNLAAAVKEGGFVLLHTLLKEETLGEIVSFLTSPDLQKHSFLSQA  
QWEELEFSKASLNLVAMKRSFFGSVIFLCRRQSPAKAPILLPVDDTHYKWDLSKEILADS  
SEQPLWLTATNCGNSGILGMVNCLRLEAEGHRIRCVFVSNLSPSSSTVPATSLSSLEMQKI  
IERDLVMNVYRDGKWSFRHLPLQQAQPQELTECAYVNVLTRGDLSSLRWIVSPLRHFQT  
TNPVNLQCKVYYASLNFWDIMLATGKLSPDAIPGNWTLQCCMLGMEFSGRDLAGRVMGL  
LPAKGLATVVDCDKRFLWEVPEWNTLEEAASVPVYATAYALVVRGGMKKGESVLIHSG  
SGGVGQAAIAIALSMGCRVFATVGSAAEKREYLQARFPQLDANSFASSRNTTFQQHILRVT  
NGKGVSLVNLSLAEKQLQASLRCLAQHGRFLEIGKFDLSNNSQLGMALFLKNVAFHGILL  
DSIFEEGNQEWVSELLTKGIKDGVVKPLRRTTVFGKEEVEAAFRFMAQKHKIGKVMIKI  
QEEEKQYPLRSEPVKLSAISRTSCPPTKSYIITGGLGGFGLLELAQWLIERGAQKLVLT  
SRSGIRTGYQAKCVREWKALGIQVLVSTSDVGTLEGTQLLIEEALKLGPVGGIFNLAVV  
LKDAMIENQTPELFWEVKNPKYSGLTHLDWVTRKKCPDLDFVVFSSVSCGRGNAGQSNY  
GFANSAMERICEQRHHDGLPGLAVQWGAIGDVGILKAMGNREVVIGGTVLQQISSCLEV  
LDMFLNQPHVMSSFVLAEKVSVKSEGGSQRDLEVAVAHILGVRDVSSLNAESSLADLGLD  
SLMGVEVRQTLERDYDIVMTMREIRLLTINKLRELSKGTAEELKPSQVLKTGPGEPPKLDL  
NNLLVNPEGPTITRLENEVQSTERPLFLVHPIEGSIAVFYTLASKLHMPCYGLQCTKAAPL  
DSIQSLASYIIDCMKQIQPEGPYRIAGYSFGACVAFEMCSQLQAQQNASHALNSLFLFDG  
SHSFVAAYTQSYRAKLTQGNAALETEALCAFVQQFTGIEYNKLEILLPLEDELEARVNA  
AADLITQIHKNINREALSFAAASFYHKLKAADKYIPESKYHGNVTLMRAKTHNEYEEGLG  
GDYRLSEVCDGKVSVHIIEGDHRTLLEGDGVESIIGIIHGSLAEPRVSVREG

>P37889

MLLQESAGVWLALALVTALTPSPSMAVPWQDCTGAECPLLENCIEEAELEPGACCATCVQQ  
GCACEGYQYYDCVQGGFVDGRVPAGQSYFVDFGSTECSCPPGGGKISCQFMLCPPELPPNC  
IEAVVVADSCPCQGVGVHSGRKYAAGHTVHLSSCRACHCPDAGGELICYQLPGCHGNF  
SDAEEGDSERQYEDPYSYDQEVAAEAEATTAIVNEVQAGAEGPPAALGGGNLPPSSIRVTP  
WPVALPRPTAAAALGPPAPVQAKARRVTLDTTEDEEEEEETLVTEPPTAGSPGRDLSLP  
TRSPARPGFPVQEKAEAKAGPEENLIPDAQVTPRSVMQEGAAPVPRSGLAALSPLSLATD  
SSSEDPVKPSDHPTLSTLPPDRAQVSPSPETPEEIPQHPQLLPRFRAEEDIDPNSVHSVP  
RGDLDGSTKDLIETCCAAGQQAIDNDECQEIPENGAQSDICRIARQCCISYLKEKSCV  
AGVMGAKEGETCGAEDNDTCGVSLYKQCCDCCGLGLRVRAEGQSCESNPNLGYPCNHVML  
SCCEGEEPLIVPEVRRPPEPEAAPRRVSEMEMASREALSLGTEAELPNSLPGDDQDECLM  
LPGELCQHLCINTVGSYRCACFPGFELQGDGRTCRPDRGAPQLDTARESAPRSESAQVSP  
NTIPLPVPQPNCTCKDNGPCRQVCRVVDGTAMCSCFPGYAIMADGVSCEDQDECLMGTHDC  
SWKQFCVNTLGSFYCVNHTVLCAGGYILNAHRKCVDINECVTDLHTCTRAEHCVNTPGSF  
QCYKALTCEPGYVLTGDECTDVDECVTGTTHNCQAGFSCQNTKGSFYCQARQRCMDGFLQD

PEGNCVDINECTSLLEPCRSGFSCINTVGSYTCQRNPLVCGRGYHANEEGSECVDVNECE  
TGVHRCGEGQLCYNLPGSYRCDCKPGFQRDAFGRITCIDVNECWVSPGRLCQHTCENTPGS  
YRCSAAGFLLAADGKHCEDVNECETRRCSEQECANIYGSYQCYCRQGYQLAEDGHTCTDI  
DECAQAGILCTFRVCVNPVPGSYQCACPEQGYTMMANGRSCKDLDECALGTHNCSEAETCH  
NIQGSFRCLRFDCPPNYVRVSQTKCERTTCQDITECQTSPARITHYQLNFQTGLLVPAHI  
FRIGPAPAFAGDTISLTITKGNEEGYFVTRRLNAYTGVVSLQRSVLEPRDFALDDEMMLW  
RQGSVTTFLAKMYIFFTTTAP

>P10079

MRTWLLAVLLLSVIAVTYGQGECDSDPCENGSTCQEGEGSYICQCPMGYDGNCDRFTGS  
NCGYNVFDANGMIDSPNYPAMYNNRADCLYLVRITKARSITFTIEDFMTEVFKDVVEYGI  
GPEADFNQALGSFEGNLTQDDVIPAPFTVQGDQAWFIFSTDRNIVNRGFRITFSSDGDDC  
DPNLCQNGAACTDLVNDYACTCPPPGFTGRNCEIDIDECASDPCQNGGACVDGVNGYVCNC  
VPGFDGDECENNINECASSPCLNGGICVDGVNMFECTCLAGFTGVRCEVNIDECASAPCQ  
NGGICIDGINGYTCSCPLGFSGDNCEENDDCESSIPCLNGGTCVDLVNAYMVCAPGWTG  
PTCADNIDECASAPCQNGGVCIDGVNGYMCDCQPGYTGTHCETDIDECARPPCQNGGDCV  
DGVNGYVICAPGFDGLNCEENIDECASRPCQNGAVCVGVNGFVCTCSAGYTGVLCETD  
INECASMPCLNGGVCTDLVNGYICTCAAGFEGTNCETDIDECASFPCQNGATCTDQVNGY  
VCTCVPGYTGVLCETDINECASFPCLNGGTCNDQVNGYVCVCAQDTSVSTCETDRDECAS  
APCLNGGACMDVVNGFVCTCLPGWEGTNCINTDECASSPCMNGGLCVDQVNSYVCFCLP  
GFTGIHCGTEIDECASSPCLNGGQCIDRVDSYECVCAAGYTAVRCQINIDECASAPCQNG  
GVCVDGVNGYVCNCAPGYTGDNCETEIDECASMPCLNGGACIEMVNGYTCQCVAGYTGVI  
CETDIDECASAPCQNGGVCTDTINGYICACVPGFTGNSCETNIDECASDPCCLNGGICVDG  
VNGFVCQCPPNYSYTYCEISLDACRSMPQNGATCVNVGADYVCECVPGYAGQNCIDIN  
ECASLPCQNGGLCIDGIAGYTCQRLGYIGVNCCEEVGFCDLEGMWYNECNDQVTITKTST  
GMMLGDYMTYNERALGYAAPTVVVGYASNNDYDFPSFGFTVVRDNGQSTTSWTGQCHLCDG  
EEVLYTTWINTNMVSTCQDIKKSNMVGGQDKWTRYEQSIAPQPD

>P49013

MKVSLAVLLLSIVAATYQGECSNPCENGSVCRDGEPTYICECQMGYDGNCDRFTGA  
NCGYNIFESTGVIESPNYPANYNNRADCLYLVRIKGARVITFTIEDFATEIFKDAVEYGV  
GPVADFNQALATFEGNLTANNQVPPPFVQGEQAWFIFSTDRNIPRKGFRITFSSDGDDC  
TPNPCLNGATCVDQVNDYQICCAPGFTGDNCETDIDECASAPCRNGGACVDQVNGYTCNC  
IPGFNGVNCENNINECASIPCLNGGICVDGINQFACTCLPGYTGILCETDINECASSPCQ  
NGGSCTDAVNRYTDCRAGFTGNSCETNINECASSPCLNGGSCLDGVYVCQCLPNYTG  
THCEISLDACASLPCQNGGVCTNVGGDYVCECLPGYTGINCEIDINECASLPCQNGGECI  
NGIAMYICQCRQGYAGVNCCEEVGFCDLEGVWFNECNDQITIKTSTGMMLGDHMTFTERE  
LGVAAPTVMVGYPSNNDYDFPSGITVVRDNGRTTTSWTGQCHLCDGQEVLYTTWIESSMV  
STCEEIKRANKVGGQDKWTRYEQSFAPQPD

>Q49135

MAGNETIETFLDGLASSAPTPGGGGAAAISGAMGAALVSMVCNLTIGKKKYVEVEADLMQ  
VLEKSEGLRRTLGMIAADDVEAFDAVMGAYGLPKNTDEEKAARAQIQEALKTATDVPLA  
CCRVCREVIDLAEIVAEEKGNLNVISDAGVAVLSAYAGLRSAAALNVVNAKGLDDRAFAEE  
RLKELEGLLAEAGALNERIYETVKSQVN

>Q12178

MVTGGMASKWDQKGMIDAYEEAALGYKEGGVPIGGCLINNKGDSVLGRGHNMRFQKGSAT  
LHGEISTLENCGRLEGGVYKDTTLYTTLSPCDMCTGAIMYGIIPRCVGENVNFKSKGEK  
YLQTRGHEVVVDDERCKKIMKQFIDERPDWDFEDIGE



>P33677

MKVVLVLYDAGKHAQDEERLYGCTENALGIRDWLEKQGHVVTSDKEGQNSVLEKNI  
ADVIISTPFHPAYITKERIDKAKKLKLLVAVGSDHIDLIDYINQSGRDISVLEVTGSNV  
VSVAEHVMTMLVLRNFVPAHEQIISSGWNVAEIAKDSFDIEGKVIATIGAGRIGYRVL  
ERLVAFNPKELLYDYQSLSKAEAEKVGARRVHDIKELVAQADIVTINCPLHAGSKGLVN  
AELLKHFKKGAWLVNTARGAICVAEDVAAAVKSGQLRGYGGDVWFPQPAPKDHPWRSMAN  
KYGAGNAMTPHYSGSVIDAQVRYAQGTKNILESFFTQKFDYRPPQDIILLNGKYKTKSYGA  
DK

>P33160

MAKVLVLYDDPVDGYPKTYARDDLKIDHYPGGQTLPTPKAIDFTPGQLLGSVSGELGL  
RKYLESNGHTLVVTSKDKGPDVFERELVDADVVISQPFWPAYLTPERIAKAKNLKLLALT  
AGIGSDHVDLQSAIDRNVTVAEVTYCNSISVAEHVMMILSLVRNYLPSHEWARKGGWNI  
ADCVSHAYDLEAMHVGTVAAGRIGLAVLRRLAPFDVHLHYTDRHRLPESVEKELNLTWHA  
TREDMPVCDVVTLCNPLHPETEHEMINDETLLKLFKRGAYIVNTARGKLCDRDAVARALES  
GRLAGYAGDVWFPQPAPKDHPWRTMPYNGMTPHISGTTTLTAQARYAAGTREILECFEGR  
PIRDEYLIVQGGALAGTGHSYSKGNATGGSEEAAKFKKAV

>Q07511

MAMSRVASTAARAITSPSSLVFTRELQASPGPKKIVGVFYKANEYAEMNPNFLGCAENAL  
GIREWLESKGHQYIVTPDKEGPDCELEKHIPDLHVLISTPFHPAYVTAERIKKAKNLQLL  
LTAGIGSDHVDLKAAGLTVAEVTGSNTVSAEDELMRILILVRNFLPGHHQVINGEW  
NVAAIAHRAYDLEGKTVGTVGAGRIGRLLLQRLKPFNCNLLYHDLKMDSELENQIGAKF  
EEDLDKMLSKCDIVVINTPLTEKTKGMFDKERIAKLKKGVLIVNNARGAIMDTQAVVDAC  
NSGHIAGYSGDVWFPQPAPKDHPWRYMPNQAMTPHISGTTIDAQLRYAAGTKDMLDRYFK  
GEDFPAENYIVKDGELAPQYR

>P80668

MTEPHVAVLSQVQQFLDRQHGLYIDGRPGPAQSEKRLAIFDPATGQEIASTADANEADV  
NAVMSAWRAFVSRRWAGRLPAERERILLRFADLVEQHSEELAQLETLEQGKSIAISRAFE  
VGCTLNMWRYTAGLTTKIAGKTLDLISIPLPQGARYQAWTRKEPVGVVAGIVPWNFPLMIG  
MWKVPALAAAGCSIVIKPSETTPTMLRVAELASEAGIPDGVFNVTGSGAVCGAALTSH  
PHVAKISFTGSTATGKGIARTAADHLTRVTLELGKKNPAIVLKDADPQWVIEGLMTGSFL  
NQGQVCAASSRIYIEAPLFDTLVSGFEQAVKSLQVGPMSVPAQINPLVSRACDKVCSF  
LDDAQQAQAEIRGSNGPAGEGYVAPTLLVNPDAKLRLTREEVFGPVVNLVRVADGEEA  
LQLANDTEYGLTASVWTQNLSQLALEYSDRLQAGTVWVNSHTLIDANLPPFGGMKQSGTGRD  
FGPDWLDGWCETKSVCVRY

>Q14314

MKLANWYWLSSAVLATYGFLVVANNETEEIKDERAKDVCPVRLERSGKCEEAGECPYQVS  
LPPLTIQLPKQFSRIEEVFKEVQNLKEIVNSLKKSCQDCKLQADDNGDPGRNGLLLPSTG  
APGEVGDNRVRELESEVNKLSSELKNAKEEINVLHGRLEKLNLMNMIENYVDSKVANL  
TFVVNSLDGKCSKCPSEQEQISRPVQHLYKDCSDYYAIGKRSSETYRVTDPKNSSEFV  
YCDMETMGGGWTVLQARLDGSTNFTRTWQDYKAGFGNLRREFWLGNKIHLLTKSKEMIL  
RIDLEDFNGVELYALYDQFYVANEFLKYRLHVGNNGTAGDALRFNKHYNHDLKFFTPD  
KDNDRYPSGNCGLYSSGWFDACLSANLNGKYYHQKYRGVRNGIFWGTWPGVSEAHPPG  
YKSSFKEAKMMIRPKHFKP

>P49789

MSFRFGQHLIKPSVVFLKTELSFALVNRKPVVPGHVLVCLRPVERFHDLRPDEVADLFQ  
TTQRVGTVVEKHFHGTSLTFSMQDGPAGQTVKHVHVHVLPRKAGDFHRNDSIYEELQKH  
DKEDFPASWRSEEEEMAAEAAAALRVYFQ

>P14267

MKRARLEDDFNPVYPYEHYNPLDIPFITPPFASSNGLQEKPPGVLSLKYTDPLTTKNGAL  
TLKLGTLNIDENGLDSSDASVEVSAPITKTNKIVGLNYTKPLALRSNALTL SYNAPLNV  
VNNNLALNISQPVTVNANNELSLLIDAPLNADTGLRLQSAAPLGLVDKTLKVLFSPLY  
LDNNFLTALAIERPLALSSRAVTLKYSPPLKIENENLTLSTGGPFTVSGGNLNLTSAPL  
SVQNNLSLVITSPLKVINSMMLAVGVNPPFTITDSGLAMDLDGLALGGSKLIINLGPGL  
QMSNGAITLALDAALPLQYRDNQLQLRIGSTSGLIMSGVTQTLNVNANTGKGLAVENNSL  
VVKLGNGLRFDSWGSITVSPTTTTTPTTLWTTADPSPNATFYESLDAKVVWLVLVKCNMNVN  
GTISIKAQKGI LLRPTASFISFVMYFYSDGTWRKNYPVFDNEGILANSATWGYRQGQSAN  
TNVSNAVEFMPSSKRYPNQKGSEVQNMALTYTFLQGDPMMAISFQSIYNHALEGYSLKFT  
WRVRNNERFDIPCCSFSYVTEQ

>P03275

MKRARPSEDTFNPVYPYDTETGPPTVPFLTPPFVSPNGFQESPPGVLSLRVSEPLDTSHG  
MLALKMGSGTLTKAGNLTSONVTTVTQPLKKTNSNISLDT SAPLTTITSGALTVATTAPL  
IVTSGALSVOQAPLTVQDSKLSIATKGPITVSDGKLALQTSAPLSGSDSDTLT VTASPP  
LTTATGSLGINMEDPIYVNMNGIKIGIKISGPLQVAQNSDTLTVVTGPGVTVEQNSLRTKVA  
GAIGYDSSNMEIKTGGGMRINNNLLILDVDYPPFDAQTKLRLKLGQPLYINASHNLDIN  
YNRGLYLFNASNNTKKLEVISIKKSSGLNFDNTAIAINAGKGLEFDNTTSESPDINPIKTK  
IGSGIDYNENGAMITKLGAGLSFDNSGAIITIGNKNDDKLT LWTTTPDPSPNCRIHSDNDCK  
FTLVLTCKGSQVLATVAALAVSGDLSSMTGTVASVSI FLRFDQNGVLMENSSLKKHYWNF  
RNGNSTNANPYTNAVGFMPNLLAYPKTQSQTAKNNIVSQVYLHGDKTKPMILTTITLNGTS  
ESTETSEVSTYSMSFTWSWESGKYTTETTFATNSYTF SYIAQE

>P04501

MAKRARLSTSFNPVYPYEDESSQHPPINPGFISPNGFTQSPNGVLSLKC VNPLTTASGS  
LQLKVGSGTLVDTTDGSLEENIKVNTPLTKSNHSINLPIGNGLQIEQNKLC SKLGNGLTF  
DSSNSIALKNNTLWTPKPEANCIIEYKQNPDSKLTLLVKNGGIVNGYVTLMGASDYV  
NTL FKNKNVSINVELYFDATGHILPDSSSLKTDLELKYQTADFSARGFMPSTTAYPFVL  
PNAGTHNENYIFGQCYYKASDGALFPLEVTVM LNKRLPDSRTSYVMTFLWSLNAGLAPET  
TQATLITSPFTFSYIRED

>P36844

MSKSARGWSDGFDPVYPYDADNDRPCPSSTLPSFSSDGFQEKPLGVLSLGPGRPCHTKNG  
EITLKLGEVDLDDSGKLIANTVNKAIAPLSFFQQHHPPLTWIPLYTPKMENYPYKFLPP  
LSILKSTILNTLVSAFGSGLGLSGSALAVQLASPLTFDDKGNIKITLNRGLHVTTGDAIE  
SNISWAKGIKFEDGAIATNIGKSRFGTSSSTETGVNNAYPIQVKLGSGLSFDSTGAIMAG  
NKDYDKLT LWTTTPDPSPNCQILAENDAKLTCLTMCDSQILATVSVLVVRSGNLNPITGT  
VSSAQVFLRFDANGVLLTEHSTSKKYWGKQGDSIDGTPYTNVAVGFMPNSTAYPKTQSST  
TKNNIVGQVYMNGDVSKPMLLTTITLNGTDDTT SAYSMSFSYTWNGSYIGATFGANSYTF  
SYIAQQ

>P15141

MSNFNSSPVPTIFMSFFQMTKRVRLSDSFNPVYPYEDESTSQHPFINPGFISPNGFTQSP  
DGVLTCLKLTPLT TTGGSLQLKVGGLTIDDDTGFLKENISAATPLVKTGHSIGLSLGP  
LGTNENKLC AKLGEGLTFNSNNICIDDNINTLWTVNPTTANCQIMASSESNDCKLILTL

VKTGGLVTAFFVYVIGVSNDFNMLTTHKNINF TAELFFDSTGNLLTSLSSLKTPLNHKSGQ  
NMATGALTNAKGFMPSTTAYPFVNSREKENYIYGTCYYTASDHAFPIDISVMLNQRAL  
NNETSYCIRVTSWNTGVAPVQTSATTLVTSPPFTFYIRED

>P36711

MKRSRTQYAEETEENDDFNVPVYFPDFDTSVDPFVTPPFTSSNGLQEKPPGV LALNYKDP  
IVTENGTLTLKLGDIKLNAGQQLTASNINVLEPLTNTSQGLKLSWSAPLAVKASALTL  
NTRAPLTTTDESALITAPPITVESSRLGLATIAPLSLDGGGNLGLNLSAPLDVSNNNLH  
LTTETPLVVNSSGALS VATADPISVRNNAITLPTADPLMVSSDGLGISVTSPTVINGSL  
ALSTTAPLNSTGSTLSL SVANPLTISQDTLTVSTGNGLQVSGSQLVTRIGDGLTFDNGVM  
KVVNAGGMRTSGGRIILDVNYPFDASNLSLRRLGLIYNQSTNWNLTDDISTEKGLMFS  
GNQIALNAGQGLTFNNGQLRVKLGAGLIFDSNNNIALGSSSNTPYDPLTLWTTDP PPPNC  
SLIQELDAKLTCLTKNGSIVNGIVSLVGVKGNLLNIQSTTTTVGVHLVDFEQGRLITST  
PTALVPQASWGYRQGSVSTNTVTNGLGFMPNVSAYPRPNASEAKSQMVSLTYLQGDTSK  
PITMKVAFNGITSLNGYSLTFMWSGLSNYINQPFSTPSCSFSYITQE

>P36847

MSKRLRVEDDFNPVYYPGYARNQNI PFLTPPFVSSDGFQNFPPGVLSLKLADPIAIANGN  
VSLKMGGLTLQEGTGNLTVNTEPPLQLTNRIGIALDAPFDVIGGKLTLLAGHGLSIIT  
EETSPLPGLVNTLVVLTKGLGTDTTDNGG SIRVRVGE GGLSFNEAGDLVAFNKKEDMR  
TLWTTDPDPSNCKIIE DKDKSLTLILTKCGSQILGSVSLLVKGF SNINNTNPNEADK  
QITVKLLFDANGVLKQGSTMDSSYWNYS DNSNLSQPYKKA VGFMP SKTAYPKQTKPTNK  
EISQAKNKIVSNVYLGGKIDQPCV IISFN E EADSDYSIVFYFKWYKTYENVQFDSSSFN  
FSYIAQE

>P36848

MKRSRTQYAEPEEENDDFNVPVYFPDYDTAHVPFVTPPFTSSNAFQEKPPGVLSLNYKDP  
IVTENGLTLKLGNGIKLNSQQLTTTNTKVLEPLPHTSQGLTLSWSAPLSVKASALTLN  
TMAPFTTTNESLSLVTAPPITVEASQLGLASCSTSKLRGGGNLGFHLPAPFVVPSSNALT  
LSASDPLTVNSNSLGLNITSPITLINGSALATSPPLDTTGSTLNLSVAAPLSVSQNALT  
VSTGNGLQVSGSQLVTRIGDGLRFDNGVIKAHVAGGNETLRGKIILDVNYPFDATTNLSL  
RRGSLIYN ESTNWNLTDDISTEKGLTFSGNQIAINAGPCGLTFNNRKLQVKLGAGHTFS  
SNDNIALNSIATPYDPLTLWTTDP PPPNCTLRQELDAKLTCLTKNESIVNGIVSLIGVK  
GDLLHIQPTTTTVGLHLVDFDRQGR LVTTTPTALVPQASWGYKQGSVSSAVANALGFMP  
NVSAYPRPNAGEAKSQMLSQTYLQGDTTKPI TMKVVFNGNATVDGYSLTFMWTGVSNYLN  
QQFSTPSCSFSYIAQE

>Q03553

MKRSVPQDFNLVYPYKAKRPNIMPPFFDRNGFVENQEATLAMLVEKPLTFDKEGALTLGV  
GRGIRINPAGLLETNDLASAVFPPLASDEAGNVTLNMSDGLYTKDNKLAVKVGPGLSLDS  
NNALQVHTGDGLTVTDDKVS LNTQAPLSTTSAGLSLLLGP SLHLGEEERLTVNTGAGLQI  
SNNALAVKVGSGITVDAQNQLAASLGDGLESRDNKT VVKAGPGLTITNQALTVATGNGLQ  
VNPEGQLQLNITAGQLNFANSLAVELGSGLHFP PGQNVSLYPGDGIDIRDNRVTVPA  
GPGLRMLNHQLAVASGDGLEVHSDTLRLKLSHGLTFENGAVRAKLG PGLTDDSGRSVVR  
TGRGLRVANGVQVQIFSGRGTAGTSSSLTLNIRAPLQFSGPALTASLQSGPITYNSNNG  
TFGLSIGPMWVDQNR LQVNPAGLVFQGNLVPNLADPLAISDSKISLSLGPGLTQASN  
ALTLSLGNLEFSNQAVAIAKAGRGLRFESSQALESSTLVGNGLTLTDTVIRPNLGDGLE  
VRDNKIIVKLGANLRFENGAVTAGTVNPSAPEAPP TLTAEPPLRASN SHLQLSLSEGLVV  
HNNALALQLGDGMEVNQHGLTLRVGSGLQMRDGI LTVTPSGTPIEPRLTAPLTQTENGIG  
LALGAGLELDESALQVKVGP GMRLNPVEKYVTL LLLGPGLSFGQPANRTNYDVRVSVEPPM

VFGQRGQLTFLVGHGLHIQNSKQLQLNLGQGLRTPVTNQLLEVPLGQGLEIADESQVRVKL  
GDGLQFDSQARITTTAPNMVTETLWTGTGSNANVTWRGYTAPGSKLFLSLTRFSTGLVLGN  
MTIDSNASFGQYINAGHEQIECFILLDNQGNLKEGSNLQGTWEVKNNPSASKAAFLPSTA  
LYPILNESRGLPGKNLVGMQAILGGGGTCTVIATLNGRRSNNYPAGQSIIFVWQEFNTI  
ARQPLNHSTLTFSYWT

>P22230

MKRTRSALPANFDPVYPYDAPKPKSTQPPFFNDRKGLTESSPGTLAVNISPPPLTFSNLGA  
KLSTGAGLILKEGKLEANIGPGLTTNQEQQITVEKDSGLTFTSPLHKIENTVLSLSIGEG  
LEDESGTLKVNFPSPPPPLLFSPPLAEAGGTVSLPLQESMQVTEGKLGVKPTTYSPPLQK  
TDQQVSLRVGPGLTVLNGQLQAVQPPATTYKEPPLLETENSVSCLKVGAGLAVQDGLVATP  
PNVTF SAPLEKNGNAVSVRVGAGLSIQGNALVATTSPTLTFAYPLIKNNNHITLSAGSGL  
RVSGSLTVATGPGLSHINGTIAAVIGAGLKFENNAI LAKLGNGLTIRDGAIEAVAPQPS  
FTPVTLWTGPDPNVNASINGTPVIRSFISLTRDSNLVTVNASFTGEGSYQSVSPTQSQFS  
LILEFNQFGQLMSTGNLNSTTTWGKPKWGNNTVQVQPSHTWKLKMPNREVYSTPAATLTS  
CGLNSIAHDGAPNRSIDCMLIINKLRGAATYTLTFRFLNFKLSSTVFKTDVLTFTYV  
ENQ

>P19721

MVEALNAVYPYDLALLPEDYEKTTAPDAVQAANAARPFLNPVYPYQQPVAGDFGFPVMP  
PFFNSYDFTSIHGNTLSLRLNKPLKRTAKGLQLLLGSGLSVNADGQLESSEGI SEADAPL  
QINDGVLQLSFGEGLSVNDHGELESKGKVEAVTLPLALQDHVMSLSFGQGLQVNDQGQLE  
ALAMVHSTSAPLKVTTNNLELALGRGLIVDDQGLRLAPNLLWPESPLAIEQGTNHLILF  
YNQSLDVEDGKLTLPPEPFDPLTLDGGRLRMQLAPNSGLAVTEKGS LGINWGEGIQVKEQK  
ITLKVTPANGLAVTEQGGNINWNGIKVDEQKVTLKTSNEFALTENGLYLTSPLNPIEV  
NQHGQLGIALGYGFHAHRGYLELTPQTLWTGLPIGNNGTFHTKQDCKIFLSLTRLGPMVH  
GTFMLQAPQYELTTNGMREITFSFNSTGGLEQPAPVTYWGALDPPPTAKAAE IENQKRVK  
KRAAPDPPVEPPP KRRGLAVLFAKVAEQAMELAKEQAVQAQPPPEHVNTDWADHMNLLRF  
MPNTLVYPTAATIAANLQFHDTRL SLRRATLKI RLNGSPDSAYQLGFMLELVGTQSASIV  
TDTISFWYYAEDY

>P69380

MNQSYGRLVSRAAIAATAMASLLLLIKIFAWWYTGVS SILAALVDSLVDIGASLTNLLV  
RYSLQPADDNHSFGHGKAESLAALAQSMFISGSALFLFLTGIQHLSPTPMTDPGVGVIV  
TIVALICTIILVSFQRVVRRTQSQAVRADMLHYQSDVMMNGAILLALGLSWYGWHRADA  
LFALGIGIYILYSALRMGYEAVQSLDRALPDEERQEI IDIVTSWPGVSGAHLRTRQSG  
PTRFIQIHLEMEDSLPLVQAHMVADQVEQAILRRFP GSDVIIHQDPCSVPREGKRSMLS

>O75369

MPVTEKDLAEDAPWKKIQQNTFTRWCNEHLKCVNKRIGNLQTDLSDGLRLIALLEVLVSQK  
RMYRKYHQRPTRFQMLENVSVALEFLDRESIKLVSIDSKAIVDGNLKLILGLVWTLILH  
YSISMPVWEDEGDDAKKQTPKQRLLGWIQNKIPYLPITNFNQNWQDGKALGALVDSCAP  
GLCPDWESWDPQKPVNDAREAMQQADDWLGVVQVITPEEIIHPDVDEHSVMTYLSQFPKA  
KLKPGAPLKPKNPKKARAYGRGIEPTGNMVKQPAKFTVDTISAGQGDVMVFVEDPEGNK  
EEAQVTPDSDKNKTYSEYLPKVTGLHKVTVLFAQGHISKSPFEVSVDKAQGDASKVTAK  
GPGLEAVGNIANKPTYFDIYTAGAGVGDIGVEVEDPQKNTVELLVEDKGNQVYRCVYKP  
MQPGPHVVKIFFAGDTIPKSPFVVQVGEACNPNACRASGRGLQPKGVRIRETTDFKVDTK  
AAGSGELGVTMKGPKGLEELVKQKDFLDGVYAF EYYPSTPGRYSIAITWGGHHIPKSPFE  
VQVGPEAGMQKVRWAGPGLHGGIVGRSADFVVESIGSEVGSGLGFAIEGPSQAKIEYNDQN  
DGSCDVKYWPKEPEYAVHIMCDEDEDIKDSPYMAFIHPATGGYNPDLVRAYGPGLEKSGC

IVNNLAEFTVDPKDAGKAPLKIFAQDGEQQRIDIQMKNRMDGTYACSYTPVKAIKHTIAV  
VWGGVNIPIHSPYRVNIGQGSHPQKVVFPGPVERSGLKANEPHF'TVDCTEAGEGDVSVG  
IKCDARVLSEDEEDVDFDI IHNANDTFTVKYVPPAAGRYTIKVLFASQEI PASPFVVKVD  
PSHDASKVKAEGPGLSKAGVENGKPTHFTVYTKGAGKAPLNVQFN SPLPGDAVKDLDI ID  
NYDYSHTVKYTPQTQQGNMQVLVVTYGGDPIPKSPFTVGVAAPLDLSKIKLNGLNRRVEVGK  
DQEFVTDTRGAGGQGLDVTILSPSRKVVPCLVTPVTGRENSTAKFIPREEGLYAVDVTY  
DGHPVPGSPYTV EASLPPDP SKVKAHGPGLEGGLVGKPAEFT'IDTKGAGTGGLGLTVEGP  
CEAKIECSNDGDTCSVSYLPTKPG EYFVNILFEEVHIPGSPFKADIE MPFDPSKVVASG  
PGLHEGKVGEAGLLSVNCSEAGPGALGLEAVSDSGTKAEVSIQNNKDGTYAVTYVPLTAG  
MYTLTMKYGGELVPHFPARVKVEPAVDTSRIKVFPGPIEGKDVFREATTDF'TVDSRPLTQ  
VGGDHIAKAIANPSGASTEFCVTDNADGTYQVEYTPFEKGLHVVEV TYDDVPIPNSPFKV  
AVTEGCQPSRVQAQGPGLKEAFTNKNPVFTVVTTRGAGIGGLGITVEGPSESKINCRDNKD  
GSCSAEYIPFAPGDYDVNITYGGAHIPGSPFRVPVKDVVDP SKVKIAGPGLGSGVRARVL  
QSFTVDSKAGLAPLEVRVLGPRGLVEPVNMVDNGDGTHTV'TYTPSQEGPYMVSVKYADE  
EIPRSPFKVKVLP TYDASKVTASGPGLSSYGVPA SLPVDF AIDARDAGEGLLAVQITDQE  
GKPKRAIVHDNKDGTAVTYIPDKTGRYMI GVTYGGDDIPLSPYRIRATQTGDASKCLAT  
GPGIASTVKTGEEVGFVVDAKTAGKGVCTVLT'PDGTEAEADV IENEDGTYDIFYTAAK  
PGTYVIYVRFGGVDIPNSPFTVMATDGEVTAVEEAPVNACPPGFRPWVTEEAYVPVSDMN  
GLGFKPFDLVI PFAVRKGEITGEVHMPSGKTATPEIVDNKDGTVTVRYAPTEVGLHEMHI  
KYMGSHIPESPLQFYVNPNSGVSAYGPGLVYGVANKTATFT'IVTEDAGEGGLDLAIEG  
PSKAEISCIDNKDGTCTV'TYLP TLP GDYSILVKYNDKHIPGSPFTAKITDDSRRCSQVKL  
GSAADFLLDISETDLSL TASIKAPSGRDEPCLLKRLPNNHIGISFIPREVEHLVSIKK  
NGNHVANSPPV SIMVQSEIGDARRAKVYGRGLSEGRTFEMSDFIVDTRDAGYGGISLAVE  
GPSKVDIQTEDLEDGTCKVSYFP'TVPGVYIVSTKFADEHVPGSPFTVKISGEGRVKESIT  
RTSRAPSVATVGSICDLNLKIPEINSSDMSAHVTSPSGRVTEAEIVPMGKNSHCVRFVPQ  
EMGVHTVSVKYRQGHV'TGSPFQFTV'GPLGEGGAHKVRAGGPGLERGEAGVPAEFSIWTR  
AGAGGLSIAVEGPSKAEITFDDHKNGSCGVSYIAQEPGNYEVS IKFNDEHIPESPYLVPV  
IAPSDDARRLTVMSLQESGLKVNQPASFAIRLNGAKGKIDAKVHSPSGAVEECHVSELEP  
DKYAVRFIPHENGVHTIDVKFNGSHVVGSPFKVVRVGE'PGQAGNPALVSAYGTGLEGGTTG  
IQSEFFINTTRAGPGT'LSVTIEG'PSKVKMDCQETPEGYKVMYTPMAPGNYLISVKYGGPN  
HIVGSPFKAKVTGQRLVSPGSANETSSILVESVTRSS'ETCYSAIPKASSDASKVTSKGA  
GLSKAFVQGKSSFLVDCSKAGSNMLLIGVHGPTTPCEEVSMKHVGNQQYNVTVVVKERGD  
YVLAVKWGEEHIPGSPFHVTVP

>Q9KIT1

MKRSLGAKPLLFPTPVLVVGTYDDQGRPNAMTAAWGGICCSKPPCVTVSLRKATYTYASL  
MARKAYTLHVTDEPHLTASDFLGMASGRDGDKLGTLGLT'TVRSELVDAP I IQEYPLVLEC  
KIVHVHDLGLHTMFVGEVQDIKADARVLDEKGHLLLDALKPLGFMPEVRTYHGMGPALGR  
AFDAGKLLHMPKKA

>Q9FL28

MKLLSKTFLILTLTFFFGIALAKQSFEP EIEALKSFKNGISNDPLGVLSDWTIIGSLRH  
CNWTGITCDSTGHVVSLSLEKQLEGLVLSPAIANLTYLQVLDLTSNSFTGKIPAEIGKLT  
ELNQLILYLYNYSFSGSIPSGIWELKNIFYL'DLRNNLLSGDVPEEICKT'SSLV'LIGFDYNNL  
TGKIPECLGDLVHLQMFVAAGNHLTGSIPVSI'GTLANLTDL'DLSGNQLTGKIPRDFGNLL  
NLQSLVLTENLLEGDIPAEIGNCSSLVQLELYDNQLTGKIPAE'LG'NLVQLQALRIYKNKL  
TSSIPSSLFRLTQLTHLGLSENHLVGP ISEEIGFLESLEVLTLHSNNFTGEFPQSI TNLR  
NLTVLTVGFNNISGELPADLGLLTNLRNLSAHDNLLTGP IPSSISNCTGLKLLDL'SHNQM  
TGEIPRGFGRMNLTFISIGRNHFTGEIPDDIFNCSNLETLSVADNNLTGTLKPLIGKLQK  
LRILQVSYNSLTGPIPREIGNLKDNLNILYLHNSNGFTGRIPREMSNLTLLQGLRMYSNLLE

GPIPEEMFDMKLLSVLDDLNNKFSGQIPALFSKLESLTYLSLQGNKFNGSIPASLKSLSL  
LNTFDISDNLGTGTIPGELLASLKNMQLYLNFNNLLTGTIPKELGKLEMVQEIDLNNL  
FSGSIPRSLQACKNVFTLDFSQNNLSGHIPDEVFQGMDMIISLNLNRNSFSGEIPQSFNG  
MTHLVSLDLSSNNLTGEIPELANLSTLKHKLKLANNLKGHVPESEGVFKNINASDLMGNT  
DLGSKKPLKPKCTIKQKSSHFSKRTRVILIIILGSAAALLLVLLLVLILTCKKKEKKIEN  
SSESSLPDLDLAKLKRFEPELEQATDSFNANSANIIGSSSLSTVYKQLEDGTVIAVKVL  
NLKEFSAESDKWIFYTEAKTLSQLKHRNLVKILGFAWESGKTKALVLPFMENGNLEDTIHG  
SAAPIGSLLEKIDLCVHIASGIDYLSHSGYGFPIVHCDLKPANILLSDRVAHVSDFTAR  
ILGFREDGSTTASTSAFEGTIGYLAPEFAYMRKVTTKADVFSFGIIMMELMTKQRPTSLN  
DEDSQDMTLRQLVEKSIGNRKGMRVRLDMELGDSIVSLKQEEAIEDFLKLCCLFCTSSRP  
EDRPDMNEILTHLMKLRGKANSFREDRNEDEV

>P49771

MTVLAPAWSPTTYLLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV  
ASNLQDEELCGGLWRLVLAQRWMERLKTAVAGSKMQGLLERVNTIEHFVTKCAFQPPPSCL  
RFVQTNISRLQETSEQLVALKPWITRQNFSRCLELQCQPDSSSTLPPPWSRPLEATAPT  
APQPPLLLLLLLPVGLLLAAAWCLHWQTRRRRTPRPGEQVPPVPSPQDLLLLVEH

>Q9NFU0

MEDLLVEVRLDNGAYYKQVTAVADDGIFVDVDGVPESMKYPFVNVRLPPEETVEVAAPI  
FEEGMEVEVFTRTNDRETGWWVGI IKMRKAEIYAVAYIGFETSYTEICELGRLRAKNSN  
PPITAKTFYQFTLPVPEELREEAQKDGIHKEFQRTIDAGVCNYSRDLDALIVISKFEHTQ  
KRASMLKDMHFRNLSQKVMLLKRTEEAARQLETTKLMSRGNVVEEFRVRDDMLGLAIGSH  
GSNIQAARTVDGVTNIELEEKSCFTKISGETEESVQRARAMLEYAEFFQVPRELVGKVI  
GKNRRIIQEIVDKSGVFRKVSIAIAGDDEQDQNI PRELAHVPFVFIGTVESIANAKVLL  
YHLSHLKEVEQLRQEKMEIDQQLRAIQESSMGSTQSFPVTRRSERGYSSDIESVRSMRGG  
GGGQRGRVVRGGGGPGGGNGLNQRVYHNNRDEDDYNSRGDHQRDQQRGYNDRGGGDNTG  
SYRGGGGGAGGPGNNRRGGINRRPPRNDQQNGRDYQHHNHTTEEVRETREMSVERADSN  
SSYEGSSRRRRRQKNNNGPSNTNGAVANNNNKPOSAQQPQQQPAPGNKAALNAGDASK  
QNSGNANAAGGASKPKDASRNGDKQQAGTQQQQPSQVQQQAAQQQPKPRRNKNR.SNNH  
TDQPSGQQQLAENVKKEGLVNGTS

>P0A9E5

MIPEKRIIRRIQSGGCAIHCQDCSISQLCIPFTLNEHELDQLDNI IERKKPIQKGQTLFK  
AGDELKSLYAIRSGTIKSYTITEQGDEQITGFHLAGDLVGFDAIGSGHHPFAQALETSM  
VCEIPFETLDDLSGKMPNLRQMMRLMSGEIKGDQDMILLLSKKNAEERLAAF IYNLSRR  
FAQRGFSREFRLTMTRGDIGNYLGLTVETISRLLRGFRQKSGMLAVKGYIT IENNDALA  
QLAGHTRNVA

>Q9SF23

MHSSLETTAPATLERRESNLGDKLILKGLKIFYGFHGAIAEERTLGQMFLVDIDAWVSLKK  
AGESDNLEDTISYVDIFSLAKEIVEGSPRNLLLETVAELIASKTLEKHFQINAVRVKLSKP  
NVALIKSTIDYLGVDIFRQRNTSSKN

>P0AC16

MDIVFIEQLSVITTTIGVYDWEQTIEQKLVFDIEMAWDNRKAASDDVADCLSYADIAETV  
VSHVEGARFALVERVAEEVAELLLARFNSPWVRIKLSKPGAVARAANVGVII ERGNLKE  
NN

>P56740

MQDTIFLKGMRFYGYHGALSAENEIGQIFKVDVTLKVDLSEAGR TDNVIDTVHYGEVFEE  
VKSIMEGKAVNLLLEHLAERIANRINSQYNRMETKVRITKENPPIPGHYDGVGIEIVREN  
K

>P24186

MAAKIIDGKTIAQQVRSEVAQKVQARIAAGLRAPGLAVVLVGSNPASQIYVASKRKACEE  
VGFVSRSYDLPETTSEAELELIDTLNADNTIDGILVQLPLPAGIDNVKVLERIHDPKDV  
DGFHPYVNGRLCQRAPRLRPCTPRGIVTLLERYNIDTFGLNAVIVIGASNIVGRPMSMELL  
LAGCTTTVTHRFTKNLRHHVENADLLIVAVGKPGFIPGDWIKEGAIVIDVGINRLENGKV  
VGDVVFEDA AKRASYITPVPGGVGPMTVATLIENTLQACVEYHDPQDE

>P0AC19

MAQPAAIIRIKNLRRLRTFIGIKEEEEINNRQDIVINVTIHYPADKARTSEDINDALNYRTV  
TKNIIQHVENNRFSLLEKLTQDVLDIAREHHWVTYAEVEIDKLHALRYADSVSM TLSWQR

>Q56303

MKGWWGKILRVDLTNNKVWVQEYSPEVAKNFIGGRGLAAWILWNEAKNVDPLGPKNKLVF  
ATGPFNGLPTPSGGKMVIAAKSPLTGGYGDGNLGTMATVHLRKAGYDALVVEGKAKKPVY  
IYIEDDNVSILSAEGLWGKTTFFETERELKEIHGKNVGILSIGPGGENLVKYAVVISQEGR  
AAGRPGMGAVMGSKKLKAVVIKGTKEIPVADKEKELKELSQEAYDAILNSPGYPFWHRQGT  
MAAVEWTNENSALPTRNFS DGSFEFARSIDGYTMEGMKVQRCPCYCNMPCGNVVLDAEG  
QESELDYENVALLGSNLGIGKLVNLSVLRNIADEMGLDTISLGV AISYVMEAKEKGIKID  
DDAPEFGDFKKAKQLALDIAYRRGELGNLAAEGVKVMSEKLGAKDFAMHVKGLEVSGYNC  
YIYPAMALAYGTSSIGAHHKEAWVIAWEIGTAPIEGEKAQKVEYKITDYDPEKAAKVIELQ  
RLRGGLFEMLTACRLPWVEVGLSLDYYPKLLLEAITGVKYTWDDLYKAADR VYALMRAYWV  
REFNGNWSREMDYPPERWFKEGLKSGPYKQHLKDKYDALLSEYYKLRGWDERGIPKKE  
TLKELNLEFVIPELEKVTKLE

>Q50497

MKAAAKRISDGVYWTGVLWDLRLNYHGYTLQGTTYNAYLVCGDEGVALIDNSYPGTFDEL  
MARVEDALQQVGMERVDYIIQNHVEKDHSGVLVELHRRFPEAPIYCTEVAVKGLLKHYPS  
LREAEFMTVKTG DVL DLG GKTTLTFLETPLLHWPDSMFTLLDE DGI LFSNDAFGQHLCCPQ  
RLDREIPEYILMDAARKFYANLITPLSKLV LKKFDEVKELGLLERIQMIAPSHGQIWTDP  
MKII EAYTGWATGMVDERVTVIYDTMHGSTRKMAHAI AEGAMSEGV DVRVYCLHEDDRSE  
IVKDILES GAIALGAPTIYDEPYPVSGDLLMYLRGLKFNRTLTRKALVFGSMGGNGGATG  
TMKELLAEAGFDVACEEVEVYVPTGDEL DACEFAGRKLAAEIRR

>Q9FDN7

MSQPVAITDGIYWVGAVDWNIRYFHGPAFSTHRGTTYNAYLIVDDKTALVDTVYEPFKEE  
LIAK LKQIKDPVKLDYLVVNHTESDHAGAFP AIMELCPDAHVLCTQRAFDSLKAHYSHID  
FNYTIVKTGTSVSLGKRSLTFIEAPMLHWPDSMFTYVPEEALLLPNDAFGQHIATSVRFD  
DQVDAGLIMDEAAKYYANILMPFSNLITKKLDEIQKINLAIKTIAPSHGI IWRKDPGR II  
EAYARWAEGQ GKAKAVIAYDTMWLSTEKMAHALMDGLVAGGCEVKLFKLSVSDRNDVIKE  
ILDARAVLVGSPTINNDILPVVSPLDDLVGLRPNKVG LAFGAYGWGGGAQKILEERLK  
AAKIELIAEPGPTVQWVPRGEDLQRCYELGRKIAARIAD

>O95684

MAATAAAVVAEEDTEL RDLLVQ TLENSGVLNRIKAE LRAAVFLALEEQEKVENKTPLVNE  
SLKKFLNTKDGRLVASLVAEFLQFFNLDFTLAVFQPETSTLQGLEGREN LARDLGIIEAE  
GTVGGPLLLEVIRRCQKQKEKGP TTGEGALDLSDVHSPKSP EGKTSAQ TTPSKI PRYKQG

GKKKTSGQKAGDKKANDEANQSDTSVSLSEPKSKSSLHLLSHETKIGSFLSNRTLGDGDK  
AGLCPDEDDMEGDSFFDDPIPKPEKTYGLRKEPRKQAGSLASLSDAPPLKSGLSSLAGAP  
SLKDSESKRGNTVLKDLKLI SDKIGSLGLGTGEDDDYVDDFNSTSHRSEKSEISIGEEIE  
EDLSVEIDDINTSDKLDDL TQDLTVS QLSDVADYLEDVA

>P53603

MSQLVECVPNFSEGKNQEVIDAISRAVAQT PGCVLLD VDSG P STNRTVYTFVGRPEDVVE  
GALNAARAAYQLIDMSRHHGEHPRMGALDVCPFIPVVRGVTMDECVRCAQAFGQRLAEELG  
VPVYLYGEAARTAGRQSLPALRAGEYEALPEKLLKQAEWAPDFGPSAFVPSWGATVAGARK  
FLLA FNINLLSTREQAHRIALDLREQGRGKDQPGRLKKVQAIGWYLDEKNLAQVSTNLLD  
FEVTGLHTVFEETCREAQELSLPVVGSQLVGLVPLKALLDAAAFYCEKENLFLQDEHRI  
RLV VNRGLDSLAPFKPKERII EYLVPEAGPEQSL LHKPLRTFVREVGSRSAAPGAGSVA  
AATAAMGAALASMVGLMTYGRRQFEHL DATMRR LI PPFHAASAKL TSLVDADARAFEAYL  
KAMKLPKDT PEDKDRRAAALQ EGLRQAVAVPLALAE TVASLWPALQELALCGNLACRSDL  
QVAAKALETGVFGAYFNVLINLKDVTD DAFKAQVRQRISSLLQEAKTQAALVLDRL EARQ  
A

>P28037

MKIAVIGQSLFGQEVYQLRKEGHEVVGVFTIPDKDGKADPLGLEAEKDGRAVFKFPRWR  
ARGQALPEVVAKYQALGAELNVL PFC SQFIPMEVINAPRHGSI IYHPSLLPRHRGASAIN  
WTLIHGDKKGGFTIFWADDGLDTG D L L L QKECEVLPDDTVSTLYNRFLFPEGIKGMVQAV  
RLIAEGTAPRC PQSEEGATYEGIQKKETAKINWDQPAEAIHNWIRGNDKVP GAWTEACGQ  
KLTFNNTLNTSGLSTQGEALPIPGAHRPGVVTKAGLILFGNEHRMLLVKNIQLEDGKMM  
PASQFFKGSASSDLEL TEAELATAEAVRSSWMRILPNVPEVEDSTDFKSGAASVDVRL  
VEEVKELCDGLELENEVDYMATTFREFIQLLVRKLRGEDDESECVINYVERAVNKLTLQ M  
PYQLF IGGEFVDAEGSKTYNTINPTDGSVICQVSLAQVSDVDKAVAAAKEAFENGLWGKI  
NARDRGRLLYRLADVMEQHQEELATIEALDRGAVYTLALKTHVGMSIQTFRYFAGWCDKI  
QGATIPINQARPNRNLTLTKKEPVGVC GIVIPWNYPLMMLSWKTAACLAAGNTVVIKPAQ  
VTPLTALKFAELTLKAGIPKGVVNILPGSGSLVGQR L SDHPDVRKIGFTGSTEVGKHIMK  
SCALSNVKKVSLELGGKSPLIIFADCDLNKAVQMGMSSVFFNKGENCIAAGRLFVEESI H  
NQFVQKVVEEVEKMKIGNPLERDTNHGPQNHEAHLRKLVEYCQRGVKEGATLVC GGNQVP  
RPGFFFQPTVFTDVEDHMYIAKEESFGPIMIISRFADGDVDAVLSRANATEFGLASGVFT  
RDINKALYVSDKLQAGTVFINTYNKTDVAAPFGGFKQSGFGKDLGEAALNEYLR IKTVTF  
EY

>P21164

MSKVPSDIEIAQAAMKPMELARGLGIQEDEVELYGKYKAKISLDVYRRLKDKPDGKLI  
LVTAITPTPAGEGKTTTSVGLTDALARLGKRV MVCLREPSLGPSFGIKGGAAGGGYAQVV  
PMEDINLHFTGDIHAVTYAHNLLAAMVDNHLQQGNVLNIDPRTITWRRVIDLNDRALRNI  
VIGLGKANGVPRETGFDISVASEVMA CLCLASDLMDLKERFSRIVVGYTYDGKPV TAGD  
LEAQGSMALLMKDAIKPNLVQ TLENTPAF IHGGPFANIAHGCNSI IATKTALKLADYVVT  
EAGFGADLGA EK FYDVKCRYAGFKPDATVIVATVRALKMHGGVPKSDLATENLEALREGF  
ANLEKH IENIGKFGVPAVVA INAFPTDEAELNLLYELCAKAGAEVALSEVWAKGGEGGL  
ELARKVLQ TLESRPSNFHVLYNLDLSIKDKIAKIATEIYGADGVNYTAEADKAIQRYESL  
GYGNLPVVMAKTQYSFSDMTKLGRPRNFTITVREVRLSAGGRLIVPITGAIMTMPGLPK  
RPAACNIDIDADGVITGLF

>P28723

MGGSSKTVRKLEVATPVPADIDIANAVEPLHIADIAADLNLSPRHYDLYGKYKAKVLLSV  
LDEVQETQDGYVVVGGITPTPLGEGKSTTTVGLCQALGAF LDKKVVTC LRQPSQGPTFG



IKGGAAGGGYSQVIMDEFNLHLTGDIIHAITASNLLAAAIDTRMFHESTQSDKALFNRL  
CPPNKEGKRTFCNIMHRRLLKLGIDKTNPDDLTPPEEVTKFARLDIDPDSITWRRVMDVND  
RFLRKISVQGQPDDEKGMVRETGFDISVASEIMAVLALTTSLADMRRERLGMVIGNSKAGE  
PITADDLGLGGALTVLMKDAINPTLMQTLLEGTPVLVHAGPFANIAHGNSSIVADKIALKL  
VGPGGFVVTEAGFGSDIGTEKFMNIKCRYSGLTPQCAIVVATVRALKMHGGGPQVVAGKP  
LDRAYLTENVGLVEAGCVNLARHIINTKAYGSNVVVAINMFFSSDEAEELNAVKKAAMDAG  
AFDAVICTHHAHGGKGAVDLGIQVQKACENVTPQLRFLYPLDISIKEKIEAIAKSYGAAG  
VEYSEQAEEKIEMYSKQGFSNLPICMAKTQYSFSHNAAEKGAPSGFILPIRDVRSIGAG  
FIYPLVGTMTMPGLPTRPCFFDIDLDTTGTGKVIGLS

>P46889

MSQEYIEDKEVTLTKLSSGRRLLEALLILIVLFAVWLMAALLSFNPSDPSWSQTAWHEPI  
HNLGGMPGAWLADTLFFFIFGVMAYTIPVIVGGCWFARHQSSDEYIDYFAVSLRIIGVL  
ALILTSCGLAAINADDIWFASGGVIGSLLSTTLQPLLHSSGGTIALLCVWAAGLTLFTG  
WSVWTIAEKLGGWILNILTFASNRTRRDDTWVDEDEYEDDEEYEDENHGKQHESSRRARIL  
RGALARRKRLAEKFINPMGRQTDAAALFSGKRMDDDEEITYTARGVAADPDDVLFSGNRAT  
QPEYDEYDPLLNGAPITEPVAVAAAATTATQSWAAPVEPVTPQTPPVASVDVPPAQPTVAW  
QPVPGPQTGEPVIAPAPEGYPPQQSQYAQPAVQYNEPLQQPVQPQQPYAPAAEQPAQQPY  
YAPAPEQPVAGNAWQAEEQSTFAPQSTYQTEQTYQQPAAQEPLYQQPQPVVEQQPVVEPE  
PVVEETKPARPLYFFEEVEEKRAREREQLAAWYQPIPEPVKEPEPIKSSLKAPSVAAVP  
PVEAAAASPLASGVKKATLATGAAATVAAPVFSLANSGGPRPQVKEGIGPQLPRPKRIR  
VPTRELASYGIKLPSQRAAEKAREAQRNQYDSGDQYNDDEIDAMQQDELARQFAQTQQ  
QRYGEQYQHDVFNNAEDADAAAEEAELARQFAQTQQQRYSGEQPAGANPFSLDDFEFSPMK  
ALLDDGPHEPLFTPIVEPVQQPQQPVAPQQQYQQPQQPVPPQPQYQQPQQPVAPQPQYQQ  
PQQPVAPQQQYQQPQQPVAPQQQYQQPQQPVAPQPQDITLLHPLLMRNGDSRPLHKPTTPL  
PSLDDLTPPPSEVEPVDTFALEQMARLVEARLADFRIKADVNNYSPGPVITRFEELNLAG  
VKAARI SNLSRDLARSLSTVAVRVVEVPIPGKPYVGLLELPNKKRQTVYLRVLDNAKFRDN  
PSPLTVVLGKDIAGEPVVADLAKMPHLLVAGTTGSGKSVGNAMILSMLYKAQPEDVRFI  
MIDPKMLELSVYEGIPHLLTEVVTDKDAANALRWCVNEMERRYKLSALGVRNLAGYNE  
KIAEADRMMRPIDPHYWKPGDSMDAQHPVLKKEPYIVVLVDEFADLMMTVGKKVEELIAR  
LAQKARAAGIHLVLAQRPVSDVITGLIKANIPTRIAFTVSSKIDSRTILDQAGAESLLG  
MGDMLYSGPNSTLPVRVHGAFVRDQEVHAVVQDWKARGRPQYVDGITSSESEGGAGGFD  
GAEELDPLFDQAVQFVTEKRKASISGVQRQFRIGYNRAARIEQMEAQGIVSEQGHNGNR  
EVLAPPPFD

>P0AB87

MERNKLARQIIDTCLEMTRLGLNQGTAGNVSVRYQDGMLITPTGIPYEKLTESHIVFIDG  
NGKHEEGKLPSSSEWRFHMAAYQSRPDANAVVHNHAVHCTAVSILNRSIPAIHYMIAAAGG  
NSIPCAPYATFGTRELSEHVALALKNRKATLLQHHGLIACEVNLEKALWLAHEVEVLAQL  
YLTTLAITDPVPVLSDEEIAVVLEKFKTYGLRIEE

>Q7SIC1

VIPEGYTQENAVRGKATQSAQLRGEHAANSEASNAIDGNRDSNFYHGSCETHSSGQANPW  
WRVDLLQVYTTITSVTITNRGDCCGERISGAEINIGQHLASNGVNNPECSVIGSMATGETK  
TFHCPAPMIGRYVVTYLPTSESLHLCEVEVNVDPKAAA

>P04066

MRAPGMRSRPAGPALLLLLLLFLGAAESVRRAPPRRYTPDWPSLDSRPLPAWFDEAKFGV  
FIHWGVFSVPAWGSEFWWWHQGEGRPQYQRFRMDNYPPGF SYADFGPQFTARFFHPEEW  
ADLFQAAGAKYVVLTTKHHEGFTNWPSPVSWNWSKDVGPHRDLVGELGTALRKRNI RYG

LYHSLLEWFHPLYLLDCKKNGFKTQHFVSAKTMPELYDLVNSYKPDLIWSDGEWECPDITYW  
NSTNFLSWLYNDSPVKDEVVVNDRWGQNCSCHHGGYNCEDKFKPQSLPDHKWEMCTSID  
KFSWGYRRDMALSDVTEESEIIISELVQTVSLGGNYLLNIGPTKDGLIVPFIQERLLAVGK  
WLSINGEAIYASKPWRVQWEKNTTSVWYTSKGSAVYAI FLHWPENGLNLESPITTTSTTK  
ITMLGIQGDLLKWDTPDKGLFISLPQLPPSAVPAEFAWTIKLTGVK

>Q04718

MEKLYESMYQLIVETSTKLPKDVRRAILKAKQRENAGTRAAMSLATITENIKMADENVSP  
ICQDTGLPTFKIKVPVGINQIQIKETIKKAIQAATKDGKLRPNSVDSLGTGENSGDNLGEG  
LPVVKFEQWEKDYMVRLILKGGGCENKNIQYSLPCELEGLGRAGRDLGIRKCILHAVY  
QAQGGCSAGFIGVIGGDRSAGYDLAKEQLFREVDVNPNEELRQLEEYIMENANKLGI  
GTMFGGGETTLLGCKVGMHRIPASFFVSVAYNCWAFRRLLGVHIDPNTGEIKWLYQDGE  
DVDFQENAAQEEHLASTDSERRVITLQAPIITEEQIRELKVGDVVRINGIITYTGRDAIHKY  
LMDHDAPVDLNGQIIYHCGPVMLKDENGWNEVKAAGPTTISIREEPYQGDIMKKFGIRAVM  
GKGGMGQKTLQALKEHGGVYLN AIGGAAQYYADCIEAVEGVLDLLEFGIPEAMWHLRVKDF  
TAVVTMDSHGNSLHEDI EKSSLEKLSQFKEPVFS

>P0AC33

MSNPKPFHYQAPFPLKDDTEYYLLTSEHVSSEFEGQEILKVAPEALTLARQAFHDASF  
MLRPAHQQQVADILRDPEASENDKYVALQFLRNSDIAAKGVLPQCQDTGTAIIVGKKGQR  
VWTGGGDEAALARGVYNTYIEDNLRYSQNAPLDMYKEVNTGTNLPAQIDLYAVDGDYEYKF  
LCIAKGGGSANKTYLYQETKALLTPGKLNKYLVEKMRTLGTAACTPPYHIAFVIGGTS AET  
NLKTVKLASAKYYDELPTGEGNEHQAFRDVELEKELLIEAQNLGLGAQFGGKYFAHDIRV  
IRLPRHGASCPVGMVSCSADRNIKAKINRQGIWIEKLEHNPGKYIPEELRKAGEGEAVR  
VDLNRPMKEILAQLSQYPVSTRLSLNGTIIVGRDIAHAKLKERMDNNGELPQYIKDHPYIY  
YAGPAKTPEGYASGSLGPTTAGRMDSYVDQLQAQGGSMIMLAKGNRSQQVTDACKKHGGF  
YLGSI GGPAAVLAQGSIKSLECVPELGM EAIWKIEVEDFP AFILVDDKGNDFQ QIQQL  
TQCTRCVK

>P07343

MEYRIERDTMGEVVKVPADKFWGAQTORSKENFKIGSEKMPMRVVKAFAILKRSTALANKR  
LGNLDAEKAEAI AAVCDDVLKGGYDDNFPLVVWQTGSGTQSNMNMNEVVANRATALLKEK  
NSDQTIHPNDVNRSQSSNDTFPTAMHVA AVLAVYEQLVLPALDQLRNTLDEKAKAYNDIV  
KIGRTHLQDATPLTLGQEISGWVHMLDRSKEMILEATDKMRALAI GGTA VGTGINAHPEF  
GELVSEEITKLTGTQTFSSPNKFHALTSHDEITYAHGALKALAADLMIANDVRWLASGP  
RCGIGEIVIPENEPGSSIMP GKVNPTQSEALTMIAAQIMGN DATIGFAASQGNFELNVFK  
PVIIYNFLQSVQLLSDGMNSFHDKCAVGI EPNKETIQENLSNSLMLVTALNPHIGYENAA  
KIAKLAHKEGLTLKEAALKLELLTEEQFNEMVKPEDMVKPKA

>P39461

MKYTDTAPKLFMNTGTFPRRIIWSMGVLKKS CAKVNADLGLLDKKIADSI IKASDDLID  
GKLDDKIVLDVFTGSGTGLNMNVNEVIAEVASSYSNLKVHPNDHVNFGQSSNDTVPTAI  
RIA AVAEVTNRLLPALQQIISL NKKAEYKDV IKAGRTHLRDALPVTLGQELSAYADAF  
QHEHEQVMNILEYVKELPIGGTATGTGLNSHPEFQERVINEINRITGLGFKPANRFRAMR  
LLTDL LLLSGALRNIAVDLYRLGQDIRL MFSGPLTGLNEIDLPTQEEIAGSSIMP GKTNP  
VTVEATLLISAQVVGLDHANQFASMLGEFELSMGIPLVGYNIVTQVNFISEALEKMSRLV  
IDGMVANVEKMKRYAESSPLITIVSPVIGYDKATEIGKKNKGMSIREALRELGYSDNE  
INKILDLSKLVKPGFTAK

>P07954

MYRALRLLARSRLVVRAPAAALASAPGLGGAAVPSFWPPNAARMASQNSFR IEYDTFGEL  
KVPNDKYYGAQTVRSTMNFKIGGVTERMPTPVIKAFGILKRAAAEVNQDYGLDPKIANAI  
MKAADVEVAEGKLNDFPLVVWQTGSGTQTMNVNEVISNRAIEMLGGELGSKIPVHPNDH  
VNKSQSSNDTFPTAMHIAAAIEVHEVLLPGLQKLHDALDAKSKEFAQIIKIGRTHQTDAV  
PLTLGQEFSGYVQVQKYAMTRIKAAMPRIYELAAGGTAVGTGLNTRIGFAEKVAAKVAAL  
TGLPFVVTAPNKFEALAAHDALVELSGAMNTTACSLMKIANDIRFLGSGPRSGLGELILPE  
NEPGSSIMPGKVNPTQCEAMTMVAAQVMGNHVAVTVGGSNGHFELNVFKPMMIKNVLHSA  
RLLGDASVSFTENCVVGIQANTERINKLMNESLMLVTALNPHIGYDKAAKIAKTAHKNGS  
TLKETAIELGYLTAEQFDEWVKPKDMLGPK

>P04855

MTAYIQRSQCISTSLLVVLTTLVSCQIPRDRLSNIGVIVDEGKSLKIAGSHESRYIVLSL  
VPGVDFENGCGTAQVIQYKSLNRLLIPLRDALDLQEALITVNDTTQAGAPQSRFFGA  
VIGTIALGVATSQAITAGIALAEAREAKRDIALIKESMTKTHKSI ELLQNAVGEQILALK  
TLQDFVND EIKPAISELGCETAALRLGIKLTQHYSSELLTAFGSNFGTIGEKSLTLQALSS  
LYSANITEIMTTIKTGQSNIDYVITYTEQIKGTVIDVDLERYMVTLSVKIPILSEVPGVLI  
HKASSISYNIDGEEWYVTPSHILSRASFLGGADITDCVESRLTYICPRDPAQLIPDSQQ  
KCILGDTTRCPVTKVVDSLIPKFAFVNGGVVANCIASTCTCGTGRRPISQDRSKGVVFLT  
HDNCGLIGVNGVELYANRRGHDATWGQVQNLTVGPAIAIRPIDISLNLADATNFLQDSKAE  
LEKARKILSEVGRWYNSRETVITIIIVVMVILVVIIVIIIVLYRLRRSMLMGNPDDRIPR  
DTYTLEPKIRHMYTNGGFDAMA EKR

>P04849

MGTIIQFLVVSCLLAGAGSLDPAALMQIGVIPTNVRQLMYYTEASSAFIVVKLMPTIDSP  
ISGCNITSISSYNATVTKLLQPIGENLETIRNQLIPTRRRRRRFAGVVIGLAALGVATAAQ  
VTAVALVKANENAAAAILNLKNAIQKTNAAVADVQATQSLGTAVQAVQDHINSVVSPA  
ITANCKAQDAIIGSILNLYLTELTTIFHNQITNPALSPITIQALRILLGSTLPVVEKSF  
NTQISAAELLSSGLLTGQIVGLDLTYMQMVIKIELPTLTVQPATQIDLATISAFINNQE  
VMAQLPTRVMVTGSLIQAYPASQCTITPNTVYCRYNDAQVLSDDTMAQLQGNLTRCTFSP  
VVGSLTRFVLFDFGIVYANCRSMLCKCMQPAAVILQPSSSPVTVIDMYKCVSLQLDNLRF  
TITQLANVTYNSTIKLESSQILSIDPLDISQNLAAVNKSLSDALQHLAQSDTYLSAITSA  
TTTSLVLSIIAICLGLGLILILLSVVWVWKLTLIVVANRNRNMFVYHK

>P80534

MVKVGVNGFGRIGRLVTRAAFNSGKVDIVAINDPFIDLNYMVYMFKYDSTHGKFKVDIVA  
INDPFIDLNYMVYMFKYDSTHGKFKGTVKAENGLVINGHAITIFQERDPSKIKWGDAGA  
EYVVESTGVFTTMEKAGAHKGGAKRVIISAPSRDAPMFVMGVNHEKYDKSLKIVSNASC  
TTNCLAPLAKVIHDNFGIVEGLMTTVHAITATQKTVDGSAKLWRDGAGAAQNIIPASTG  
AAKAVGKVIPELNGKLTGMAFRVPTANVSVVDLTCRLEKPAKYDDIKRVVKQACDGPLKG  
MLGYTEHQVVSDFNGDSHSSTFDAGAGIALNDHFVKLVSWYDNEFGYSNRVVDLMVHMA  
SKE

>P34918

MKIRVGINGFGRMGRLALRAAWGWPELEFVHINEIKGGAVAAAHLKFDVHGRWTPEVE  
AEGERVLIIDSTPLSFSEYGKPEDVPWEDFGVDLVLECSGKFRTPATLDPYFKRGVQKVI  
AAPVKEEALNIVMGVNDYLYEPEKHLLTAASCTTNCLAPVVKVIHEGLGIKHGIITTIH  
DNTNTQTLVDAPHKDLRRARATSLSLIPTTTGSATAIALIYPELKGKLNGLI AVRVP LLNA  
SLTDCVFEVNRPTTVEEINALLKAASEQAPLQGILGYEERPLVSIDYKDDPRSSIIDALS  
TMVVDETVQVKILAWYDNEWGYVNRMVVELARKVALSLK

>P34783

MAKVKIGINGFGRIGRLVARVILQSDDCELVAINDPFIITTDYMTYMFKYDSVHGQWKHHE  
LKVKDEKTLFLFGERPVTVFGNRNPEEIPWGQTGADYVVESTGVFTDKDKAAAHLKGGAKK  
VIISAPSKDAPMFVVGVNEHEYKSELNIVSNASCTTNCLAPLAKVINDKFGIVEGLMTTV  
HSITATQKTVDGPSAKDWRGGRAASFNIIPSSSTGAAKAVGKVLPALNGKLTGMSFRVPTV  
DVSVDLTVRLEKEATYEQIKAAIKEESEKMGKILGYTEDDVVSTDFVGDNRSSIFDAK  
AGICLNGNFVKLVSWYDNEWGYSSRVVDLIRHMSKTTSKLDSVALACVDAVSTLILSSEC

>P15115

MAVKVINGFGRIGRNVFRAAVKNPDIIEVVAVNDLTANADGLAHLKLYDSVHGRLDAEVV  
VNDGVSUNGKEIIVKAERNPENLAWGEIGVDIVVESTGRFTKREDAAKHLEAGAKKVIIS  
APAKVENITVVMGVNQDKYDADAHVVISNASCTTICLAAFARVLHQIFGEVSRMMTTAHS  
YTNIQRILDAATHADLRGARAAAESIIDTTNGAAMAVALVLPKLGKLNMGAMRVATANV  
SVVDLVYELAKEVTVEEVNAALKAIAEGELKGI LAYSIEPLVIRNYNGSTVSSTIDILST  
MVIDGAMVKVVSWDNETGYSHRVVALAAYINAKGL

>O52631

MAKIAINGFGRIGRLALRRILEVPGLEVVAINDLTDAKMLAHLFKYDSSQGRFNGEIEVK  
EGAFVUNGKEVKVFAEADPEKLPWGLDGLDVLLECTGFFTKKEKAEAHVRAGAKKVVISA  
PAGNDLKTIVFNVNEDLDGTETVISGASCTTNCLAPMAKVLNDKFGIEKGFMTTIHAFT  
NDQNTLDGPHRKGLRRARAAA VSIIPNSTGAAKAISQVIPDLAGKLDGNAQRVPVPTGS  
ITELVSVLKKKVTVEEINAAMKEAADESFQYTEDPIVSADVGINYGLFDATLTKIVDV  
NGSQLVKTAAWYDNEMSYTSQLVRTLAYFAKIAK

>Q01651

MTIRVINGFGRIGRNFRAVLERSDDLEVVAVNDLTDNKTLLSTLLKFDSIMGRLGQVEVE  
YDDDSITVGGKRIAVYAERDPKNLDWAAHNVDIVIESTGFFTDANAAKAHEAGAKKVIIS  
SAPASNEDATFVYGVNHESYDPENHNVISGASCTTNCLAPMAKVLNDKFGIENGLMTTVH  
AYTGDQRLHDAPHRLRRARAAAVNIVPTSTGAAKAVALVLPKLGKLDGYALRVPVITG  
SATDLTFNTKSEVTVESINAAIKEAAVGEFGETLAYSEEPLVSTDIVHDSHGSIFDAGLT  
KVSGNTVKVVSWDNEWGYTCQLLRLTELVASKL

>P10618

MKAVAINGYGTGKRVADAI AQDDMKVIGVSKTRPDFEARMALKKGYDLYVAIPERVKL  
FEKAGIEVAGTVDDMLDEADIVIDCTPEGIGAKNLKMYKEKGIKAI FQGGEKHEDIGLSF  
NSLSNYEESYGKDYTRVVS CNTTGLCRTLKLHDSFGIKKVRIVRRGADPAQVSKGPI  
NAIIPNPKLP SHHGPDVKTVDINIDTMAVIVPTTLMHQHNMVEVEETPTVDDIIDVF  
EDTPRVILISAEDGLTSTAEIMEYAKELGRSRNDLFEIPVWRESITVVDNEIYYMQAVHQ  
ESDIVPENVDVRAILEMEEDKYKSINKTNKAMNILQ

>O59494

MKVKVGNGYGTIGKRVAYAVTKQDDMELIGITKTKPDFEAYRAKELGIPVYAASEEFIP  
RFEKEGFVAGTLNDLLEKVDIIVDATPGGIGAKNKPLYEKAGVKAIFQGGEKADVAEVS  
FVAQANYEAALGKNYVRVVS CNTTGLVRTL SAIREYADYVYAVMIRRAADPNDRKGPIN  
AIKPTVEVPSHHGPDVQTVIPINIE TMAFVVPTTLMHVH SVMVELKKPLTKDDVIDIFEN  
TTRVLLFEKEKGF DSTAQIIEFARDLHREWNLYEIAVWKESINIKGNRLFYIQAVHQES  
DVIPENIDAIRAMFELADKWDSIKKTNKSLGILK

>P39460

MINVAVNGYGTIGKRVADAIKQPDMKLVGVAKTSPNYEAFIAHRRGIRIYVPQQSIKKF

EESGIPVAGTVEDLIKTSDIVVDTTPNGVGAQYKPIYLQLQRNAIFQGGEKAEVADISFS  
ALCNYNEALGKKYIRVVSCNTTALLRTICTVNVKVSKEKVRATIVRRAADQKEVKKGPIN  
SLVPDPATVP SHHAKDVNSVIRNLDIATMAVIAPTTLMHMHFINITLKDKVEKKDILSVL  
ENTPRIVL I SSKYDAEATAELVEVARDLKRDRNDIPEVMIFSDSIYVKDDEVMLMYAVHQ  
ESIVVPENIDAIRASMKLMSAEDSMRITNESLGILKGYLI

>P17721

MARVAINGFGRIGRLVYRIIYERKNPDI EVVAINDLTDTKTLAHLKLYDSVHKKFPGKVE  
YTENSLIVDGKEIKVFAEPDPSKLPWKDLGVDFVIESTGVFRNREKAEHLHQAGAKKVI I  
TAPAKGEDITVVICNEDQLKPEHTIISCASTTNSIAPIVKVLHEKFGIVSGMLTTVHS  
YTNDQORVLDLPHKDLRRARAAAVNIIP TTTGAAKAVALVVEVKGKLDGMAIRVPTPDGS  
ITDLTVLVEKETTVEEVNAVMEKATEGRKGIIGYNDEPIVSSDIIGTTFSGIFDATI TN  
VIGGKLVKVASWYDNEYGYSNRVVD TLELLLKM

>P09316

MAVKVAINGFGRIGRLAARAILSRPDSGLELVTINDLGSVEGNAFLFKRDSAHTYPTGTV  
TTEGNDMVIDGKKIVVTAERDPANLPHKKLGVDIVMECTGIFTNTEKASAHLTAGAKKVL  
ISAPAKGDVDRVTVVYGVNHKDLTADDKIVSNASCTTNCLAPVLHVLQKIGIVRGLMTTV  
HSFTNDQRILDQIHSDLRRARTASASMIPTSTGAARAVALVIPELKGKLDGISIRVPTPD  
VSLVDFTFVPQRDTTAAEINSVLKAAADTGMTGVLGYTDEPLVSRDFYSDPHSSTVDSR  
ETAVLEGKLARVVAWYDNEWGFSNRMVD TAAQMAKTL

>P50362

MAAMMQKSAFTGSAVSSKSGVRAKAAARAVVDVRAEKKIRVAINGFGRIGRNFLRCWHGRQ  
NTLLDVVAINDSGGVKQASHLLKYDSTLGTFAADVKIVDDSHISVDGKQIKIVSSRDPLQ  
LPWKEMNIDLVI EGTGVFIDKVGAGKHIQAGASKVLI TAPAKDKDIPTFVVG VNEG DYKH  
EYPIISNASCTTNCLAPFVKVLEQKFGIVKGTMTTTHSYTGDQRLLDASHRDLRRARAAA  
LNIVPTTTGAAKAVSLVLP SLKGLNGIALRVPTPTVSVVDL VVQVEKKTFAEEVNAAF  
EAANGPMKGV LHVEDAPLVSIDFKCTDQSTS IDASLTMVMGDDMVKVVAVYDNEWGYSQR  
VVDLAEVTAKKWVA

>O96423

MAPIKVGINGFGRIGRMVFQSMCEDNVLGTELDVVAVVDMSTDAEYFAYQMKFDTVHGRP  
KYTVEVAKSSPSAKKPDVLV VNGHRILCVKADRNPADLPWGKLGVDYVIESTGLFTDKAK  
AEGHVKGGAKKVVISAPASGGAKTIVMGVNQHEYNPATHHVSNASCTTNCLAPIVHVL T  
KENFGIETGLMTTIHSYTATQKTVDGVS IKDWRGGRAAAVNIIPSTTGAAKAVGMVIPST  
KGKLTGMSFRVPTPDVSVVDLTFRATRDTSIQEIDAALKKASQTYMKGILGFTDEELVSS  
DFINDARSSIYDSKATLQNNLPGEKRFKVVSWYDNEWGYSHRVVDLVRFMGAKDRSSSK  
L

>P11413

MAEQVALSRTQVCGILREELFQGD AFHQSDTHIF IIMGASGDLAKKKIYPTIWWLFRDGL  
LPENTFIVGYARSRLTVADIRKQSEPFKATPEEKLKLEDFFARN SYVAGQYDDAASYQR  
LNSHMNALHLG SQANRLFYLALPPTVYEAVTKNIHESCMSQIGWNR IIVEKPFGRDLQSS  
DRLSNHISSLFREDQIYRIDHYLGKEMVQNLMLVLRFANRIFGPIWNRDNIACVILTFKEP  
FGTEGRGGYFDEFGIIRDVMQNHLLOMLCLVAMEKPASTNSDDVRDEKVKVLKCI SEVQA  
NNVVLGQYVGNPDGEGEATKGYLDDPTVPRGSTTATFAAVVLYVENERWDGVPFILRCGK  
ALNERKAEVRLQFHDVAGDIFHQQCKRNELVIRVQPNEAVYTKMMTKKPGMFFNPEESEL  
DLTYGNRYKNVKLPDAYERLILDVFCG SQMHFVRSDELREAWRIFTPLLHQIELEKPKPI  
PYIYGSRGPTAEDEL MKRVGFQYEGTYKWNPHKL

>P11411

MVSEIKTLVTFGGTGD LAKRKL YPSVFNLYKKG YLQKHFAIVGTARQALNDDEFKQLVR  
DSIKDFTDDQAQAEAFIEHFSYRAHDVTDAAASYAVLKEAIEEAADKFDIDGNRIFYMSVA  
PRFFGTIAKYLKSEGLLADTGYNRLMIEKPFGTSYDTAAELQNDLENAFDDNQLFRIDHY  
LGKEMVQNI AALRFGNPIFDAAWN KDYIKNVQVTLSEVLGVEERAGYYDTAGALLDMIQN  
HTMQIVGWLAMEKPE SFTDKDIRAAKNAAF NALKIYDEAEVNKYFVRAQY GAGDSADFKP  
YLEELDVPADSKNNTFIAGELQFDLPRWEGVPPFYVRS GKRLAAKQTRVDIVFKAGTFNFG  
SEQEAQEAVLSIIIDPKGAIELKLN AKSVEDAFNTRTIDLGWTVSDEDKKNTP EPEYERMI  
HDTMNGDGSNFADWNGVSI AWKFVDAISAVYTADKAPLE TYKSGSMGPEASDKLLAANGD  
AWVFKG

>P37830

MAASWCIEKRGSI RND SFRDNDNIPETGCLSIIVLGASGDLAKKKTFFPALFNLYRQGFLO  
SNEVHIFGYARTKISDDDLRSRIRG YLSQ GKENE GEVSEFLQLIKYVSGSYDSAEGFTSL  
DKAISEHEFSKNSTEGSSRRLFYFALPPSVYPSVCRM IKSYCMNKSDLGGWTRTVVEKPF  
GKDLASSEQLSSQIGELFDEPQIYRIDHYLGKELVQNLLVLR FANRFFLPLWNRDNIDNI  
QIVFREDFGTEGRGGYFDEYGIIRDIIQNHL LQVLC LVAMEKPV SQKPEHIRDEKVKVLQ  
SMLPIEDEEVVLGQYEGYKDDPTVPNNSNTPTFATMVLRIHNERWEGVPPIMKAGKALNS  
RKAERIRVQFKDVPDIFRCQKQGRNEFVIRLQ PSEAMYMKLTVKKP GLEMSTVQSELDLS  
YGQRYQGVVIPEAYERLILDTIRGDQQHFVRRDELKAAWEIFTPLLHRIDNGEVKPIPYK  
PGSRGPAEADELLQNAGYVQTHGYIWI PPTL

>Q43839

MGVQLRLNPCSSSSAATSPSTFHNGTPYFCKKFNF LPPFR TQPLN WWSGIYSRIQPRKHFE  
VFSSNGFPLNAVSVQDVQVPLTEL GSGDTTVSITVIGASGDLAKK I L PALFALFYEDCL  
PENFVVFYGSRTKLSDEELRNMI STTLTCRIDKRENCDAKMEHFLE RCFYHSGQYNS EDD  
FAELDYKLKEKEGCRVSNRLFYLSIPPNI FVDVVR CASLKASSTSGWTRVIVEKPFGRDL  
ESSSELTRSLK KYL TEEQIFRIDHYLGKELVENLSVLRFSNLVFEPLWSRNYIRNVQFIF  
SEDFGTEGRGGYFDHYGIIRDIMQNHLLQILALFAMETPVSLDAEDIRNEKVKVLRSMRP  
LQLEDVVLGQYKGH SNGAKSYPAYTDDPTVPNGSITPTFSAAALFIDNARWDGVPFLMKA  
GKALHTKRAERIRVQFRHVPGNLYKRNFGTDMDKATNELVLR LQPDEAIY LKINN KVPGLG  
MRLDRSDLNLLYKAKYRGEIPDAYERLLLD AIEGERRL FIRSDELDAAWALFTPLLKELE  
EKKIAPELYPYGSRGPVGAHYLA AKHNVRWGDLSGDD

>P06744

MAALTRDPQFQKLQQWYREHRSELNLRRLFDANKDRFNHFS LTLNTNHGHILVDYSKNLV  
TEDVMRMLVDLAKSRGVEAARERMFNGEKINYTEGRAVLHVALRNRSNTPILVDGKDVMP  
EVNKVLDKMKSFQQRVRS GDWKG YTGKTI TDVINIGIGGSDLG PLMVTEAL KPYSSGGPR  
VWVYSNIDGTHIAKTLAQLNP ESSLFIIASKTFTTQETITNAETAKEWFLQAAKDP SAVA  
KHFVALSTNTTKVKEFGIDPQNMFEFWDWVGGRYSLWSAIGLSIALHVGFDFNFEQLLSGA  
HWM DQHFR TTPLEKNAPVLLALLGIWYINCFGCETHAMPLPYDQYLHRFAAYFQQGDMESN  
GKYITKSGTRVDHQTGPIVWGEPTNGQHAFYQLIHQGTKMIPCDFLIPVQTQHP IRKGL  
HHKILLANFLAQTEALMRGKSTEEARKELQAAGKSPEDLERLLPHKVFEGNRPTNSIVFT  
KLTPFMLGALVAMYEHKIFVQGI IWDINSFDQWGV ELGKQLAKKIEPELDGSAQVTS HDA  
STNGLINFIKQOREARVQ

>P12341

MASKNTYSDFKLATELPAWNQLQSLYEQK GKKNVKDEF AKDNSRYEKFAKTFVNYDGSK  
ILFDFSKNLV DDEILKSLIQLAKEAKV TSLRDAMFNGEPINFTEGRAVYHVALRNRSLKP

MYVDGTVNTPPEVDAVLQHMKEFTEEVRS GAWKGYTGKSITD VVNIGIGGSDLGPVMVTEA  
LKHYATNLKVHFVSNIDGTHIAETLKDLDHETTLFLIASKTFTTAEITITNATS AKNWFLS  
KNGGDQSHISKHFAALSTNATEVEKFGIDTKNMF GFENWVGGRYSVWSAIGLSVALYIGF  
DNFEAFLKGAEAVDKHFVETPLEDNIPLLGGLLSVWYNNFFDAQTHLVAPFDQYLHRFPA  
YLQQLSMESNGKSVTRGNVFNANYSTG SILFGEPATNAQHSFFQLIHQGTKLIPSDFILAA  
QSHNPIENNLHQMLASNFFAQAEALMVGKDEEQVKSEGATGGLVPHKVFSGNRPTT SIL  
AQKITPATLGALIAYYEHVTFTEGAIWNINSFDQWGV ELGKVLAKVIGSELATDNKISSH  
DSSTNGLINQFKEWI

>P18240

MNMEITNLKSYKELVTL SAEKTKDLKDYLN DKNRSESLIKKFKNFYMDLSRQRYSEKTL  
NKLVEYAE EVELKKKVEKTFMGEKVNMTENR SVLHTALRIP IEKINTHK I I IDNKNVLED  
VHGV LKKIEKYSDDIRNGVIKTKCKNTKFKN VICIGIGGSYLGTEFVYEAMKYYYYNMELN  
KNEKDQVNNFNNDYQDNVFNVRFLANVDPNDVNRAIQNL DQYDTLV I I ISKTFTTAE TM  
LNARS IKKWL SLKIKDDENLSKHMVAVSTNLKLTDEFGISRDNVFEFWDWVGGRFSVTSS  
VGILPLSIAFGYKNMRNFLNGCHDMDEHFLHADLKENIPVLLALTSFYNSHFFDYKNVAI  
LPYFQNL LKFSAHIQQLSMESNGKSVDRNNQPIHYNTCQVYFGEPTNGQHSFYQLIHQG  
QVIPVELIGFKHSHFP IKFDKEVVS NHDELMTNFFAQADALAI GKTYEQVKEENEKNKMS  
PELLTHKVFNGNRPSTLLLFDELNFYTCGLLLSLYESRIVAEGFLLNINSFDQWGV ELGK  
VLAKEVRNYFNDTRNQKKS DNTYNFNESTKNFIKLLLVQIKKKKKINTNLK

>P84140

MKYKEPFGVKLDFETGII ENAKKSVRRLSDMKGYF IDEEAWKKMVEEGDPVVEVY AIEQ  
EEKEGDLNFATTVLYPGKVGNEFFMTKGHYH SKIDRAEVYFALKGKGGMLLQTPEGEARF  
IEMEPGTIVYVPPYWAHRTINTGDKPFI FLALYPADAGHDYGTIAEKGF SKIVVEENGKV  
VVKDNPKW RM

>P13377

MSSYLDDLRIDLAASPASGGSASIAVGSFNIPYEVTRRLKGVGADADTTLTSCASWTQLQ  
KLYEQYGD EPIKHHFEADSERGQRYSVK VSLGSKDENFLFLDYSKSHINDEIKCALLRLA  
EERGIRQFVQSVFRGERVNTTENRPVLHIALRNR SNRPIYVDGKDVMPAVNKVLDQMR SF  
SEKVRTGEWKGHTGKAIRHV VNIIGIGGSDLGPVMATEALKPFSQRDL SLHFVSNVDGTHI  
AEVLKSIDIEATLFI VASKTFTTQETITNALSARRALLDYLR SRGIDEKGSVAKHFVALS  
TNNQKVKEFGIDEENMFQFWDWVGGRYSMWSAIGLPIMISIGYENFVELLTGAHVIDEHF  
ANAPPEQNVP LLLALVGVWYINFFGAVTHAILPYDQYLWRLPAYLQQLDMESNGKYVTRS  
GKTVSTLTGPIIFGEAGTNGQHAFYQLIHQGTNLIPCDFIGAIQS QNKIGDHHKIFMSNF  
FAQTEALMIGKSPSEVRRELEAAGERSAEKINALLPHKTFIGGRPSNTLLIKSLTPRALG  
AIIAMYEHKVLVQGAIWGIDSYDQWGV ELGKVLAKSILPQLRPGMRVNNHDSSTNGLINM  
FNELSHL

>P13375

MTHIRFDYSKALSFFGEHELTYLRDAVKVAHHS LHEKTGVGNDFLGWLDLPVNYDKEEFA  
RIQKAAAKIQADSDVLLVIGIGGSYLGARAAI EMLHHSFYNALPKEKRNT PQIIFVGN NI  
SSTYMKEVMDLLE GKDFSINVISKSGTTTEPAIAFRIFRKLLEEKY GKEEARKRIYATTD  
RARGALKTLATAEGYETF IIPDDVVGGRYSVLTAVGLLP IAVSGANIEEMMGAAQAREDF  
SSSELEENAAYQYAAIRN ILYNKGKTIELL INYEPALQYFAEWWKQLFGESEGKDQKGI F  
PASANFSTDLHSLGQYIQEGRDDL FETVLKVEKPRHDLVIEAEENDLDGLNYLAGKTVD F  
VNTKAFEGTLLAHTDGGV PNLVITLPELNEYTFGYLVYFFEKACAMSGYLLGVNPF DQPG  
VEAYKVNMFALLGKPGYEEKKA ELEKRLK

>P63201

MTHVCSVILIRRSFDIYHEQQKISLHNESILLEKNLADDFAFCSPTDTRRLDIDELTVCH  
YLQNIRQLPRNLGLHSKDRLLINQSPMPLVTAIFDSFNESGVNSPILSNMLYLSCLSMF  
SHKKELIPLLFNSISTVSGKVERLISFDIAKRWYLDRDAERMYTSESLIKKKLQDENTCF  
SKILLASRMSMARRLLELRQIPLHTIAEKCGYSSTSYFINTFRQYYGVTPHQFAQHSPGT  
FS

>P37639

MQSLHGNCLIAIYARHKYILTMVNGEYRYFNGGDLVFADASQIRVDKCVENFVFSRDTLS  
LFLPMLKEEALNLHAHKVSSLLVHHCSRDI PVFQEVQALSQNKNLRYAEMLRKRALIFA  
LLSVFLEDEHFIPLLLNLVQPNMRTRVCTVINNIAHEWTLARIASELLMSPSLLKKKLR  
EEETSYSQLLTECRMQRALQLIVIHGFSIKRVAVSCGYHSVSYFIYVFRNYGMPTEYQ  
ERSAQRLSNRDSAASIVAQGNFYGTDRSAEGIRL

>P03322

MEAVIKVISSACKTYCGKTSKKEIGAMLSLLQKEGLLMSPSDLYSPGSWDPITAALSQ  
RAMILGKSGELKTWGLVVLGALKAAREEQVTSEQAKFWLGLGGGRVSPGPECIEKPATER  
RIDKGEEVGETTVQRDAKMAPEETATPKTVGTSCYHCGTAIGCNCATASAPPPPYVGSGL  
YPSLAGVGEQQGQGGDTPPGAEQSRAEPGHAGQAPGALTDWARVREELASTGPPVVAMP  
VVIKTEGPAWTPLEPKLITRLADTVRTRKGLRSPITMAEVEALMSSPLLPHDVTNLMRVIL  
GPAPYALWMDAWGVQLQTVIAAATRDPRHPANGQGRGERTNLNRLKGLADGMVGNPQGQA  
ALLRPGELVAITASALQAFREVARLAEPAGPWADIMQGPSESFVDFANRLIKAVEGSDLP  
PSARAPVIIDCFRQKSQPDIQQLIRTAPSTLTPGEIKYVLDQRKTAPLTDQGIAAAMS  
SAIQPLIMAVVNRERDGQTGSGGRARGLCYTCGSPGHYQAQCPKKRKSNGSRERCQLCNG  
MGHNAKQCRKRDGNQQRPGKGLSSGPWPGPEPPAVSLAMTMEHKDRPLVRVILTNTGSH  
PVKQRSVYITALLDSGADITIISEEDWPTDWPVMEANPQIHGIGGGIPMRKSRDMIELG  
VINRDGSLERPLLLFPVAVMVRGSILGRDCLQGLGLRLTNL

>P04386

MKLLSSIEQACDICRLKCLKSKEKPKCAKCLKNWECRYSPKTKRSPLTRAHLTEVESR  
LERLEQLFLLIFFREDLDMILKMSLQDIKALLTGLFVQDNVKNDAVTDRLASVETDMPL  
TLRQHRISATSSSEESSNKGQRQLTVSIDSAAHHDNSTIPLDFMPRDALHGFDWSEEDDM  
SDGLPFLKTDPNNGFFGDGSLLCILRSIGFKPENYTNNSNVNRLPTMITDRYTLASRST  
SRLQLSYLNNFHPYCPVHSPMLMMLYNNQIEIASKDQWQILFNCILAIGAWCIEGESTD  
IDVFYYQNAKSHLTSKVFESGSIILVTALHLLSRYTQWRQKTNTSYNFHSFSIRMAISLG  
LNRDLPSFSFSDSSILEQRRRIWWSVYSWEIQLSLLYGRSILSNTISFPSSVDDVQRTT  
TGPTIYHGI IETARLLQVFTKIYELDKTVTAEKSPICAKKCLMICNEIEEVSRQAPKFLQ  
MDISTTALTNLLKEHPWLSFTRFELKWKQLSLI IYVLRDFFTNFTQKKSQLEQDQNDHQS  
YEVKRCSIMLSDAAQRTVMSVSSYMDNHNVTYPYFAWNCSYLLFNAVLVPIKTLLSNSKSN  
AENNETAQLLQQINTVLMMLKKLATFKIQTCKEYIQVLEEVCAFPILLSQCAIPLPHISYN  
NSNGSAIKNIVGSATIAQYPTLPEENVNNSVKYVSPGSPVPLKSGASFSDLVKLL  
SNRPPSRNSPVTIPRSTPSHRSVTPFLGQQQLQSLVPLTPSALFGGANFNQSGNIADSS  
LSFTFTNSNGPNLITTTQNSQALSQPIASSNVHDNFMNNEITASKIDDGNSKPLSPGW  
TDQTAYNAFGITTMGFNTTTMDDVYNYLFDDEDTPPNPKKE

>P09147

MRLVLTGGSGYIGSHTCVQLLQNGHDVILDLNLCNSKRSVLPVIERLGGKHPTFVEGDIR  
NEALMTEILHDHAIDTVIHFAGLKAVGESVQKPLEYYDNNVNGTLRLISAMRAANVKNF I  
FSSSATVYGDQPKIPYVESFPTGTPQSPYKSKLMVEQILTDLQKAQPDWSIALLRYNP  
VGAHPSGDMGEDPQGI PNNLMPYIAQVAVGRRDSLAI FGN DYPTEDGTGVRDY IHVMDLA



DGHVVAMEKLANKPGVHIYNL GAGVGN SVLDV VNAF SKACGKPV NYHFAPRREGDLPAYW  
ADASKADRELNWRVTRTLDEMAQDTWHWQSRHPQGYPD

>Q90W78

MLTLKKSMLLLFFLGLVSVSLADDDKREDEAE EGEDKRAAE EERNVEKRCYSAAKYPGFQE  
FINRKYKSSRFG

>P03024

MATIKDVARLAGVSVATVSRVINNSPKASEASRLAVHSAMESLSYHPNANARALAQQTTE  
TVGLVVGDVSDPFFGAMVKAVEQVAYHTGNFLLIGNGYHNEQKERQAI EQLIRHRCAALV  
VHAKMIPDADLASLMKQMPGMVLINRILPGFENRCIALDDRYGAWLATRHLIQQGHTRIG  
YLCSNHSISDAEDRLQGYD DALAESGIAANDRLVTFGE PDES GGEQAMTELLGRGRNFTA  
VACYNDSMAAGAMGVLNDNGIDVPGEISLIGFDDVLSRYVRPRLTTVRYPIVMTMATQAA  
ELALALADNRPLPEITNVFSPTLVRRHSVSTPSLEASHHATSD

>P25748

MITIRDVARQAGVSVATVSRVLNNSTLVSADTREA VMKAVSELDYRPNANAQALATQVSD  
TIGVVVMDVSDAFFGALVKAVDLVAQQHQKYVVLIGNSYHEAEKERHAI EVLIRQRCNALI  
VHSKALSDDELAQFMDNIPGMVLINRVVPGYAHRCVCLDNLSGARMATRMLLNNGHQ RIG  
YLSSSHGIEDDAMRKAGWMSALKEQDIIPPESWIGAGTPDMPGGEAAMVELLGRNLQLTA  
VFAYNDNMAAGALTALKDNGIAIPLHLSIIGFDDIPIARYTDPQLTTVRYPIASMAKLAT  
ELALQGAAGNIDPRASHCFMPTLVRRHSVATRQNAAAITNSTNQAM

>P0AEP3

MAAINTKVKKAVIPVAGL GTRMLPATKAI PKEMLPLVDKPLIQYV VNECIAAGITEIVLV  
THSSKNSIENHFDTSF ELEAMLEKRVKRQLLDEVQSI CPPHVTIMQVRQGLAKGLGHAVL  
CAHPVVGDEPVAVILPDVILDEYESDLSQDNLAEMIRRFDETGHSQIMVEPVADVTAYGV  
VDCKGVELAPGESVPMVGVVEKPKADVAPSNLAI VGRYVLSADIWPLLAKTPPGAGDEIQ  
LTD AIDMLIEKETVEAYHMKGKSHDCGNKLG YMQAFVEYGI RHNTLGTEFKAWLEEMGI  
KK

>Q59931

MTKQYKNYVNGEWKLSENEIKIYEPASGAELGSPAMSTEEVDYVYASAKKAQPAWRSL  
YIERAAYLHKVADILMRDKEKIGAVLSKEVAKGYKSAVSEVVRTAEI INYAAEEGLRMEG  
EVLEGGSF EAASKK KIAVVRREP VGLVLAISP FNYPVNL AGSK IAPAL IAGNVIAFKPPT  
QGSISGLLLAEAF AEAGLPAGVFNTITGRGSEIGDYIVEHQAVNF INFTGSTGIGERIGK  
MAGMRPIMLELGGKDS AIVLE DADLELTAKNI IAGAFGYSGQRCTAVKRVLVME SVADEL  
VEKIREKVLALTIGNPEDDADITPLIDTKSADYVEGLINDANDKGAAALTEIKREGNLIC  
PILFDKVTTDMRLAWEEPFGPVLPIIRVTSVEEAIEISNKSEYGLQASIF'TNDFPRAFGI  
AEQLEVGTVHINNKTRGTDNFPFLGAKKSGAGIQGVKYSIEAMTTVKS SVVFDIK

>P23522

MNNDVFPNKFKAAALAAKQVQIGCWSALSNP ISTEVLGLAGFDWLVL DGEHAPNDISTFIP  
QLMALKGSASAPVVRVPTNEPVI IKRLLDIGFYNFLIPFVETKEEAELAVASTRYPPEGI  
RGVSVSHRANMFGTVADYFAQSNKNITILVQIESQQGV DNVDAIAATEGV DGI FVGPSDL  
AAALGHLGNASHPDVQKAIQHI FN RASAHGKPSGILAPVEADARRYLEWGATFVA VGS DL  
GVFRSATQKLADTFKK

>P42777

MASFKLMSSSNSDL SRRNSSSASSSPSIRSSHHLRPNPHADHSRISFAYGGGVNDYTFAS

D SKPFEMAIDVDRSIGDRNSVNNNGKSVDDVWKEIVSGEQKTIMMKEEEPEDIMTLEDFLA  
KAEMDEGASDEIDVKIPIPTERLNNDGSYTFDFPMQRHSSSQMVEGSMGGVTRGKRGRVMM  
EAMDKAAAQRQKRMIKNRESAARSRERKQAYQVELETLAAKLEENEQLLKEIEESTKER  
YKKLMEVLIPVDEKPRPPSRPLSRSHSLEW

>Q8KZT5

MEELRIEANGNLGPIDSSRI PRYAGAATYARLPRLDQVSKADVTVVGVFPFDSGVS YRPGA  
RFGANHVREASRLLRPYNPAWDVSPFENIQVADAGDMAVNPFNINEA IETIQNALDLTA  
NGSKLVTLGGDHTIALPLLRAAAERAGEPIAMLHFDAHLDTWDTYFGAEYTHGTPFRRAV  
EEGILDTEAISHVGTRGPLYGGKDLDDHRFGFGIVTSADVYYQGVLETVAKIRDRIGNR  
PLYISVDIDVLDPAHAPGTGTPEAGGITSRELLEIRGFRGMNLVGADVVEVAPAYDHAE  
ITGVAGSHVAYELVTLMADNAVEGDRHGAPNGYAQQALGARIQEVAQAIGGQR

>Q92947

MALRGVSVRLLSRGPGLHVLRTWVSSAAQTEKGGRTQSQLAKSSRPEFDWQDPLVLEEQL  
TTDEILIRDTRTYCQERLMPRILLANRNEVFHREIISEMGELGVLGPTIKGYGCAGVSS  
VAYGLLARELERVDSGYRSAMSVQSSLMHPYIAYGSEEQRQKYL PQLAKGELLGCFGLT  
EPNSGSDPSSMETRAHYNSSNKS YTLNGTKTWITNSPMADL FVWARCEDGCIRGF LLEK  
GMRGLSAPRIQKFSLRASATGMIIMDGVEVPEENVLPGASSLGGPFGCLNNARYGIAWG  
VLGASEFCLHTARQYALDRMQFGVPLARNQLIQKKLADMLTEITLGLHACLQLGRLKDQD  
KAAPEMVSLKRNNGKALDIARQARDMLGGNGISDEYHVIRHAMNLEAVNTYEGTHDIH  
ALILGRAITGIQAFTASK

>P0AEP7

MAKMRAVDAAMYVLEKEGITTAFGVPGAAINPFYSAMRKHGGIRHILARHVEGASHMAEG  
YTRATAGNIGVCLGTSGPAGTDMITALYSASADSIPILCITGQAPRARLHKEDFQAVDIE  
AIAKPVSKMAVTVREAALVPRVLQQAFLMRSGRPGPVLDL PFDVQVAEIEFDPDMYEP  
LPVYKPAASRMQIEKAVEMLIQAERPVI VAGGGVINADAAAALLQQFAELTSVPV IPTLMG  
WGCIPDDHELMAGMVLQTAHRYGNATLLASDMVFGIGNRFANRHTGSVEKYTEGRKIVH  
IDIEPTQIGRVLCPDLGIVSDAKAALTLLVEVAQEMQKAGRLPCRKEWVADCQQRKRTLL  
RKTHFDNVPVKPQRVYEE MNKAFGRDVCYVTTIGLSQIAAAQMLHVFKDRHW INCGQAGP  
LGWTIPAALGVCAADPKRNVVAISGDFDFQFLIEELAVGAQFNIPYIHVLVNNAYLGLIR  
QSQRAFMDYCVQLAFENINSSEVNGYGV DHVKVAEGLGCKAIRVFKPEDIAPAFEQAKA  
LMAQYRVPVVVEVILERV TNISMGSELDNMEFEDIADNAADAPTE'ETCFMHYE

>P15442

MSLSHLTLDQYYEIQCNELEAIRSIYMDDFTDLTKRKSSWDKQPQIIFEITLRSVDKEPV  
ESSITLHFAMTPMPYTAPEIEFKNVQNVMSQLQMLKSEFKKIHNTSRGQEIFEITSF  
TQEKLEDEFQNVVNTQSLEDDRLQRIKETKEQLEKEEREKQQETIKKRSDEQRRIDEIVQR  
ELEKRQDDDDLLFNRTTQLDLQPPSEWVASGEAIVFSKTIKAKLPNNSMFKFKAVVNP  
PIKLTSDIFSFSKQFLVKPYIPPE SPLADFLMSSEMENFYLLSEIELDNSYFNTSNGK  
KEIANLEKELETVLKAKHDNVNRLFYGTVERMGRNNAFFVWKIRLLTEYCNYYPLGDLIQ  
SVGFVNLATARIWMIRLLEGLEAIHKLGI VHKCINLETVILVKDADFGSTIPKLVHSTYG  
YTVLNLMSRYPNKNGSSVELSPSTWIAPELLKFNNAKPQRLTDIWQLGVLFIQIISGSDI  
VMNFETPQEFLDSTSMDETLYDLLSKMLNNDPKKRLGTLELLPMKFLRTNIDSTINRFL  
VSESVNSNSLELTPGDITIVRGNNGRTLSQSSIRRRS FNVGSRFSSINPATRSRYASDFE  
EIAVLGQGAFQVVKARNALDSRYAIAKKIRHTEEKLSTILSEVMLLASLNHQYVVRYYA  
AWLEEDSMDENVFESTDEESDLSESSDFEENDLLDQSSIFKNRTNHDLDNSNWD FISGS  
GYPDIVFENSRRDENEDLDHDTSSSTSSSESQDDTDKESKSIQNVPRRRNFVKPMTAVKK  
KSTLFIQMEYCENRTLYDLIHSENLNQORDEYWR LFRQILEALS YIHSQGIHRDLKPMN

IFIDESRVKIGDFGLAKNVHRSLDILKLDSONLPGSSDNL TSAIGTAMYVATEVLDGTG  
HYNEKIDMYSLGI IFFEMIIYPFSTGMERVNILKKLRSVSI EFPDFDDNKMKEKKI IRL  
LIDHDPNKRPGARTLLNSGWL PVKHQDEVIKEALKSLSNPSSPWQQVRESLNFQSYSLT  
NDILFDNSVPTSTPFANILRSQMTEEVVKIFRKHGGIENNAPPRIFPKAPIYGTQNVYEV  
LDKGGTVLQLQYDLTYPMARYLSKNPSLISKQYRMQHVVYRPPDHSRSSL EPRKFGEIDFD  
IISKSSSESGFYDAESLKI IDEILTVFPVF EKTNTFFILNHADILES VFNFNTNIDKAQRP  
LVSRLMSQVGFARSFKEVKNELKAQLNIISS TALNDLELFD FRLDFEAAKKRLYKLMIDSP  
HLKKIEDSLSHISKVLSYLKPLEVARNVVISPLSNYNSAFYKGGIMFHAVYDDGSSRNMI  
AAGGRYDTLISFFARPSGKSSNTRKAVGFNLAWETIFGIAQNYFKLASGNRIKKRNRFL  
KDTAVDWKPSRCDVLISSFSNSLLDTIGVTILNLTWKQNIKADMLRDCSSVDDVVTGAQQ  
DGDWILLIKQQAYPLTNHKRKYKPLKIKKLSTNVDIDL DLEFLTYQQETGNKSLIND  
SLTLGDKADEFKRWDESSAGSSQEGDIDDV VAGSTNNQVIYVPMATR SKKANKREKW  
VYEDAARNSSNMILHNL SNAP IITVDALRDETLEIISITSLAQKEEWLRKVFSGNNSTP  
RSFATSIYNNLSKEAHKGNRWAILYCHKTKGSSVIDLQR

>P23378

MQSCARAWGLRLGRGVGGRRLAGGSGPCWAPRSRSDSSGGGDSAAAGASRLLELLPRH  
DDFARRHIGPGDKDQREMLQTLGLASIDELIEKTV PANIRLKRPLKMEDPVCENEILATL  
HAISSKNQIWRSYIGMGYYNCSVPQTI LRNLLENSGWITQYTPYQPEVSQGRLESLLNYQ  
TMVCDITGLDMANASLLDEGTAAAEALQLCYRHNKRKFLVDP RCHPQTI AVVQTRAKYT  
GVLTELKLPCEMDFSGKDVSGVLFQYPTTEGKVEDFTELVERAHQSGSLACCATDLLALC  
ILRPPGEFGVDIALGSSQRFVPLGYGGPHAAFFAVRESLVRMMPGRMVGVTRDATGKEV  
YRLALQTREQHIRRDKATSNICTAQALLANMAAMFAIYHGSHGLEHIARRVHNATLILSE  
GLKRAGHQLOHDLFFDTLKIHC GCSVKEVLGRAAQ RQINFRLFEDGTLGISLDETVNEKD  
LDDLWIFGCESSAELVAESMGEECRGIPGSVFKRTSPFLTHQVFNSYHSETNIVRYMKK  
LENKDISLVHSMIPLGCTMKLNSSSELAPITWKEFANIHPFVPLDQAQGYQQLFRELEK  
DLCELTGHDQVCFQPNSGAQGEYAGLATIRAYLNQKGE GHRTVCLIPKSAHG TNPASAHM  
AGMKIQPVEVDKYGNIDAVHLKAMVDKHENLAAIMITYPSTNGVFEENISDVCDLIHQH  
GGQVYLDGANMNAQVGICRPGDFGSDVSHLNLHKTFCIPHGGGGPGMGPIGVKKHLAPFL  
PNHPVILSKRNEDACPVGTVSAAPWGSSSILPISWAYIKMMGGKGLKQATETA I LNANYM  
AKRLETHYRILFRGARGYVGHEFILDTRPFKKSANIEAVDVAKRLQDYGFHAPTMSWPVA  
GTLMVEPTESEDKAELDRFC DAMISIRQEIADIEEGRIDPRVNPLKMSPHSLTCVTSSHW  
DRPYSREVAAFPLPFVKPENKFWPTIARIDDIYGDQHLVCTCPPMEVYESPFSEQKRASS

>P32621

MAPIFRNYRFAIGAFVIMLILLIKTSSIGPPSIARTVTPNASIPKTPEDISILPVNDEP  
GYLQDSKTEQNYPELADAVKSQTSQTCSEEHKYVIMIDAGSTGSRVHIYKFDVCTSPPTL  
LDEKFDMLEPGLSSFDTDSVGAANS LDPLLKVAMNYVPIKARSCTPVAVKATAGLRL LGD  
AKSSKILSAVRDHLEKDYPFPVVEGDGVSIMGGDEEGVFAWIT'TNYLLGNIGANGPKLPT  
AAVFDLGGGSTQIVFEPTFPINEKMVDGEHKFDLKF DENYTLYQF SHLGYGLKEGRNKV  
NSVLVENALKDGKILKGDNTKTHQLSSPCLPPKVNATNEKVTLESKETYTIDFIGPDEPS  
GAQCRFLTDEILNKDAQCQSPPCSFNGVHQPSLVRTFKESNDIYIFSYFYDRTRPLGMPL  
SFTLNELNDLARIVCKGEETWNSVFSGIAGSLDELES DSHFCLDLSFQVSLLHTGYDIPL  
QRELRTGKKIANKEIGWCLGASLPLLKADNWKCKIQSA

>P39905

MKLWDVVAVCLVLLHTASAFPLPAGKRPPPEAPAEDRSLGRRRAPFALS SDSNMPEDYDPQ  
FDDVMDFIQATIKRLKRSPDKQMAVLP RRERNRQAAAAANPENS RGKGRRGQRGKNRGCVL  
TAIHLNVTDLGLGYETKEELIFRYCSGSCDAAETTYDKILKNLSRNRRRLVSDKVGQACCR  
PIAFDDDL SFLDDNLVYHILRKHS AKRCGCI

>P13466

MAAAPSGKTWIDVQKKTFTGWANNYLKERILKIEDLATSLEDGVLLINLLEIISSKKILK  
YNKAPKIRMQKIENNNMAVNF IKSEGLKLVGIGAEDIVDSQLKLILGLIWTLLILRYQIQM  
SESDNSPKAALLEWVRKQVAPYKVVVNNFTDSWCDGRVLSALTDSLKPGVREMSTLTGDA  
VQDIDRSMEDIALEEYEIPKIMDANDMNSLPDELSVITYVSYFRDYALNKEKRDADALAAL  
EKKRRETS DASKVEVYGPVVEGGFVNKSADFH I KAVNY YGEPLANGGEGFTVSVVGADGV  
EVPCKLVDNKNGIYDASYTATVPQDYTVVVQLDDVHCKDSPYNVKIDGSDAQHSNAYGPG  
LEGGKVGVPAAFKIQGRNKDGETVTQGGDDFTVKVQSPEGPVDAQIKDNGDGSYDVEYKP  
TKGGDHTVEVFLRGEPLAQGPTEVKILNSDSQNSYCDGPGFEKAQAKRPTFTIHSVGAD  
NKPCAAGGDPFQVSI SGPHPVNVGITDNDDGTYTVAYTPEQPGDYEIQVTLNDEAIKDIP  
KSIHIKPAADPEKSYAEGPGLDGGECFQPSKFKIHAVDPDGVHRTDGGDGFVVTIEGPAP  
VDPVMVDNGDGTVDVEFEPKEAGDYVINLTLGDGNVNGFPKTVTVKPA SAEHSYAEGEG  
LVKVF DNAPAEFTIFAVDTKGVARTDGGDPFEVAINGPDGLVVDKAVTDNNDGTYGVVYD  
APVEGNYNVNVTLRGNPIKNMPIDVKCIEGANGEDSSFGSFTFTVAANKKKG EVKTYGGD  
KFEVSI TGPAAEITLDAIDNQDGTYYTAAAYSLVGNRFRSTGVKLNKGHIEGSPFKQVLGNP  
GKKNPEVKSFTTTRTAN

>Q03555

MATEGMILTNHDHQIRVGVLT VSDSCFRNLAEDRSGINLKDVLQDP SLLGGTISAYKIVP  
DEIEEIKETLIDWCDEKELNLILTTGGTGFAPRDVTPEKFPFPFCGLQKGATKEVIERE  
APGMALAML MGS LNVTPLGMLSRPVCGIRGKTLIINLPGSKKGSQECFQFILPALPHAID  
LLRDAIVKVKEVHDELEDLPSPPPPLSPPPTTSPHKQTEDKGVQCEEEEEEEKKDSGVAST  
EDSSSSHITAAALAAKIPDSIISRGVQVLPRDTASLSTTPSESPRAQATSRLSTASCPTP  
KQIRRPDESKGVASRVGSLKVQSRCSSKENILRASHSAVDITKVARRHRMSFPPLTSMK  
AFITVLEMT PVLGTEIINYRDGMGRVLAQDVYAKDNLPPFPASVKDGYAVRAADGPGDRF  
IIGESQAGEQPTQTVMPGQVMRVTTGAPIPCGADAVVQVEDTELIRESDDGTEELEVRIL  
VQARPGQDIRPIGHDIKRGE CVLAKGTHMGPSEIGLLATVGVTEVEVNKFPVAVMSTGN  
ELLNPEDDLLPGKIRDSNRSTLLATI QEHGYPTINLGI VGDNPDDL LNALNEGISRADVI  
ITSGGVSMGEKDYLKQVLDIDLHAQIHFGRVFMKPLPTTFATL DIDGVRKIIFALPGNP  
VSAVVTCNLFVVPALRKM QGILDPRPTIIKARLSCDVKLDPRPEYHRCILTWHHQEPLPW  
AQSTGNQMS SRLMSMR.SANGLMLLPPKTEQYVELHKGEVVDVMVIGRL

>Q07982

MTNKISSSDNLSNAVSATDDNASRTPNLTRRALVGGGVGLAAAGALASGLQAATLPAGAS  
QVPTTPAGRPMPIAIRPMPEDRRFGYAI VGLGKYALNQILPGFAGCQHSRIEALVSGNAE  
KAKIVAAEYGVDP RKIYDYSNFDKIAKDPKIDAVYIILPNSLHAEFAIRAFKAGKHMCE  
KPMATSVADCQRMIDA AKAANKLMIGYRCHYDPMNRAAVKLIRENQLGKLG MVTTD NSD  
VMDQNDPAQQWRLRREL AGGGLMDIGIYGLNGTRYLLGEEP I EVRAYTYS DPNDERFVE  
VEDRIIWQMRFRSGALSHGASSYSTTTTTSRFSVQGDKAVLLMDPATGYQNLISVQTPGH  
ANQSMMPQFIMPANNQFSAQLDHLAEAVINNKPVRS PGEEGMQDVRLIQAIYEAARTGRP  
VNTDWGYVRQGGY

>P14805

VSANDIKNVQDTWGKLYDQWDAVHASKFYNKLFKDSEDI SEAFVKAGTGSGIAMKRQALV  
FGAILQEFVANLNDPTALTLKIKGLCATHKTRGITNMELFAFALADLVAYMGTTISFTAA  
QKASWTAVNDVILHQMS SYFATVA

>P12550

MKFFAVLALCVVGAIASPLSADEAAIVKSSWDQVKHNEVDILAAVFAAYPDIQAKFPQFA

GKDLASIKDTAAAFATHATRIVSFFTEVISLSGNQANLSAVYALVSKLGVDHKARGISAAQ  
FGEFRTALVSYLQAHVSWGDNVAAAWNHALDNTYAVALKSLE

>P28316

MRSLLLLLSIVFFVTVSANKTRELCMKSLAHAKVDTSNEARQDGDIDLYKMHFENYPPLRK  
YFKNREEYTAEDVQNDPFFAKQQKILLACHVLCATYDDRETFNAYTRELDRHARDHVH  
MPPEVWTFWKLFEYYLGGKTTLEDEPTKQAWHEIGREFAKEINKHGRHAVRHQCMRSLQH  
IDIGHSETAKQNGIDLYKMHFENYPSMREAFKDRENYTAEDVQKDPFFVKQQRILLACH  
LLCASYDDEETFHMYVHELMEHHERLGVQLPDQHWTFWKLFEFFLEKKSLEHTKHAW  
AVIGKEFAYEATRHKKEHEHEHEEHEEHEEHEEHEEHEEHEEHEEHEEHEEHEEHEEHEEHEE

>Q7TQ49

MEKNGNNRKL RVCVATCNRADYSKLAPIMFGIKTEPAFFELDVVVLGSHLIDDYGNTRYRM  
IEQDDFDINTRLHTIVRGEDEAAMVESVGLALVKLPDVLNRLKPDIMIVHGDRFDALALA  
TSAALMNIRILHIEGGEVSGTIDDSIRHAITKLAHYHVCCTRSAAEQHLISMCEHDHRIILL  
AGCPSYDKLLSAKNKYMSIIRMWLGDDVKCKDYIVALQHPVTTDIKHSIKMFELTLDAL  
ISFNKRTLVLFPNIDAGSKEMVRVMRKKGIEHHPNFRAVKHVPFDQFIQLVAHAGCMIGN  
SSCGVREVGAFGTPVINLQTRQIGRETGENVLHVRDADTQDKILQALHLQFGKQYPCSKI  
YGDGNAVPRILKFLKSIDLQEPLOKQKFCFFPVKENISQDIDHILETSLAVALDLGGTNLR  
VAIVSMKGEIVKKYTQFNPKTYEERISLILQMCVEAAA EAVKLNCRILGVGISTGGRVNP  
QEGIVLHSTKLIQEWSVDLRTPLSDTLHLPVVWVDNDGNCAAMAERKFGQKQENFVTL  
ITGTGIGGGIIHQHELIHGSSFCAAELGHLVVSVDGPDCSCGSHGCI EAYASGMALQREA  
KKLHDEDL LVEGMSVPKDEPVGALHLIQAALGNVKAQNILRRTAGTALGLGVVNLHTM  
DPSLVILSGVLASHYI HIVKDVI RQQASSSVQDVVVS DLVDPALLGAASMVLDTTRR  
IH

>P45511

MLKVIQSPAKYLQGPDASTLFGQYAKNLADSFFVIADDFVMKLAGKVLNGLHSHDISCH  
AERFNAGECSHIEINRLIAILKQHGCRGVVGIGGGKTLDTAKAIGYYQLPVVVIPTIAST  
DAPTSALSVIYTEAGEFEYYLIYPKNPDMVMDTAIIAKAPVRLVAGMGDALSTWFEEK  
ACYDARATSMAGGQSTVAALSLARLCYDTLLAEEGKARFAAQAGVVTDALERIVEANTYL  
SGIGFESSGLAGAHAIHNGFTILEECHHLYHGKVAFGTLAQLVLQNSPMEEIETVNLFC  
QKVGLPVTLAEMGVKDDIDGKIMAVAKATCAEGETIHNMPFSVTPESVHAAILTADLLGQ  
QWLAR

>P0A6V1

MVSLEKNDHMLLARQLPLKSVALILAGGRGTRKDLTNKRAKPAVHFGGKFRIIDFALSN  
CINSGIRRMGVITQYQSHTLVQHIQRGWSFFNEEMNEFVDLLPAQQRMKGENWYRGTADA  
VTQNLDIRRYKAEYVVILAGDHIYKQDYSRMLIDHVEKGARCTVACMPVPIEEASAFGV  
MAVDENDKIIIEFVEKPANPPSPNDPSKSLASMGIIYVFDADYLYELLEEDDRDENSSHDF  
GKDLIPKITEAGLAYAHPFPLSCVQSDPDAEPYWRDVGTLEAYWKANL DLASVVP ELD MY  
DRNWPVRTYNESLPPAKFVQDRSGSHGMTLNSLVSGGCVISGSVVVQS SVLFSRVRVNSFC  
NIDSAVLLPEVWVGRSCRRLRRCVIDRACVIPEGMVI GENAEEDARRFYRSEEGIVLV TRE  
MLRKLGHKQER

>P52415

MCCWQSRGLLVKRVLAII LGGGAGTRLYPLTKLRPAVPLAGKYRLIDIPVSN C INSEI  
VKIYVLTQFN SASLNRHISRAYNFSGFQEGFVEVLAAQQTKDNPWFQGTADAVRQY LWL  
FREWDVDEYLLILSGDHLRYMDYAQFVKRHRETNADITLSVVPVDDRKAPELGLMKIDAQG  
RITDFSEK PQGEALRAMQVDT SVLGLSAEKAKLNPYIASMGIIYVFKKEVLHNLLEKYEGA

TDFGKEIIPDSASDHNLQAYLFDDYWEDIGTIEAFYEANLALTKQSPDFSFYNEKAPIY  
TRGRYLPPTKMLNSTVTESMIGEGCMIKQCRIHHSVLGIRSRIESDCTIEDTLVMGNDFY  
ESSERDTLKARGEIAAGIGSGTTIRRAIDKNARIGKNVMIVNKENVQEANREELGFYI  
RNGIVVVIKNTIADGTVI

>P17169

MCGIVGAIQRDVAEILLEGRLRLEYRGYDSAGLAVVDAEGHMTRLRRLGKVQMLAQAAE  
EHPLHGGTGAHTRWATHGEPSEVNAHPHVSEHIVVHNGI IENHEPLREELKARGYTFV  
SETDTEVIAHLVNWELKQGGTLREAVLRAIPQLRGAYGTVIMDSRHPDTLLAARSGSPLV  
IGLGMGENFIASDQLALLPVTRRFIFLEEGDIAEITRRSVNIFDKTGAEVKRQDIESNLQ  
YDAGDKGIYRHYMQKEIYEQPNAIKNTLTGRISHGQVDLSELGPNADELLSKVEHIQILA  
CGTSYNSGMVSRYWFESLAGIPCDVEIASEFRYRKSAVRRNSLMITLSQSGETADTLAGL  
RLSKELGYLGLSLAICNVPGSSLVRESDLALMTNAGTEIGVASTKAFTTQLTVLLMLVAKL  
SRLKGLDASIEHDIVHGLQALPSRIEQMLSQDKRIEALAEDFSDKHHALFLGRGDQYPIA  
LEGALKLKEISYIHAEEAYAAGELKHGPLALIDADMPVIVVAPNNELLEKLKSNIEEVRAR  
GGQLYVFADQDAGFVSSDNMHI IEMPHVEEVIAPIFYTVPLQLLAYHVALIKGTDVDQPR  
NLAKSVTVE

>Q56213

MCGIVGVGFRNATDVLLDGLRRLLEYRGYDSAGIAVRTPEGLKVVKRSGKLSALAEAVGK  
TPLQALGIGHTRWATHGAPTDPNAHPHTTEDGR IALIHNGIFENYLELKEALEARGHRF  
RSETDTEVLAHLLLEETYRGDLLEALREALKAVRGAYAVVVAHEDHEEIVAARTVSPLVVG  
LGEGENFLASDVPALLPYTRRVLFVLDGDDVRLTREGVEITDLEGRPVQREAVEVDWTLE  
AAEKGGFPHYMLKEIYEQPWLENTLGGRLREEEGTVELGLALDPREVDRVHV IACGTAS  
YAGLYGKYLLETTLARLPTEWDVASEYRYRDPVVDSTLALAI SQSGETIDTLEGLREAKR  
KGARSLGVINAKGSTLTREVEDVLYIHAGPEIGVASTKAYTAMLAAMALLAVWFGRGRGA  
LALLEAQRLRLREMRRLPRLVEEVLEKRPLVAHVAEKYHQARDFLFLGRHVQAPTAYEGAL  
KLKEISYIHAEEYAPAGEMKHGPIALIDEHLPVVVLATKGPLYEKTL SNIQEVRARGGKVI  
AIATEGDEEIPRLAQDVIYVPEVHPLLAPIVSVVPLQLLAYEIAVLLGRDVDQPRNLAKS  
VTVE

>P0ACC7

MLNNAMSVVILAAGKGTRMYSDDLKPKVLHTLAGKAMVQHVIDAANELGAAHVHLVYGHGGD  
LLKQALKDDNLNWVLQAEQLGTGHAMQQAAPFFADDEDILMLYGDVPLISVETLQRLRDA  
KPQGGIGLLTVKLD DPTGYGRITRENGKVTGIVEHKDATDEQRQIQEINTGIL IANGADM  
KRWLAKLTNNNAQGEYYITDIIALAYQEGREIVAVHPQRLSEVEGVNRLQLSRLERVYQ  
SEQAEKLLLAGVMLRDPARFDL RGTLTTHGRDVEIDTNV IIEGNVTLGHRVKIGTGCVIKN  
SVIGDDCEISPYTVVEDANLAACTIGPFARLRPGAELLEGAHVGNFVEMKKARLGKGSK  
AGHLTYLGDAEIGDNVNI GAGTITCNVDGANKFKTIIGDDVFGSDTQLVAPVTVGKGAT  
IAAGTTVTRNVGENALAI SRVPQTQKEGWRRPVKKK

>Q97R46

MSNFAIILAAGKGTRMKSDDLKPKVLHKVAGISMLEHVFRSVGAIQPEKTVTVVGHKAELVE  
EVLAQQTEFVTQSEQLGTGHAVMMTEPILEGLSGHTLV IAGDTPLITGESLKNLIDFHIN  
HKNVATILTAETDNPFYGRIVRNDNAEVLRIVEQKDATDFEKQIKEINTGTYVFDNERL  
FEALKNINTNNAQGEYYITDVI GIGIFRETGEKVGAYTLKDFDES LGVNDRVALATAESVMR  
RRINHKHMVNGVSFVNPEATYIDIDVEIASEVQIEANVTLKGQTKIGAETVLTNGTYVVD  
STIGAGAVITNSMIEESSVADGVIVGYPYAHIRPNSSLGAQVHIGNFVEVKGSSIGENTKA  
GHLTYIGNCEVGSNVNFGAGTITVNYDGNKNYKTVIGNNVFVGSNSTI IAPVELGDNSLV  
GAGSTITKDVPAIAIAGRGRQINKDEYATRLPHHPKNQ

>P20477

MALRVAGLFLKKELVAPATQQRLRLRTGNTTRSQFLANSPNTALDKSILQRYRNLETPAN  
RVQATYLWIDGTGENIRLKDRVLDKVPSSVEDLPDWQYDGSSTYQAHGENSDTTLKPRAI  
YRDPFKPGKNDVIVLCDTYSADGKPTASNKRAAFQAAIDLISDQEPWFGIEQEYTLLEDVD  
GRPFGWPENGFAPQGPYYCGVGADRVIYARDLVEAHVVAACLYAGIDFAGTNAEVMQAQWE  
FQIGPAGIKACDDLWVSRYILQRIAEYGVVVTFDPKPMEGQWNGAGAHTNFSTKEMRAD  
GGIKAIEEAIEKLSKRHERHIKAYDPKEGKDNERRLVGRLETSSIDKFSWGVANRAVSVR  
VPRGVATAGKGYLEDRRPSSNCDPYAVCNIVRTCLLNE

>P04772

MTKYKLEYIWLGDGYTPPNLRGKTQIKEFASFPPTLEQLPLWGFDSSTQQAEGHSSDCVL  
KPVAVFPDAARTNGVLVMCEVMMPDGKTPHASNKRATILDDAGAWFGFEQEYFFYKGRPY  
LGFPSTSGYPAPQGPYYTGVGFSNVGDVARKIVEEHLDLCLAAGINHEGINAEVAKGQWEF  
QIFGKGSKKADEMWMARYLMLRLTEKYGIDIEFHCKPLGDTDWNGSGMHANFSTEYMR  
VGGKEYFEALMAAFDKNLMDHIAVYGPDNDKRLTGKHETAPWNKFSYGVADRGASIRVPH  
SFVNNGYKGYLEDRRPNSQGDOPYIASQILKTISSVPTEKKAVA

>P20805

MSYQAEYIWIWIDGTEPEPLMRSKTRIIKDGKEPEIWGFDSSTNQAPGSNSDCVLRPVFET  
PDPPIRGGDNRLVLCVQLTDFTPPTNTRAAALGVAERYADMSPMFGIEQEYTFKDGPRPY  
GWPEVGYAPQGPYYCGVGGSKMPGRQIVERHTQACLDAGLAIEGTNAEVMMGQWEFQIG  
VLPAPAIQDQIWLGRWLLHRIAEDYGVEVSFAAKPIPGDWNGAGAHTNFSTKQTMEGWDA  
IVTCCEALGTRVTEHVTHYGGKIEDRLTGKHETAPWNKYSWGASDRGASVRIPWAVEKAK  
KGWLEDRRPNANMDPYLVLTALMIDTCCSALAGDKPTLFVPSQTPPAPAEASV

>P13564

MQVRRDDDAGGCAGDAVPGGGEGQDGVPARQPAGRVWGVSRARATSGFKVLALGPETT  
GVIQRMQQLLDMDTTPFTDKIIAEYIWWGGSGIDLRKSRRTISKPVEDPSELPKWNYDGS  
STGQAPGEDSEVILYPQAIKDFPFRGGNNILVICDTYTPQGEPIPTNKRHMAAQIFSDPK  
VTSQVPWFGIEQEYTLMQRDVNWPLGWPVGGYPGPQGPYYCAVGSKSFGRDISDAHYKA  
CLYAGIEISGTNGEVMPGQWEYQVGPSVGDIDAGDHIWASRYILERITEQAGVVLTLDPKP  
IQGDWNGAGCHTNYSTLSMREDGGFDVIKKAIIINLSLRHDLHIAAYGEGNERRLTGLHET  
ASISDFSWGVANRGCSIRVGRDTEAKGKGYLEDRRPASNMDPYTVTALLAETTLWEPTL  
EAEALAAKKLALKV

>P15623

MSKMRFFALQELSNRKPLEITTPSNKLSDYASHVFDKRMQEYLPKEAYKAVVDATEKG  
TPISREMAADLIANGMKSNAKSLNVTHYTHWFQPLTDGTAEKHDGFI EFGEDGEVIERFSG  
KLLIQQEPDASSFPNGGIRNTFEARGYTAWDVSSPAFVVDTTLCIPTIFISYTGALDYK  
TPLLKALAAVDKAAATEVCQLFDKNITRVFTNLGWEQEYFLVDTSLYNARPDRLRTGRTLM  
GHSSAKDQQLEDHYFGSIPPRVTAFMKELEIECHKLGIPVKTRHNEVAPNQFELAPIFEN  
CNLANDHNQLVMDLMKRIARKHHFAVLFHEKPYNGVNGSGKHNNWSLCTDTGINLFAFGK  
NPKGNMLFLTFLVNVLMVHKNQDLLRASIMSAGNSHRLGANEAPPAILLSIFLGSQLSAT  
LDEIVRQVTNSKMTPEEKTTLKLGIGRIPEILLDTTDRNRTSPFAFTGNRFEFRAAGSSA  
NCAAAMIAINAAMANQLNEFKASVDKLMEEGIGKDEAIFRILKENIIASEPIRFEGDYS  
EEWKQEAARRGLTNIHVPEALMHYTDNQSRVAVLIGERIFNETELACRLEVELEKYTMKV  
QIESRVLGLDRAINHIVPIAVSYQNRLLENLCRMKEIFSEEEYEVMSADRKELIKEISHRV  
SAIKVLVRDMTEARKVANHKENFKKAFAYEETVRPYLESIRDHIDHLEMEIDDEIWPLP  
KYRELLFTK

>Q05650

MI EASKLTTEFGSLVFN DKIMKERLPKDIYKAVHKTIEKEPHLEPGCSYSCSSNHEGVGN  
REQCYHFTPPGSSPMTGLTAEKHDSFISPTEDGRSSWSSQEKS WLRANLMHQASQWWSSC  
HNSSMRGYQH GILHHHAFIKDGSLLLPTAFCSYGG EALDRDSLRSMEALSNEAVKMMRL  
LGYEDVNRVNTTIGSEQEYFLIDKDFYKKRDL LLLTGRTLIGAPASKGQEMEDHYFGVIK  
PKVSAYMHDLEELWKLGI PAKTKHNEVAPSQHELAPVFETANIAVDHNQLTMEVMKKVA  
DKHNYACLLHEKPFEGVNGSGKHNNWSICTDTGINLLDPGKNPGENIPFLVFLMSVIAAV  
DEYAPILRLSVASAGNDHRLGGNEAPP AII SIFVGD ELAEVLKAVEAGEAYKAAGKSQMT  
WEQQYFTFTKDNTRNRTSPFAFTGNKFESDGGHSSVANGKYGPQHMLQKEVATLNAKL  
SAYS GDELKEKVKEVLKETLLAHKRVLFNNGYTD EWVEEA AKRGLPNLKALPDCMPYWI  
SDESIDL FTRHGIFTKEEIYSRYEILLENYSKSIHIESLTMQEMIRKDLTEGLVAYEKDL  
SKEIVQKSLLDGDCCALELGLVLSL DKSSAEMGKALS KLFEDTKKAEGMTEALETASY  
ESTVLADMDEL RKYADEAEAL IPEKYLSYPTYGEMLFSLR

>P41320

MRICRSFLFLVKKCGNITPTIWRNQHTYKMATSASANLSKIVKKNYME LPQDGKVQAMYI  
WIDGTGEAVRCKTRTL DNEPKSIAELPEWNFDGSSSTYQSEGSNSDMYLVPSAMFRDPFRR  
DPNKLVLCEVLKYNRKP AESNLRHSCQKIMSMIANEY PWFGEQEYTL LGTDGHPFGWPS  
NCFPGPQGPYYCGVGADKAYGRDIVEAHYRACL YAGIELSGTNAEVM AAQWEYQVGPCEG  
IQMGDHLWISRFILHRVCEDFGIIASFDPKPIPGN WNGAGCHTNFSTKAMRDDGGLKYIE  
DSIEKLGKRHQYHIRAYDPKGGLDNARAL TGHHETS NINEFSAGVANRGASIRIPRSVGQ  
DKKGYFEDRRPSANCDPYAVTEALV RTCLLDES GDKPIEYNKN

>P32288

MAEASIEKTQILQKYLELDQRGRIIAEYVWIDGTGNLRSKGR TLKKRITSIDQLPEWNFD  
GSSTNQAPGHDSDIYLKPVAYY PDPFRRGDNI VVLAACYNNDGTPNKFNHRHEAAKLF AA  
HKDEE IWFGLQEYTLFDMYDDVYGWPKGGYPAPQGPYYCGVGAGKVYARDMIEAHYRAC  
LYAGLEISGINAEVMP SQWEFQVGPCTGIDMGDQLWMARYFLHRVAEEFGIKISFHPKPL  
KGDWNGAGCHTNVSTKEMRQPGMKYIEQAIEKLSKRHA EHIKLYGSDNDMRLTGRHETA  
SMTAFSSGVANRGSSIRIPRSVAKEGYGYFEDRRPASNIDP YLVTGIMCETVCGAIDNAD  
MTKEFERESS

>P37582

MSDNIRRSMP LFP IGI VMQLTELSARQIRYYEENGLIFPARSEG NRRLFSFHDVDKLEI  
KHLIEQGVNMAGIKQILAKAEAEPEQKQNEKTKKPMKHDLSDDEL RQLLKNELMQAGRFQ  
RGNTFRQGDMSRFFH

>P0A6F3

MTEKKYIVALDQGTSSRAVMDHDANIISVSQREFEQIYPKPGWVEHDPMEI WATQSST  
LVEVLAKADISSDQIAAIGITNQRETTIVWEKETGKPIYNAI VWQRRTAEIC EHLKRDG  
LEDYIRSNTGLVIDPYFSG TKVKWILDHVEGSRERARRGELLFGTVDTWLIWKMTQGRVH  
VTDYTNASRTMLFNIHTLDWDDKMLEVLDIPREMLPEVRRSSEVYGQTNIGGKGGTRIP I  
SGIAGDQQAALFGQLCVKEGMAKN TYGTGCFMLMNTGEKAVKSENGLLTTIACGPTGEVN  
YALEGAVFMAGASIQWLRDEM KLIN DAYDSEYFATKVQNTNGVYVPAFTGLGAPYWDPY  
ARGAIFGLTRGVNANHII RATLESIA YQTRDVLEAMQADSGIRLHALRVDGGAVANNFLM  
QFQSDILGTRVERPEVREVTALGAAYLAGLAVGFQNLDELQEKAVIEREFRPGIETTER  
NYRYAGWKKAVKRAMAWEHDE

>O34153



MAEKNYVMAIDQGTSSRAIIFDRNGKKIGSSQKEFPQYFPKSGWVEHNANEIWN SVQSV  
IAGAFIESGIRPEAIAGIGITNQRETTVVWDKTTGQPIANAIVWQSRQSSPIADQLKVDG  
HTEMIHEKTGLVIDAYFSATKVRWLLDNIEGAQEKADNGELLFGTIDSWLVWKLTDGQVH  
VTDYSNASRTMLYNIHKLEWDQEILDLLNIPSSMLPEVKSNSEVYGHTRSYPHFYGEVPI  
AGMAGDQQAALFGQMAFEKGMIKNTYGTGAFIVMNTGEEPQLSDNDLLTTIGYINGKVVY  
YALEGSIFVAGSAIQWLRDGLRMIETSPQSEELAAKAKGDNEVYVPAFTGLGAPYWDSE  
ARGAVFGLTRGTTKEDFVRATLQAVAYQSKDVIDTMKKDSGIDIPLLKVDGGAAKNDLLM  
QFQADILDIDVQRAANLETTALGAAYLAGLAVGFWKDLDELKSMEEGQMFTEMPAEER  
DNLYEGWKQAVAATQTFKFKAKKEGE

>O93623

MEKFVLSLDEGTT SARAIIFDRESNIHGIGQYEFPPQHYPRPGWVEHNPEEIWDAQLRAIK  
DAIQSARIEPNQIAAIGVTNQRETTLVWDKDGKPLYNAIVWQCRRTAEMVEEIKREYGT  
IKEKTGLVPDAYFSASKLKWLLDNVPLREKAEEKGEVMFGTVDTFLIYRLTGEHVTDYSN  
ASRTMLFNKIKLDWDELLELFDIPESVLPVRESSEVYGYTKKELLGAEIPVSGDAGDQ  
QAALFGQAAFEAGMVKATYGTGSFILVNTDKMVLVSDNLLTTIAWGLNGRVS YALEGSIF  
VTGAAVQWLRDGIKIKHASETEELATKLESNEGVIYVPAFVGLGAPYWDQFARGIIIGI  
TRGTGREHLARATLEAIAYLTRDVVDEMEKLVQIKELRVDGGATANDFLMQFQADILNRK  
VIRPVVKETTALGAAYLAGLAVDYWADTREIAELWKAERIFEPKMDEKTRERLYKGWKEA  
VKRAMGWAKVVDSAKSN

>P0A9C9

MRRELAIEFSRVTESAALAGYKWLGRGDKNTADGAAVNAMRIMLNQVNIDGTIVIGEGEI  
DEAPMLYIGEKVGTGRGDAVDIAVDP IEGTRMTAMGQANALAVLAVGDKGCF LNAPDMM  
EKLIVGPGAKGTIDLNLPLADNLRNVAAALGKPLSELTVTILAKPRHDAVIAEMQQLGVR  
VFAIPDGDVAASILTCMPDSEVDVLYGIGGAPEGVVSAAVIRALDGDMMNGRLLARHDVK  
DNEENRRIGEQLARCKAMGIEAGKVLRLGDMARSDNVIFSATGITKGDLEGI SRKGNI  
ATTETLLIRGKSRTIRRIQSIHYLDRKDPQM V HIL

>P77952

MDSSLAISGGPRLSNREWPWPQPGDRALKSLEDVLTSGRWTISCAYQGRDSYERQFASA  
FADYCGSAMCVP ISTGTASLAIALEACGVGAGDEVIVPGLSWVASASAVLGINAVPVLVD  
VDPATYCLDPAATEAAITERTRAITVVHAYS AVADLDALLDIARRHGLPLIEDCAHAHGA  
GFRGRPVGAHGAAGVFSMQGSKLLTCGEGGALVTDADVALRAEHLRADGRVVRREPVG  
GEMELEETGRMMGSNACLSEFHAAVLLDQLELLDQGNARRTRAADHLTDRLSELGMTAQA  
TAPGTTARAYRYLVRLPDEVLAVAPVERFAHALTAELGFAVTQTHRPLNDNPLNRPSSR  
RRFATDARYLERVDP SRFDLPAAKRAHESVVSFSHEVLLAPLDAIDDIARA FRKVL DNVR  
EVS R

>P24944

MRKIGLAWQIFIGLILGIIVGAI FYGNPKVAAAYLQPIGDIFLRLIKMIVIPIVISSLVG  
VASVGDLLKGLKLGKTI IYFEIITTTIAIVVGLLAANIFQPGAGVNMKSLEKTDIQSYVD  
TTNEVQHHS MVETFNIVPKNIFESLSTGDM LPIIFFSVMFGLGVAAIGEKGKPV LQFFQ  
GTAEAMFYVTNQIMKFAPFGVFALIGVTVSKFGVESLIPLSKLVIVVYATMLFFIFAVLG  
GVAKLFGINIFHIIKILKDELILAYSTASSETVLP RIMDKMEKFGCPKAITSFVIPTGYS  
FNLDGSTLYQALAAIFIAQLYIDMSVSQQISLLLVLMTSKGIAGVPGVSFVLLATLG  
TVGIPVEGLAFIAGIDRILDMARTAVNVIGNSLAAIIMSKWEGQYNEEKGKQYLAELQQS  
A

>P54716

MKKKSFSI VIAGGGSTFTPGIVLMLLDHLEEFPIRKLLKLYDNDKERQDR IAGACDVFIRE  
KAPDIEFAATTDPEEAFTDVFVMAHIRVVKYAMRALDEQIPLKYGVVGGQETCGPGGIAY  
GMRSIGGVLEILDYMEKYSYSPDAWMLNYSNPAAI VAEATRRLRPNSKILNICDMPVGI EDR  
MAQILGLSSRKEMKVRYYGLNHFGWWTSIQDQEGNDLMPKLKEHVSQYGYIPKTEAEAVE  
ASWNTDFAKARDVQAADPDTLPNTYLYQYLLFPDDMVKKSNNHTRANEVMEGREAFIFSQ  
CDMITREQSSENSEIKIDDHASYIVDLARAIAYNTGERMLLIVENNGAIANFDPTAMVEV  
PCIVGSNGPEPITVGTIPQFQKGLMEQQVSVEKLTVEAWAEKSFQKLWQALILSKTVPNA  
RVARLILEDLVEANKDFWPELDQSPTRIS

>P37303

MTEFELPPKYITAANDLRSDTFTTPTAEMMEAALEASIGDAVYGEDVDTVRLEQTVARMA  
GKEAGLFCVSGTSLSNQIAIRTHLMQPPYSILCDYRAHVYTHEAAGLAILSQAMVVPVPS  
NGDYLTLEDIKSHYVPDDGDHIGAPTRLISLENTLHGIVYPLEELVR IKAWCMENGLKLLH  
CDGARIWNAQAQSGVPLKQYGEIFDSISICLSKSMGAPIGSVLVGNLKFVKKATHFRKQQ  
GGGIRQSGMMARIALVNINNDWKSQLLYSHSLAHELAEYCEAKGIPLLESPADTNFVFINL  
KAARMDPDVLVKKGLKYNVKLMGGRVSVFHYQVTRDTLEKVKLAISEAFDYAKEHPFDCNG  
PTQIYRSESTEVDVDGNAIREIKTYKY

>P24060

MTSAKTASAPDSFFTASLDQADPEIAAAIKGELGRQRHEVELIASENIVSRVLEAQGSV  
MTNKYAEGYPGARYYGGCEWVDVAENLAIDRAKCLFGAGFANVQPNSSQMNQAVFLALL  
QPGDTFMGLDLAAGGHLTHGSPVNMSSGKWFKAHYTVRREDQIIDMDAVQKQAEI KPKL  
IVAGGSAYSRAWDFKRFREIADSVGAYLLVDMAHFAGLVAGGVHASPVYAHVTTTTTHK  
SLRGPRGGLILSNDET LAKKLN SAIFPGLQGGPLMHVIAAKAVAFGEALRPDFKVYAKNV  
VENAKALAEAMKSHGFDIVSGGTDNHLMLVDLRPKGLKGNVSEKALVRAAITCNKNGIPF  
DPEKPFVTSGLRLGTPAATTRGFGVAEFQQVGGMIAEVLNAIAQSDDGKAPLVEAAIKER  
VKALTDRFPIYQ

>P0A825

MLKREMNIADYDAELWQAMEQEKVRQEEHIELIASENYTSPRVMQAQGSQLTNKYAEGYP  
GKRYYGGCEYVDIVEQLAIDRAKELFGADYANVQPHSGSQANFAVYTALLEPGD TVLGMN  
LAHGHLTHGSPVNFSGKLYNIVPYGIDATGHIDYADLEKQAKEHKPKMIIGGFSAYSGV  
VDWAKMREIADSIGAYLFVDMAHVAGLVAAGVYPNPVPHAHVTTTTTHKTLAGPRGGLIL  
AKGGSEELYKKNLSAVFPGGQGGPLMHVIAKKAVALKEAMEPEFKTYQQQVAKNAKAMVE  
VFLERGYKVVSGGTDNHLFLVDLVDKNTLGKEADAALGRANITVNKNSVPNDPKSPFVTS  
GIRVGTPAITRRGFKEAEAKELAGWMCVLDVINDEAVIERIKGKVL DICARYPVYA

>O15488

MSETEFHHGAQAGLELLRSSNSPTSASQSAGMTVTDQAFVTLATNDIYCQ GALVLGQSLR  
RHRLTRKLVVLI TPQVSSLLRVILSKVFDEVIEVNLIDSADYIHLAFLKRPELGLTLTKL  
HCWTLTHYSKCVFLDADTLVLSNVDELFD RGEFSAAPDPGWPDCFN SGVVFVQPSLHCHK  
LLLQHAMEHGSFDGADQGLLNSFFRNWSTTDIHKHLPFIYNLSSNTMYTYS PAFKQFGSS  
AKVVHFLGSMKPWNKYNPQSGSVLEQGSASSQHQAFLHLWTVYQNNVLP LYKSVQA  
GEARASPGHTLCHSDVGGPCADSASGVGEP CENSTPSAGVPCANSPLG SNQPAQGLPEPT  
QIVDETLSLPEGRRSEDMIACPETETPAVITCDPLSQSPQPADFTETETILQ PANKVES  
VSSEETFEP SQELPAEALRDP SLQDALEVDLAVSVSQISIEEKVKEL SPEEERRKWE EGR  
IDYMGKDAFARIQEKLDRFLQ

>P46976

MTDQAFVTLTTNDAYAKGALVLGSSSLKQHRTTRRLVVLATPQVSDSMRKVLETVFDEVIM

VDVLDSDGSAHLTLMKRPELGVTLTKLHCWSLTQYSKCVFMDADTLVLANIDDLFDREEL  
SAAPDPGPWPCFNSGVFVYQPSVETYNQLLHLASEQGSFDGGDQGILNTFFSSWATTDIR  
KHLFFIYNLSSISIYSYLPFAFKVFGASAKVVHFLGRVKPWNYTYDPKTKSVKSEAHDPNM  
THPEFLILWNNIFTTNNVLPQLQFGLVKDTCSYVNVLSDLVYTLAFSCGFCKEDVSGAI  
SHLSLGEIPAMAQPFFVSSEERKERWEQGGADYMGADSFNKRKLDTYLQ

>P34897

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELL  
QREKDRQCRGLELIASENFCSRAALEALGSCLMNKYSEGYPGKRYGGAEVVDIEELLCQ  
RRALEAFDLDPAQWGVNVQPYSGSPANLAVYTALLQPHDRIMGLDLPDGGHLTHGYMSDV  
KRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGTSAYARLIDYARMREV  
CDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD  
PKTGREIPYTFEDRINFVFPVSLQGGPHNHAAVAVALKQACTPMFREYSLQVLKNARA  
MADALLERGYSLVSGGTDNHLVLDLRPKGLDGARAERVLELVSITANKNTCPGDRSAIT  
PGGLRLGAPALTSRQFREDDFRRVVDFIDEGVNIQLEVKSKTAKLQDFKSFLLKDSSETSQ  
RLANLRQVEQFARAFPMGFDEH

>Q93VR3

MGTNGTDYGAITYKELEREQYWPSENKISITGAGGFIAASHIARRLKHEGHYVIASDWK  
KNEHMTEDMFCDEFHLVLDLRVMENCLKVTEGVDFHFNLAADMGMGFIQSNHSMYNNNT  
MISFNMIEAARINGIKRFFYASSACIYPEFKQLETTNVSLESDAWPAEPQDAYGLEKLA  
TEELCKHYNKDFGIECRIGRFHNIYGPFGTGWKGGREKAPAAFCKRKAQTSTDRFEMWGDGL  
QTRSFTFIDECVEGLRLTKSDFREPVNIGSDEMVMNEMAEMVLSFEEKKLP IHHIPGP  
EGVRGRNSDNLIKEKLGWAPNMRLKEGLRITYFWIKEQIEKEKAKGSDVSLYGSSKVVG  
TQAPVQLGSLRAADGKE

>Q01578

MTTGRMSRRECLSAAVMVP IAAMTATATITGSAQAANKNMNGSTIGKITKFSPRLDAILD  
VSTPIEVIASDIQWSEGPVWVKNGNFFLLSDDPPANIMRKWTPDAGVSIPLKPSGHAEP  
AGQFREPGSNGMKVGPDKIIVWADSGTRAIMKVDPVTRQRSVVVDNYKGRFNSPNDLFF  
SKSGAVYFTDPPYGLTNLDESDIKEMNYNGVFRSLSPDGRDLIEAGLSRPNGLALSPDET  
KLYVSNDRASPNIWVYSLDSNGLPTSRTLRNFRKEYFDQGLAGLPDGMNIDKQGNLFA  
SAPGGIYIFAPDGECLGLISGNPGQPLSNCCFGEKGQTLFISASHNVVRVVRTKTFG

>P50199

MSHPDLFSLSGARALVTGASRGIGLTLAKGLARYGAEVVNLNGRNAESLDSAQSGFEAEGL  
KASTAVFDVTDQDAVIDGVAAIERDMGPIIDILINNAGIQRRAPLEEF SRKDWDDL MSTNV  
NAVFFVQGAVARHMI PRGRGKIVNICSVQSELARPGIAPYTATKGAVKNLTKGMATDWGR  
HGLQINGLAPGYFATEMTERLVADEEFTDWLCKRTPAGRWGQVEELVGAAVFLSSRASSF  
VNGQVLMVDGGITVSL

>Q8TBA6

MSWFVDLAGKAEDLLNRVDQGAATASRKDNASNIYSKNTDYTELHQNTDLIYQTGPKS  
TYISSAADNIRNOKATILAGTANVKVGSRTPEASHPVENASVPRPSSHVRRKKSEPDD  
ELLFDFLNSSQKEPTGRVEIRKEKGTVPVFQSSQTSSVSSVNPSTTIKTIEENSFGSQT  
HEAASNSDSSHEGQEESSKENVSSNAACPDHTPTPNDDGKSHELNLRLLENQLLRNEVQS  
LNQEMASLLQRSKETQEELNKARARVEKWNADHSSDRMTRGLRAQVDDLTEAVAAKDSQ  
LAVLKVRLQEQADQLLSTRTEALEALQSEKSRIMQDQSEGNLQNLQALQTLQERLHEADAT  
LKREQESYKMQSEFAARLNKVEMERQNLAEAITLAERKYSDEKKRVDELQQQVKLYKLN  
LESSKQELIDYKQKATRILQSKLINSLEKSGFEGLDSSSTASSMELEELRHEKEMQRE

EIQKLMGQIHQLRSELQDMEAQQVNEAESAREQLQDLHDQIAGQKASKQELETELELERLKQ  
EFHYIEEDLYRKTNTLQSRICKDRDEEIQKLRNQLTNKTLNSSSQSELENRLHQLTETLIQ  
KQTMLESLSTEKNSLVFQLERLEQQMNSASGSSSNGSSINMSGIDNGEGTRLRNVPLFN  
DTETNLAGMYGKVRKAASSIDQFSIRLGIPLRRYP IARV FVI IYMALLHLWVMIVLLTYT  
PEMHHDQPYGK

>Q14789

MLSRLSGLANVVLHELSGDDDDTDQNM RAPLPDELHQESDMEFNNTTQEDVQERLAYAEQL  
VVELKDIIRQKDVQLQOKDEALQEERKAADNKIKKLLHAKAKLTSLNKYIEEMKAQGGT  
VLPTEPQSEEQLSKHDKSSTEEEMEIEKIKHKLQEKEELISTLQAQLTQAQAEQPAQSST  
EMEEFVMMKQQLQEKEEFISTLQAQLSQTQAEQAAQVREK DARFETQVRLHEDELLQL  
VTQADVETEMQKLRVLQRKLEEEHESLVGRAQVVDLLQOELTAAEQRNQILSQQLQOME  
AEHNTLRNTVETEREESKILLEKMELEVAERKLSFHNLQEEMHLLLEQFEQAGQAQAELE  
SRYSALEQKHKAEEMEEKTSHILSLQKTGQELQSACDALKDQNSKLLQDKNEQAVQSAQTI  
QOLEDQLQOKSKEISQFLNRLPLQOQHETASQTSFPDVYNEGTVQAVTEENIASLQKRVEL  
ENEKALLSSIELEELKAENEKLSQITLLEAQNRTGEADREVSEISIVDIANKRSSSA  
EESGQDVLENTFSQKHKELSVLLEEMKEAQEEIAFLKQLQOGKRAEEADHEVLDQKEMKQ  
MEGEGIAPIKMKVFLEDTGQDFPLMPNEESSLPAVEKEQASTEHSRTSEEISLNDAGVE  
LKSTKQDGDKSLSAVPDIGQCHQDELERLKSQILELELNFHKAQEIYEKNLDEKAKEISN  
LNQLIEEFKNADNNSAFTALSEERDQLLSQVKELSMVTELRAQVKQLEMNLAEAERQR  
RLDYESQTAHDNLLTEQIHSLSIEAKSKDVKIEVLQNELDDVQLQFSEQSTLIRSLQSQL  
QNKSEVLEGAERVRHISSEKVEELSQUALSQKELEITKMDQLLLEKKRDVETLQQTIEEKD  
QQVTEISFSMTEKMQVLENEKFSLGVEIKTLKEQLNLLSRAEEAKKEQVEEDNEVSSGLK  
QNYDEMSPAGQISKEELQHEFDLLKKENEQRKRKLQAALINRKELLQRVSRLEEEELANLK  
DESKKEIPLSETERGEVEEDKENKEYSEKCVTSSKQEIIEIYLKQTISEKEVELQHIRKDL  
EEKLAAEEQFQALVKQMNQTLQDKTNQIDLLQAEISENQAIIQKLITSNTDASDGDSVAL  
VKETVVISPPCTGSSEHWKPELEEKILALEKEKEQLQKQLQEALTSRKAILKKAQEKERH  
LREELKQKDDYNRLQEQFDEQSKENENIGDQLRQLQIQVRESIDGKLPSTDQQESCSST  
PGLEEPLFKATEQHHTQPVLESNLCPDWP SHSEDASALQGGT SVAQ IKAQLKEIEAEKVE  
LELKVSSTSELTKKSEEVFQLQEQINKQGLEIESLKTVSHEAEVHAESLQKLESSQLQ  
IAGLEHLRELQPKLDELQKLISKKEEDVSYLSGQLSEKEAALTKIQTEIEEQEDLIKALH  
TQLEMQAKEHDERIKQLQVELCEMKQKPEEIGEESRAKQQIQRKLQAALISRKEALKENK  
SLQEELSLARGTIERLTKSLADVESQVSAQNKEDTVLGR LALLQEERDKLITEMDRSLL  
ENQSLSSSCESLKLALGLEGLTEDKEKLVKEIESLKS SKIAESTEWQEKHKELQKEYEILLQ  
SYENVSNEAERIQHVVAVRQEQELYGKLRSTEANKKETEKQLQEAEQEMEEMKEKMRK  
FAKSKQOKILELEEEENDRLRAEVHPAGDTAKECMETLLSSNASMKEELERVKMEYETLSK  
KFQSLMSEKDSLSEEVQDLKHQIEGNVSKQANLEATEKHNDQTNVTEEGTQSIPGETEEQ  
DSLMSMSTRPTCESVPSAKSANPAVSKDFSSHDEINNYLQQIDQLKERIAGLEEEKQKNK  
EFSQTLNEKNTLLSQISTKDGELKMLQEEVTKMNLNQQIQEELSRVTKLKETAEFEKD  
DLEERLMNQLAELNGSIGNYCQDVTDQAQIKNELLESEMKNLKKCVSELEEEKQQLVKEKT  
KVESEIRKEYLEKIQGAQKEPGNKSHAKELQELLKEKQEVKQLQKDCIRYQEKISALER  
TVKALEFVQTESQKDLKITKENLAQAVEHRKKAQAE LASFKVLLDDTQSEARV LADNLK  
LKKELQSNKESVKSQMKQKDEDLERRLEQAEEKHLKEKKNMQEKLDALRREKVHLEETIG  
EIQVTLNKKDKEVQQLQENLDSTVTQLAAFTKSMSSLQDDRDRVIDEAKKWERKFSDAIQ  
SKEEERLKDNC SVLKDQLRQMSIHMEELKINISRL EHDKQIWESKAQTEVQLQKVC  
TLQGENKELLSQLEETRHLHYSSQNELAKLESELKSLKDQLTDLSNSLEKCKEQKGNLEG  
IIRQQEADIQNSKFSYEQLETDLQASRELT SRLHEEINMKEQKIIISLLSGKEEAIQVAIA  
ELRQQHDKIKELENLLSQEEEEINIVLEENKKAVDKTNQLMETLKT IKKENIQKQALD  
SFVKSMSSSLQNDRDRIVGDYQQL EERHLSIILEKQDLIQEAAAENK LKEEIRGLRSHMD  
DLNSENAKLDAELIQYREDLNQVITIKDSQQKQLLEVQLQQNKELENKYAKLEEKLEKESE

EANEDLRRSFNALQEEKQDLSKEIESLKVSI SQLTRQVTALQEEGTLGLYHAQLKVKEEE  
VHRLSALFSSSQKRIAELEEEELVCVQKEAAKKVGEIEDKLLKELKHLHHDAGIMRNETET  
AEERVAELARDLVEMEQKLLMVTKENKGLTAQIQSFGRSMSSLQNSRDHANEELDELKRR  
YDASLKELAQLKEQGLNRRERDALLSETAFSMNSTEENSLSHLEKLNQQLLSKDEQLLHL  
SSQLEDSYNQVQSFASKAMASLQNERDHLWNELEKFRKSEEGKQRSAAQPSTSPAQVQSLK  
KAMSSLQNDRDRLKELKLNQOQYLQINQEI TELHPLKAQLQEYQDKTKAFQIMQEELRQ  
ENLSWQHELHQLRMEKSSWEIHERRMKEQYLMASDKDQQLSHLQNLIRELRSSSSQTQP  
LKVQYQRQASPETSASPDGSQNLVYETEELLRTQLNDSLKEIHQKELRIQQLNSNFSQLE  
EKNTLSIQLCDTSQSLRENQOQHYGDLNHCVALEKQVQELQAGPLNIDVAPGAPQEKNGV  
HRKSDPEELREPQQSFSEAQQQLCNTRQEVNELRKLLLEEERDQRVAAENALSVAEEQIRR  
LEHSEWSSRTPIIIGSCGTQEQALLIDLTSNSCRRTSRSGVWKRVLRSLSCHSRTRVPLLA  
AIYFLMIHVLLILCFTGHL

>P05414

MEITNVNEYEAIAKQKLPKMVYDYASGAEDQWTLAENRNAFSRILFRPRILIDVTNIDM  
TTTTILGFKISMPIMIAPTAMQKMAHPEGEYATARAASAAGTIMTLSSWATSSVEEVASTG  
PGIRFFQLYVYKDRNVVAQLVRRRAERAGFKAIALTVDT'PRLGRREADIKNRFVLP'PFLTL  
KNFEGIDLKMDKANDSGLSSYVAGQIDRSLSWKDVAWLQITITSLPILVKGVITAEDARL  
AVQHGAAGIIVSNHGARQLDYVPATIMALEEVVAAAQGRIPVFLDGGVRRGTDVFKALAL  
GAAGVFIGRPVVFSLAAEAGEAGVKKVLQMMRDEFELTMALSGCRSLKEISRSHIAADWDG  
PSSRAVARL

>O29390

MIVSILGAGAMGSALSVPLVDNGNEVRIWGTEFDTEILKSI SAGREHPRLGVKLN'GVEIF  
WPEQLEKLENAEVVLLG'VST'DGVLPVMSRILPYLKDQYIVLISKGLIDF'DNSVLT'VPEA  
VWRLKHDLRERTVAITGPAIAREVAKRMP'TTVVFSSPSESSANKMKEIFETEYFGVEV'TT  
DIIIGTEITSALKNVYSIAIAWIRGYESRKNVEMSNAGVIA'TRAINEMAELIEILGGDRE  
TAFGLSGFGDLIATFRGGRNGMLGELLGKGLSIDEAMEELERRGVGVVEGYKTAEKAYRL  
SSKINADTKLLDSIYRVLYEGLKVEEVL'FELATFK

>P13706

MADKVNVCIVGSGNWGSAIAKIVGANAAALPEFEERVMTMFVYEELIDGKKL'TEINE'THE  
NVKYLKGHKLPPNVVAVPDLVEAAKNADILIFVVPHQFIPNFC'KQLL'GKIKPNAIAISLI  
KGFDKAEGGGIDLISHIITRHLKIPCAVLMGANLANEVAEGNFC'ETTIGCTDKKYGKVLR  
DLFQANHF'RVVVVDDADAVEVCGALKNIVACGAGFVDGLKLGDN'TKAAVIRLGLMEMIRF  
VDVFYPGSKLSTFFESC'GVADLITTCYGGRRNRVSEAFV'TSGKTIEELEKEM'LN'GQK'LQG  
PPTAAEVN'YMLKNKGLEDKFPLFTA'IKICTNQLKPN'DLIDCIRNHPEHMDT'SIMPSPKL  
QNL

>P90551

MSTKQHSAKDELLYLNKAVVFGS'GAFGTALAMVLSKKCREVCVWHMNEE'EVRLVNEKREN  
VLFLKGVQLASNITFTSDVEKAYNGAEIILFV'IP'QFLR'GFF'EKSGGNLIAYAKEKQVPV  
LVCTKGIERSTLKFPAEII'G'EF'LPSPLLSVLAGPSFAIEVATGVFTCVS'IASADINVAR  
LQ'RI'MSTGDRS'FVCWATTDTVGCEVASAVKNVLAIGSGVANGLGMGLNARAALIMRGLLE  
IRDLTAALGGDGS'AVFGLAGL'GDLQLTCSSELSRNFTV'GKKGKGLPIEEIQRTSKAVAE  
GVATADPLMRLAKQLKVKMPLCHQIYEIVYKKNPRDALADLLSCGLQDEGLPPLFKRSA  
STPSKL

>O18994

MTVQLGAFYLFPLFMAGFVQ'TNSNLEKMDCYKDVTGTIYDYDAFTLNGNEHIQFKQYAGK

HVLFVNVATYCGTLTAQYPELNTLQEELKPFGLVVLGFPCNQFGKQEPGENSE ILLGLKYV  
RPGGGYVVPNFQLFEKGDVNGEKEQKVFTFLKHSCPHPSSELIGSIGYISWEP IRVHDIRWN  
FEKFLVGPDPVPMRWVHETPISTVKSDILAYLKQFKTE

>P67877

MSAQLLILSHMVLQLLIVAQLGPKIGKQFLKPKQCEITNQTVDYDFQVQMLNGAQKSLAEY  
RNKVLIVNVATYCAITMQRDFNP ILESNSNGTLNIGLGFPCNQFYLQEPHENHELSSGL  
KYVRPGHGWEPHKNMHIFGKLEVNGENDHPLYKFLKERCPPTVPIGKRHQLIYDPIGTN  
DVIWNFEKFLVDKGRPRYRFHPENWVQGTAVKPYIDELEREI

>O35254

MGLGASSEQPAGGEGFHLHGVQENSPAQQAGLEPYFDFIITIGH SRLNKENDTLKALLKA  
NVEKPVKLEVFNMKTMRVREVEVVP SNMWGGQGLLGASVRFCSFRASEHVHVLVDVEPS  
SPAALAGLRPYTDYIVGSDQILQESEDFFTLIESHEGKPLKLMVYNSESDSCREVTVTPN  
AAWGGEGSLGCGIGYGLHRIPTQPSSQYKKPPSASSPGTPAKTPQPNAPFLGAPPWPPI  
PQDSSGPELGSRQSDYMEALPQVPGGFMEEQLPGPGSPGHGTADYGGCLHSMEIPLQPPP  
PVQRVMDPGFLDVSGMSLLDSNNTSVCPSLSSSSLLTPTAVSALGPEDIGSSSSSHERGG  
EATWSGSEFEISFPDPSGSAQVDHLPRLTLPDGLTSAASPEEGLSAELLEAQTEEPAHT  
ASLDCMAQTEGPAGQVQAAPDFEPGLCEGPW

>P28676

MAYPGYGGGFGNFSIQVPGMQMQPVPETGPAILLDGYSGPAYSDTYSSAGDSVYTYFSA  
VAGQDGEVDAEELQRCLTQSGINGTYSFSLQETCRIMIAMLDRDHTGKMGFNAPKELWAA  
LNAWKENFMTVDQDGSQVEHHELRAIGLMGYRLSPQTLTTIVKRYSKNGRIFDDYVA  
CCVKLRALTDFFRKRDLQOGSANFIYDDFLQGTMAI

>Q9U405

MDICRLCLRGVSGAQMCLQIFDVDSGESKVAEVLQRHFVFEVLPNDEISKVICNVCWTQV  
SEFHQFYVSIQEAQVIYATTSKFKQDPPEMNTSWPEEVLMPADVLAVDNDVGAQINVNPL  
DELDSLQPMSPEDSKVGIKTERQSPDMELLFEDANNEQDEDEDDEDDTDDLIVTRSGR  
KRKRDVAKPAKTKRGTVSVGRKGEKMMVVKRGPVKRIFKMERLPPFCKEDEELIKRYIVM  
GCELCIFLAEDFDGIREHFKDKHPDERPYIKCCGRKLNKRCLIQEHARRHENPEYIKCKD  
CGKVFANSSVLAHWLVHHPDEECDQFQCEDCGKRFRRNLELHKGSHVPVNERKFCP  
QCPKHNAFATEYHMQVHISMQRKAANI CHVCGKKIKDKAVFEKHVRLHFEEGPRIKCP  
RPDCESWLKDEDNLKQHLRRHNDEGKLFICSECGKSKNSRALIGHKRYSHSNVIYTCEQ  
CGKTFKKDISLKEHMAQHTGEPLYKCPFCPRTFNSNANMHSKMKMHPVEWDIWRKTKTG  
SSQKVLPSAQVAQMFRDDADVAAIANDYSG

>Q9NZI5

MTQEYDNKRPLVVLQNEALYPQRRSYTSEDEAWKSFLNENPLTAATKAMMSINGDEDSAAA  
LGLLYDYKVPRERRSSTAKPEVEHPEPDHSCRNSIPIVTEQPLISAGENRVQVLKNVFP  
NIVLPHGNQLGIDKRGHLTAPDTTVTVSIAATMPHSTIKTETQPHGFVAVGIPPAVYHPEPT  
ERVVVFDNRNLNTDQFSSGAQAPNAQRRTPDSTFSETFKEGVQEVFFPSDLSLRMPGMNSE  
DYVFDVSVGNFYEYTLASKSLRQKPGDSTMTYLNKGQFYPI TLKEVSSSEGIHHPISKV  
RSVIMVFAEDKSREDQLRHWKYWSRQHTAKQRCIDIADYKESFNTISNIEE IAYNAIS  
FTWDINDEAKVVISVNCLSTDFSSQKGVKGLPLNIQVDITYSYNNRSNKPVHRAYCQIKVF  
CDKGAERKIRDEERKQSKRKVSDVKVPLLP SHKRM DITVFKPFIDLDTQPVLFIPDVHFA  
NLQRGTHVLP IASEELEGEVSVLKRGPYGTEDDFAVPPSTKLARIEEPKRVLLYVRKESE  
EVFDALMLKTPSLKGLMEAISDKYDVP HDKIGKIFKKCKKGLLVNMDDNIVKHYSNEDTF  
QLQIEEAGGSYKLTLEI

>Q6ISB3

MSQESDNNKRLVALVPMPSPDPFNTRRAYTSEDEAWKSYLENPLTAATKAMMSINGDEDS  
AAALGLLYDYKVPDRKRLLSVSKASDSQEDQEKRNCGLTSEAQSNLSGGENRVQVLKTV  
PVNLSLNLQDHLNENSKREQYSISFPESSAIIPVSGITVVKAEFTFPVFMAPPVHYPRGDGE  
EQRVVIFEQTQYDVPVSLATHSAYLKDDQRSTPDSTYSESFKDAATEKFRSASVGAEEYMY  
DQTSSGTFQYTLKSLRQKQEGPMTYLNKGQFYAITLSETGDNKCFRHPISKVRSV  
MVVFSQKNDKRLDEQLKYWKYWHSRQHTAKQRVLDIADYKESFNFIGNIEE IAYNAVSTWD  
VNEEAKIFITVNLSTDFSSQKGVKGLPLMIQIDTYSYNNRNSNKP IHRAYCQIKVFCDKG  
AERKIRDEERKQNRKKKQASQTQCNSSSDGKLAAPLQKKS DITYFKTMPDLHSQPVL  
FIPDVHFANLQRTGQVYYNTDDEREGGSVLVKRMFRPMEEEFGPVPSKQMKKEEGTKRVLL  
YVRKETDDVFDALMLKSPVTKGLMEAISEKYGLPVEKIAKLYKSKKGIILVNMDNIIIEH  
YSNEDTFILNMEMSMVEGFKVTLMEI

>Q8TE85

MSNELDFRSVRLKNDPVNLQKFSYTSSEDEAWKTYLENPLTAATKAMMRVNGDDDSVAAL  
SFLYDYMGPKKEKRILSSSTGGRNDQGKRYHGMEEYTDLTPLESPTHLMKFLTENVSGT  
PEYDPLKKNLMSLEGALPTPGKAAPLPAGPSKLEAGSVDSYLLPTTDMYDNGSLNSLF  
ESIHGVPPTQRWQPDSTFKDDPQESMLFPDILKTSPEPPCPEDYPSLKSDFEYTLGSPKA  
IHIKSGESPMAYLNKGQFYVPTLRTPAGGKGLALSSNKVKSVMVVDNEKVPVEQLRFW  
KHWSRQPTAKQRVIDVADCKENFNTEVEHIEEVAYNALS FVWNVNEEAKVFIGVNCLSTD  
FSSQKGVKGVPLNLQIDTYDCGLGTERLVHRAVCQIKIFCDKGAERKMRDDERKQFRKRV  
KCPDSSNSGVKGLLSGFRGNETTYLRPETDLETTPVLFIPNVHFSQLRSGGAAPSAGP  
SSSNRLPLKRTCSPTTEFEPEPLPSKQAKEGDLQRVLLYVRRETEEVFDALMLKTPDLKGL  
RNAISEKYGFPEENIYKVYKCKRGETSLLHPRLSRHPPDCLECSHPVTQVRNMGFGDG  
FWRQRDLDSNPSPTTVNSLHFTVNSE

>P09372

MSSKEQKTPEGQAPEEIIIMDQHEEIEAVEPEASAEQVDPDRDEKVANLEAQLAEAQTRERD  
GILRVKAEMENLRRRTELDIEKAHKFALEKFINELLPVIDS LDRALEVADKANPDMSAMV  
EGIELTLKSM LDVVRKFGVEVIAETNVPLDPNVHQAIAMVESDDVAPGNVLGIMQKGYTL  
NGRTIRAAMVTVAKAKA

>P04425

MIKLGIVMDPIANINIKKDS SFAMLLAQRG YELHYMEMGDLYLINGEARAHTRTLNVK  
QNYEEWFSFVGEQDLPLADLDVILMRKDPDFDTEFIYATYILERAEEKGTLIVNKPQSLR  
DCNEKLF TAWFSDLTPETLVTRNKAQLKAFWEKHSDIILKPLDGMGGASIFRVKEGDPNL  
GVIAETLTHEGTRYCMAQNYLPAIKDGDKRVLVVDGEPVPYCLARIPQGGETRGNLAAGG  
RGEPRPLTESDWKIARQIGPTLKEKGLIFVGLDII GDRLTEINVTSPTCIREIEAEFPVS  
ITGMLMDAIEARLQQQ

>P06715

MTKHYDYIAIGGGSGGIASINRAAMYGQKCALIEAKELGGTCVNVGCVPKKVMWHAAQIR  
EAIHMYGPDYGFDTTINKFNWETLIASRTAYIDRIHTSYENVLGKNNVDVIKGFARFVDA  
KTLEVNGETITADHIL IATGGRPSHPDIPGVEY GIDS DGFALPALPERVA VVGAGYIAV  
ELAGVINGLGAKTHLFVRKHAPLRSFDPMISETLVEVMNAEGPQLHTNAIPKAVVKN TDG  
SLTLELEDGRSETVDCLIWAIGREPANDNINLEAAGVK TNEKGYIVVDKYQNTNIEGIYA  
VGDNTGAVELTPVAVAAGRRLSERL FNKNPDEHLDYSNIPTVVFVSHPPIGTVGLTEPQAR  
EQYGDQVVKVYKSSFTAMYTAVTTHRQPCRMLKLCVGVSEEKIVGIHGIGFGMDEMLQGFA  
VALKMGATKKDFDNTVAIHPTAAEEFVTMR

>P00390

MALLPRALSAGAGPSWRRARAARFRGFLLLLLPEPAALTRALS RAMACRQEPQPQGPAAAG  
AVASYDYLVIGGGSGGLASARRAAELGARAAVVESHKLGGTVCVNVGCVPKKVMWNTAVHS  
EFMHDHADYGFPSCEGKFNWRVIKEKRDAYVSRNLAIYQNNLTKSHIEIIRGHAAFTSDP  
KPTIEVSGKKYTAPHILIIATGGMPSTPHESQIPGASLGITSDGFFQLEELPGRSVIVGAG  
YIAVEMAGILSALGSKTSLMIRHDKVLRSFDSMISTNCTEELNAGVEVLKFSQVKEVKK  
TLSGLEVSMVTAVPGRLPVMTMIPDVDCLLWAI GRVPNTKDL SLNKLGIQTDDKGHIIVD  
EFQNTNVKGIYAVGDVCGKALLTPVAIAAGRKLAHRLFYKEDSKLDYNNIPTVVF SHPP  
IGTVGLTEDEAIHKYGIENVKTYSTSFTPMYHAVTKRKTCKVMKMCANKEEKVVG IHMQ  
GLGCDEMLQGF AVAVKMGATKADFDNTVAIHPTSSEELVTLR

>Q94655

MVYDLIVIGGGSGGMAARRAARHNAKVALVEKSRLGGTVCVNVGCVPKKIMFNAASVHDI  
LENSRHYGFDTKFSFNLP LLVERRDKYIQRLNNIYRQNL SKDKVDLYEGTASFLSENRII  
IKGTKDNNKDNGLNEEILEGRNIIAVGNKPVFPVKGIENTISSDEFFNIKESKKIG  
IVGSGYIAVELINVIKRLGIDSYIFARGNRI LRKFDESVINVLENDMKNNINIVTFADV  
VEIKKVSDKNLSIHLSDGRIYEHFDHVIYCVGRSPDTENLKLEKLNVE TNNNYIVVDENQ  
RTSVNNIYAVGDCCMVKKSKEIEDLNLLKLYNEERYLNKKENVTEDIFYNVQLTPVAINA  
GRL LADRLF LKTRKTNYKLIPTVIFSHPPIGTIGLSEEAAIQIYGKENVKIYESKFTNL  
FFSVYDIEPELKEKTYLKLVCVGKDEL IKGLHI IGLNADEIVQGF AVALKMNATKKDFDE  
TIPIHPTAAEEFLTLQPWMK

>P23189

MSFDFDLFVIGAGSGGVRAARFAAGFGARVAVAESRYLGGTVCVNVGCVPKKLLVYGAHFS  
EDFEQARAYGWSAGEAQFDWATLIGNKNREIQRLNGIYRNLLVNSGVTLLEGHARLLDAH  
SVEVDGQRFSAKHILVATGGWPQVPDIPGKEHAITSNEAFFLERLPRRVLVVGGGYIAVE  
FASIFNGLGAETLLYRRDLFLRGFDRSVREHLRDELGKKGLDLQFNSDIARIDKQADGS  
LAATLKDGRVLEADCVFYATGRRPMLDDLGLENTAVKLTDKGFIAVDEHYQTSEPSILAL  
GDVIGRVQLTPVALAEGMAVARRLFKEEYRVPDYKLIPTAVFSLPNIGTVGLTEEEALS  
AGHKVKIFESRFRPMKLTLTDDQEKTLMKLVVDAHDDRVLGCHMVGAEAGEILQGIAM  
KAGATKQAFDETIGIHPTAAEEFVTLRTPTR

>P40582

MSLPIIKVHWLDHSRAFRLWLWLDHLNLEYEIVPYKRDANFRAPPELKKIHPLGRSPLLE  
VQDRETGKKKILAESGFIQYVLQHFDSHVLMSEDADIAQINYYLFYVEGSLQPPLMI  
EFILSKVKDSGMPFPI SYLARKVADKISQAYSSGEVKNQDFVVEGEISKNNGYLVDGKLS  
GADILMSFPLQMAFERKFAAPEDYPAISKWLKTITSEESYAASKEKARALGSNF

>Q93113

MDFYYLPGSAPCRAVQMTAAAVGVELNLKLTDLMKGEHMKPEFLKLN PQHC IPTLV DNGF  
ALWESRAIQIYLAEKYKDDKLYPKDPQKRAVVNQRLYFDMGTLYQRFADYHYPQIFAKQ  
PANPENEEKMKDAVGFLNTFLEGQEYAAGNDLTIADLSLAATIATYEVAGFDFAYPNVA  
AWFARCKANAPGYALNQAGADEFKAKFLS

>P08515

MSPILGYWKIKGLVQPTRL LLEYLEEKYEEHLYERDEGDKWRNKKFELGLEFPNLPYYID  
GDVKLTQSMAIIRYIADKHNMLGGCPKERAESMLEGAVLDIRYGVSR IAYSKDFETLKV  
DFLSKLP EMLKMFEDRLCHKTYLNGDHVTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFK  
KRIEAI PQIDKYLKSSKYIAWPLQGWQATFGGGDHPPK



>P30113

MTGDHIKVIYFNNGRAESIRMTLVAAAGVNYEDERISFQDWPKIKPTIPGGRLPAVKITD  
NHGHVKWMMVESLAIARYMAKKHHMMGGTEEEYYNVEKLI GQAEDLEHEYYKTLMKPEEEK  
QKI I KEILNGKVPVLLDIICESLKASTGKLAVGDKVTLADLVLI AVIDHVTDLDKEFLTG  
KYPEIHKHRENLLASSPRLAKYLSDRAATPF

>P56598

MPAKLGYWKIRGLQOPVRLLEGEKYEEQIYERDDGEKWFSSKFFELGLDLPNLPYYIDD  
KCKLTQSLAILRYIADKHGMIGSTPEERARVSMIEGAAVDLRQGLSRISYDPKFEQLKEG  
YLKDLPTTMKMWSDFLGKNPYLRGTSVSHVDFMVYEALDAIRYLEPHCLDHFPNLQQFMS  
RIEALPSIKAYMESNRFIKWPLNGWHAQFGGGDAPPSHEKK

>Q12390

MNGRGFLIYNGGEMKQKMI IYDTPAGPYPARVRIALAEKNMLSSVQFVRINLWKGEHKK  
PEFLAKNYSGTVPVLELDDGTLIAECTAITEYIDALDGTPTLTGKTPLEKGV IHMMNKRA  
ELELLDPVSVYFHHATPGLGPEVELYQNKEWGLRQRDKALHGMHYF'DTVLRERP YVAGDS  
FSMADITVIAGLIFAAIVKLQVPEECEALRAWYKRMQQRPSVKKLLEIRSKSS

>P0A9D2

MKLFYKPGACSLASHITLRESGKDFTLVSVDLMKKRELENGDDYFAVNPKGQVPALLLDDG  
TLLTEGVAIMQYLADSVDPDRQLLAPVNSISRYKTIEWLN YIATELHKGF'TPLFRPDTPEE  
YKPTVRAQLEKKLQYVNEALKDEHWICGQRFTIADAYLFTVLRWAYAVKLNLEGLEHIAA  
FMQRMAERPEVQDALSAEGLK

>P46088

MPKYTLHYFPLMGRAELCRFVLA AHGEEFTDRVVEMADWPNLKATMYSNAMPVLDIDGTK  
MSQSMCIARHLAREFGLDGKTSLEKYRVDEITETLQDIFNDVVKIKFAPEAAKEAVQQNY  
EKSCKRLAPFLEGLLVSNGGDGFFVGNMSTLADLHCYVALEVP LKHTPELLKDCPKIVA  
LRKRVAECPKIAAYLKKRPVRDF

>Q8MU52

MGDNIVLYYFDARGKAELIRLIFAYLGI EYTDKRFVNGDAFVEFKNFKKEKDTPEEQVP  
ILQIGDLILAQSQAIVRYLSKKYNICGESELNEFYADMIFCGVQDIHYKFNN'TNLFKQNE  
TTFLNEDLPKWSGYFEKLLKKNHTNNDKYYFVGNNTYADLAVFNLYDDIETKY PSSL  
KNFPLLKAHNEFISNLPNIKNYITNRKESVY

>P15214

MKLYYTPGSCSLSPHIVLRETGLDFSIERIDLRTKKTESGKDFLAINPKGQVPVLQLDNG  
DILTEGVAIVQYLADLKPDRNLIAPPKALERYHQIEWLNFLASEVHKGYSP LFSSTPES  
YLPVVKNKLKSKFVYINDVLSKQKCVCGDHFTVADAYLFTLSQWAPHVALDLTDL SHLQD  
YLARIAQRPNVHSALVTEGLIKE

>P45875

MKLYTKPGACSLADHIVLRWSCLPFELTVVDAATMKSPDYLR LNPAGAVPLLVDQWALT  
QNAAIILNYIADTAPLTGLGGDGTARSRAEINRWIAFVNADLHPTFKPLFGSTAYLQEDAL  
IQRSHEDARTKLR'TLYTRVDAHLQGRNWL AGD'THTGADAYL'FVTLRWAHKAGVDLSGLSA  
LDAFFQRMLADADVQAALQAEGLN

>P00502

MSGKPVLYHFNARGRMERICRWLLAAAGVEFDEKFIQSPEDLEKLLKKGDNLMFDQVPMVEI  
DGMKLAQTRAILNYIATKYDLYGKDMKERALIDMYTEGILDLTEMIMQLVICPPDQKEAK  
TALAKDRTKNRYLPAFEKVLKSHGQDYLGVNRLTRVDIHLLELLLYVEEFDASLLTSFPL  
LKAFKSRISLSPNVKKFLQPGSQRKLPVDAKQIEEARKIFKF

>P26697

MAAKPVLYYFNARGKMESIRWLLAAAGVEFEVFLFETREQYKLLQSGILMFQQVPMVEI  
DGMKLVQTRAILNYIAGKYNLYGKDLKERALIDMYVGGTDDLMGFLLSFPFLSAEDKVVKQ  
CAFVVEKATSRYFPAYEKVLKDHGQDFLVGNRLSWADIHLLLEAILMVEEKKSDALSGFPL  
LQAFKKRISLPTIKKFLAPGSKRKPISDDKYVETVRRVLRMYDVKPH

>P12653

MAPMKLYGAVMSWNLTRCATALEEAGSDYEIVPINFATAEHKSPEHLVRNPFQVPAQD  
GDLYLFESRAICKYAARKNKPELLREGNLEEAAMVDVWIEVEANQYTAALNPILFQVLIS  
PMLGGTTDQKVVDENLEKLLKVVLEVYEARLTKCKYLAGDFLSLADLNHVSVTLCFLFATPY  
ASVLDAYPHVKAWWSGLMERPSVQKVAALMKPSA

>P04907

MAPLKLYGMPLSPNVVRVATVINEKGLDFEIVPVDLTTGAHKQPDFLALNPFQVIPALVD  
GDEVLFESRAINRYIASKYASEGTDLLPATASAAKLEVWLEVESHHFHPNASPLVFQLLV  
RPLLGGAPDAAVVEKHAEQAKVLDVYEAHLARNKYLAGDEFTLADANHALLPALTSARP  
PRPGCVAARPHVKAWWEAIAARPAFQKTVAAIPLPPPPSSSA

>P46422

MAGIKVFGHPASIAATTRVLIALHEKNLDFELVHVELKDGHEHKEPFLSRNPFQVPAFED  
GDLKLFESRAITQYIAHRYENQGTNLLQTDKNISQYAIMAIGMQVEDHQFDPVASKLAF  
EQIFKSIYGLTTDEAVVAEEEEAKLAKVLDVYEARLKEFKYLAGETFTLTDLHHI PAIQYL  
LGTPTKKLFTERPRVNEWVAEITKRPASEKVQ

>Q9Y2Q3

MGPLPRTVELFYDVLSPYSWLGFEILCRYQNIWNINLQLRPSLITGIMKDSGNKPPGLLP  
RKGLYMANDLKLRRHHLQIP IHFPKDFLSVMLEKGSLSAMRFLTAVNLEHPMEMLEKASRE  
LWMRVWSRNEDITEPQSILAAAEEKAGMSAEQAQGLLEKIATPKVKNQLKETTEAACRYGA  
FGLPITVAHVVDGQTHMLFGSDRMELLAHLLEGEKWMGPIPPAVNARL

>P21266

MSCCESSMVLGYWDIRGLAHAIRLLLEFTDTSYEEKRYTCGEAPDYDRSQWLDVKFKLDLD  
FPNLPYLLDGNKKITQSNAILRYIARKHNMCGETEEEEKIRVDI IENQVMDFRQQLIRLCY  
SSDHEKLPQYLEELPGQLKQFSMFLGKFSWFAGEKLTFFVDFLTYDILDQNRIFDPKCLD  
EFPNLKAFMCRFEALEKIAAYLQSDQFCKMPINNMAQWGNKPVK

>P78417

MSGESARSLGKSAPPVPEGSIRIYSMRFCPFAERTRLVKAKGIRHEVININLKNKP  
EWWFKKNPFGLVPVLENSQGQLIYESAITCEYLDEAYPGKLLPDDPYEKACQKMILELF  
SKVPSLVGSFIRSQNKEDYAGLKEEFRKEFTKLEEVLTNKKTTFFGGNSISMIDYLIWPW  
FERLEAMKLNEDVHTPKLKLWMAAMKEDPTVSALLTSEKDWQGFLELYLQNSPEACDYG  
L

>P28801

MPPYTIVYFPVQGRCEAMRMLLADQGGQSWKEEVVAMQSWLQGPLKASCLYGLPKFQDGD

LTLYQSNAILRHLGRTLGLYGKDQQEAALVDMVNDGVEDLRCKYVSLIYTNYEAGKEDYV  
KALPQHLLKPFETLLSQNKGGQAFIVGDQISFADYNLLDLLRIHQVLAPSCLDSFPLLSAY  
VARLNSRPKLLKAFLASPEHMNRPINGNGKQ

>P10299

MTLKLTYFDIHGLAEP IRLLLADKQVAYEDHRVTYEQWADIKPKMIFGQVPCLLSGDEEI  
VQSGAIRHLARLNLNGSNETETTFIDMFYEGLRDLHTKYTTMIYRNYEDGKAPYIKDV  
LPGELARLEKLFHTYKNGEHYVIGDKESYADYVLFEELDIHLILTPNALDGVPAKPKFHE  
RFAERPNIKAYLNKRAAINPPVNGNGKQ

>P83325

SGYTLTYFPLRGRAEAMRLLLDGQGVSWTDDEVQMQDWAAGIRDLKKNVFGQIPRFQEG  
DFVLYQSQTILRLLARYGLSGSNEREIAINEMMNDGVEDLRLKYYKFIFWDNEANKEKFL  
EELATQLGYFERILTNNAGKTFVLVGDKISYADYNLLDTLFCVLDLSPCLSGFPLLSDY  
VERLGKRPKLQOYLKSEGRKRRPINGNGKQ

>P20135

MGLELYLDLLSQPCRSIYIFARTNNIPFEFKHVELFKDSVLGKKPAAASGAERPRTGPSN  
SEGDKISLLKVKPVLKDGDFTLAECTAILLYLSRKYNTPDHWYPSDIKKRAQVDEYLSW  
HHANIRANAPKTMWIKVLIPLFTGQPQPSEKLEQVMEGLSTSLKQFEERFLQDKAFIIGS  
EISLADLVAIVELMQPVGVGCDIFEDRPRLMEWRRRVEEAVGKELFFQAHEMILNIKELS  
NIQIDPQLKEHLAPVLMKMLK

>P30711

MGLELYLDLLSQPCRAVYIFAKKNDIPFELRIVDLIKGQHLSDAFAQVNPLKVPALKDG  
DFTLTSVAIILLYLTRKYKVPDYWYPQDLQARARVDEYLAHQHTTLRRSCLRALWHKVMF  
PVFLGEPVSPQTLAATLAELDVTLQLEEDKFLQNKAFLTGPHISLADLVAITELMHPVGA  
GCQVFEGRPKLATWRQRVEAAVGEDLFQEAHEVILKAKDFPPADPTIKQKMPWVLMIR

>P30712

MGLELFLDLVSQPSRAVYIFAKKNGIPELRTVDLVKGQHKSKFEFLQINSLGKLPPTLKDG  
DFILTESSAILIYLSCKYQTPDHWYPSDLQARARVHEYLGHADCI RGTFGIPLWVQVLG  
PLIGVQVPEEKVERNRTAMDQALQWLEDKFLGDRPFLAGQVTLADLMALEELMQPVALG  
YELFEGRPRLAAWRGRVEAFLGAELCQEAHSIILSILEQAAKKTLPTPSPEAYQAMLLRI  
ARIP

>Q9ZVQ3

MANSGEELKLYSYWRSSCAHRVRIALALKGLDYEYIPVNLLKGDQFDSDFKKINPMGTV  
PALVDGDVVINDSFAIIMYLDEKYPEPPLPRDLHKRAVNYQAMSIVLSGIQPHQNLAVI  
RYIEEKINVEEKTAWVNNAITKGFTALEKLLVNCAGKHATGDEIYLADLFLAPQIHGAIN  
RFQINMEPYPTLAKCYESYNELPAFQNALPEKQPDAPSSTI

>P04079

MTENIHKHRILILDFGSQYTQLVARRVRELGVYCELWAWDVTEAQIRDFNPSGIILSGGP  
ESTTEENSPRAPQYVFEAGVPVFGVCYGMQTMAMQLGGHVEASNEREFGYAQVEVND  
LVRGIEDALTADGKPLLDVWMSHGDKVTAIPSDFITVASTESCPFAIMANEKRFYGVQF  
HPEVTHTRQGMRLERFVRDQCCEALWTPAKIIDAVARIREQVGDVKVILGLSGGVDS  
SVTAMLLHRAIGKNLTCVFDVNDGLRLNEAEQVLDMFGDHFGLNIVHVP AEDRFLSALAG  
ENDPEAKRKIIGRVFVEVFDEEALKLEDVKWLAQGTIYPDVIESAASATGKAHVIKSHHN  
VGGLPKEMKMLVEPLKELFKDEVKIGLELGLPYDMLYRHPFPGPGLGVRVLGEVKKEY

CDLLRRADAI FIEELRKADLYDKV SQAFTVFLPVR SVGMGDGRKYDWV VSLRAVETIDF  
MTAHWAHL PYDFLGRVSNRI INEVNGI SRVVYDISGKPPATIEWE

>P60560

MRI EEDLKLGFKDV LIRPKRSTLKSRS DVELERQFTFKHSGQSWSGVPI IAA NMDTVGTF  
SMASALASFDILTAVHKHYSVEEWQAF INNSSADVLKHMVSTGTSDADFEKTKQI LDLN  
PALNFVCIDVANGYSEHFVQFVAKAREAWPTK TICAGNVVTGEMCEELILSGADIVKVG I  
GPGSVCTTRVKTVGYPQLSAVIECADAAHGLGGMIVSDGGCTTPGDVAKAFGGGADFVM  
LGGMLAGHEESGGRIVEENGEKFM LFYGMSSSESAMKRHVGGVAEYRAAE GKTVKLPLRGP  
VENTARDILGGLRSACTYV GASRLKELTKR TTFIRVQE QENRIFNNL

>Q9Y2T3

MCAAQMPPLAHIFRGT FVHSTWTCPEVLRDHL LGVSDSGKIVFLEEASQQEKLAK EWCF  
KPCEIRELSHHEFFMPGLVDTHIHASQYSFAGSSIDLPLEWLT KYTFPAEHRFQNI DFA  
EEVYTRVVRRTLKNGTTTACYFATIHTDSSLL LADITDKFGQRA FVGKVCMDLNDTFPEY  
KETTEESIKETERFVSEMLQKNYSRVKPIVTPRFSLS CSETLMGELGNI AKTRDLHIQSH  
ISENRDEVEAVKNLYPSYKNYTSVYDKNNLLTNKTVMAHG CYLSAEELNVFHERGASIAH  
CPNSNLSLSSGFLNVLEVLKHEVKIGLGT DVAGGYSYSMLDAIRRAVMVSNILLINKVNE  
KSLTLKEVFRLATLGGSQALGLDGEIGNFEV GKEFDAILINPKASD SPIDLFYGDFFGDI  
SEAVIQKFLYLGDDRNI EEVYVGGKQVVPFSSSV

>Q9UBP9

MNRAFSRKKDKTWMHTPEALSKHFIPYNAKFLGSTEVEQPKGTEVVRDAVRK LKFARHIK  
KSEGQKIPKVELQISIIYGVKILEPKTKEVQHNCQLHRISFCADDKTDKRIFTFICKDSES  
NKHLCYVFDSEKCAEEITLTIGQAFDLAYRKFL ESGGKDVETRKQIAGLQKRIQDLE TEN  
MELKNKVQDLENQLRITQVSAPPAGSMTPKSPSTDI FDMIPFSPISHQSSMPTRNGTQPP  
PVPSRSTEIKRDLFGAEPFDPFNCGAADFPPIQSKLDEM QEGFKMGLTLEGT VFCLDPL  
DSRC

>P26222

MSPRPLRALLGAAAAALV SAAALAFPSQAAAANDSPFYVNP NMSSAEWVRNPNDRPTPVI  
RDRIASVPQGTWFAHNNPGQITGQVDALMSAAQAAGKIPILVVYNAPGRDCGNHSSGGAP  
SHSAYRSWIDEFAAGLKNRPAYIIVEPDLISLMSSCMQHVQQEVLETMAYAGKALKAGSS  
QARIYFDAGHSAWHSPAQM ASWLQQADISNSAHGIATNTSNYRWTAD E VAYAKAVLSAIG  
NPSLRAVIDTSRNGNGPAGNEWCDPSGRAIGTPSTTNTGDP MIDAFWLKLPGEADG CIA  
GAGQFVPQAA YEMAI AAGGTNPNPNPNPTPTPTPTPTPPPGSSGACTATYTIANEWNDGF  
QATVTVTANQNITGWTVTWTF TDGQTI TNAWNADVSTSGSSVTARNVGHNGTLSQGASTE  
FGFVGSKGNSSNPVTLTCAAS

>P17115

MSEALLNAGRQTLML ELQEASRLPERLGDDFVRAANIILHCEGKV VVSGIGKSGHIGKKI  
AATLASTGTPAFFVHPAEALHGDLGMIESRDV MLFISYSGGAKELDLIIPRLEDKSIALL  
AMTGKPTSPLGLAAKAVLDISVEREACPMHLAPTSSTVNTLMMGDALAMAVMQARGFNEE  
DFARSHPAGALGARLLNKVHHLMRDDAIPQVALTASVMDAMLELSRTGLGLVAVCDAQQ  
QVQGVFTDGLRRWL VGGGALTTPVNEAMTVGGTTLQS QSRAIDAKEILMKRKITAAPVV  
DENGKLTGAINLQDFYQAGII

>Q9AWA5

MSNSLGNLLYQGFLTSTVLEHKSRI SPPCVGGNSL FQQQVISKSPLSTEF RGNRLKVQK  
KKIPMEKKRAFSSSPHAVLTTDTSSSELA EKFSLGGNIELQVDVRPPTSGDVSFVDFQVTN

GSDKLFHLHWGAVKFGKETWSLPNDRPDGTVKYKNKALRTPFVKSGSNSILRLEIRDTAIE  
AIEFLIYDEAHDKWIKNNGNFRVKLRSKEIRGPDVSVPEELVQIQSYLRWERKQNY  
PEKEKEEYEAARTVLQEEIARGASIQDIRARLTKTNDKSQSKEEPLHVTKSDIPDDLAQA  
QAYIRWEKAGKPNYPPEKQIEELEEARRELQLELEKGITLDELKRTITKGEIKTKVEKHL  
KRSSFaverIQRKKRDFGHLINKYTSSPAVQVQKVL EEPALSKIKLYAKEKEEQIDDP  
LNKKIFKVDDGELLVLVAKSSGKTKVHLATDLNQPITLHWALSKSPGEWMPSSILPPG  
SIIIDKAAETPFSASSDGLTSKVQSLDIVIEDGNFVGMFVLLSGEKWIKNQGSDFYVG  
FSAASKLALKAAGDGSCTAKSLLDKIADMESEAQKSMHRFNIAADLIEDATSAGELGFA  
GILVWMRFMATRQLIWNKNYNVKPREISKAQDRLTDLLQNAFTSHPQYREILRMIMSTVG  
RGGEVDVQQRIRDEILVIQRNNDCKGMMQEWKQKLNHNTSPDDVVICQALIDYIKSDFD  
LGVYWKTLNENGITKERLLSYDRAIHSEPNFRGDQKGGLLRDLGHYMR TLKAVHSGADLE  
SAIANCMGYKTEGEGFMVGVQINPVSGLP SGFQDLLHFVLDHVEDKNVETLLERLLEARE  
ELRPLLLKPNRRLKDLLFLDIALDSTVRTAVERGYEELNNANPEKIMYFISLVLENLALS  
VDDNEDLVYCLKGWNQALSMSNGGDNHWALFAKAVLDRTRLALASKAEWYHLLQPSAEY  
LGSILGVDQWALNIFTEEIRAGSAASLSSLLNRLDPVLRKTANLGSWQIISPVEAVGYV  
VVVDEL SVQNEIYEKPTILVAKSVKGE EEPDGAVALITPDMPDVLSHVSVRARNGKVC  
FATCFDPNIALDLQAKEGRILLKPTPSDIYSEVNEIELQSSSNLVEAETSATLRLVKK  
QFGGCYAI SADEFTSEMVGAKSRNIAYLKGKVPSSVGIPTSVLPGFVFEKVLSDINQG  
VAKELQILMKKLSGDF SALGEIRTTVLDLSAPAQLVKELKEKMQSGMPWPGDEGPKRW  
EQAWMAIKKVWASKWNERAYFSTRKVKLDHDYLCMAVLVQEIINADYAFVIHTTNPSSGD  
DSEIYAEVVRGLGETLVGAYPGRALSFI CKKKDLNSPQVLGYPSKPIGLFIKRSIIFRSD  
SNGEDLEGYAGAGLYDSVPMDEEEKVVIDYSSDPLITDGNFRQTILSNIRAGHAIEELY  
GSPQDIEGVVRDGGKIYVVQTRPQM

>Q9C4M5

MKPKVFITRQIPENGIKMI EK FYEIELWKDPKAPPRGVLLLEKVVREVDALVTLVTDKVDKE  
LLENAPKLKIIAQYAVGYDNIDIEEATKRGIIYVTNTPGVLTADATADLAFALLAVARRIV  
EADAFVRSGEWKKSEVGHPLMFLGYGLKGTGLGIVGFGRIGQALAKRAKGFGMKIIYYS  
RTRKPEAE E E IGA EYVDFETLLKESDFISLHVPLTKETYHMI GEKELKLMKPNAILINTS  
RGAVVDTNALIKALKEGWIAGAGLDVFE E E PYYNEELFKLKNVVLAPHIGSATHEAREGM  
AELVAKNLI AFAKGEIPPNLVNKDVL TSSPP

>Q58083

MEVEYMNFNELNLSNINLNAIRNKGFEKPTDIQMKVIPLFLNDEYNIVAQARTGSGKTAS  
FAIPLIELVNENNGIEAII LTPRELAIQVADEIESLKGKNLKI AKIYGGKAIYPQIKA  
LKNANIVVGTTPGRILDHINRGTNLKNVKYFILD EADEMLNMGFIKDVEKILNACNKDKR  
ILLFSATMPREILNLAKKYMGDYSFIKAKINANIEQSYVEVNENERFEALCRLLKNKEFY  
GLVFCKTKRDTKELASMLRDIGFKAGAIHGDLSSQSQREKVI RLFKQKKIRIL IATDVM SR  
GIDVNDLNCVINYHLPQNPE SYMHRIGRTGRAGKKGKAI S I INRREYKKLRYIERAMK LK  
IKK LKFG

>P41546

MEMTDFELTSNSQSNLAIPTNFKSTLPPRKRAKTKEEKEQRRIERILRNRRAAHQ SREKK  
RLHLQYLERKCSLLENLLNSVNLEKLADHEDALTC SHDAFVASLDEYRDFQSTRGASLDT  
RASSHSSSDTFTPSPLNCTMEPATLSPKSMRDSASDQETSWE LQMFKTENVP ESTTLPAV  
DNNNLFDAVASPLADPLCDDIAGNSLPFDNSIDL DNWRNPEAQSGLNSFELNDF FITS

>Q9UJ83

MPDSNFAERSEEQVSGAKVIAQALKTQDVEYIFGIVGIPVTEIAIAAQQLGIKYIGMRNE  
QAACYAASAIGYLT SRPGVCLVVGSGPLIHALGGMANANMNCWPLLVI GGSSE RNQETMG

AFQEFPQVEACRLYTKFSARPSSIEAIPFVIEKAVRSSIIYGRPGACYVDIPADFVNLQVN  
VNSIKYMERCMSPPISMAETSAVCTAASVIRNAKQPLLIIGKGAAYAHAEESIKKLVEQY  
KLPFLPTPMGKGVVDPNHPYCVGAARSRALQFADVIVLFGARLNWILHFGLPPRYQPDK  
FIQVDICAEELGNNVVKPAVTLGNIHAVTKQLLEELDKTPWQYPPESKWWKTLREKMKSN  
EAASKELASKKSLPMNYTVFYHVQEQLPRDCFVSEGANITMDIGRTVLQNYLPRHRDA  
GTFGTMGVGLGFAIAAAVVAADRSPGQWIICVEGDSAFGFSGMEVETICRYNLPILLVV  
NNGIYQGFDTDTWKEMLKFDATAVVPMPCLLPNSHYEQVMTAFGGKGYFVQTPEELQK  
SLRQSLADTTKPSLINIMIEPQATRKAQDFHWLTRSNM

>Q07523

MPLVCLADFKAHAQKQLSKTSWDFIEGEADDGITYSENIAAFKRIRLRPRYLDRMSKVDT  
RTTIQGGQEISAPICISPTAFHSIAWPDGEKSTARAAQEANICYVISSYASYSLEDIVAAA  
PEGFRWFQLYMKSDWDFNKQMVQRAEALGFKALVITIDTPVLGNRRRDKRNQLNLEANIL  
LKDLRALKEEKPTQSVFVSPKASFCWNDLSLLQSITRLPIILKGIILTKEDAEELAMKHN  
QGIVVSNHGGRLDEVSASIDALREVVAAVKGIIEVYMDGGVRTGTDVLKALALGARCIF  
LGRPILWGLACKGEDGVKEVLDILTAEHLRCMTLSGCQSVAEISPDLIQFSRL

>P12351

MSNTPYNSSVPSIASMTQSSVSRSPNMHTATTPGANTSSNSPPLHMSSDSSKIKRKRNR  
PLSCTICRKRKVKCDKLRPHCQQCTKTGV AHLCHYMEQTWAEAEAEKELLKDNELKKL  
VKSLEKTLKSKVHSSPSSNSLKSYPTESSNLFMGSDHEHTLVNANTGSASSASHMHQ  
QQQQQEQQDFSRSANANANSSSLISINKYDNDELDTKDFDLHLIKSNGT IHLGATH  
SIMKGDYPYLLKLGWGHIFAMREKLNEWYQKNSYSKLSKCPINHAQAPPAAAAATRKC  
PVDHSAFSSGMVAPKEETPLPRKCPVDHTMFSSGMIPREDTSSQKRCVPDHTMYSAG  
MMPPKDETPSPFSTKAMIDHNKHTMNPQSKCPVDHRNYMKDYPSDMANSSSNPASR  
CPIDHSSMKNTAALPASTHNTIPHHPQSGSHARSHPAQSRKHDSYMTSEVLA TLCE  
MLPPKRVIALFIEKFFKHLYP AIPILDEQNFKNHVNQMLSLSSMNPTVNNFGMSMP  
SSSTLENQPI TQINLPKLSDCNLGILIIILRLTWLSIPSNSCEVDLGEESGSFLVP  
NESSNMSASAL TSMAKEESLLLKHETPVEALELCQKYL IKFDELSSISNNVNLTT  
VQFAIFYNFYMK SASNDLTTLTNTNTGMANPGHDESHQILLSNITQMAFSCGLHR  
DPDNFPQLNATIPATSQDVSNNGSKKANPSTNPTLNMMNSAATTNSSSRSGSAD  
SRSGSNPVNKKENQVSIERFKHTWRKI WYYIVSMDVNQSLSLGSPRLRLNLRDF  
SDTKLPSASRIDYVRDIKELIIVKNFTLFFQIDL CIIAVLNHILNVSLARSVRK  
FELDSLINLLKNLTYGTENVNDVSSLINKGLLPTSEGG SVDSNNDEIYGLPKLP  
DILNHGQHNQNL YADGRNTSSSIDKLLDLPHESTTRALFFSKHMTIRMLLYLL  
NYILFTHYEPMGSEDPGTNILAKEYAQEALNFAMDG YRNCMIFFNIRNTNSL  
FDYMNVILSYPCLDIGHRSLOFIVCLILRAKCGPLTGMRESSIITNGTSSGFNS  
SVEDEDVKVKQESSDELKDDFMKDVNLD SGDSLAEILMSRMLLFQKLTQLSKKY  
NYAIRMNKSTGFFVSLDTPSKKSDSKSGSSFMLGNWKHPKVSNMMSGFLAGDKD  
LQKCPVYQDALGFVSPTGANEGSAPMQGMSLQGSTARMGGTQLPPIRSYKPI  
TYTSSNLRRMNETGEAEAKRRRFNDGYIDNNSNNDIPRGISPKPSNGLSSVQ  
PLLSSFSMNQLNGGTIPTVPSLTNITS QMGALPSLDRITTNQINLPDPSRDEA  
FDNSIKQMTPM TSAFMNANTTIPSS TLNGNMNMN GAGTANTDTSANGSALST  
LTSPQGSDLASNSATQYKPDLEDFLMQNSNFNGLMINPSSLV EVVGGYNDP  
NNLGRNDAVDFLPVDNVEIDGLVDFYRADFP IWE

>Q05466

MMFEKDDLGLSLGLNFPKKQINLKSNP SVSVTPSSSSFGLFRRSSWNE SF TSS  
VPNSDSSQKETRTFIRGIDVNRPPSTA EYGEDAGVSSPNSTVSSSTGKRSE  
REEDTDPQGSRGISDDEDGDN SRKKLRLSKDQSAILEETF KDHSTLNPKQKQ  
ALAKQLGLRARQVEVWFQNR RAR TKLKQTEVDCEFLRCCENL TEENRRLQ  
KEVTELRALKLSPQFYMHSPP TLTMCPSCEHVSVP PPQQAATSAHHRSL  
PVNAWAPATRISHGLTFDALRPRS

>Q02283

MESNSFFFDPSSASHGNSMFFLGNLNPVVQGGGARSMNMMEETSKRRPFFSSPEDLYDDDF  
YDDQLPEKKRRLTTEQVHLLLEKSFETENKLEPERKTQLAKKLGLOPRQVAVWFQNRARW  
KTKQLERDYDLLKSTYDQLLSNYDSIVMDNDKLRSEVTSLTEKLGKQETANEPGQVPE  
PNQLDPVYINAAAIKTEDRLSSGSVGSVAVLDDDDAPQLLSDSCDSYFPSIVPIQDNSNASDH  
DNRSCFADVFPVPTTSPSHDHHGESLAFWGW

>O70351

MAAAVRSVKGLVAVITGGASGLGLSTAKRLVGQGATAVLLDVPNSEGETEAKKLGNCIF  
APANVTSEKEVQAALTLAKEKFGRIDVAVNCAGIAVAIKTYHEKKNQVHTLEDFQRVINV  
NLIGTFNVIRLVAGVMQNEPDQGGQGRGVIINTASVAAFEGQVGAAYASASKGGIVGRTL  
PIARDLAPIGIRVVTIAPGLFATPLLTTLTPDKVRNFLASQVFPFSSLGDPAEYAHLVQMV  
IENPFLNGEVIRLDGAIRMQP

>Q56841

MLDAEVIAITGGAAGIGLAVAHAAIRAGARVALIDRDGACAQRAAAEFGAAAWGVGADVT  
DEAAITAAMAGAQRALGPLTGLVMNAGIAGFGSVHATEVETWSRIMAVNVTGTFLASKAA  
LFGMLERGRGAIVNFVSVAGLVGIPMAAYCAAKGAVVNLTRQMAADYSGRGIRVNVVCP  
GTVAGTDMGRQLLGTDCDPELEARRLAKYPMGRFGTPEDIAEAAVFLLSSTKAAFVTGSVL  
AVDGGMTAI

>P31658

MTVQTSKNPQVDIAEDNAFFPSEYSLSQYTSVPSDLGDVDPKPYRGKHKILVIAADERY  
LPTDNGKLFSTGNHPIETLLPLYHLHAAGFEFEVATISGLMTKFEYWAMPHKDEKVMPPF  
EQHKSLFRNPKKLADVVASLNADSEYAAIFVPGGHGALIGLPESQDVAAALQWAIKNDRF  
VISLCHGPAAFLALRHGDNPLNGYSICAFPDAADKQTPDIGYMPGHLTWYFGEELKKMGM  
NIINDDITGRVHKDRKLLTGDSPPFAANALGKLAAQEMLAAYAG

>Q14CZ8

MKREERGALSRSRALRLAPFVYLLLIQTDPLEGVNITSPVRLIHGTVGKSALLSVQYSST  
SSDRPVVKWQLKRDKPVTVVQSIGTEVIGTLRPDYRDRIRLFENGSLLLSDQLADEGTY  
EVEISITDDTFTGEKTINLTVDVPISRPQVLVASTTVLELSEAFTLNCSHENGTKPSYTW  
LKDGKPLLNDSRMLLSPDQKVLITITRVLMEDDDLYS CMVENPISQGRSLPVKITVYRRSS  
LYIILSTGGIFLLVTLVTVCACWKPSKRKQKLEKQNSLEYMDQNDRLKPEADTLPRSG  
EQERKNPMALYILKDKDSPETEENPAPEPRSAATEPGPPGYSVSPAVPGRSPGLPIRSARR  
YPRSPARSPATGRTHSSPPRAPSSPGRSRSASRTLRTAGVHIIREQDEAGPVEISA

>P18080

MAAFLRCPLLARHPPLARAFATGARCPFMGF AHRAAPELQEDVERPQIPAVEVLEELLRD  
GGAALNRTVRDCMEDA FPYEEQFQAQLGALRRTHTYRVVTA VGRRADAPPLGTRGTAPH  
TSVELWCSSDYLGLSRHPAVLRAARAALDAHGLGAGGTRNIGGTSPLHGALERALALLHR  
QPRAALFSSCFAANDTALDTLARILPGCQVYSDAGNHASMIQGIRRRGVPKIFRHNDPH  
HLEQLLGRSPPGVPKIVAFESLHSMDSIAPLEELCDVAHAYGALTFVDEVHAVGLYGAR  
GAGIAERDGVQHKVDVVSGLTGKALGAVGGYIAGSEALVDAVRS LGPGFIFTTALPPQRG  
GGALAALQVVGSAEGAALRAHQRHAKHLRVLLRDRGLPALPSHIVPVRWDAEANTRLSR  
ALLEEHGLYVQAINHPTVPRGQELLLRIAPT PHHSPMLENLADKLS ECWGA VGLPREDP  
PGPSCSSCHRPLHLSLLSPLERDQFGVRRGAAAG

>P22557

MVTAAMLLQCCPVLARGPTSLLGKVVKTHQFLFGIGRCPILATQGPNCISQIHLKATKAGG  
DSPSWAKGHCPFMLELQDQKSKIVQKAAPEVQEDVKAFKTDLPSSLVSVSLRKPFSGPQ  
EQEQISGKVTHLIQNNMPGNVYVFSYDQFFRDKIMEKKQDHTYRVFKTVNRWADAYPFAQH  
FSEASVASKDVSVWCSNDYLGMSRHPQVLQATQETLQRHGAGAGGTRNISGTSKFHVELE  
QELAEHLQKDSALLFSSCFVANDSTLFTLAKILPGCEIYSDAGNHASMIQGIRNSGAAKF  
VFRHNDPDHLKLLLEKSNPKIPKIVAFETVHSMGAI CPLEELCDVSHQYGALTFVDEVH  
AVGLYGSRGAGIGERDGMHKIDII SGTLGKAFGCVGGY IASTRDLVDMVRSYAAGFI FT  
TSLPPMVLSGALESVRLKKEEGQALRRHQNRVNHMRQLLMDRGLPVI PCSHI IPIRV  
GNAALNSKLCDLLLSKHGIYVQAINYPTVPRGEE LLRLAPSPHHSQMMEDFVEKLLLLAW  
TAVGLPLQDVSVAACNFCRRPVHVFELMSEWERSYFGNMGPPQYVTTYA

>Q42843

MAGATSATAAAGAFAAAKARGPAAACPWLVAAGGRRRSGVVRCDAGGDAQAASKAASITA  
LEQFKISADRYMKEKSSIAVIGLSVHTAPVEMREKLAVAEELWPRAISELTSLNHIEEAA  
VLSTCNRMIEIYVVALSWNRGIREVVDWMSKKS GIPASELREHLFMLRDS DATRHLFEVSA  
GLDSLVLGEGQILAQVKQVVRNGQNSGGLGKNIDRMFKDAITAGKRVRCETNISAGAVSV  
SSAAVELAMMKLPKSECL SARMLLIGAGKMGKLVVKHLIAKGCKKVVVVNRSVERVDAIR  
EEMKDIEIYVRPLTEMYEAAAADADVFTSTASESLLFTKEHAEVLPPISLAMGGVRLFVD  
ISVPRNVGACLSEVEHARVYNVDDLKEVVEANKEDRVRKAMEAQTIITQELKRFEAWRDS  
LETVPTIKKLRSYADRIRASELEKCLQKIGEDNLNKKMRRSIEELSTGIVNKLHLHGPLQH  
LRCDGSDSRTLDETLENMHALNRMFSLDTEKAVLEQKIKAKVEKTQS

>P28462

MNIISVGVNHKTAPIEIRERIALSEVQNKEFVTDLVSSGLASEAMVVSTCNRTELYVVP  
MPEVNC DYLDYIISYKDARNAVRPEHFFNRFYCGTARHLFEVSSAIDSLVLGEGQILGQ  
VKDAYRIAAEVGTAGILLTRLCHSPFSVAKKVKTRTKLMGAVSVSYAAVELAQKIFSNL  
SMKKVLLIGAVKQSWQQSTCTPRTPGTSSSPTGRNPRPRACEELGTNRVLPYESYKEHLH  
EFDIIITAVSTKEYILNAAEMQQSMAKRRLKPVII LDGLPRNVDPV GALQNMFLKDID  
ALKHIIIDKNLERRRAELPKVKSII DEELIGFGQWINTLKV RPTIVDLQSKFIEIKEKELE  
RYRHKVSEEEELKRMEHLTDRILKILHHP IKMLKAPVDTADNIPSKVNLVRNIFDLEEPN  
QSLQ

>P0A6X1

MTLLALGINHKTAPVSLRERVSFSPDKLDQALD SLLAQPMVQGGVVLSTCNRTELYLSVE  
EQDNLQEALIRWLCDYHNLNEEDLRKS LYWHQDNDAVSHLMRVASGLDSLVLGEPQILGQ  
VKKAFADSQKGHMKASELERMFQKFSVAKRVRTETDIGASAVSVAFAACTLARQIFESL  
STVTVLLVGAGETIELVARHLREHKVQKMIIANRTRERAQILADEVGAEVIALSDIDERL  
READIIISSTASPLPIIGKGMVERALKSRRNQPM LLDVIAVPRDVEPEVGKLANAYLYSV  
DDLQSIISHNLAQRKAAAVEAETIVAQETSEFMAWLRAQSASETIREYRSQAEQVRDEL T  
AKALAALEQGGDAQAIMQDLAWKLTNRLIHAPTKSLQQAARDGDNERLNILRDSLGLLE

>Q9UXR8

MEDLVCVGITHKEAEVEELEKARFESDEAVRDIVESFGLSGCVLLQTCNRVEVYASGARD  
RAEELGDLIHDDAWVKRGSEAVRHLFRVACGLESM MVGEQEILRQVKKAYDRAARLGTLD  
EALKIVFRRAINLGKRAREETRISEGAVSIGSAAVE LAERELGSLHDKTVLVV GAGEMGK  
TVAKSLVDRGVRAVLVANRTYERAVELARDLGG EAVRFDELVDHLARSDVVVSATAAPHP  
VIHVDDVREALRKRDRRSPILIIDIANPRDVEEGVENIEDVEVRTIDDLRVIARENLERR  
RKEIPKVEKLIIEELSTVEEELEK LKERRLVADVAKSLHEIKDRELERALRRLK TGD PEN  
VLQDFAEAYTKRLINVL TSAIMELPDEYRRAACRALRRASELNG



>P09950

MQRSIFARFGNSSAAVSTLNRLSTTAAPHAKNGYATATGAGAAAAATATASSTHAAAAAAA  
AANHSTQESGFDYEGGLIDSELQKKRLDKSYRYFNINRLAKEFPLAHRQREADKVTVWCS  
NDYLALSKHPEVLDAMHKTIDKYGCGAGGTRNIAGHNIPTLNLEAEELATLHKKEGALVFS  
SCYVANDAVLSLLGQMKDLVIFSDDELNHASMIVGIKHANVKKHIFKHNDLNELEQLLQS  
YPKSVPKLIAFESVYSMAGSVADIEKICDLADKYGALTFLEDEVHAVGLYGPBGAGVAEHC  
DFESHRASGIATPKTNDKGGAKTVMDRVDMITGTLGKSFSGVGGYVAASRKLIDWFRSFA  
PGFIFTTTLPPSVMAGATAAIRYQRCHIDLRTSQQKHTMYVKKAFHELGIPIPNP SHIV  
PVLIGNADLAKQASDILINKHQIYVQAINFPPTVARGTERLRITPTPGHTNDLSDILINAV  
DDVFNELQLPRVRDWESQGGLLGVGESGFVEESNLWTSSQLSLTNDLNPVNRDPIVKQL  
EVSSGIKQ

>P0ACB2

MTDLIQRPRLRKSPALRAMFEETTLNLNDLVLPIFVEEIDDDYKAVEAMPGVMRIPEKH  
LAREIERIANAGIRSVMTFGISHHTDETGSDAWREDGLVARMSRICKQTVPEMIVMSDTC  
FCEYTSHGHCGLVCEHGVDNDATLENLKGQAVVAAAAGADF IAPSAAMDGQVQAIRQALD  
AAGFKDTAIMSYSTKFASSFYGPFREAAAGSALKGDRKSYQMNPMNRREAIRESLLDEAQG  
ADCLMVKPAGAYLDIVRELRETELPIGAYQVSGEYAMIKFAALAGAIDEKVVLESLSGS  
IKRAGADLIFSIFALDLAEKKILR

>P13716

MQPQSVLHSGYFHPLLRAWQTATTTLNASNLIYPIFVTDVDPDDIQPITSLPGVARYGVKR  
LEEMLRPLVEEGLRCVLIIFGVPSRVPKDERGSAADSEESPAIEA IHLRLKTFPNLLVACD  
VCLCPYTSHGHCGLLSENGAFRAEESRQRLAEVALAYAKAGCQVVAPSDMMDGRVEAIKE  
ALMAHGLGNRVSVMSYSAKFASCFYGPFRDAAKSSPAFGDRRCYQLPPGARGLALRAVDR  
DVREGADMLMVKPGMPYLDIVREVKDKHPDLPLAVYHVSGEFAMLWHGAQAGAFDLKAAV  
LEAMTAFRRAGADIIITYYTPQLLQWLKEE

>P05373

MHTAEFLETEPTEISSVLAGGYNHPLLRQWQSERQLTKNMLIFPLFISDNPDDEFTEIDSL  
PNINRIGVNRLKDYKPLVAKGLRSVILFGVPLIPGTKDPVGTAAADDPAGPVIQGIK FIR  
EYFPELYIICDVCLCEYTSHGHCGLVYDDGTINRERSVSRLAAVAVNYAKAGAHCVAPSD  
MIDGRIRDIKRLINANLAHKTFFVLSYAAKFSGNLYGPFRDAACSAPSNGDRKCYQLPPA  
GRGLARRALERDMSEGADGIVKPSSTFYLDIMRDASEICKDLPI CAYHVSGEYAMLHAAA  
EKGVDLKTIAFESHQGLRAGARLIITYLAPEFLDWLDEEN

>Q83356

MGSTCIAMAPRTLLLLIGCQLVFGFNEPLNIVSHLNDDWFLFGDSRSDCTYVENNGHPKL  
DWLDDLDPKLCNSGKISAKSGNSLFRSFHFTDFYNYTGEGDQIVFYEGVNFSPNHGFKCLA  
YGDNRWGMGNARFYARVYEKMAQYRSLSFVNVPYAYGGKAKPTSICKHKTLTLNNTFI  
SKESNYVDYEESEANFTLAGCDEFIVPLCVFNGHSGSSSDPANKYYMDSQSYNMDTG  
VLYGFNSTLDVGNATKDPGLDLTCRYLALTPGNYKAVSLEYLLSLPSKAI CLRKPKRFMP  
VQVVDNRWNSTRQSDNMTAVACQLPYCFFRNTSADYSGGTHDVHHGDFHFRQLLSGLLLN  
VSCIAQQGAFLYNNVSSSWPAYGYQCPTAANIGYMAPVCIYDPLPVVLLGVLLGIAVLI  
IVFLILYFMTDSGVRLHEA

>Q8QPL1

MEKIVLLLAIVSLVKSDQICIGYHANNSTEQVDTIMEKNVTVTHAQDILEKTHNGKLCDL  
DGVKPLILRDCSVAGWLLGNPMCEDEFINVEPSYIVEKASPANDLCYPGDFNDYEELKHL  
LSRINHFEKIQIIPKSSWSNHEASSGVSSACPYQGKSSFFRNVWLIKKN SAYPTIKRSY

NNTNQEDLLILWGIHHPNDAAEQTKLYQNPTTYISVGTSTLNQRLVPKIATRISKVNGQSG  
RMEFFWTILKPNDAINFESNGNFIAPEYAYKIVKKGDSAIMKSELEYGNCNTKCQTPMGA  
INSSMPFHNIHPLTIGECPKYVKS NRLVLATGLRNTPQRERRRKRGLFGA IAGFIEGGW  
QGMVDGWYGYHHSNEQSGSYAADKESTQKAIDGVTNKVNSI IDKMNTQFEAVGREFNNLE  
RRIENLNKKMEDGFLDVWTYNAELLVLMENERTLDFHDSNVKNLYDKVRLQLRDNAKELG  
NGCFEFYHKCDNECMESVKNGTYDYPQYSEEARLNREEISGVKLESMGTYQILSIYSTVA  
SSLALAIMVAGLSLWMC SNGLQCRICI

>P04661

MEKTLFLFAAIFLVCVKADEICIGYLSNNSTDKVDTI IENNVTVTSSVELVETEHTGSFC  
SIN GKQPI SLGDCSFAGWILGNPMCDDELIGKTSWSYIVEKPNPTNGICYPGTLESEEEELRLK  
FSGVLEFNKFEVFTSNGWGAVNSGVGVTAACKFSGSNSFFRNMVWL I HQSGTYPVIKRTF  
NNTKGRDVLIVWGIHHPATL TEHQDLYKKDSSYVAVGSETYNRRFTPEINTRPRVNGQAG  
RMTFYWKIVKPGESITFESNGAFLAPRYAFEIVSVGNGKLF RSELNIESCSTKCQTEIGG  
INTNKS FHNVRNTIGDCPKYVNVKSLKLATGPRNVP A IASRGLFGA IAGFIEGGWPGLI  
NGWYGFQHRNEEGTGIAADKESTQKAIDQITSKVNNI VDRMNTNFESVQHEFSEIEERIN  
QLSKHVDDSVVDIWSYNAQLLVLENEKTLDLHDSNVRNLHEKVRRLKDN AKDEGNGCF  
TFYHKCDNKCI ERVRNGTYDHKEFEESKINRQEIEGVKLDSSGNVYKILSIYSCIASSL  
VLAALIMGFMFWACSN GSCRCTICI

>P26101

MNTQILILATS AFFYVRADKICLGHHAVSNGTKVDTLTEKGLIEVVNATE TVEQTNI PKIC  
SKGKQTVDLGQCGLLGTVIGPPQCDQFLEFSANLIVERREGNDICYPGKFDNEETLRKIL  
RKSGGIKKENMGFTYTGVRTNGETSACRRSRSSFYAEMKWLSSSTDNGTFPQM TKS YKNT  
KKVPALIIWGIHHS GSTTEQTRLYGSGNKLITVWSSKYQQSFV PNPGRPRQMNGQSGRID  
FHWLMLDPNDTVTFSFNAGFIAPDRASFLRGKSLGIQSDAQLDN NCEGECYHIGGTIISN  
LPFQININSRAIGKCPRYVKQKSLMLATGMKNVPEAPAHKQLTHHMRKKRGLFGA IAGFIE  
NGWEGLIDGWYGYKHQNAQEGTAADYKSTQSAINQITGKLNRLIEKTNQQFELIDNEFN  
EIEKQIGNVINWTRDSII EVWSYNAEFLVAVENQHTIDLTDSEM NKLYEKVRRQLRENAE  
EDGNGCFE I FHQCDNDCMASIRNNTYDHKKYRKEAIQNR IQIDAVKLSSGYKDIILWFSF  
GASCFLFLAIAMGLV FICIKNGNM RCTICI

>P03456

MEKFIAIATLASTNAYDRICIGYQSNNSTDTVNTLIEQNPVVTQTMELVETE KHPAYCNT  
DLGAPLELRDCKIEAVIYGNPKCDIHLKDQGSYIVERPSAPEGMCYPGSVENLEELRFV  
FSSAASYKRIRLFDYSRWNVTRSGTSKACNASTGGQSFYRSINWLT KKEPDTYDFNEGAY  
VNNEDGDIIFLWGIHHPD TKEQTTLYKNANTLSSVTNTINRSFQPNIGPRPLVRGQQG  
RMDYYWGILKRGETLKI RTNGNLI APEFGYLLKGESYGR I IQNEDIPIGNCNTKCQTYAG  
AINSSKPFQNASRHYMGECPKYVKKASRLAVGLRNTPSVEPRGLFGA IAGFIEGGWSGM  
IDGWYGFHHSNSEGTGMAADQKSTQE AIDKITNKVNNI VDKMNREFEVVNHEFSEVEKRI  
NMINDKIDDQIEDLWAYNAELLVLEENQKTLDEHDSNVKNL FDEVKRRLSANAIDAGNGC  
FDILHKCDNECMETIKNGTYDHKEYEEEEAKLERSKINGVKLEENTTYKILSIYSTVAASL  
CLAILIAGGLILGMQNGSCRCMFCI

>P04664

QDLPGNDNSTATLCLGHHAVPNGTLVKTITNDQIEVTNATELVQSSSTGKICNNPHRILD  
GINCTLIDALLGDPHCDVFQDETWDLFVERSKAFSNCYPYDVPDYASLRSLVASSGTLEF  
ITEGFTWTGVTQNGGSNACKRGPDSGFFSRLNWLTKSGSTYPVLNVTMPNNDNFDKLYIW  
GVHHPSTNQEQTSLYVQASGRVTVSTRRSQQTII PNIGSRPWVRGLSSRIS IYWTIVKPG  
DVLVINSNGNLIAPRGYFKMRTGKSSIMRSDAPIDTCISECITPNGSIPNDKPFQNVNKI

TYGACPKYVKQNTLKLATGMRNVPEKQT

>P13103

MALNVIATLTLISVCVHADRICVGYLSTNSSERVDTLLENGVPVTSSIDLIE TNHTGTYC  
SLNGVSPVHLGDCSFEGWIVGNPACTSNFGIREWSYLIEDPAAPHGLCYPGELNNNGELR  
HLFSGIRSF SRTELIPPTSWGEVLDGTT SACRDNTGTNSFYRNLVWF IKKNRYPVISK T  
YNNTTGRDVLVLWGIHHPVSVDETKTLYVNSDPYTLVSTKSWSEKYKLETGVRPGYNGQR  
SWMKIYWSLIHPGEMITFESNGGFLAPRYGYIIIEEYKGRIFQSRIRMSRCNTKCQTSVG  
GINTNRTFQONIDKNALGDCPKYIKSGQLKLATGLRNVP AISNRGLFGA IAGFIEGGWPGL  
INGWYGFQHQNEQGTGIAADKESTQKAIDQITTKINNIIDKMNGNYDSIRGEFNQVEKRI  
NMLADRIDDAVTDIWSYNAKLLVLENDKTLDMHDANVKNLHEQVRRELKDNAIDEGNGC  
FELLHKCNDSMETIRNGTYDHTHEYAEE SKLKRQEIDG IKLKSEDNVYKALS IYSCIASS  
VVLVGLILSFIMWACSSGNCRFNVC I

>P26136

MIALILVALALSHTAYSQITNGTTGNP IICLGHHAVENGT SVKTLTDNHVEVVS AKELVE  
TNHTDELCP SPLKLV DGQDCHLINGALGSPGCDRLQD TTWDVFI ERPTAVDTCY PFDVPD  
YQSLRSILASSGSLEFIAEQFTWNGVKVDGSSSACL RGG RNSFFSRLNWLTKATNGNYGP  
INVTKENTGSYVRLYLWGVHHPSSDNEQTDLYKVATGRVTVSTRSDQISIVPNIGSRPRV  
RNQSGRIS IYWTLVNP GDSII FNSIGNLIAPRGHYKISKSTKSTVLKSDKRIGSCTSPCL  
TDKGSIQSDKPFQNVSR I AIGNCPKYVKQGS LMLATGMRNIPGKQAKGLFGA IAGF IENG  
WQGLIDGWYGFRRHQNAEGTGTAA DLKSTQAAIDQINGKLNRLIEKTNEKYHQIEKEFEQV  
EGRIQDLEKYVEDTKIDLWSYNAELLVALENQHTIDVTDSEMNKLFERVRRQLRENAEDQ  
GNGCFE I FHQCDNNCIESIRNGTYDHNIYRDEA INNRIKINPVTLTMGYKDIILWISFSM  
SCFV FVALILGFVLWACQNGNIRCQICI

>P12590

MKAKLLVLLCAFTATDADTICIGYHANNSTDTVDTVLEKNVTVTHSVNLED SHNGKLCR  
LKG IAPLQLGNC SIAGWILGNPECESLFSKKSWSYIAETPNSENGTCYPGYFADYEELRE  
QLSSVSSFERFEIFPKESSWP NHTVTKGVTAACSHK GKSSFYRNLLWLTEKNGSYPNLSK  
SYVNNKEKEVLVLWGVHHP SNIGDQRAIYHTENAYVSVVSSHYNRRFTPEIAKRPKVRGQ  
EGRINYYWTLLEPEDTII FEANGNLIAPWYAFALSRGFGSGIITSNASMDECDKACQTPQ  
GAINSSLPFQNVHPVTIG ECPKYVRSTKLRMVTGLRNIPSIQSR

>P17504

MKAIIVLLMVVTSNADRICTGITSSNSPHVVKTATQGEVNVTVGVIPLTTTPTKSHFANLK  
GTKTRGKLC PKCLNCTDL DVALGRPKCMGTIPSAKASILHEVKPVTSGCFPIMHDRTKIR  
QLPNLLRGYEHIRLSTHNVINAETAPGGPYKVGTSGSCPNTNGNGFFATMAWAVPKNDN  
NKTATNPLTVEVPYICTEGEDQITVWGFHSDNEAQMVKLYGDSKPKQKFTSSANGVTTHYV  
SQIGGFPNQAEDGGLPQSGRIVVDYMQKSGKTGTITYQRGILLPQKVCASGRSKVIK  
SLPLIGERDCLHEKYGGLNKS KPYTGEHAKAIGNCPIWVKTP LKLANGTKYRPPAKLLK  
ERGGFFGAIAGFLEGGWEGMIAGWHGYTSHGAHGVAVAADL KSTQEAINKITKNLNSLSEL  
EVKNLQRLSGAMDELHNEIILELDEKVDDL RADTISSQIELAVLLSNEGIINSEDEHLLAL  
ERKLLKMLGPSAVDIGNGCFETKHKCNQTC LDR IAAGTFNAGEFSLPTFDSLNI TAASLN  
DDGLDNHTILLYYSTAASSLAVTLMIAIFIVYMVSRDNVSCSICL

>P07975

MFFSLLLVLGLTEAEKIKICLQKQVNSSFSLHNGFGGNLYATEEKRMFELVKPKAGASVL  
NQSTWIGFGDSRTDKSNSAFPR SADVSAKTADKFRFLSGGSLMLSMFGPPGKVDYLYQGC  
GKHKVFYEGVNWSPHAA INCYRKNWTDIKLNFQKNIYELASQSHCMSLVNALDKTIPLQV

TAGTAGNCNNSFLKNPALYEQEVKPSENKCGKENLAFFTLPTQFGTYECKLHLVASCYFI  
YDSKEVYNKRGCNDYFQVIYDSFGKVVGGLDNRVSPYTGNSGDTPTMQCDMLQLKPGRYS  
VRSSPRFLLPERSYCFDMKEKGPVTAVQSIWKGKRESYAVDQACLSTPGCMLIQKQKP  
YIGEADDHHDQEMRELLSGLDYEARCISQSGWVNETSPFTEKYLLPPKFGRCPAAKEE  
SIPKIPDGLLIPTSGTDTTVTKPKSRIFGIDDLIIGVLFVAIVETGIGGYLLGSRKESGG  
GVTKESAEGFEKIGNDIQILKSSINIAIEKLNDRISHDEQAIRDLTLEIENARSEALLG  
ELGIIRALLVGNISIGLQESLWELASEITNRAGDLAVEVSPGCWIIDNNICDQSCQNFIF  
KFNETAPVPTIPPLDTKIDLQSDPFYWGSSGLAITATISLAALVISGIAICRTK

>P09127

MTEQEKTSAVVEETREAVDTTSQPVATEKKSKNNTALILSAVAIAIALAAGIGLYGWGKQ  
QAVNQATATSDALANQLTALQKAQESQKAELEGI IKQQAQLKQANRQOETLAKQLDEVQQ  
KVATISGSDAKTWLLAQADFLVKLAGRKLWSDQDVTAAALLKSADASLADMNDPSLITV  
RRAITDDIASLSAVSQVDYDGIILKLNQLSNQVDNLRRLADNDSGSPMDSGEESSSIS  
EWRINLQKSWQNFMDNFITIRRRDDTAVPLLPNQDIYLRNIRSRLLVAAQAVPRHQEE  
TYRQALENVSTWVRAYYDIDDATTKAFLDEVDQLSQQNI SMDLPETLQSQAMLEKLMQTR  
VRNLLAQPAAGTTEAKPAPAPQADTPAAAPQGE

>P03277

MATPSMMPQWSYMHISGQDASEYLSPLVQFARATETYFSLNNKFRNPTVAPTHDVTDR  
SQRLTLRFIPVDREDTAYSYKARFTLAVGDNRVLDMASTYFDIRGVLDRGPTFKPYSGTA  
YNALAPKGPNSCEWEQTEDSGRAVAEDEEEEEDEEEEEEEQNARDQATKKTHVYAQAP  
LSGETITKSLQIGSDNAETQAKPVYADPSYQPEPQIGESQWNEADANAAGGRVLKKTTP  
MKPCYGSYARPTNPFGGQSVLVPDEKGVPLPKVDLQFFSNTTSLNDRQGNATKPKVVLYS  
EDVNMETPDTHLSYKPGKGDENSKAMLGQQSMPNRPNYIAFRDNF IGLMYNSTGNMGVL  
AGQASQLNAVVDLQDRNTELSYQLLLDSIGDRTRYFSMWNQAVDSYDPDVR I IENHGTE  
ELPNYCFPLGGIGVTDTYQAIKANGNGSGDNGDTTWTKDETFATRNEIGVGNNFAMEINL  
NANLWRNFLYSNIALYLPDKLKYNPTNVEISDNPNTYDYMNKRVPVAPGLVDCYINLGARW  
SLDYMDNVNPFNHHRNAGLRYSMLLGNRYVVPFHIQVPQKFFAIKNLLLLPGSYTYEWN  
FRKDVNMVLQSSLGNDLRVDGASIKFDSICLYATFFPMAHNTASTLEAML RNDTNDQSFN  
DYL SAANMLYPI PANATNVPISIPSRNWAAFRGWAFTR LKTKETPSLGSGYDPYYTYSGS  
IPYLDGTFYLNHTFKKVAITFDSSVSWPGNDRLLTPNEFEIKRSVDGEGYNVAQCNMTKD  
WFLVQMLANYNIGYQGFYIPESYKDRMYSFFRNFPMSRQVVD DTKYKEYQQVGI LHQHN  
NSGFVGYLAPTMREGQAYPANVPYPLIGKTAVDSITQKKFLCDRTLWRIPFSSNFM SMGA  
LTDLGQNL LLYANSAHALDMTFEVDPMDEPTLLYVLFVFDVVRVHQPHRGV IETVYLRTP  
FSAGNATT

>P07686

MELCGLGLPRPPMLLALLLATLLAAMLALLTQVALVVQVAEAAARAPSVSAKPGPALWPLP  
LSVKMTPNLLHLAPENFYISHSPNSTAGP SCTLLEEAFFRYHGYIFGFYKWHHEPAEFQA  
KTQVQQLLVSITLQSECDAFPNISSDES YTL LVKEPVAVLKANRVWGALRGLETFSQLVY  
QDSYGTFTINESTIIDSPRFSHRGILIDTSRHYLPVKIILKTLDAMAFNKFNVLHWHIVD  
DQSFYQSI TFP ELSNKGSYSLSHVYTPNDVRM VIEYARLRGIRVLP EFDTPGH T LSWGK  
GQKDLLTPCYSRQNKLD SFGP INPTLNTTYSFLT TFFKEI SEVFPDQF IHLGGDEVEFKC  
WESNPKIQDFMRQKGF TDFKKLESFYIQKVLDI IATINKGSIVWQEVFDDKAKLAPGTI  
VEVWKSAYPEELSRVTASGF PVILSAPWYLDLISYGQDWRKYYKVEPLDFGGTQKQKQL  
FIGGEACLWGEYVDATNLTPRLWPRASAVGERLWSSKDVRDMDDAYDRLTRHRCRMVERG  
IAAQPLYAGYCNHENM

>P41151

MFVNFKYFSFFIRTKMDGVTGGGTNIGEAVTAPPPRNPHPATLLNANSLPPPFLSKTYDM  
VEDPATDAIVSWSPTNNSFIVWDPPEFSRDLLPKYFKHNNFSSFVRQLNTYGFVKVDPDR  
WEFANEGFLRGQKHLKIKISRRKSVQGHGSSSSNPQSQQLSQGQGSMAALSSCVEVGKFG  
LEEEVEQLKRDKNVLMQELVKLRQQQQTDDNKLVKHLQVMEQRQQQIMSFLAKAVQN  
PTFLSQFIQKQTDNSNMHVTEANKRRRLREDSTAATESNSHSHSLEASDGQIVKYQPLRND  
SMMWNMMKTDDKYPFLDGFSSPNQVSGVTLQEVLPITSGQSQAYASVPSGQPLSYLPSTS  
TSLPDTIMPETSQIPQLTRESINDFPPTENFMDTEKNVPEAFISPSPFLDGGSVPIQLEGI  
PEDPEIDELMSNFEEFLPEYMPESPVFGDATTLNENNNNNNNNNNNNNNNNNNNNTNGRHMD  
KLIEELGLLTSETEH

>P11568

MSIYTLGIDVGSTASKCIIKLDGKEIVAKSLVAVGTGTSGPARSISEVLENAHMKKEDMA  
FTLATGYGRNSLEGIADKQMSSELSCHAMGASFIPWPNVHTVIDIGGQDVKVIHVENGTMN  
FQMNDKCAAGTGRFLDVMANILEVKVSDLAELGAKSTKRVAISSCTVFAESEVISQLSK  
GTDKIDIIAGIHRSVASRVIGLANRVGIVKDVVMTGGVAQNYGVRGAL EEGLGVEIKTSP  
LAQYNGALGAALYAYKKA

>P62958

MADEIAKAQVARPGDITIFGKIIIRKEIPAKIIYEDDQCLAFHDISPQAPTHFLVIPKKYI  
SQISAAEDDDESLLGHLMI V GK KCAADLGLKKG YRMV VNEGSDGGQSVYHVHLHVLGGRQ  
MNVPPG

>P23873

MMSFQKIYSPTQLANAMKLVRRQNGWTQSELAKKIGIKQATISNFENNPDN TLTTFFKI  
LQSLLELSMTLCDAKNASPESTEQQNLEW

>P09616

MKTRIVSSVTTTTLLLSILMNPVAGAADSINIKTGTTDIGSNTTVKTGDLVTYDKENGM  
HKKVFYSFIDDKNHNKLLVIRTKGTIAGQYRVYSEEGANKSGLAWPSAFKVQLQLPDNE  
VAQISDYPRNSIDTKEYMSTLT YGFNGNVTGDDTGKIGGLIGANVSIGHTLKYVQPDFK  
TILESPTDKKVGWKVIFNNMVNQNWGPYDRDSWNPVYGNQLFMKTRNGSMKAADNFDPN  
KASSLLSSGFSPDFATVITMDRKASKQQTNI DVIYERVRDDYQLHWTSTNWKGTNTKDKW  
TDRSSERYKIDWEKEEMTN

>P67910

MIIVTGGAGFIGSNIVKALNDKGITDILVVDNLKDGTKFVNLVDLNIADYMDKEDFLIQI  
MAGEEFGDVEAIFHEGACSSSTEWDGKYMMDN NYQYSKELLHYCLEREIPFLYASSAATY  
GGRTSDFIESREYKPLNVYGYSKFLFDEYVRQILPEANSQIVGFRYFNVYGPREGHKGS  
MASVAFHLNTQLNNGESP KLFEGSENFKRDFVYVGDVADVNLWFLENGVSGIFNLGTGRA  
ESFQAVADATLAYHKKGQIEYIPFPDKLKGRYQAF TQADLTNLR AAGYDKPFKTVAEGVT  
EYMAWLN RDA

>P28031

MKYRHLAKKSFLFIFMLAAFKTFAFELPSIPFPSPGSDEILFVVRD TTFNTKEPVNVKVS  
DFWTNRNVKRKPKYKDVH GQSVFITSGTKWLT SYMTVSINN KDY TMAAVSGYKDFSSVFV  
KSGQIQ LQHYYNSVAD FVGGDENSIPSKTYLDETP EYFVNVEAYESGSGNILVMCISNKE  
SYFECESQQ

>P10089

MDSCHKIDYGLYALEILAQYHNVSVNPEEIKHRFD TDTGTLGLT SWLLAAKSLELKVQV

KKTIDRLNFISLPALVWREDGCHFILTKVSKEANRYLIFDLEQRNPRVLEQSEFEALYQG  
HIILIASRSSVTGKLAKFDFTWFIPAI IKYRKIF IETLVVSVFLQLFALITPLFFQVVM  
KVLVHRGFSTLNVITVALSVVVVFEIILSGLRTYIFAHSTSRIDVELGAKLFRHLLALPI  
SYFESRRVGD TVARVRELDQIRNFLTGQALTSVLDLLFSFIFFAVMWYYS PKLTLVILFS  
LPCYAAWSVFI SPILRRRLDDKFSRNADNQSF LVESVTAINTIKAMAVSPQMTNIWDKQL  
AGYVAAGFKVTVLATIGQQGIQLIQKTVMI INLWLGAHLVISGDL SIGQLIAFNMLAGQI  
VAPVIRLAQIWQDFQQVGISVTRLGDV LNSPTESYHGKLALPEINGDITFRNIRFRYKPD  
SPVILDNINLSIKQGEVIGIVGRSGSGKSTLTKLIQRFYIPENGQVLIDGHDLALADPNW  
LRRQVGVVLQDNVLLNRSIIDNISLANP GMSVEKVIYAAKLAGAHDFISELREGYNTIVG  
EQGAGLSGGQRORIAIARALVNNPKILIFDEATSALDYESEHVMIRNMHKICKGRTV I I I  
AHLSTVKNADRIIVMEKGKIVEQ GKHKELLSEPESLYSYLYQLQSD

>P04035

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSMMFTGNKICGWN YECPKFEEDVLSS  
DIIILITITRCIAILYIYFQFQNL RQLGSKYILGIAGLFTIFSSVFVSTVVIHFLDKELTG  
LNEALPFFLLIDL SRASTLAKFALSSNSQDEVRENIARGMAILGPTFTLDALVECLVIG  
VGTMSGVRQLEIMCCFGCMSVLANYFVFM TFFPACVSLVLELSRESREGRPIWQLSHFAR  
VLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSLGLDENVSKR  
IEPSVSLWQFYLSKMI SMDIEQVITLSLALLLAVKYIFFEQTE TESTLSLKNPITSPVVT  
QKKVPDNCRRPMLVRNNQKCD SVEEETGINRERKVEVIKPLVAETDTPNRATFVVGNS  
SLLDTSSVLVTQEPEIELPREPRPNEECLQILGNAEKGAKFLSDAEI IQLVNAKHIPAYK  
LETLMETHERGVSI RRQLLSKKLSEPSLQYLPYRDYNYSLVMGACCENVIGYMPIPVGV  
AGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVR LPRAC  
DSAEVKAWLETSEGFAVIKEAFDSTSRFARLQKLHTS IAGRNL YIRFQSRSGDAMGMNMI  
SKGTEKALS KKLHEYPPEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREV  
LKTTEAMIEVNINKNLVGSAMAGSIGGYNAAHANIVTAIYIACGQDAAQNVGSSNCITL  
MEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQGACKDNPGENARQLAR  
IVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

>P35914

MAAMRKALPRRLVGLASLRAVSTSSMGTLPKRVKIVEVGP RDGLQNEKNIVSTPVKIKLI  
DMLSEAGLSVIETTSFVSPKWPVQMGDHTEVLKGIQKFPGINYPVLT PNLKGFEEA VAAG  
AKEVVIFGAASELFTKKNINCSIEESFQRFDAILKAAQSANISVRGYVSCALGCPYEGKI  
SPAKVAEVTKKFYSMGCYEISLGD TIGVGTPI MKDMLSAVMQEVPLAALAVHCHD TYGQ  
ALANTLMALQMGVSVV DSSVAGLGGCPYAQGASGNLATEDLVYMLEGLGIHTGVNLQKLL  
EAGNFICQALNRKTSKVAQATCKL

>P38074

MSKTAVKDSATEKTKLSESEQHYFN SYDHYGIHEEMLQD TVRTL SYRNAIQNKDLFKDK  
IVLDVCGGTGILSMFAAKHGAKHVIGVDMSSIIEMAKELVELNGFSDKITLLRGKLEDVH  
LPFPKVDIIISEWMGYFLLYESMMDTVLYARDHYLVEGGLIFPDKCSIHLAGLEDSQYKD  
EKLNYWQDVYGF DYSPFVPLVLHEP IVDTVERNNVNTTSDKLI EFDLNTVKISDLAFKSN  
FKLTAKRQDMINGIVTWFDIVFPAPKGRPVEFSTGPHAPYTHWKQTI FYFPDDLDAETG  
DTIEGELVCS PNEKNRDLNIKISYKFESNGIDGNSRSRKNEGSYLMH

>P0ACF8

MSEALKILNNIRTLRAQARECTLETLEEMLEKLEV VVNERREESAAAAEVEERTRKLQQ  
YREMLIADGIDPNELLNSLAAVKSGTKAKRAQRPAKYSYVDENGETKTWTGQGRTPAVIK  
KAMDEQGKSLDDFLIKQ

>P0ACG4

MKQHKAMIVALIVICITAVVAALVTRKDLCEVHIRTGQTEVAVFTAYESE

>Q9UJC3

MEETQPPPQPKLPLCDSLMIWLQTFNTASPCQDVKQLTSGVAMAQVLHQIDA AWFNESWL  
SRIKEDVGDNRWRIKASNVKKVLQGIMSYYHEFLGQQISEALIPDLNQITECSDPVELGRL  
LQLILGCAINCEKKQEHIQNIMTLEESVQHVVMTAIQEELMSKEILSSPPNDAVGELEQQ  
KRALEELQEALAEKEELRQRCEELDMQVTTLQDEKNSLVSENNEMNEKLDQLDGSFDDPN  
TVVAKKYFHAQLQLEQLQEENFRLEAAKDDYRVHCEELEKQLIEFQHRNDELTSLAEETR  
ALKDEIDVLRATSDKANKLESTVEIYRQKLQDLNDRKQVKTLEQETNMMYMHNTVSLLEE  
LKKANAARTQLETYKRQVQDLHVKLSSSESKRADTLAFEMKRLEEKHEALLKEKERLIEQR  
DTLKETNEELRCSQVQDHLNQTASATKSYENLAAEIMPVEYREVFIRLQHENKMLRLQ  
QEGSENERIEELQEQLQKHKRMNELETEQRLSKERIRELQQQIEDLQKSLQEQGSKSEG  
ESSSKLKQKLEAHMEKLETEVHEELQKKQELIEDLQPDINQNVQKINELEAALQKKDEDMK  
AMEERYKMYLEKARNVIKTLDPKLNPAEIMLLRKLQAEKERRIEILESECKVAKFRDY  
EEKLIVSAWYNKSLAFQKLGMSRSLVSGGGACSDTGACTPARSFLAQQRHITNTRRNLV  
KVPATTS

>Q86VS8

MFSVESLERAELCESLLTWIQTTFNVDAPCQTVEDLTNGVMAQVLQKIDPAYFDENWLN  
IKTEVGDNRWLKISNLKILKGILDYNHEILGQQINDFTLPDVNLIGEHSDAEELGRMLQ  
LILGCAVNCEQKQEYIQAIMMEEESVQHVVMTAIQEELMSKESPVSAAGNDAYVDLDRQLK  
TTEELNEALSAAKEEIAQRCHELDMQVAALQEEKSSLLAENQVLMERLNQSDSIEDPNSPA  
GRRHLQLQTQLEQLQEETFRLEAAKDDYRIRCEELEKEISELRQQNDELTTLADEAQLK  
DEIDVLRHSSDKVSKLEGQVESYKKKLEDLGDLRQVKKLLEEKNTMYMQNTVSLLEEELR  
ANAARSQLETYKRQVVELQNRLSEESKADKLDIFYKRLKEKVDLSLQEKDRLRTERDSL  
KETIEELRCVQAQEGQLTTQGLMPLGSEQSSDSLAAEIVTPEIREKLIRLQHENKMLKLN  
QEGSDNEKIALQLSLLDDANLRKNELETENRLVNQRLLLEVQSQVEELQKSLQDQGSKAED  
SVLLKKKLEEHLEKLHEANNELQKKRAIIEDELEPRFNNSLKIIEELQEALRKKKEEMKQ  
EERYKYLEKAKSVIRTLDPKQNGAAPIQALKNQLQERDRLFHSLKEKEYEKTQSREM  
EEKYIVSAWYNMGMTLHKKAAEDRLASTGSGQSFLARQRQATSSRRSYPGHVQPATAR

>Q24185

MSAPKNEMYYSLLEWFKTLNLNAPHADAESLADGVALAALNQFAPESFTDAWLSKIKAS  
AVGSNWRLRMSNLKQVTSVYDYSDVNLNYSLSDFSKPDLQRIAEKCDLGELELLQLVL  
GCAVNCAEKQSYITEIMCLEEELQANIMRALQELEATRQASTPEGGVASSLSRGSRTGLL  
DSKAVQEDRDALAQKCFETEKMLLLIDEKTNLQQELHKLQQEFARLEQHSTVIGDDGVS  
LGPVQGTGSVRYNELRRQLDLLKEELLQSEGAREDLKIKAQQDQDILLHMQMRIEELMKSS  
AEVTTLKDEVDVLRRESNDKLIKCEAQLDITYKKKLEDYNDLKKQVKILEERSADYVQNAQ  
FEEDAKRYANTKGQVELFKKEIQDLHAKLDAESSKNVKLEFDNKNLESKNLALQRAKDSL  
LKERDNLREAVDELKCGQLSSNTALTGTTVSRELQPSATVEKLQRLEAENKALREGQGGQ  
TALAQLLDDANKRCENLREQLTANERILSLSHASQSDDPILKESEFGKQIKQLMELNEQ  
KTLQLEEAVTQSTSLQCKVTQLETNLSAREQEILVYDAKYRKCVEKAKEVIKSIDPRIAS  
ALDASVLEKSADLVEEPPKPKMSVMEEQLMTSAFYRLGVNAQRDAIDSKLAILMGSGQTF  
LARQRQSAPRKSLSAMKSK

>P05205

MGKKIDNPESAKVSDAE EEEEEYAVEKIIDRRVRKKGVEYYLKWKGYPETENTWEPENN  
LDCQDLIQQYEASRKDEEKSAASKKDRPSSAKAKETQGRASSSTSTASKRKSEPTAPS  
GNKSKRTTDAEQDTIPVSGSTGFDRGLEAEKILGASDNNGRLTFLIQFKGVDQAEMVPSS

VANEKIPRMVIHFYEERLSWYSDNED

>Q05354

MPHFIVECSDNIREEADLPGLFAKVNPTLAATGIFPLAGIRSRVHWVDTWQMADGQHDYA  
SVHMTLKIGAGRSLESRQQAGEMLFELIKTHFAALMESRLLALSFEIEELHPTLNFKQNN  
VHALFK

>P32754

MTTYSKDGAKPERGRFLHFHSVTFWVGNKQAASFYCSKMGFEPLAYRGLTGSREVVSH  
VIKQGKIVFVLSALNPWNKEMGDHLVKHGDGVKDIAFEVEDCDYIVQKARERGAIMRE  
PWVEQDKFGKVKFAVLQTYGDTTHTLVEKMNYIGQFLPGYEAPAFMDPLLKLPKCSLEM  
IDHIVGNQPDQEMVSASEWYLKNLQFHRFWSVDDTQVHTEYSSLSRIVVANYEESIKMPI  
NEPAPGKKKSQIQEYVDYNGGAGVQHIALKTEDIITAIRHLRERGLEFLSVPSTYYKQLR  
EKLKTAKIKVKENIDALEELKILVDYDEKGYLLQIFTKPVQDRPTLFLLEVIQRHNSHQFG  
AGNFNSLKFKAFAEEEEQNLGRNLTNMETNGVPPGM

>Q9RE09

MADSVTVRQLVKATKLEVYSGEEYLDQRQVVLSDISRPGLELTYGFNYYPHERIQLFGR  
EISFARNMSSEERLLILKRMATEDTPAFLVSRGLEAPAEMITAATAAHIPVLGSRLPTTR  
LSSLITEYLDSQLAERRSMHGVLVDIYGLGVLITGDSGVGKSETALELVQRGHRLIADDR  
VDVYQQDEQTI VGAAPPILSHLLEIRGLGIDVMNLFAGAVREDTTISLIVHLENWTPD  
KTFDRLGSGEQTLIFDVPVPKITVPVKVGRNLAIIEVAAMNFRAKSMGYDATKTFEKN  
LNHLIEHNEETDQNSSGDK

>P75548

MKLLLVKELIEQFQDCVNLIDGHTNTSNVIRVPGPKRVVFEMLGLFSSQIGSVAAILGKRE  
FGFLSQKTLVEQQQILHNLLKLNPPAILTKSFTDPTVLLQVNQTYQVPIKTDFFSTEL  
SFTVETYINEQFATVAQIHGVLLEVFVGVVLLTGRSGIGKSECALDLINKNHLFVGDDAI  
EIYRLGNRLFGRQAQEVAKKFMEIRGLGINVERFYGLQITKQRTIQLMVNLLSLEKQTT  
VTFERLGTTELKQRLGVDLSFYEIPISPRKKTSEIIEVAVIDFKLKHSGYNSALDFIEN  
QKAILKRKKDES

>Q9S1H5

MLTTKSLVERFELEMIAGEAGLNKQIKNTDISRPGLEMAGYF SHYASDRIQLLGTTELSF  
YNLLPDEERKGRMRKLCRPETPAIVTRDLEPPEELIEAAKEHETPLITSKIATTQLMSR  
LTTFLEHELARTTSLHGVLVDVYGVGVLITGDSGIGKSETALELIKRGHRLVADDNVEIR  
EISKDELIGRAPKLIHLLLEIRGLGINVMTLFGAGSILTEKRLRLNIHLENWHKEKLYD  
RVGLNEETLRILDTEITKKTIPVRPGRNVAVIEVAAMNYRLNIMGINTAEFNDRLNAE  
ILRNGNNGNNGEEK

>Q9ZA98

MTVTVKMLVDKLLKVIYGNKLLSKPITTADISRPGLEMTGYFDFYSPERIQLVGMKEW  
SYLKTLDHNRYSVFSNMFKKEETPAVIVARGLDIPPEMYRAAKENGVAVLQGRNGTSSLS  
GDMSWYLNQAERTSVHGVLDIYGMGVLIQGDSGIGKSETGLELVKRGHRLVADDRVD  
VYAKDEETLWGEPAEILHLLLEIRGVGIDVMSLYGASAVRNSSVQLAIYLENFEDGKV  
FDRLGNGNEEIELOQVKIPRVRIPVKTGRNVSVVIEAAAMNYRAKQMGFDATKTFEERLT  
NLISKNGED

>Q48907

MALTOQMALDSLDFDATVALAEKVAPHVDILEIGTPCIKHNGIKLLETLRKAFPNKILVD



LKTM DAGFYEAEPFYKAGADITTVLGVADLGTIKGVIDAANKYGGKAQIDLINVGDKAAR  
TKEVAKLGAHIIGVHTGLDQQAAGQTPFADLATVTVGLNLGLEVSVAGGVK PATVAQVKDA  
GATII VAGAAIYGAADPAAAAAEITGLAK

>Q9FDN6

MDTKALHTLTYGLYIITAKKGDRFNGQVANTVFQITSDPPTIAVSINKQNLTHEFIQAGQ  
GFVIVSVLAREVPLSLIGQFGFKSGREMDKFAGINYKLSEGGLPYLADHTLAYLEASLNQT  
VDAGTHSIFIGTVTDAVLLQGEPMTYAYYHQVKRGTTPK TAPFTFTVGREKDKTALASPK  
YQCTICNYVYDPVQGDPEHGIAPGTPFADLPEDWTCPCGAGKDAFEQI

>Q960X8

MFRSSF DKNLENATSHLRLEPDWPSILLICDEINQKDVTPKNAFAAIKKKMNSPNPHSSC  
YSLLVLESIVKNCGAPVHEEVFTKENCCEMFSSFLESTPHENVRQKMLELVQTWAYAFRSS  
DKYQAIKDTMTILKAKGHTFPELREADAMFTADTAPNWADGRVCHR CRVEFTFTNRKHHHC  
RNCGQVFCGQCTAKQCPLPKYGIEKEVRVCDGCF AALQRPTSGSGGAKSGPRPADSELPA  
EYLNSTLAQQVQTPARKTEQELKEEEEELQLALALSQSEAEQQKPKLQSLPPAAYRMQQRS  
PSPEAPPEPKKEYHQPEEATNP ELAKYLNRSYWEQRKISESSSMASPSAPSPMPPTPQPQ  
QIMPLQVKSADDEVQIDEFAANMRTQVEIFVNRMKSNSSRGRSISNDSSVQTLFMTLTSLH  
SQQLSYIKEMDDKRMWYEQLODKLTQIKDSRAALDQLRQEHVEKLRRIAEEQERQRMQM  
AQKLDIMRKKKQEYLQYQRQLALQRIQE QEREMQLRQEQQKAQYLMGQSAPPPFYMPPSA  
VPQHGS PSHQLNNVYNPYAAGVPGYLPQGPAPAPNGHGQFQAIPPGMYNPAIQQPMPPNL  
QPGLMQQPAPPGNPQMPPMPENQFANNPAAILQLPQQHSIAQPPQIPFQPPQPIPGQ  
QPQQIPGQQPQQIPGQQPQQIPGQQPQQIPVQQPQPQPMGHVMLQQHQAPPAAQAPPVT  
EIANNOVQAVAAAPAPPQNEPGPAPVKAEEPATAELISFD

>P07900

MPEETQTQDQPMEEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNSSDALDKIR  
YESLTDPSKLD SGKELHINLIPNKQDRTLTIVDTGIGMTKADLINNLTIAKSGTKAFME  
ALQAGADISMIGQFGVGFYSAYLVAEKVTVITKHNDDEQYAWESSAGGSFTVVRTDTGPEM  
GRGTKVILHLKEDQTEYLEERRIKEIVK KHSQFIGYPITL FVEKERDKEVSDDEAEKED  
KEEEKEKEEKESEDKPEIEDVGSDEEEEEKDGD KKKKKKIKEKYIDQEELNKTKPIWTRN  
PDDITNEEYGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFVPRRAPFDLFENRKKKNN  
IKLYVRRVFIMDNCEELIPEYLNFI RGVVDS EDLPLNISREMLQQSKILKVIRKNLVKKC  
LELFTELAEDKENYKKFYEQFSKNIKLGIHEDSQNRKKLSELLRYYTSASGDEMVS LKDY  
CTRMKENQKHIYYITGETKDQVANS AFVERLRKHGLEVIYMI EPIDEYCVQQLKEFEGKT  
LVSVTKEGLELPEDEEEKKKQEEKTKFENLCKIMKDILEKKVEKVVVSNRLVTS PCCIV  
TSTYGW TANMERIMKAQALRDNSTMGYMAAKKHLEINPDHSI IETLRQKAEADKNDKSVK  
DLVILLYETALLSSGFSLEDPQTHANRIYRMIKLG LGIDEDDPTADDTSAAVTEEM PPLE  
GDDDTSRMEEVD

>P69167

MSGRLIGKVALVSGGARGMGASHVRAMVAEGAKVVF GDILDEEGKAVAAELADAARYVHL  
DVTQPAQWTA AVDTAVTAFGGLHLVLMNAGILNIGTIEDYALTEWQRIL DVNLTGVFLGI  
RAVVKPMKEAGRSIINI SIEGLAGTVACHGYTATKFAVRGLTKSTALELGP SGIRVNS  
IHPGLVKT PMTDWPEDIFQTALGRAAE PVEVSNLVVYLASDESSYSTGAEFVVDGGTVA  
GLAHNDFGAVEVSSQPEWVT

>P19992

MNDLSGKTVIITGGARGLGAE AARQAVAAGARVVLADVLDEEGAATARELGDAARYQHLD  
VTIEEDWQRVVAYAREEFSGVDGLVNNAGISTGMFLETESVERFRKVVDINLTGVF IGMK

TVIPAMKDAGGGSIVNISSAAGLMGLALTSSYGASKWGVRLSKLAAVELGTDRIRVNSV  
HPGMTYTPMTAETGIRQGEKNYPNTPMGRVGNPEGEIAGAVVKLLSDTSSYVTGAELAVD  
GGWTTGPTVKYVMGQ

>P22335

MSQRTAPAPFLLKTYQLVDDAATDDVISWNEIGTTFVWKTAEFAKDLLPKYFKHNNFSS  
FVRQLNTYGFVKIVPDKWEFANENFKRGQKELLTAIRRRKTVTSTPAGGKSVAGASASP  
DNSGDDIGSSSTSSPDSKNPGSVDTPGKLSQFTDLSDENEKLLKKNQMLSSSELVQAKKQC  
NELVAFLSQYVVKVAPDMINRIMSQGTSPSSSLEELVKEVGGVKDLEEQGSYNDNDKEDD  
DEKGDTLKLFVLLKEKKKKRGPDENIETCGGRGKMMKTVDYNGPMMKSSPAGESSEKVC  
N

>P38530

MKQEPQQQPAQOPPPAGAGVPAFLSKLWALVGEAPSNQLITWSQNGQSFLVLDEQRFAK  
EILPKYFKHNNMASFVRQLNMYGFVKVHVDSGIVKLERDGLVEFQHPYFKQGREDDLEH  
IKRKYSSSRPEENKISQEDLSKIISSAQKVEIKQETIESRLSALKRENESSLWREVAELRA  
KHLKQQQVIRKIVQFIVTLVQNNQLVSLKRRRPLLLNTNGPTKSNVFQQIVKEPADNNNH  
VPLNRTEGLKQREQISDDIIIDYDVTEDVADEENTMVDEENAPITPETNEDTSSDSSNCSR  
SPDIVIVEDDNEEEYAPVIQGDKSTESVAVSANDPLSPVSDSTSPMLSSAVQLNNQSTLT  
AEDPVSMMSILNENGVISQININLLGKVELLDYLDSDIDCSLEDFQAMLSGRQFSIDPDL  
FDLFTSSVQMNPTDHIPTNPKMETKGIETTKSNAGPAASQETQVSKPKSDKQLIQYTAFLPL  
LAFLDGNPGSTVESGSSATETPSSVDKPLEVDELLESSLDPPEPTQSKLVRLEPLTEAEAS  
EATLFYLCELAPAPMDTDMPFLLDN

>P41152

MEDVMKVKVEEDGIPTAVLPMGLHDVGGPPFLSKTYEMVEDSSTDQVISWSTTRNSFIV  
WDSHKFSTTLPRFFKHSNFSFIRQLNTYGFVKVDPDRWEFANEGFLGGQKHLKTIKR  
RRNVGQSMNQGGGACIEIGYYGMEELERLKRDKNVLMTIEVKLRQQQSTRNQI IAMG  
EKIETQERKQVQMMSFLAKIFSNPTFLQQYLDKQVHRKDKQRIEVGQKRRLTMTPSVTGS  
DQPMNYSSSLQSEAEELASIEMLFSAAMDNESNNVRPDSVVTANGTDMPEVADDIWEEL  
LSEDLISGDRAAEVVVEQPEFDVEVEDLVVKTPEWGEELQDLVDQLGFL

>Q9ULV5

MVQEAPAALPTEPGPSVPAFLGKLWALVGDPGTDHLIRWSPSGTSFLVSDQSRFAKEVL  
PQYFKHSNMAFVRQLNMYGFVKVVSIEQGGLLRPERDHVEFQHPVFRGREQLLERVRR  
KVPALRGDDGRWRPEDLGRLLGEVQALRGVQESTEARLRELRRQNEILWREVVTLRQSHG  
QQHRVIGKLIQCLFGPLQAGPSNAGGKRKLSMLDEGSSCPTPAKFNTCPLPGALLQDPY  
FIQSPLPETNLGLSPHRARGPIISDIPEDSPSPEGTRLSPPSSDGRREKGLALLKEEPASP  
GGDGEAGLALAPNECDFCVTAPPPLPVAVVQAILEGKGSFSPEGPRNAQQPEPGDPREIP  
DRGPLGLESGDRSPESLLPMLLQPPQESVEPAGPLDVLGPSLQGREWTLMDLDMELSLM  
QPLVPERGEPALAVKGLNSPSPGKDP TLGAPLLL DVQAALGGPALGLPGALTIYSTPESR  
TASYLGPEASPS

>P41153

MEPNSSSGSAAVGDGGGGGAPMLQPAPAPAPMPSANAPPPFLVKTYDMVDDPSTDKIVS  
WSPTNNSFVWDPPEFAKDLLPKYFKHNNFSSFVRQLNTYGFVKVDPDRWEFANEGFLRG  
QKHLKLSISRRKPAHGAHQQQQPHGHAQQMQPPGHSASVACVEVGKFGLEEEVERLK  
RDKNVLMLQELVRLRQQQSTDNQLQGMVQRLQGMELRQQQMSFLAKAVNSPGFLAQFVQ  
QQNESNKRIAEGSKRRRIKQDIESQDPSVTPADGQIVKYQPGINEAAKAMLRELSKLDSS  
PRLNENSNPESFLIGDGPQSNASSGRVSGVTLQEVPPPTSGKPLLNTASAIAGQSLLPA

TSEMQSSHLGTCSEIINNQLSNIIPLVGGEDLHPGSLASADMIMPELSQLQGILPENNTD  
VIGCDSFMDTIAVEGKMGLDIGSLSPGADIDWQSGLLDEIQEFPSVGDPFWEKFLQSPSS  
PDAAMDDDISNTSETKPQINGWDKTQNMHEHLTEQMGATNIKQQKHMI

>P22813

MSRSRSSAKAVQFKHESEEEEEDEEEQLPSRRMHSYGDAAAIGSGVPAFLAKLWRLVDDA  
DTNRLICWTKDGQSFVIQNQAQFAKELLPLNYKHNNMASFIRQLNMYGFHKITSIDNGGL  
RFDRDEIEFESHPPFKRNSPFLLDQIKRKISNNKNGDDKGVKPEAMSKILTVDKVMRGRQ  
DNLDSRFSAMQENEVLWREIASLRQKHAKQQQIVNKLIQFLITIVQPSRNMMSGVKRHVQ  
LMINNTPEIDRARTTSETESSESGGPPVIHELREELLDEVNMPSPAGYTAASHYDQESVSP  
PAVERPRSNMSISSHNVDYSNQSVEDLLLQGNGTAGGNILVGGAAASPMASVSQSPAQHD  
VYTVTEAPDSHVQEVNPPYYEEQNVLTPMVREQEQQKRQQLKENNKLRRQAGDVILD  
AGDILVDSSSPKAQRTSIQHSTQPDVMVQPMI IKSEPENSSGLMDLMPANDLYSVNFIS  
EDMPTDIFEDALLPDGVEEAAKLDQQQKFGQSTVSSGKFASNFVPTNSTLLDANQASTS  
KAAAKAQASEEEGMAVAKYSGAENGNRDTNNSQLLRMASVDELHGHLESMQDELETLKD  
LLRGDGAIDQNMLMGLFNDSLDMDNYGLSFPNDSISSEKKAPSGSELISYQPMYDLSDI  
LDTDDGNNDQEASRRQMOTQSSVLNTPRHEL

>P22121

MGHNSVETMDEISNPNNILLPHDGTGLDATGISGSQEPYGMVDVLPDLSLKDDSNVDEP  
LIEDIVNPSLDPEGVVSAPESNEVGTPLLQQPISLDHVITRPASAGGVYSIGNSSTSSAA  
KLSGDGLTNATDPLLNNAHGHGQPSSESQSHSNGYHKQGQSQPILLSLNKRKLLAKAHD  
KHHSKKLSTTRARPAFVNKLWSMVNDKSNEKFIHWSTSGESIVVPRERFVQEVLPKYF  
KHSNFASFVRQLNMYGWHKVQDVKSGSMLSNNDSRWEFENENFKRGKEYLLENIVRQKSN  
TNILGGTTNAEVDIHILLNELETVKYNQLAIAEDLKRITKDNEMLWKENMMARERHQSQQ  
QVLEKLLRFLSSVFGPNSAKTIGNGFQPDLIHELSDMQVNHMSNNNHNNTGNINPNAYHN  
ETDDPMANVFGPLTPTDQGKVPLQDYKLRPRLLLKNRSMSSSSSSNLNQRQSPQNRIVGQ  
SPPPQQQQQQQQQGPQGGQFSYPIQGGNQMMNQLGSPIGTQVGSVPVGSQYGNQYGNQY  
SNQFGNQLQQQTSRPPALHHSNGEIRELTPSIVSSDSPDPAFFQDLQNNIDKQEEIQEI  
QDWITKLNPGGEDGNTPIFPELNMPSYFANTGGSGQSEQPSDYGDSQIEELRNSRLHEP  
DRSFEEKNNGQKRRRAA

>Q02953

MIQTASTISSNGGTNQGMESSANSPEMNGTQNSMSVGMMSGSSQNRKITQFSNKLYNM  
VNDSSTDSLIRWSDRGDSFLVIGHEDFAKLVLPRYFKHNNFSSFVRQLNMYGFHKVPHIQ  
QGVLQSDSPNELLEFANPNFQDQPELLCLVTRKKAGSQPVEESNTSLDMSTISSELQNI  
RIQQMNL SNELSRIQVDNAALWQENMENRERQRRHQETIDKILRFLASVYLDGKQKPPSK  
VMPKSRLLLEAKYPTVSPNEPSAHSRPSQGTANSSSASISSLHNTTPDGEGKYRSV  
QNGRALNYVSSFNDSHSPKDYISQSYTNEPGLKKEADSFNNSIDSYISPNQSPNTDVP  
SLNRDDTTDPKVNTGDIINMLDDANSIEGSNMNLSPLLLFDYPNSLYPVNNTSSEQHHN  
SYRGSVSNQPSGNLSESTNLQPVQPVYMSNSNPSYGSYNAEDQLTNFHPGYAMDQKRI  
SKLSDGITKQDQNIQALADILGIPLGDGKIDDAGFSANSPTNLNLPVSSDLDSVLNIPP  
EDVFPDSNPVDFEFTNISNLTSPIEASNGNTFGSNPVS LPNQKQSVNPSLMTVSSPRQVR  
KKRKSSIGA

>P10961

MNNAANTGTTNESNVSDAPRIEPLPSLNDDDIEKILQPNDIFTTDRTDASTTSSTAIEDI  
INPSLDPQSAASPVPSSSFFHDSRKPSTSTHLVRRGTPLGIYQTNLYGHNSRENTNPNST  
LLSSKLLAHPPVYQNPDLQHAVYRAQPSGGTTNAQPRQTTRRYQSHKSRPAFVNKLW  
SMLNDDSNTKLIQWAEDGKSFIVTNREEFVHQILPKYFKHSNFASFVRQLNMYGWHKVQD

VKSGSIQSSSDDKWQFENENFIRGREDLLEKIIRQKGSNNHNSPSGNGNPANGSNIPLD  
NAAGSNNSNNNISSSNSFFNNGHLLQGKTLRLMNEANLGDKNVTAIILGELEQIKYNQIA  
ISKDLLRINKDNELLWQENMMARERHRTQQQALEKMFRLTSIVPHLDPKMIMDGLGDPK  
VNNEKLNANSANNIGLNRDNTGTIDELKSNDSFINDDRNSFTNATTNARNNMSPNDDNSID  
TASTNTTNRKKNIDENIKNNNDIINDIIIFNTNLANNLSNYNSNNNAGSPIRYPYKQRYLLK  
NRANSSTSENPSLTPFDIESMNRKISEIPFDDEEEETDFRPFTSRDPNNQTSENTFD  
PNRFTMLSDDDLKKDSHTNDNKHNESDLFWDNVHRNIDEQDARLQNLNEMVHILSPGYPN  
KSFNNKTSSTNTNSNME SAVNVNSPGFNLQDYLTGESNSPNSVHSVPSNGSGSTPLMPN  
DNDTEHASTSVNQGENSGSLTPFLTVDHTLNDMNTSEGSTRVSPDIKFSATENTKVSDN  
LPSFNDHSYSTQADTAPENAKKRFVEEIPPAIVEIQDPTEYNDHRLPKRAKK

>Q04432

MAPKKVLLALTSYNDVFYSDGAKTGVFVVEALHPFNTFRKEGFEVDFVSETGKFGWDEHS  
LAKDFLNGQDETDFKKNKSDFNKTLAKIKTPKEVNADDYQIFFASAGHGTFLFDYPKAKDL  
QDIASEIYANGGVAAVCHGPAIFDGLTDDKKTGRPLIEGKSITGFTDVGETILGVD SILK  
AKNLATVEDVAKKYGAKYLAPVGPWDDYSITDGRLVTVGNPASAHSTAVRSIDALKN

>P0A6Z3

MKGQETRGFQSEVKQLLHLMIHSLYSNKEIFLRELI SNASDAADKLRFRALSNDPLYEGD  
GELRVRVSFDKDKRTLTI SDNGVGMTRDEVIDHLGTIAKSGTKSFLLESLSGSDQAKDSQLI  
GQFGVGFYSAFIVADKVTVRTRAAGEKPENGVFWESAGEGEYTVADITKEDRGTEITLHL  
REGEDFLDDWRVRSIISKYSDHIALPVEIEKREEKDGETVLSWEKINKAQUALWTRNKSE  
ITDEEYKEFYKHIAHDFNDPLTWSHNRVEGKQEYTSLLYIPSQAPWDMWNRDHHKHLKLY  
VQRVFIMDDAEQFMPNYLRFVVRGLIDSSDLPLNVSREILQDSTVTRNLRNALTKRVLQML  
EKLAKDAAEKYQTFWQQFGLVLKEGPAEDFANQEAIAKLLRFASHTDSSAQTVSLEDYV  
SRMKEGQEKIYYITADSYAAAKSSPHLELLRKKGIEVLLLSDRIDEWMMNYLTFEDGKPF  
QSVSKVDESLEKLADEVDESAAKAEKALTPFIDRVKALLGERVKDVRLTHRLTDTPAIVS  
TDADEMSTQMAKLF AAAGQKVPEVKYIFELNPDHVLVKRAADTEDEAKFSEWVELLLDQA  
LLAERTLEDPNLFIRRMNQLLVS

>O43464

MAAPRAGRAGWSLRAWRALGGIRWGRRPRLTPDLRALLTSGTSDPRARVITYGTPSLWAR  
LSVGVTPEPRACTSGTPGPRAQLTAVTPDTRTREASENSGTRSRAWLAVALGAGGAVLLL  
LWGGGRGPPAVLAAVSPPPPASPRSQYNFIADVVEKTAPAVVYIEILDRHPFLGREVPIS  
NGSGFVVAADGLIVTNAHVVADRRRVRVRLLSGDTYEAVVTAVDPVADIATLRIQTKEPL  
PTLPLGRSADVRQGEFVAMGSPFALQNTITSGIVSSAQRPARDLGLPQTNVEYIQTDAA  
IDFGNSGGPLVNL DGEVIGVNTMKVTAGISFAIPSDRLREFLHRGEKKNSSSGISGSQRR  
YIGVMMLTLSPSILAEQLREPSFPDVQHGVLIHKVILGSPAHRAGLRPGDVILAIGEQM  
VQNAEDVYEAVRTQSQLAVQIRRGRETTLTYVTPPEVTE

>Q08169

MSRPLVITEGMMIGVLLMLAPINALLLGFVQSTPDNNKTVREFNVYWNVPFMCHKYGLR  
FEEVSEKYGILQNWMDKFRGEEIAILYDPGMFPALLKDPNGNVVARNGGVPQLGNLTKHL  
QVFRDHLINQIPDKSFPVGVVIDFESWRPIFRQNWASLQPYKKLSVEVVRREHPFWDDQR  
VEQEAKRRFEKYQLFMEETLKA AKRMRPAANWGYAYPYCYNLTPNQPSAQCEATMQE  
NDKMSWLFESVDLLPSVYLRWNLTSGERVGLVGGRVKEALRIARQMTTSRKKVLPYYWY  
KYQDRRDTLSRADLEATLRKITDLGADGFI IWGSSDDINTKAKCLQFREYLNNELGPAV  
KRIALNNNANDRLTVDVSVQV

>Q8VTT5

MDII IKNGTIVTADGISRADLGKDGKITQIGGALGPAERTIDAAGRYVFPGGIDVHTHV  
ETVSFNTQSADTFATATVAAAACGGTTTIVDFCQQDRGHSLAEAVAKWDGMAGGKSAIDYG  
YHII VLDPTDSVIEELEVLPDLGITSFKVFMAYRGMNMIDDVTLKTLKAVKTGSLVMV  
HAENGDAADYLRDKFVAEGKTAPIYHALSRPPRVEAEATARALALAEIVNAPIYIVHVTC  
EESLEEV MRAKSRGVRALAETCTHYLYLTKEDLERPDFEGAKYVFTPPARAKKDHDVLWN  
ALRNGVFETVSSDHCSWLKFKGKDRGRNDFRAIPNGAPGVEERLMMVYQGVNEGRISLTQ  
FVELVATRPKAVFGMFPQKGTIAVGSADIVLWDPEAEMVIEQTAMHNAMDYSSYEGHKV  
KGVPKTVLLRGKVIIVDEGSYVGEPTDGKFLKRRKYKQ

>P81006

MFDVIVKNCRLVSSDGITEADILVKDGVAAI SADTSDVEASRTIDAGGKFMVMPGVVDEH  
VHIIDMDLKNRYGRFELDSESAAVGGITTTIIEMPITFPPTTTLDADFLEKKKQAGQRLKVD  
FALYGGVPGNLPEIRKMH DAGAVGFKSMMAASVPGMFDVAVSDGELFEIFQEIAACGSVI  
VVHAENETIIQALQKQIKAAGGKDMAAYEASQPVFQENEAIQRALLLQKEAGCRLIVLHV  
SNPDGVELIHQAQSEGQDVHCESGPQYLNITTTDDAERIGPYMKVAPPVRS AEMNIRLWEQ  
LENGLIDTLGSDHGGHPVEDKEPGWKDVWKAGNGALGLETSLPMLTNGV NKGRLSLERL  
VEVMCEKPAKLFGIYPQKGTQVGSADLLILDLDIDTKVDASQFRSLHKYSPFDGMPVT  
GAPVLTVMVRGTVVAEKGEVLVEQGFQFVTRRNYEASK

>P34913

MTLRAAVFDLDGVLALPAVFGVLGRTEEALALPRGLLNDAFQKGGPEGATTRLMKGEITL  
SQWIPLMEENCRKCSETAKVCLPKNFSIKEIFDKAISARKINRPM LQAALMLRKKGFTTA  
ILTNTWLDDRAERDGLAQLMCELKMHFDFLIESCQVGMVKPEPQIYKFLDLTLKASPSEV  
VFLDDIGANLKPARDLGMVTILVQD TDTALKELEKVTGIQLLNT PAPLPTSCNP SDMSHG  
YVTVKPRVRLHFVELGSGPAVCLCHGFPE SWYSWRYQIPALAQAGYRVLAMD MKGYGESS  
APPEIEEYCM EVLCKEMVTFLDKLGLSQAVF IGHDWGGMLVWYMALFYPERVRAVASLNT  
PFIPANPNMSPLESIKANPVFDYQLYFQEPGVAEAELEQNL SRTFKSLFRASDES VL SMH  
KVCEAGGLFVNSPEEPSLSRMVTEEEIQFYVQQFKKSGFRGPLNWYRN MERNWKWACKSL  
GRKILIPALMVTAEKDFVLPQMSQH MEDWI PHLKRGHIEDCGHWTQMDKPTEVNQILIK  
WLDSDARNPPVVSKM

>P30147

MLRFSANLSMLFGEYDFLARFEKAAQCGFRGVEFMFPYDYDIEELKHV LASNKLEHTLHN  
LPAGDWAAGERGIACIPGEEEEFRDGVAAAIRYARALGNKKINCLV GKT PAGFSSEQIHA  
TLVENLRYAANMLMKEDILLIIEPINHF DIPGFHLTGTRQALKLIDDVGCCNLKI QYDIY  
HMQRMEGELTNTMTQWADKIGHLQIADNPHRGEPTGEINYDYLFKVIENS DYNWVGCE  
YKPQTTTEAGLRWMDPYR

>P0A8S1

MKRPDYRTLQALDAVIRERGFERRAAQKLCITQSAVSQR IKQLENMFGQPLLVRTVPPRPT  
EQGQKLLALLRQVELLEEEWLGDEQTGSTPLLLSLAVNADSLATWLLPALAPVLADSP IR  
LNLQVEDETRTQERLRRGEVVGAVSIQH QALP SCLVDKLGALDYLFVSSKPF AEKYFPNG  
VTRSALLKAPVVAFDHLDDMHQAFLQQNF DLPPGSVPCHIVNSSEAFVQLARQGTTCMI  
PHLQIEKELASGELIDLTPGLFQRRMLYWHRFAPESRMMRKVTDALLDYGHKVLQRD

>P16528

MVAPIPAKRGRKPAVATAPATGQVQSLTRGLKLEWIAESNGSVALTELAQQAGLPNSTT  
HRLLTMMQQQGFVRQVGELGHWAIGAHAFMVGSSFLQSRNLLAIVHPI LRNLMEESGETV  
NMAVLDQSDHEAIIIDQVQCTHLMRSAPIGGKLPMHASGAGKAF LAQLSEEQVTKLLHR  
KGLHAYTHATLVSPVHLKEDLAQTRKRGYSFDDEEHALGLRCLAACIFDEHREPFAAIS I

SGPISRITDDRVTEFGAMVIKAAKEVTLAYGGMR

>P41133

MKALSPVRCYEA VCCLSERSLAIARGRGKSPSTEEPLSLLDDMNHCSRLRELVPGVPR  
GTQLSQVEILQRVIDYILDQLQVLAEPAPGPPDGPLPIQTAELTPELVISKDKRSFCH

>P0A672

MNELVDTTEMYLRTIYDLEEEGVTPLRARIAERLDQSGPTVSQTVSRMERDGLLRVAGDR  
HLELTEKGRALAIAMRKHRLAERLLVDVIGLPWEEVHAEACRWEHVMSDEVERRLVKVL  
NNPTTSPFGNPIPGLVELGVGPEPGADDANLVRLTELPAAGSPVAVVVRQLTEHVQGDIDL  
ITRLKDAGVVPNARVTVETTPGGGVTVIPGHENVTLPHEMAHAVKVEKV

>O29610

MQYEVKPPENGEKIRYENGKLI VPDNPIIPYFEGDGIGKDVVPAAIRVLDAAADKIGKE  
VWVFQVYAGEDAYKLYGNYPDDTLNAIKEFRVALKGPLTTPVGGGYRSLNVTIRQVLDL  
YANVRPVYYLKGVPSPIKHPEKVN FVIFRENTEDVYAGIEWPRGSEEALKLIRFLKNEFG  
VTIREDSGIGIKPISEFATKRLVRMAIRYAIENNRKSVTLVHKGNIMKYTEGAFRDWGYE  
VAKQEFGEYCITEDELWDKYGGKQPEGKIVVKDR IADNMFQQILTRTDEYDVIALPNLNG  
DYLSDAAAALIGGLGIAPGSNIGDGIGVFEPVHGSAPKYAGQNKVNPTAEILTGALMFEY  
IGWKDASEMIKKAVEMTISSGIVTYDIHRHMGGTKVGTREFAEAVVENLQSL

>P39126

MAQGEKITVSNGLNVPNNPIIPFIEGDGTGPDINWAASKVLEAAVEKAYKGEKKITWKE  
VYAGEKAYNKTGEWLP AETLDVIREYFIAIKGPLTTPVGGGIRSLNVALRQELDLFVCLR  
PVRYFTGVPSPVKRPEDTDMVIFRENTEDIYAGIEYAKGSEEVQKLISFLQNELNVNKR  
FPETSGIGIKPVSEEGTSRLVRAAIDYAI EHGKRSVTLVHKGNIMKFTGAFKNWGYELA  
EKEYGDKVFTWAQYDRI AEEQKDAANKAQSEAEAAAGKII IKDSIADIFLQQILTRPNEF  
DVVATMNLNGDYISDALAAQVGGIGIAPGANIN YETGHAIFEATHGTAPKYAGLDKVNPS  
SVILSGVLLLEHLGWNEAADLVIKSMEKTIASKVVTYDFARLMDGATEVKCSEFGEELIK  
NMD

>P80046

MYEKLQPPSVGSKITFVAGKPVVPNDPIIPYIRGDGTGVDIWPATELVINAAIAKAYGGR  
EEINWFKVYAGDEACELYGT YQIFPEDTLTAIKEYGVAIKGPLTTPVGGGIRSLNVALRQ  
IFDLYTCVRPCRYYPGTPSPHKTP EKLDII VYRENTEDIYLGIEWAEGTEGAKKLIAYLN  
DELIP TTPALGKKQIRLD SGIGIKPISK TGSQRLVRRAILHAKRLPKAKQMVTLVHKGNI  
MKFTGEPFRDWGYELATTEFRAECVTERESWICGNKESNPDLTIEANAHMIDPGYDTLTE  
EKQAVIKQEVQVLNSIWESHGNGQWKEKVMVNDRIADSI FQQIQTRPDEYSILATMNLN  
GDYLSDAAAAVVGG LGMGPGANIGDSAAIFEATHGTAPKHAGLDRINPGSVILSGVMMLE  
FMGWQEAADLIKKGIGAAIANREVTYDLARLM EPKVDKPLK CSEFAQAIVSHFDD

>P33197

MPLITTETGKKMHVLEDGRKLITVIPGDGIGPECVEATLKVLEAAKAPLAYEVREAGASV  
FRRGIASGVPQETIESIRKTRVVLKGPLET PVGYGEKSANVTLRKLFE TYANVRPVREFP  
NVPTPYAGRGIDL VVVRENVEDLYAGIEHMQTPSVAQTLK LISWKGSEKIVRF AFELARA  
EGRKKVHCATKSNIMKLAEGTLKRAFEQVAQEY PDIEAVHIIVDNAAHQLVKRPEQFEVI  
VTTNMNGDILSDLT SGLIGGLGFAPSANIGNEVAIFEAVHGSAPKYAGKNVINPTAVLLS  
AVMMLRYLEEFATADLIENALLYTLEEGRVLTGDVVGYDRGAKTTEY TEAIIQNLGKTPR  
KTQVRGYKPFRLPQVDGAIAPIVPRSRRVVGVDV FVETNLLPEALGKALEDLAAGTPFRL  
KMISNRGTQVYPPTGGLTDLVDHYRCRFLYTGEGEAKDPEILDLVSRVASRFRWMHLEKL

QEFDGEPTKAQGED

>Q04467

MAGYLRVVRSLCRASGSGSAWAPAALTAPNLQEQPRRHYADKR I K V A K P V V E M D G D E M T R  
I I W Q F I K E K L I L P H V D V Q L K Y F D L G L P N R D Q T N D Q V T I D S A L A T Q K Y S V A V K C A T I T P D E  
A R V E E F K L K K M W K S P N G T I R N I L G G T V F R E P I I C K N I P R L V P G W T K P I T I G R H A H G D Q Y K  
A T D F V V D R A G T F K V V F T P K D G S G P K E W E V Y N F P A G G V G M G M Y N T D E S I S G F A H S C F Q Y A I  
Q K K W P L Y M S T K N T I L K A Y D G R F K D I F Q A I F E K H Y K T E F D K H K I W Y E H R L I D D M V A Q V L K S  
S G G F V W A C K N Y D G D V Q S D I L A Q G F G S L G L M T S V L V C P D G K T I E A E A A H G T V T R H Y R E H Q K  
G R P T S T N P I A S I F A W T R G L E H R G K L D G N Q D L I R F A Q T L E K V C V E T V E S G A M T K D L A G C I H  
G L S N V K L N E H F L N T S D F L D T I K S N L D R A L G Q Q

>P21954

MSMLSRRLFSTSRLAASFSAIKVQPVVELDGDDEMTRI I W D K I K K K L I L P Y L D V D L K Y Y D L  
S V E S R D A T S D K I T Q D A A E A I K K Y G V G I K C A T I T P D E A R V K E F N L H K M W K S P N G T I R N I L G  
G T V F R E P I V I P R I P R L V P R W E K P I I I G R H A H G D Q Y K A T D T L I P G P G S L E L V Y K P S D P T T A  
Q P Q T L K V Y D Y K G S G V A M A M Y N T D E S I E G F A H S S F K L A I D K K L N L F L S T K N T I L K K Y D G R F  
K D I F Q E V Y E A Q Y K S K F E Q L G I H Y E H R L I D D M V A Q M I K S K G G F I M A L K N Y D G D V Q S D I V A Q  
G F G S L G L M T S I L V T P D G K T F E S E A A H G T V T R H Y R K Y Q K G E E T S T N S I A S I F A W S R G L L K R  
G E L D N T P A L C K F A N I L E S A T L N T V Q Q D G I M T K D L A L A C G N N E R S A Y V T T E E F L D A V E K R L  
Q K E I K S I E

>Q9KKG2

MTSAQRKDDHVRLAIEQHNASHGRNQFDDVSFVHHALAGIDRPDVSLATSFAGISWQVPI  
YINAMTGGSEKTGLINRDLATAARETGVP I A S G S M N A Y I K D P S C A D T F R V L R D E N P N G F V  
I A N I N A T T T V D N A Q R A I D L I E A N A L Q I H I N T A Q E T P M P E G D R S F A S W P Q I E K I A A A V D I  
P V I V K E V G N G L S R Q T I L L L A D L G V Q A A D V S G R G G T D F A R I E N G R R E L G D Y A F L H G W G Q S T  
A A C L L D A Q D I S L P V L A S G G V R H P L D V V R A L A L G A R A V G S S A G F L R T L M D D G V D A L I T K L T  
T W L D Q L A A L Q T M L G A R T P A D L T R C D V L L H G E L R D F C A D R G I D T R R L A Q R S S S I E A L Q T T G  
S T R

>P46402

MNYTSFIFAFQLCII LCSSGYCQAMFFKEIEELKGYFNASNPDVADGGSFLVDILKNWK  
EESDKTIIQSQIVSFYLMKFENLKDDQRIQRSMDTIKEDMLDKLLNTSSSKRDDFLKLI  
QIPVNDLQVQRKAINELFKVMNDLSPRSNLKRKRKRSQNLFRGRRASK

>P01581

MSATTRVLVLQLCLMALSGCYCQGTLIESLES LN Y F N S S S M D A M E G K S L L L D I W R N W Q K  
D G N T K I L E S Q I I S F Y L R L F E V L K D N Q A I S N N I S V I E S H L I T N F F S N S K A K K D A F M S I A K F  
E V N N P Q I Q H K A V N E L I R V I H Q L S P E S S L R K R K R S R C

>P22301

MHSSALLCCLVLLTGVRASPGQGTQSENSCTHFPGNLPNMLRDLRDAFSRVKTFQMKDQ  
LDNLLLKESLLEDFKGYLGQCALSSEMIQFYLEEVMQAENQDPDIKAHVNSLGENLKT LR  
LRLRRCHRFLPCENKSKAVEQVKNAFNKLQEKGIYKAMSEFDIFINYLEAYMTMKIRN

>P17150

MLSVMVSSSLVLI V F F L G A S E E A K P A T T T I K N T K P Q C R P E D Y A T R L Q D L R V T F H R V K P T L  
Q R E D D Y S V W L D G T V V K G C W G C S V M D W L L R R Y L E I V F P A G D H V Y P G L K T E L H S M R S T L E S I  
Y K D M R Q C P L L G C G D K S V I S R L S Q E A E R K S D N G T R K G L S E L D T L F S R L E E Y L H S R K

>Q14005

MDYSFDTTAEDPWVRIISDCIKNLFSPIMSENHGHMPLQPNASLNEEEGTQGHDPDGTTPPKL  
DTANGTPKVYKSADSSTVKKGPPVAPKPAWFRQSLKGLRNRASDPRGLPDPALSTQPAPA  
SREHLGSHIRASSSSSSIRQRIRISSFETFGSSQLPDKGAQRSLQPSGEEAAKPLGKHEEG  
RFSGLLGRGAAPTLVPPQPEQVLSGSPAASEARDPGVSESPPPGRQPNQKTLPPGPDPL  
LRLSTQAEESQGPVLKMPQSQRARSFPLTRSQSCEETKLLDEKTSKLYSISQVSSAVMKS  
LLCLPSSISCAQTPCIPKEGASPTSSSNEDSAANGSAETSALDTGFSLNLSELREYTEGL  
TEAKEDDDGDHSSLQSGQSVISLLSSEELKKLIEEVKVLDEATLKQLDGIHVTILHKEEG  
AGLGFSLAGGADLENKVITVHRVFPNGLASQEGTIQKNEVLSINGKSLKGTTHHDALAI  
LRQAREPRQAVIVTRKLTPEAMPDLNSSTSDSAASASAASDVSVESTAEATVCTVTLEKMS  
AGLGFSLGEGGKSLHGDKPLTINRIFKGAASEQSETVQPGDEILQLGGTAMQGLTRFEAW  
NIIKALPDGPVTIVIRKSLQSKETTAAGDS

>Q16552

MTPGKTSLVSLLLLLSLEAIVKAGITIPRNP GCPNSEDKNFPR TVMVNLNIHNRNTNTNP  
KRSSDYNRSTSPWNLHRNEDPERYP SVIWEAKCRHLGCINADGNVDYHMNSVPIQQEIL  
VLRREPPHCPNSFRLEKILVSVGCTCVTPIVHVA

>Q96PD4

MVKYLLLSILGLAFLSEAAARKIPKVGHTEFFQKPESC PVPVGGSMKLDIGIINENQRVSM  
SRNIESRSTSPWNYTWTWDPNRY PSEVVQAQCRNLGCINAQKEDISMNSVPIQQETLVV  
RRKHQGCSVSFQLEKVLVTVGCTCVTPVIHHVQ

>Q9NPH9

MLVNFILRCGLLLVTL SLAIAKHKQSSFTKSCYPRG TLSQAVDALYIKA AWLKATIPEDR  
IKNIRLLKKKTKKQFMKNCQFQEQLLSFFMEDVFGQLQLQGCKKIRFVEDFHSLRQKLSH  
CISCASSAREMKSITRMKRIFYRIGNKGIYKAISELDILLSWIKKLESSQ

>P05113

MRMLLHLSLLALGAAYVYAIPT E IPTSALVKETLALLS THRTLLIANETLRIPVPVHKNH  
QLCTEEIFQGIGTLESQTVQGGTVERL FKNLSLIKKYIDGQKKKCGEERRRVNQFLDYLQ  
EFLGVMNTEWIIIES

>P39522

MGLLTKVATS RQFSTTRCVAKKLNKYSYIITEPKGQ GASQAMLYATGFKKEDFKKPQVGV  
GSCWWSGNPCNMHLLDLN NRCSQSIEKAGLKAMQFNTIGVSDGISMGTKGMRYSLQSREI  
IADSFETIMMAQHYDANIAIPSCDKNMPGVMAMGRHNRPSIMVYGGTILPGHPTCGSSK  
ISKNI DIVSAFQSYGEYISKQFTEEEREDVVEHACPGPGSCGMYTANTMASAAEVLGLT  
IPNSSSFP AVSKEKLAECDNIG EYIKKTMELGILPRDILTKEAFENAITYV VVATGGSTNA  
VLHLVAVAH SAGVKLSPDDFQRISDTTPLIGDFKPSGKYVMADLINVGGTQSVIKYLYEN  
NMLHGNTMTVTGDTLAERAKKAPSLPEGQEIIKPLSHP IKANGHLQILYGLAPGGAVGK  
ITGKEGTYFKGRARVFEEEGAFIEALERGEIKKGEKTVVIRYEGPRGAPGMP EMLKPS  
ALMGYGLGKDVAL L TDGRFSGGSHGFLIGHIVPEAAEGGPIGLVRDGD EIIIDADNNKID  
LLVSDKEMAQRKQSWVAPP RYTRGTL SKYAKLVSNASNGCVLDA

>Q04524

MDKPRHERQWAHGADLIVSQLEAQGVRQVFGIPGAKIDKVFD SLLDSSIRIIPVRHEANA  
AFMAAAVGRITGKAGVALVTS GPGCSNLI TGMATANSEGD PVVALGGAVKRADKAKLVHQ  
SMDTVAMFSPVTKYAVEVTASDALAEVVSNAFRAAEQGRPGSAFVSLPQDIVDGPASGST



LPASRAPQMGAAPDGAVIDSVAQAI AAAKNP I FLLGLMASQPENSRALHRHAGKKPYSGHQ  
HLSGAGAVNQDNFARFAGRVGLFNNQAGDRLLRQADLIICIGYSPVEYEPAMWNSGTATL  
VHIDVLPAYEERNYVPDIELVGDIAATLEKLAQR IEHRLVLTTPQAADILADRQRQRELLD  
RRGAQLNQFALHPLRIVRAMQDIVNSDVTLTVDMGSFHIWIARYLYSFRARQVMISNGQQ  
TMGVALPWAIGAWLVNPQRKVVSVSGDGGFLQSSMELETAVRLHANILHI IWVDNGYNMV  
AIQEQQKYQRLSGVEFGPVDKVFYAEAFGACGFAVESAEALEPTLRAAMDVDGPAVVAIP  
VDYRDNPLLMGQLHLSQIL

>P07342

MIRQSTLKNFAIKRCFQHIA YRNT PAMRSVALAQR FYSSSRYSASPLPASKRPEPAPS  
FNVDPLEQPAEPSKLAKKLRAEPDMDTSFVGLTGGQIFNEMMSRQNVDTVFGYPGGAILP  
VYDAIHNSDKFNFLPKHEQGAGHMAEGYARASGKPGVVLVTSFGPATTNVVTPMADAFAD  
GIPMVVFTGQVPTSAIGTDAFQEADVVGISRSCTKWNVMKSVEELPLRINEAFEIATSG  
RPGPVLVDLPKDVTAAILRNPIPTKTTLPSNALNQLTSRAQDEFVMQSINKAADLINLAK  
KPVLYVGAGILNHADGPRLLKELSDRAQIPVTTTLQGLGSFDQEDPKSLDMLGMHGCATA  
NLAVQNADLI IAVGARFDDRVTGNISKFAPEARAAA EGRGGI IHFEVSPKNINKVVQTQ  
IAVEGDATTNLGKMMSKIFPVKERSEWFAQINKWKKEYPYAYMEETPGSKIKPQTVIKKL  
SKVANDTGRHVIVTTGVGQHQMWA AQHWTWRNPHTFITSGGLGTMGYGLPAAIGAQVAKP  
ESLVIDIDGDASFNMTLTELSSAVQAGTPVKILILNNEEQGMVTQWQSLFYEHRYSHTHQ  
LNPDFIKLAEAMGLKGLRVKKQEELDAKLKEFVSTKGPVLLLEVEVDK KVPVLP MVAGGSG  
LDEFINFDPEVERQQTEL RHKRTGGKH

>P05791

MPKYRSATTTTHGRNMAGARALWRATGMTDADFGKPI IAVVNSFTQFVPGHVHLRDLGKLV  
AEQIEAAGGVAKEFNTIAVDDGIAMGHGGMLYSLPSRELIADSV EYMVNAHCADAMVCIS  
NCDKITPGMLMASLRLNIPVIFVSGGPMEAGKTKLSDQI IKLDDLVDAMIQGADPKVSDSQ  
SDQVERSACPTCGSCSGMFTANSMNCLTEALGLSQPGNGSLLATHADRKQLFLNAGKRIV  
ELTKRYEYQND ESALPRNIASKAA FENAMTLDIAMGGSTNTVLHLLAAAQEA EIDFTMSD  
IDKLSRKVPQLCKVAPSTQKYHMEDVHRAGGVIGILGELDRAGLLNRDVKNVLGLTLPQT  
LEQYDVMLTQDDAVKNMFRAGPAGIRTTQAFSQDCRWDTLDDDRANGCIRSL E HAYS KDG  
GLAVLYGNFAENGCI VKTAGVDDSILKFTGPAKVYESQDDAVEA I LGGKV VAGDVVIRY  
EGPKGGPGMQEMLYPTSFLKSMGLGKACALITDGRFSGGTSGLSIGHVSPEAASGSGIGL  
IEDGDLIAIDIPNRGIQLQVSDAE LAARREAQDARGDKAWTPKNRERQVSFALRAYASLA  
TSADKGAVRDKSKLGG

>P0AB80

MTTKKADYIWFNGEMVRWEDAKVHVMSHALHYGTSVFEGIRCYDSHKGPVFRHREHMQR  
LHDSAKIYRFPVSQSIDELMEACRDVIRKNNLTSAYIRPLIFVGDVGMGVNPPAGYSTDV  
IIAAFPWGAYLGAEALEQGIDAMVSSWNRAAPNTIPTAAKAGGNYLSSLLV GSEARRHGY  
QEGIALDVNGYISEGAGENLFEVKDGVLFTPPFTSSALPGITRDAI IKLAKELGIEVREQ  
VLSRESLYLADEVFMSGTAAEITPVRSDVGIQVGEGRCGPVTKRIQQAFFGLFTGETEDK  
WGWL DQVNQ

>P20839

MADYLISSGGTGYVPEDGLTAQQLFASADGLTYNDFLILPGFIDFIADEVDLTSALTRKIT  
LKTPLISSPMDTVTEADMAIAMALMGGIGFIHHCNCTPEFQANEVRKVKKFEQGFITDPVV  
LSPSHTVGDVLEAKMRHGFSGIPITETGTMGSKLVGIVTSRDIDFLAEKDHTTLLSEVMT  
PRIELVVAPAGVTLKEANEILQRSKKGLKPIVNDCELVAI IARTDLKKNRDYPLASKDS  
QKQLL CGAAVGTREDDKYRLDLLTQAGVDVIVLDS SQNSVYQIAMVHYIKQKYPHLQVI  
GGNVVTAQAQKNLIDAGVDGLRVGMGCGSICITQEVMACGRPQGTAVYKVAEYARRFGVP

IIADGGIQT VGHVVKALALGASTVMMGSLLAATTEAPGEYFFSDGVRLKKYRGMGSLDAM  
EKSSSSQKRYFSEGDVKVIAQGVSGSIQDKGSIQKFVPLYIAGIQHGCQDIGARSLSVLR  
SMMYSGELKFEKRTMSAQIEGGVHGLHSYEKRLY

>P0ADG7

MLRIAKEALT FDDVLLVPAHSTVLPNTADLSTQLTKTIRLNIPMLSAAMDTVTEARLAI  
LAQEGGIGFIHKNMSIERQAEEVRRVKKHESGVVTDPTVLPPTTLREVKELTERNGFAG  
YPVVTEENELVGIITGRDVRVFTDLNQPVSVYMPKERLVTVREGEAREVVLAKMHEKRV  
EKALVVDEFHLIGMITVKDFQKAERKPNACKDEQGRLRVGAAGVAGAGNEERVDALVAA  
GVDVLLIDSSHGHSEGLVQRIRETRAKYPDLQIIGGNVATAAGARALAEAGCSAVKVGIG  
PGSICTTRIVTVGVGPQITAVADAVEALEGTGIPVIADGGIRFSGDIAKAIAAGASAVMV  
GSMLAGTEESPGEIELYQGRSYKSYRGMGSLGAMSKGSSDRYFQSDNAADKLVPEGIEGR  
VAYKGRLEKIIHQMGGLRSCMGLTGCGTIDELRTKAEFVRI SGAGIQESHVHDVTITKE  
SPNYRLGS

>P0C0H6

MSNWDTKFLKKGYTFDDVLLIPAESHVLPNEVDLKT KLADNLT LNIP IITAAMDTV TGSK  
MAIAIARAGGLGVIHKNMSITEQAEEVRKVKRSENGVIIDPFFLTPEHKVSEAEELMQR  
RISGVPIVETLANRKLVGIIITNRDMRFISDYNAPISEHMTSEHLVTAAVGTDLETAERIL  
HEHRIEKLPLVDNSGRLSGLITIKDIEKVI EFPHAAKDEFGRLLVAAA VGTSDTFERA  
ALFEAGADAIVIDTAHGHSAGVLRKIAEIRAHFPNRTL IAGNIATAEGARALYDAGVDVV  
KVGIGPGSICTTRVVAGVGPQVTAIYDAAAVAREYGKTI IADGGIKYSGDIVKALAAGG  
NAVMLGSMFAGTDEAPGETE IYQGRKFKTYRGMGSIAMKKGSSDRYFQGSVNEANKLVP  
EGIEGRVAYKGAASDIVFQMLGGIRSGMGYVAGDIQELHENAQFVEMSGAGLIESHPHD  
VQITNEAPNYSVH

>P50097

MAKYNEPCHTFNEYLLIPGLSTVDCIPSNVNLSTPLVKFQKGGQSEINLKIPLVSAIMQ  
SVSGEKMAIALAREGGISFIFGSQSIESQAAMVHAVKNFKAGFVSDSNVKPDQTFADVL  
AISQRTTHNTVAVTDDGTPHGVLLGLVTRDYPIDLTQTETKVSMMTPFSKLVTAHQDT  
KLSEANKI IWEKKNALPIIDDDQHLRYIVFRKDYDRSQVCHNELVDSQKRYLVGAGINT  
RDFRERVPALVEAGADVLCIDSSDGFSEWQKITIGWIREKYGDVKVAGNIVDGEGRY  
LADAGADFIKIGIGGGSICITREQKIGRQATAVIDVVAERNKYFEETGIYIPVCSDBG  
IVYDYHMTLALAMGADFIMLGRYFARFEESPTRKVTINGSMKEYWGESSRARNWQRYD  
LGGKQKLSFEEGVDSYVPYAGKLLKDNVEASLNKVKSTMCNCGALTIPQLQSKAKITLVSS  
VSIVEGGAHDVIVKDRINDYHPK

>O69196

MTTPTLIVTPPSPPAPSYSANRVPQPSLMDKIKKIAA IASLILIGTIGFLALLGHLVGFL  
IAPQITIVLLALFITSLAGNALYLQKTANLHLYQDLQREVGS LKEINFMLSVLQKEFLHL  
SKEFATTSKDL SAVSQDFYSCLQGF RDNYKGFESLLDEYKNSTEEMRKLFSQE I IADLKS  
SVASLREEIRFLTPLAAEEVRR LAHNRESLTAAIEELKTIRDSL RDEIGQLS QLSR TLTSQ  
IALQRKESDLCSQIRETLSSPRKSASPSTKSS

>P55102

MPLLWLRGFL LASCIWIVKSSPTPGSEGHSAAPNCPS CALATLPKDV PNAQPEMVEAVKK  
HILNMLHLK KRPDVTQVPK AALLNAIRKLVHVGKVG ENGYVEIEDDIGRRAEMNELMEQT  
SEIITFAESGTARKTLHFEISKEGSDLSVVERAEVWLF LKVPKANRTRSKVTIRLLQQQK  
HPQGS SDTREEAEEADLMEERSEQLISEKVVDARKSTWHIFPVSSSIQRLLDQKSSLDI  
RIACDQCHETGASLVLLGKKKKKEEGEGK KKKDGGEAGAGVDEEKEQSHRPF LMLQARQS

EDHPHRRRRRGLCDGKVNICCKKQFFVFSFKDIGWNDWIIAPSGYHANYCEGECPSHIAG  
TSGSSLSFHSSTVINQYRLRGHNPFANLKSCCVPTKLRPMSMLYDDGQNI IKKDIQNMIV  
EECGCS

>Q04999

MDGLPGRALGAACLLLLVAGWLGPEAWGSPTPPPSPAAPPPPPPPGAPGGSQDTCTSCGG  
GGGGFRRPEELGRVDGDFLEAVKRHILSRLQLRGRPNITHAVPKAAMVTALRKLHAGKVR  
EDGRVEIPHLGDHASPGADGQERVSEIISFAETDGLASSRVRLYFFVSNEGNQNLFFVQ  
SLWLKLLPYVLEKGSRRKVRVKVYFQEQGHGDRWNVVEKKVDLKRSGWHTFPITEAIQ  
ALFERGERRLNLDVQCDSQCQLAVVPVFPDPEESHRRPFVVVQARLGDSTRHRIRKRGLE  
DGRTSLCCRQQFFIDFRLIGWNDWIIAPTGYGYNYCEGSCPAYLAGVPGSASSFHTAVVN  
QYMRGLNPGPVNSCCIPTKLSMSMLYFDDEYNIVKRDVPMNIVEECGCA

>P32361

MRLLRNMLVLTLLVCFVSSIIISCSIPLSSRTSRRQIVEDEVASTKKNFNFGVDKNINS  
PIAPRTEGLPNMKLSSYPTPNLLNTADNRRANKKGRRAANSISVPYLENRSNLNELSLS  
DILIAADVEGGLHAVDRRNGHI IWSIEPENFQPLIEIQEPSRLETYETLIEPFQDGNIIY  
YFNAHQGLQKPLSIRQLVSTSPHLKTNIVVNDSGKIVEDEKVTGSMRTIMYTINMLN  
GEIISAFGPGSKNGYFGSQSVDCSPEEKIKLQECENMIVIGKTI FELGIHSYDGASYNVT  
YSTWQQNVLDVPLALQNTFSKDGMCIAFPFRDKSLLASDLDFRIARWVSPTFFGIIVGLFD  
VFNDLRTNENILVPHFPNPGDHESISSNKVYLDQTSNLSWFALSSQNFPSLVESAPISRY  
ASSDRWRVSSIFEDETLFKNAIMGVHQIYNNEYDHLIYENYEKTNSLDTTHKYPLMIDSS  
VDTTDLHQNNEMNSLKEYMSPEDLEAYRKKIHEQISRELDEKNQNSLLLKFGSLVYRIIE  
TGVFLLLFLIFCAILQRFKILPPLYVLLSKIGFMPEKEIPIVESKSLNCPSSSENVTKPF  
DMKSGKQVVFEGAVNDGSLKSEKDNDDADEDEKSLDLTTEKTKRKRGRSRGGKGRKSRI  
ANIPNFEQSLKNLVSEKILGYSSGTVVVFQGSFQGRPVAVKRMLIDFCIALMEIKLLT  
ESDDHPNVIRYYCSETTDRFLYIALELCNLNLQDLVESKNVSDENLKLQKEYNPISLLRQ  
IASGVAHLHSLKIIHRDLKPNILVSTSSRFTADQQTGAENLRILISDFGLCKKLDGSGQS  
SFRTNLNPNPSTSGWRAPELLEESNNLQCQVETEHSRRHTVVSDFSFDYDPTKRRLTRS  
IDIFSMGCVFYIILSKGKHPFGDKYSRESNIIRGIFSLDEMCKLHRSLIAEATDLISQM  
IDHDPLKRPTAMKVLRHPLFWPKSKKLEFLLKVS DRLEIENRDPPSALLMKFDAGSDFVI  
PSGDWTVKFDKTFMDNLERYRKYHSSKMLDRLRALRNKYHHFMDLPEDIAELMGPVPDGF  
YDYFTKRFPNLLIGVYMIKVENLSDDQILREFLYS

>O31269

MKLPYLDYSATTPVDPRVAQKMCCLTMEGNFNGNPASRSHVFGWKAEEAVENARRQVAE  
LVNADPREIVWTSGATESDNLAIKGVAHFNASKGKHIITSKIEHKAVLDTTRQLEREGFE  
VTYLEPGEGLITPAMVAAALREDTILVSMHMVNNEIGTVNDIAAIGELTRSRGVLYHVD  
AAQSTGKVAIDLERMKVDLMSFSAHKTYGPKGIGALYVRRKPRVRLQAQMHGGGHERGMR  
SGTLATHQIVGMGEAFRIAREEMAAESRRIAGLSHRFHEQVSTLEEVYLNGSATARVPHN  
LNL SFNYVEGESLIMSLRDLAVSSGSACTSASLEPSYVLRALGRNDELAHSSIRFTFGRF  
TTEEEVDYAARKVCEAVGKLRRELSPLWDMYKDGVDLSKIEWQAH

>Q99312

MSSRYRVEYHLKSHRKDEFIDWVKGLLASPFVVLHAVSHEGDYNDLATTQRVRSQYADIF  
KDIEGLIKDKIEFDSRNMSSQDEIEDGASSQSLNILGQSRLNLLVPSIGTFFTELPLEQAF  
LWEDSQRAISARRMVAPSFNDIRHILNTAQIFHFKKQENLHNGKVLRLVTFDGDVTLYED  
GGSLVYTNPIPIYILKLLRCGINVGI VTAAGYDEAGTYENRLKGLIVALHDSIDIPVSQK  
QNLTIMGGESSYLFRYEDPEEDNFGFRQIDKEEWLLPRMKAWSLEDVEKTLDFAEARTLN  
RLRKRLNLPSEISIIIRKVRVAVGIVPGERYDEASKRQVPVKLDREQLLEEIVLTLQNTLESF

APSRRIQFSCFDGGSDVWCDIGGKDLGVRSLQQFYNPESP IQPSETLHVGDQFAPVGSAN  
DFKARLAGCTLWIASPQETVNYLHRLLETD

>P11018

MNGEIRLIPYVTNEQIMDVNELPEGIKVIKAPEMWAKGVKGNIKVAVLDTGCDTSHPD  
KNQIIGGKNFTDDDGGKEDAI SDYNGHGTHVAGTIAANDSNGGIAGVAPEASLLIVKVLG  
GENSGSQYEWIINGINYAVEQKVDII SMSLGGPSDVPELKEAVKNAVKNGLVVCAGNE  
GDGDERTEELSYPAAYNEVIAVGSVSVARELSEFSNANKEIDL VAPGENILSTLPNKKYG  
KLTGTSM AAPHVSGALALIKSYEEESFORKLSESEVFAQLIRRTLPLDIAKTLAGNGFLY  
LTAPDELAEKAEQSHLLTL

>P62617

MRIGHGFDVHAFGGEGPIIIIGGVRIPYEKGLLAHSDGDVALHALTDALLGAAALGDIGKL  
FPDTPAFK GADSRELLREAWRRIQAKGYTLGNVDVTIIAQAPKMLPHIPQMRVFI AEDL  
GCHMDDVNVKATTTEKLGFTGRGEGIACEAVALLIKATK

>Q8RQP5

MRIGYGEDSHRLEEGRPLYLCGLLIPSPV GALAHSDGDAALHALTDALLSAYGLGDIGLL  
FPDTPRWRGERSEVFLREALRLVEARGAKLLQASLVLTLD RPKLGPHRKALVDSL S RLL  
RLPQDRIGLTFK TSEGLAPSHVQARAVVLLDG

>Q9UTC6

MSVFRRSVQCVGLPSILAQRSSLLARPANLQFLKTNSK FVPQVTANVSRRMYHKNVLD  
HYNNPRNVGTL PKGDPDVGIGLVGAPACGDVMRLAIRV NKDGVIEDVKFKTFGCGSAIAS  
SSYVTTMVKGMTLEEASKIKNTQIAKELCLPPVKLHCSMLAEDA IKS AVKHYRSKQLTPV  
GTTAGAI ESATA

>Q9BY32

MAASLVGKKIVFVTGNAKKLEEVVQILGDKFPCTLV AQKIDLPEYQGE PDEISIQKCQEA  
VRQVQGPVLVEDTCLCFNALGGLPGPYIKWFLEK LKPEGLHQLLAGFEDKSAYALCTFAL  
STGDPSQPVR LFRGRTSGRIVAPRGCQDFGWDP CFQPDGYEQTYAEMPKA EKNAVSHRFR  
ALLELQ EYFGSLAA

>P29995

MSDKMSSFLYIGDIVSLYAEGSVNGFISTLGLVDDRCV VHP EAGDLTNPPKKFRDCLFKV  
CPMNRYS AQKQYWKAKQAKQGNHTEAALLKKLQHAAELEQKQNESEN R KLLGEIVKYSKV  
IQLLHIKSNKYLT VNKRLPALLEKNAMRVSLDAAGNEGSWFYIHPFWKLRSEGDNI VVGD  
KVVLM PVNAGQPLHASNV ELLDNPGCKEVNAVNCNTSWKITL F MKFSSYREDVLKGGDVV  
RLFHAEQEKFLTCDDYEKKQHIFLRTTLRQSATSATSSKALWEIEVVHHDPCRGGAGQWN  
SLFRFKHLATGN YLAAELNPDYRDAQNEGKTVRD GELPTS KKKHQAGEKIMYTLVSVPHG  
NDIASLFELDATT LQRADCLVPRNSYVRLRHLCTNTWVTSTSIPI DTEEERPVM LKIGTC  
QTKEDKEAFAIVCVPLSEVRDLDFANDANKVLATTVKKLENGSITQNERRFVTKLLEDLI  
FFVADV TNNGQDVL DVVITKPNRERQKLMREQNILAQVFGILKAPFKEKAGEGSMLRLED  
LGDQRYAPYKYVLR L CYRVL RHSQQDYRKNQEYI AKNFCVMQSQIGYDILAEDTITALLH  
NNRKLLEKHITAKEIETFVSLLRNREPRFLDYLSDL CVSNSTAIPVTQELICKFMLS PG  
NADILIQTKLVSMQVENPMESSILPDDIDDEEVWLYWIDSNKEPHGKAIRHLAQEAREGT  
KADLEVLTYRYQLNLFARMCLDRQYLAINQISTQLSVDLILRCV SDES L PFDLRASF CR  
LMLHMHVDRDPQESVVPVRYARLWTEIPTKITIHEYDSITDSSRNDMKRKFAL TMEFVEE  
YLKEVVNQPFPGDKEKNKLTFEVVHLARNLIYFGFY SFSELLRLTRTL LAILDIVQAPM  
SSYFERLSKFDG SNNVMRTIHG VGEMMTQMVL SRGSIFPVSWPDAQPSVHPSKQASPG E

QEDVTVM DTKLVIE IILQF ILSVRLDYR I SYMLS IYKKEFGENDGNGDPSASGTPETLLP  
SALVPDIDEIAAQAETMFAGRKEKTPVQLDDEGGRTFLRVLIHLIMHDYAPLLSGALQLL  
FKHFSQRAEVLQAFKQVQLLVSNQDQVDNYKQIKADLDQLRLTVEKSELWVEKSGSYENG  
MGEQAKGGEANEESNLLSPVQDGAKTPOIDSNGMNYRIVKEILIRLSKLCVQNKKCR  
NQHQRLLNMGAAHSVVDLLQIPYEKTDEKMNEVMDLAHTFLQNFRCRGNPQNQVLLHKHL  
NLFLTPGLLEAETMRHIFMNNYHLCNEISERVVQHVFVHCIEETHGRHVEYLRFLQTIKAD  
GKYVKKCQDMVMTTELINGGEDVLIIFYNDRASFPI LLNMMC SERARGDESGPLAYHITLVE  
LLAACTEGKNVYTEIKCNLLPLDDIVRVVTHDDCIPEVKIAYVNFVNHCVYDTEVEMKE  
IYTSNHIWKL FENFLVDMARVCNTTTDRKHADTFLERCVTE SVMNIVSGFFNSPFSNST  
SLQTHQPVFIQLLQSAFRIYNTWPNPAQKASVESCIRALAEVAKNRGIAIPVDLDSQVN  
TLFMKNHSSTVQRAAMGWRLSARSQPRFKEALGGPAWDYRNIIEKLQDVVASLEQQFSPM  
MQAEFSVLVDVLYSPELLEFPEGSDARIRCGAFMSKLINHTKKLMEKEEKLCKIKILQTLRE  
MLEKKDSFMEESSTLRKILLNRYFKGDHSGVNGPLSGAYAKTAQVGGGFTGQDADKTGI  
SMSDIQCLLDKEGASELVIDVIVNTKNDRIFSEGILLGIALLEGGNTQTQNSFYQQLHEQ  
KKSEKFFKVLYDRMKAQKEIRSTVTVNTIDLGSKKREEDSDLMALGPRMRVDRSSHLK  
EGMKQGLTEASSATSKAYCVYRREMPDIDTMCPGQEAGSAEKSAAEVTMSPAITIMRP  
ILRFLQLL CENHNRELQNFLRNQNNKTNYNLVCE TLQFLDCICGSTTGGLGLLGLY INEK  
NVALVNQTL ESLTEYCQGPCHENQTCIATHESNGIDI I IALILSDINPLGKYRMDLVLQL  
KNNASKLLLAIMESRHDSENAERILFNMRPKELVDVMKNAYNQGLECNHGDEEGDDGVS  
PKDVGHNIYI LAHQLARHNKLLQQLKPGSDPEEGDEALKYYANHTAQIEIVRHDR TMEQ  
IVFPVPNICEFLTRESKYRVFNTTERDEQGSKVNDFFQQTEDLYNEMKWQKKIRNNPALF  
WFSRHSISLWGSISFNLA VFINLAVALFYFPGDDGDEGTLSPFLSALLWVAVAICTSMLFF  
FSKPVGIRPFLVSIMLRSIYTI GLGPTLILLGAANLCNKIVFLVSFVGNRGTFTRGYRAV  
ILDMAFLYHVAYVLCMLGLFVHEFFYSFLLFDLVYREETLLNVIKSVTRNGRSIILTAV  
LALILVYLF SIIIGFLFLKDDFTMEVDRLKNRTPVTGNDGVPMTLTSMLGTCPKENCSP  
IPSSNAAGEGGEDIERTCDTL LMCIVTVLNQGLRNGGGVGDVLR RPSKDEPLFAARVY  
DLLFFFIVIIIVLNLIFGVIDTFADLRSEKQKKEKILKTTCFICGLERDKFDNKTVSFE  
EHIKSEHNMWHYLYFIVLVKVKDPTEYTGPE SYVAQMI TEKNLDWFPRMRAMSLVSNEGD  
SEQNEIRNLQEKLESTMSLVKQLSGQLAELKEQMTEQRKNKQRLGFLGSNTPHENHHMP  
H

>P29993

MGDNIIGSASFLHLGDIVSLYAEGSVCGFLSTLGLVDDRTVVCPEAGDLSCPPKKFRDCL  
IKICPMNRYSAQKQFWKAQKQSASSNTDPNLLKRLHHA AEIEKKQNETENKLLGTSIQY  
GRAVVQLLHLKSNKYLTVNKRLPSLLEKNAMRVYLDANGNEG SWFYIKPFYKLR SIGDYV  
VVVGDKVILSPVNADQONLHVAANYELPDNPGCKEVNVLNSSTSWKISL FMEHKENQEHI  
LKGGDVVRLFHAEQEKFLTMDEYKKQYHVFLRTTGRTSATAATSSKALWEIEVVQHDSR  
GGAGDWNLSYRFKHLATGHYLA AEAEIDVSAGAMSATSASGHDHLHGDCSKDSGLSCSTM  
NSTINDKPKGKQYRLVSV PYSADIASVFLV DATTMARPDSLVPQSSYVRLQHICSN TWVH  
ATSIPIDADDDKPVMSMVCCSPIKEDKEAFALIPVSPVEVRDLDFANDACKVLATVTSKL  
DNGISISINERRALISLLQDIVYFIAGMENEQNKTKALEFTIKNP IRDRQKLLREQYILKQ  
LFKILQGP FQEHTAGDGPFLRLDELSDPKNSPYKNI FRLCYRILRLSQQDYRKNQEYIAK  
HFGLMQQIGYDILAEDTITALLHNNRKLLEKHITAAE IETFVGLVRKNMHNWDSRFLDY  
LSDLCVSNRKAIAVTQELICKSVLSDKNKDIL IETQVKALRTGSGPVRCYKGNSEDVCLA  
TLAEDPGDDEDRSDVQSTSTTTT WDSASLNEDDGTPTSTGDKYEIHLKWTGQPTSRS MADL  
ASCDGGELEAAIILNYYRHQLNLF SNMCLNRQYLALNELSPRLDIDLILKCMSDETMPYEL  
RASFCRLMLHLHVDRDPQEPVTPVKYARLWSEIPSKMSIQDYDGKNQQPDQNKQACRAK  
NTTIAFVENYLCNVATKVWLF TQEQNKLTFEVVKLARDLIYFGFY SFDLLRLTKTLLS  
ILDVSDTSSGEFASTDIDSVEEETNAEAE GGLRSIGDINTVMTSLALG SVGQAI AAPT  
ISLQQRKSVS QLMKEYPLVMDTKLKIIE IILQFILDVRLDYRISCLLSIFKREFDESEVAA

SAASNEASQQQSQQQEPQTPGSSNETDPLDSAESVAAGAAAAAATTARQKNIDLESIGVQ  
AEGIFDCERSDAANLDLDGQGGRTFLRVLLHLIMHDYAPLVSGALHLLFRHFSQRQEVLO  
AFRQVQLLVSDSDVESYKQIKSDLDILRQSVEKSELWVYKAKATDELGATDAGGDAVSLE  
YNAALSQEQRNEYRKVKEILIRMNKFCVTASGPGSVVKPRKHEQRLLRNVGVHTVVLDDL  
QNPYDEKDDDELKELMCLAHEFLQNFCLGNQQNQVLLHNHLDFLNPGLILEAKTVCAIFK  
DNLALCNEVTDKVVQHFVHCIEIHGRHVAYLQFLQTVVAAENQFIRRCQDMVMQELINS  
EDVLFVYNDKGSFNHFVQMMQQMLGMEKLSDDSPKLYHVELVKLLACCTMGKNVYTEIK  
CNNLLSLDDIVTIIICHPKCMPEVKEAYVDFLNHCYIDTEVEMKEIYASGHMWSLFEKSFL  
VDINQLITNPAAASNKTLQAYVLNGVTNLLGSFFASPFSDQSAIVQSRQLIFVQLLQAAH  
RITQCRWLSLGRDFNVENCIRTLTESAKMRSIALPPELEQQVATMSKKTAMLTRQTTKWL  
LASKQPKYEAQQAASLMRWDRSIIIEGLQDIVSLLLEDQLKPVVEAELSLLVDILYRSELLF  
PAGTEARKRCESGGFIRKLIKHTEKLLLEEKEERMVVKVLRTRLREMAIDVNYGEKGDALR  
QTLRLRYFQTKSTPRLPEDEVPLLAAPLMDPAKQNHVTHGPGAKYLQRAGKTLHEMQNH  
LDREGASDLVVELVIKSVHSPNIFVEAVELGIALLEGGNPIIQKGMFQKFLSDDLNQAFF  
KVFFEKMKDAQQEIKSTVTVNTTDIAAKAHEHKQDTNLELDDKIARKHGLKSNGVVITEEL  
KRELHNAGLATARAYGNARNIHSGEESSAISVNSPLEDILAEEKLEKHKDSRDQRNQLSNK  
VLVMQPIILRFLQLLCEHNPDQMQLLRNQNNKTNNNLVSETLMFLDCICGSTTGGLGLLG  
LYINEHNLALINQTLREALTEYCQGPCHENQNCIATHE SNGLDIITALILNNINPLGENRM  
DLVLELKNNAKLLLAIMESRGDSENAERILYNMNPQQLVEVACKAYHQEELIDEQDDGD  
EPDAGSDDDDATVSPREVGHNIIYLCHQLAQHNKELAGLLKASEDPQSASFDAKTSQALM  
YYATHTAQIEIVRNDRTLEQIVFPIPEICEYLTDTKIKILNTAERDDQGSKLADFFDKA  
EEMFNEMKWQKLLRSQPLLFWISSYMSLWSNIFNCVVVINMIVAFFYFPDNTVPELSSH  
ISLLFWIITIFSLVIVLALPRESGIRTFIGSVILRFIFLLGPESTLCLLGVVTVTLKSVH  
IVSIMGNKGTLEKQLIKIITDFQLLYHCIIYAFCFGLIFHPFFYSLLLFDVVYREETLV  
NVIRSVTRNGRSIVLTAVLALILVYLFSSIIIGYMFKDDFLVSVDFEEQDNAPPPSVPLTL  
SVPVSGDSCSAPDDLGNCAAKEVAPPSAGGGEVKERSCDSLVMCIVTTLNQGLRNGGGI  
GDILRAPSSKEGLFVARVIYDLLFFFIVIIIVLNLIFGVIIDTFADLRSEKQKKEAILKT  
TCFICSLNRSADFNDKTVSFEHNIKSEHNMWHYLYFIVLVKVKDPTEFTGPESYVYAMVKA  
GILEWFPRLRAMSLAAVDADGEQIELRSMQAQLLDTQLLIKNLSTQLHELKDHMTEQRKQ  
KQRLGLLNTTANSLLPFQ

>Q27546

MPKKIILDCDPGLDDAVAILLAHGNPEIELLAITTVVGNQTLAKVTRNAQLVADIAGITG  
VPIAAGCDKPLVRKIMTAGHIGESGMGTVAYPAEFKNKVDERHAVNLIIDLVM SHEPKT  
ITLVPTGGLTNIAMAARLEPRIVDRVKEVVLMMGGGYHEGNATSVAEFNIIDPEAAHIVF  
NESWQVTMVGDLTHQALATPPIILQRVKEVDNTPARFMLEIMDYTKIYQSNRYMAAAAV  
HDPCAVAYVIDPSVMTTERVPVDIELTGKLTGMLTVADFRNPRPEHCHTQVAVKLD FEKF  
WGLVLDALERIGDPQ

>P12007

MATAVRLLGRRVSSWRLRPLPSPLAVPQRAHSMLPVDDDINGLNEEQQLRHTISKFVQE  
NLAPKAQEIDQSNDFKNLREFWKQLGSLGLVGITAPVQYGGSGLYLEHVLVMEEISRAS  
AAVGLSYGAHNSLNCINQIVRNGNEAQKEKYLPKLISGEFIGALAMSEPNAGSDVVSMLK  
AEKKGDHYVLNGNKFWITNGPDADVLVVYAKTDLTAVPASRGITAFIVEKDMPGFSTSKK  
LDKLGMRGNTCELVFEDCKVPAANILSQESKGVYVLMGSLDLERLVLGGPLGIMQAVL  
DHTIPYLHVREAFGQKIGQFQLMQGMADMYTRLMACRQYVYNVARACDEGHITAKDCAG  
VILYTAECATQVALDGIQCLGGNGYINDFPMGRFLRDAKLYEIGGGTSEVRRLLVIGRAFN  
ADFR

>Q9PTT2

MKGLVIFFFCLFYGCHVAGATGKTIMLFPQKTDYVTLKPTERVLNQITVCLKSYTELIK  
EHSLSFLAMQGGSKDNTLLIYPYPPNNISISIHNEIYFKVDPEVLQWKRTCVTWDSKTG  
LLQLWINGKLYPRRITKSRSPIGPQISVILGQEQDSYGGSFQINQAFVGMESDQVNVWDYV  
LPPENIKAYFSDDYTLDGNFYSDWGGNYTINGLIIVLNRNQFIPKL

>P79703

MSTKMEQPFYHDDSFLVGYGHNDAAALHDYKQLKQSMNLNLTEPYRNLKSDLYHTSGADSG  
SLKLASPELERLI IQTSNGVLTTPTPGQYLYSRGITDEQEGFAEGFVKALDDLHKMFQMP  
PPNVSIGAGGVTTTSTTASVFGSSLQSEPPYITLNAYCPAPSHPSTTISYLPPhVQSQH  
PENTHGFQHSGLVLPQRYVPLKEEPQTVPMHSSDCSPPTSPIDMENQERIKAEKRLRNR  
LAATKCRKRKLERISRLEEKVKVLKNDNAGLSNTASVLRDQVAQLKQKVLRHMNSGCQLM  
LTSKMEAF

>P0A796

MIKKIGVLTSGGDAPGMNAAIRGVVRSALTEGLEVMGIYDGYLGLYEDRMVQLDRYSVSD  
MINRGGTFLGSARFPEFRDENIRAVAIENLKKRGIDALVVIGGDGSYMGAMRLTEMGFPC  
IGLPGTIDNDIKGTDYTI GFF TALSTVVEAIDRLRDTSSSHQRISVVEVMGRYCGDLTLA  
AAIAGGCEFFVVPEVEFSREDLVNEIKAGIAKGGKHAIVAITEHMCDVDELAHFIEKETG  
RETRATVLGHIQRGGSPVPYDRILASRMGAYAIDL LLAGYGGRCVGIQNEQLVHHDIDA  
IENMKRPFKGDWLDCAKKLY

>P21777

MKRIGVFTSGGDAPGMNAAIRAVVRQAHALGVEVIGIRRGYAGMIQGEMVPLGVRDVANI  
IQRGGTILLTARSQEFLETEGRAKAYAKLQAAGIEGLVAIGGDGTFRGALCLVEEHGMPV  
VGVPGTIDNDLYGTDYTI GFD TAVNTALEAIDRIRD TAASHERVFFIEVMGRHAGFIALD  
VGLAGGAEVI AVPEEPVDPKAVAEVLEASQRRGKKSSIVVVAEGAYPGGAAGLLAAIREH  
LQVEARVTVLGHIIQRGGSP TAKDRILASRLGAAAVEALVGGASGVMVGEVEGEVDLTPLK  
EAVERRKDINRALLRLSQVLAL

>P00512

MKRIGVLTSGGDSPGMNAAIRSVVRKAIYHGVEVYGVYHGYAGLIAGNIKKLEVGDVGD I  
IHRGGTILYTARCFEFTTEEGQKKGIEQLKKHGIEGLVVIGGDGSYQGAKKLTEHGFPCV  
GVPGTIDNDIPGTDFTIGFD TALNTVIDAIDKIRD TATSHERTYVIEVMGRHAGDIALWS  
GLAGGAETILIP EADYDMNDVIARLKRGERGKKHSIIIVAEGVGSVDFGRQIQEATGF  
ETRVTVLGHVQRGGSP TAFDRVLASRLGARAVEL LLEGGKGGRCVGIQNNQLVDHDAEAL  
ANKHTIDQRMYSKELSI

>P80019

MKRIGILTSGGDAPGMNAAVRAVTRVAIANGLEVFGIRYGFAGLVAGDIFPLESEDVAHL  
INVSFTFLYSARYPEFAEEEGQLAGIEQLKKHGIDAVVVIGGDGSYHGALQLTRHGFNSI  
GLPGTIDNDIPYTDATIGYDTACMTAMDAIDKIRD TASSHHRVFI VNMGRNCGDIAMRV  
GVACGADAIVIPERPYDVEEIANRLKQAQESGKDHGLVVVAEGVMTADQFMAELKKYGDF  
DVRANVLGHMQRGGTPTVSDRVLASKLGSEAVHLLLEGGKGLAVGIENGVKVTSHDILDLF  
DESHRGDYDLLKLNADLSR

>P47857

MTHEEHHAAKTLGIGKAI AVLTSGGDAQGMNAAVRAVVRVGI FTGARVFFVHEGYQGLVD  
GGEHIREATWESVSMMLQLGGTVIGSARCKDFREREGRLRAAHNLVKRGITNLCVIGGDG  
SLTGADTFRSEWSDLLNDLQKDGKITAEEATKSSYLNIVGLVGSIDNDFCGTDMTIGTDS  
ALHRIVEIVDAITTTAQSHQRTFVLEVMGRHCGYLALVTSLSGADWVFIPECPPDDDWE

EHLCRRLSETRTRGSRLNIIIVAEGAIDKNGKPIITSEDIKNLVVKRLGYDTRVTVLGHVQ  
RGGTPSAFDRILGSRMGVEAVMALLEGTPDTPACVVVSLSGNQAVRLPLMECVQVTKDVTK  
AMDEKRFDEAIKLRGRSFMNNWEVYKLLAHVRPPVSKGGLHTVAVMNVGAPAAAGMNAAVR  
STVRIGLIQGNRVLVVHDGFEGGLAKGQIEEAGWSYVGGWTGQGGSKLGTKRTLPKKNLEQ  
ISANITKFNIQGLVIGGFEEAYTGGLELMEGRKQFDELCPFVVIPATVSNNVPGSDFSI  
GADTALNTICTTCDRIKQSAAGTKRRVFI IETMGGYCYLATMAGLAAGADAAYIFEEPF  
TIRDQLQVNVEHLVQKMKTTVKRGLVLRNEKCNENYTTDFIFNLYSEEGKGFDSRKNVLG  
HMQQGGSPTPFDRNFATKMGAKAMNWMGKIKESYRNGRIFANTPDSGCVLGMRRKRALVF  
QPVTTELKDQTDFFEHRIPKEQWWLKLRLPILKILAKYEIDLDTSDHAHLEHISRKRSGEAAV

>Q79PF6

MLSQIAICIWVESTAILQDCQRALSADRYQLQVCESGEMLLEYAQTHRQIDCLILVAAN  
PSFRAVVQQLCFEGVVPAIVVGDRESDPDEPAKEQLYHSAELHLGIHQLEQLPYQVDA  
ALAEFLRLAPVETMADHIMLMGANHDPPELSSQQRDLAQRLQERLGYLGVYYKRDPRFLR  
NLPAYESQKLHQAMQTSYREIVLSYFSPNSNLNQSIDNFVNMAFFADVPTKVVEIHMEI  
MDEFACKLRVEGRSEDILLDYRLTLIDVIAHLCEMYRRSIPRET

>Q79PF5

MSPRKTYILKLYVAGNTPNSVRALKTLKNILEVEFQGVYALKVIDVLKNPQLAEEDKILA  
TPTLAKVPLPVRRIIGDLSDREKVLIGLDLLYGELQDSDDF

>Q79PF4

MTSAEMTSPNNNSEHQAIAMRTMIEGFDDISHGGLPIGRSTLVSGTSGTGKTLFSIQFL  
YNGIIEFDEPGVVFVTFEETPQDI IKNARSFGWDLAKLVDEGKLFILDASPDPEGQEVVGG  
FDLSALIERINYAIQKYRARRVSDSVTSVFQQYDASSVVRRELFRLVARLKQIGATTVM  
TTERIEEYGPARYGVVEEFVSDNVVILRNVLLEGERRRRTLEILKLRGTSHMKGEYPFTIT  
DHGINIFPLGAMRLTQRSSNVRVSSGVVRLDEMCGGGFFKDSIILATGATGTGKTLVSR  
FVENACANKERAILFAYEESRAQLLRNAYSWMDFEEMERQNLKIVCAYPESAGLEDHL  
QIIKSEINDFKPARI AIDSLSALARGVSNNAFRQFVIGVTGYAKQEEITGLFTNTSDQFM  
GAHSITDSHISTITDTIILLQYVEIRGEMSRAINVFKMRGSHDKAIREFMISDKGPDIK  
DSFRNFERIISGSPTRITVDEKSELSRIVRGVQEKGPES

>Q9XBQ8

MINRRYELFKDVSDADWNDWRWQVRNRIETVEELKKYIPLTKEEEEGVAQCVKSLRMAIT  
PYYLSLIDPNPNPVRKQAIPTALELNKAAADLEDPHEDTDSVPVGLTHRYPDRVLLL  
ITDMCSMYCRHCTRRRFAGQSDSMPMERIDKAIDYIRNTPQVRDVLLSGGDALLVSDET  
LEYIIAKLREIPHVEIVRIGSRTPVVLVLPQRITPELVNMLKKYHPVWLNTHFNHPNEITEE  
STRACQLLADAGVPLGNQSVLLRGVNDVCVHMKELVNKLVKIRVRPYYIYQCDLSLGLH  
FRTPVSKGIEIEGLRGHTSGYCVPTFVVVDAPGGGKTPVMPNYVISQSHDKVILRNFEG  
VITTYSEPINYTPGCNCDVCTGKKKVHKVGVAGLLNGEGMALEPVGLERNKRHVQE

>P05058

MNGPIIMTREERMKIVHEIKERILDKYGDDVKAIGVYGSGLGRQTDGPYSDIEMMCMVSTE  
EAEFSHEWTTGEWKVEVNFDFSEEILLDYASQVESDWPLTHGQFFSILPIYDSGGYLEKVY  
QTAKSVEAQKFHDAICALIVEELFEYAGKWRNIRVQGPFTFLPSLTVQVAMAGAMLIGLH  
HRICYTTASAVLTEAVKQSDLPSPGYDHLQCFVMSGQLSDSEKLLLESLENFWNGIQEWTER  
HGYIVDVSKRIPF

>Q12657

MSTNITFHASALTRSERTELNRQGLTIWLTGLSASGKSTLAVELEHQLVRDRRVHAYRL



DGDNIRFGLNKDLGFSEADRNNENIRRIAIEVAKLFADSNSIAITSFISPYRKDRDTARQLH  
EVATPGEETGLPFVEVYVDVPVEVAEQRDPKGLYKKAREGVIKEFTGISAPYEAPANPEV  
HVKNYELPVQDAVKQIIDYLDTKGYLPAKKE

>P23902

MHAHAHALGLRVPPAFPRRRARPRRRPAAAVLATSAAPQRETDPKRKRVVITGMGLASV  
FGSDVDTFYDRLLAGESGVGPIDRFDASSFPTRFAGQIRGFSSEGYIDGKNDRRLDDCIR  
YCILSGKKALESAGLGAGSDAHVKLDVGRAGVLVGTGMGGLSVFSDGVQNLIEKGYRKIS  
PFFIPYAITNMGSAALLAIDVGFMPNYSISTACATSNYCFYAAANHIRRGEADIIVAGGT  
EAAIIPIGLGGFVACRALSQRNDDPITACRPWDKERDGFVMGEGAGVLVMESELEHAMKRD  
APIIAEYLGAVNCDAYHMTDPRADGLGVSSCITMSLRDAGVAPEEVNYINAHATSTLAG  
DLAEVRAIKQVFKNPSEIKINSTKSMIGHCLGAAGGLEAIATIKSITTGWVHPTINQFNP  
EPEVDFDTVANEEKQHEVNVGISNSFGFGGHNSVVVFAPFKP

>Q8L3X9

MATSNLRRHLSASRLRLNRFISTSSSYHSHRRVVVTGLGMVTPLRGVETTWRRLIDGEC  
GIRGLTLDLKMKSFDEETKLYTFDQLSSKVAAFVYPYGSNPGEFDEALWLNSKAVANFIG  
YAVCAADEALRDAEWLPTEEEKERTGVSIGGGIGSICDIVEAAQLICEKRLRRLSPFFI  
PKILVNMAAGHVSMKYGFQGNHAAVTACATGAHSIGDATRMIQFGDADVMVAGGTESSI  
DALSVAGFSRSLSTKFNSSPQEASRPFDCCDRDGFVIGEGSGVIVLEEYEHAKRRGAKI  
YAELCGYGMGSDAHHITQPPEDGKGAVLAMTRALRQSGLCPNQIDYVNAHATSTPIGDAV  
EARAIKTVFSEHATSGTLAFSSSTKGATGHLLGAAGAVEAIFSIILAIHHGVAPMTLVNKNP  
DPIFDKRFMPLTTSKKMLVRTAMSNSFGFGGTNASLLFASI

>P0AB74

MSIISTKYLQLQDAQANGYAVPAFNIHNAETIQAILLEVCSMRSPVILAGTPGTFKHIALE  
EIIYALCSAYSTTYNMPALHLHDHESLDDIRRKVHAGVRSAMIDGSHFPFAENVKLVKSV  
VDFCHSQDCSVEAELGRLGGVEDDMSVDAESAFLTDPQEAKRFVELTGVDLAVAIGTAH  
GLYSKTPKIDFQRLAEIREVVVDVPLVLHGASDVPDEFVRRTIELGVTKVNVATELKIIFA  
GAVKAWFAENPQGNDRPYMRVGMAMKEVVRNKINVCGSANRISA

>P0AB77

MRGEFYQQLTNDLETARAEGLFKEERIITSAQQADITVADGSHVINFCANNYLGLANHPD  
LIAAAKAGMDSHGFGMASVRFICGTQDSHKELEQKLA AFLGMEDAILYSSCFDANGGLFE  
TLLGAEDAII SDALNHASIIDGVRLCKAKRYRYANNDMQELEEARLKEAREAGARHVLIAT  
DGVFMSMDGVIANLKGVCIDLADKYDALVMVDDSHAVGFVGENGRGSHEYCDVMGRVDIITG  
TLGKALGGASGGYTAARKEVVEWLRQRSRPYLFSNSLAPAIVAASIKVLEMVEAGSELRD  
RLWANARQFREQMSAAGFTLAGADHAIIPVMLGDAVVAQKFARELQKEGIYVTGFFYPVV  
PKGQARIRTQMSAAHTPEQITRAVEAFTRIGKQLGVIA

>Q12791

MANGGGGGGGSSGGGGGGSSLRMSSNIHANHLSLDASSSSSSSSSSSSSSSSSSSSSSSS  
VHEPKMDALIIIPVTMEVPCDSRQRMWAF LASSMVTFFGGLFIILLWRTLKYLWTVCC  
CGGKTKEAQKINNGSSQADGTLKPVDEKEEAVAAEVGWMTSVKDWAGVMISAQTLTGRVL  
VVLVFAISIGALVIYFIDSSNPIESCQNFYKDFTLQIDMAFNVFFLLYFGLRFIAANDKL  
WFWLEVNSVVDFFTVPPVFSVYLNRSWLGRLRFLRALRLIQFSEILQFLNILKTSNSIKL  
VNLLSIFISTWLTAAGFIHLVENS GPDWENFQNNQALTYWECVYLLMVTMSTVGYGDVYA  
KTTGLRFLMVFVILGGLAMFASYVPEIIEELIGNRKKYGGYSYSAVSGRKHIVVCGHITLES  
VSNFLKDFLHKDRDDVNVEIVFLHNI SPNLELEALFKRHFTQVEFYQGSVLNPHDLARVK  
IESADA CLILANKYCADPDAEDASNIMRVISIKNYHPKIRIITQMLQYHNKAHLLNIPSW

NWKEGDDAICLAELKLGFI AQSCLAQGLSTMLANLFSMRSFIKIEEDTWQKYYLEGVSNE  
MYTEYLSAFAVGLSFPTVCEL CFVVKLKLMLIAIEYKSANRESRILINPGNHLKIQEGLG  
FFIASDAKEVKRAFFYCKACHDDITDPKRIKKCGCKRPKMSIYKRMRRACCFDCGRSERD  
CSCMSGRVVRGNVDTLERAFPLSSVSVNDCSTSFRAFEDEQPSTLSPKKKQRNGGMRNSPN  
TSPKLMRHDPLLIIPGNDQIDNMDSNVKKYDSTGMFHWCAPKEIEKVILTRSEAMTVLSG  
HVVVICIFGDVSSALIGLRNLVMP LRASN FHYHELKHI V FVGSIEY LKREWETLHNF PKVS  
ILPGTPLSRADLRAVNINLCDMCVILSANQNNIDDTSLQDKECILASLNKSMQFDDSIG  
VLQANSQGFTPPGMDRSPDNPVHGMLRQPSITTG VNIPIITELVNDTNVQFLDQDDDD  
DPDTELYLTQPFACGTAF AVSVLDSLMSATYFNDNILTIRTLVTGGATPELEALIAEEN  
ALRGGYSTPQTLANRDRCRVAQLALLDGPFFADLGDGGCYGDLFCKALKTYNMLCFGIYRL  
RDAHLSTPSQCTKRYVITNPPYEFELVPTDLIFCLMQFDHNAGQSRASLSHSSHSSQSSS  
KKSSSVHSIPSTANRQNRPKSRESRDKQKYVQEERL

>Q08460

MANGGGGGGGSSGGGGGGGGSGLRMSSNIHANLNSLDASSSSSSSSSSSSSSSSSSSSSS  
VHEPKMDALIIPVTMEVPCDSRQRMWVAFLASSMVTFFGGLFIILLWRTLKYLWTVCC  
CGGKTKEAQKINNGSSQADGTLKPVDEKEEVVAAEVGWMTSVKDWAGVMISAQTLTGRVL  
VVLV FALSIGALVIYFIDSSNPIESCQNFYKDFTLQIDMAFNVFLLYFGLRFIAANDKL  
WFWLEVNSVVDFFTVPPV FVS VYLNR SWLGLRFLRALRLIQFSEILQFLNLIKTSNSIKL  
VNLLSIFISTWLTAAGF IHLVENS G DPWENFQNNQALTYWECVYLLMVTMSTVGYGDVYA  
KTTLGR LFMVFFILGGLAMFASYVPEIIEIIGNRKKYGGSYSAVSGRKHIVVCGHITLES  
VSNFLKDFLHKDRDDVNVIEVFLHNI SPNLELEALFKRHFTQVEFYQGSVLNPHDLARVK  
IESADACLILANKYCADPDAEDASNIMRVISIKNYHPKIRIITQMLQYHNKAHLLNIPSW  
NWKEGDDAICLAELKLGFI AQSCLAQGLSTMLANLFSMRSFIKIEEDTWQKYYLEGVSNE  
MYTEYLSAFAVGLSFPTVCEL CFVVKLKLMLIAIEYKSANRESR SRKRILINPGNHLKIQE  
GTLGFFIASDAKEVKRAFFYCKACHDDVTDPKRIKKCGCRRLEDEQPPTLSPKKKQRNGG  
MRNSPNTSPKLMRHDPLLIIPGNDQIDNMDSNVKKYDSTGMFHWCAPKEIEKVILTRSEAA  
MTVLSGHVVVICIFGDVSSALIGLRNLVMP LRASN FHYHELKHI V FVGSIEY LKREWETLH  
NFPKVSILPGTPLSRADLRAVNINLCDMCVILSANQNNIDDTSLQDKECILASLNKSMQ  
FDDSIGVLQANSQGFTPPGMDRSPDNPVHGMLRQPSITTG VNIPIITELAKPGKLPV  
SVNQEKNSGTHILMITELVNDTNVQFLDQDDDDDPDTELYLTQPFACGTAF AVSVLDSL  
MSATYFNDNILTIRTLVTGGATPELEALIAEENALRGGYSTPQTLANRDRCRVAQLALLD  
GPFFADLGDGGCYGDLFCKALKTYNMLCFGIYRLRDAHLSTPSQCTKRYVITNPPYEFELV  
PTDLIFCLMQFDHNAGQSRASLSHSSHSSQSSSKSSSVHSIPSTANRPNRPKSRESRDK  
QNRKEMVYR

>O95279

MVDRGPLLTSALIFYLAIGAAIFEVLEEPHWKEAKKNYYTQKLHLLKEFPCLGQEGLDKI  
LEVVS DAAGQGVAITGNQTFNWNWPNAMIFAATVITTI GYGNVAPKTPAGRLF CVFYGL  
FGVPLCLT WISALGKFFGGRAKRLGQFLTKRGVSLRKAQITCTVIFIVWGVLVHLVIPPF  
VFMVTEGWNYIEGLYYSFITISTIGFDFVAGVNP SANYHALYRYFVELWIYLG LAWLSL  
FVNWKVSMFVEVHKAIKKRRRRRKESEFESSPHSRKALQVKGSTASKDVNIFSF LSKKEET  
YNDLIKQIGKKAMKTSGGGETGPGPLGPGQGGGLPALPPSLVPLVVYSKNRVPTLEEVSQ  
TLRSKGHVSRSPDEEAVARAPEDSSPAPEVFMNQLDRISEECEPWDAQDYHPLIFQDASI  
TFVNTEAGLSDEETSKSSLEDNLAGEESPQQGAEAKAPLNMGFEFPSSSESTFTSTESELS  
VPYEQLMNEYNKANSPKGT

>P0A334

MPPMLSGLLARLVKLLGRHGSALHWRAAGAATVLLVIVLLAGSYLAVLAERGAPGAQLI  
TYPRALWWSVETATTVGYGDLVPVTLWGRLVAVVVMVAGITSFGLVTAALATWFGREQE

RRGHFVRHSEKAAEEAYTRTTTRALHERFDRLERMLDDNRR

>P37728

MIFNRSVITYSNARLPYSKRSLYTKTRVLFVFLKQKILSRVTTKMAIADLDKQPDSVSSVLK  
VFGILQALGEEREIGITELSQRMMSKSTVYRFLQTMKSLGYVAQEGESEKYSLTLKLF  
LGAKALQNVDLIRSADIQMRALSALTRETIHLGALDEDSIVYIHKIDSMYNLRMYSRIGR  
RNPLHSTAIGKVLLAWRDREEVKEILSQVEFKRTTVHTIGSTEELLPQLDLVRQQGYGED  
NEEQEEGLRCIAVPVDFRFGVVIAGLSISFPTIRFSEDNKHEYVAMLHTAARNISDQMGY  
HDYPF

>P0A715

MKQKVVSIGDINVANDLPFVLFVGGMNVLESRDAMRICEHYVTVTQKLGIPYVFKASFDK  
ANRSSIHSYRGPGLGEMKIFQELKQTFGVKIITDVHEPSQAQPVADVVDVIQLPAFLAR  
QTDLVEAMAKTGAVINVKKPQFVSPGQMGNIVDKFKKEGGNEKVIILCDRANFGYDNLVVD  
MLGFSIMKKVSGNSPVI FVDVTHALQCRDPFGAASGGRRQAELARAGMAVGLAGLIEA  
HPDPEHAKCDGPSALPLAKLEPFLKQMKAIIDDLVKGFEEELDTSK

>P45395

MSHVELQPGDFDQAGKEVLAIERECLAELDQYINQNF TLACEKMFCKGKVVVMGMGKS  
GHI GRKMAATFASTGTPSFFVHPGEEAAGDLGMVTPQDVVIAISNSGESSEITALIPVLK  
RLHVPLICITGRPESSMARAADVHLCKVVAKEACPLGLAPTSSTTATLVMGDALAVALLK  
ARGFTAEDFALSHPGGALGRKLLLRVNDIMHTGDEIPHVKKTASLRDALLEVTRKNLGMT  
VICDDNMMIEGIFTDGLRRVDFMGVDVRQLSIADVMTGGIRVRPGILAVEALNLMQSR  
HITSVMVADGDHLLGVLHMHDLLRAGVV

>Q14145

MQPDPRPSGAGACCRFLPLQSQCEGAGDAVMYASTECKAEVTPSQHGNRTFSYTLLEDHT  
KQAFGIMNELRLSQQLCDVTLQVKYQDAPAAQFMAHKVVLASSSPVFKAMFTNGLREQGM  
EVVSIIEGIHPKVMERLIEFAYTASISMGKCVLHVMNGAVMYQIDSVVRACSDFLVQQLD  
PSNAIGIANFAEQIGCVLHQRAREYIYMHFGEVAKQEEFFNLSHCQLVTLISRDDLNR  
CESEVFHACINWVKYDCEQRRFYVQALLRAVRCHSLTPNFLQMLQKCEILQSDSRCKDY  
LVKIFEEELTLHKPTQVMPCRAPKVGRLIYTAGGYFRQSLSYLEAYNP SDGTWLR LADLQV  
PRSLGAGCVVGGLLYAVGGRNNSPDGNTDSSALDCYNPMTNQWSPCAPMSVPRNRIGVGV  
IDGHIYAVGGSHGCIHHSNVERYEPERDEWHLVAPMLTRRIGVGVAVLNRLLYAVGGFDG  
TNRLNSAECYPERNEWRMITAMNTIRSGAGVCVLHNCIYAAGGYDGDQQLNSVERYDVE  
TETWTFVAPMKHRRSALGITVHQRIYVVLGGYDGHFTFLDSVECYDPD TDTWSEVTRMTSG  
RSGVGVAVTMEPCRKQIDQONCTC

>Q9GYZ0

MSKLLKEQAANDASEGDAIKVFVRVRPSESHDADA AFGQCLEVRLPDTIIMHSPKPEPKVF  
TYDHVTAANTTQESVFTAVGKRIIESCVGGFNGTIFAYGQTGSGKTF TMLGPCEDGDNFH  
HEMRGVI PRSFEYFLSLVNREREREKHDREYFLCRC SFLEIYNEQIYDLLDPASLGLHLRE  
NMKKGVFVDGLIERAVASASEAYGVLQAGWHNRVAATSMNRESSRSHAVFTVSI ESKEK  
KAGVSNIRVSQLHLVLDLAGSERQKDTKAI GVRLKEAGSINKSLSILGNVIMALVDIAHGK  
QRHVPYRDSKLSFLLRDSLGGNAKTYIIANVHPDAKCFGETLSTLKFARRAKMIKNRAVV  
NEDTQGNVMHLQAEIRRLREALCMKGAEGSIPRGPSESGDSQMSNSSTESNGPVSGQQSG  
SSSSSKWKYFLEAMSLRDIVEVEKREMREKVSLSLEELCSKRDQVISSNKMIKFRNSTI  
DMLQKTKNKALLKEDRDLLNENLKEIEQLQEQL EHNPFVMRYVVENQSLRAQNKKLMM  
EAVRSGEAMAATKAELETLFLELREGLSKNRRYSSTPVDGKVP TSTLVILKSQIKKLQ  
DELENAKQEHAEQEEMTRTTRLDLESELAAYKKANLDMEKTLQGMKIKNRMDRDAMNDIH

MQTIKSITTPKKVITYQLRSRTVLRTAGEEETPGGPGFAGLSDNGSPLRSHSTNSLPPSGDI  
LVTNSSPAMSEEGI IDEEMPEHVIEQCNEALTI ELQKLQDKNANLQQQLEEHESQKHKML  
QNSSKLDHQLQQITELYSTESQAWQEHEKDLTTRRLAEATI QIISTLQRDYEMTRGEAEDFK  
VMLQAADKEIGQEKKQKSKVTQDWDVRRAALDAQVVRLENEMCGQSRELENLTEDREQLQ  
DAYNTLQAEHEFQQQREADLENRLKGKKAIEITQLQEEIQKHLEKLDSEKSMRLTAE LR  
QGDNTTKDLLDAQELIDQFREERDDLLHRLDTEALKLSSSKEDLETVNSALTAIKKTDVE  
QKEALSSLMAALQGQKGMVKDKKEQLASMQMQLLEDTRGQVSLLEAAL EEGKASGAGLQSQ  
IAALEDRMHAQAGEYQEQIEQMRADAMDANQHQKELLKELEKQSEELTQLHKQMKKEKEE  
YETKESEHKDTIESLEEQL EEVKTNLSTVVVELDEPESKKRKMADAQAMEIESLRDSEKR  
FKELSSVYDNMRDQMNEEIRSLKMKADELEEDVRI SKEILQAQHTALT YEIEQVRNEMA EK  
ESSLKDEVNHLKRDMERQKTVLASMLRDKDEAVEKLYTVQTTLDQVKANEE I LQENMDQV  
MEELDRTSALESTHFKEKEDIKSKLEEEEREKSKLTKDLTRLKEVYEEAEKKITELGGHQ  
NPKQKIHHLQAVKSENYFLKEEVESLEKQLGKAQSDSEQMKRDYEALQKRLTSSSAEPPE  
EAGATTCIRCLPHSKRIMQTQTA

>P46863

MDISGGNTSRQPQKSNQNIQVYVVRPLNSRERICIRSAEVVDVVGPREVVTRHTLDSKL  
TKKFTFDRSFGPESKQCDVYSVVVSPLEIEVLNGYNCTVFAYGQTGTGKTHTMVGNETA E  
LKSSWEDDSDIGIIPRALSHLFDLMMMEVEYTMRI SYLELYNEELCDLLSTDDTTKIRI  
FDDSTKKGSVI IQGLEEIPVHVKDDVYKLLLEKKGKERRKTATTLMNAQSSRSHTVFSIVVH  
IRENGIEGEDMLKIGKLNLDLAGSENVSKAGNEKGI RVRVETVNIQSLLTLGRVITALV  
DRAPHVPYRESKLRLLQESLGGRTKTSIIATISPGHKDIEETLSTLEYAHRAKNIQNKP  
EVNQKLTKKTVLKEYTEEIDKLRDLMAARDKNGIYLA EETYGEITLKLESQNRELNEKM  
LLLKALKDELQNKKEIFSEVSMSLVEKTQELKKTEENLLNTKGTLLLTKKVLTKTKRRYK  
EKKELVASHMKT EQVLTQAQEI LAAADLATDDTHQLHGTIERRRELDEKIRRSCDQFKD  
RMQDNLEMIGGSLNLYQDQQAALKEQLSQEMVNSSYVSQRLALNSSKSI EMLKEMCAQSL  
QDQTNLHNKLI GEVMKISDQHSQAFVAKLMEQMQQQLLMSKEIQTNLQVIEENNQRHKA  
MLDSMQEKFATI IDSSLQSV EEHAKQMHKKLEQLGAMSLPDAEELQNLQEELANERALA Q  
QEDALLESMMMQMEQIKNLRSKNSISMSVHLNKMEESRLTRNHRIDDIKSGIQDYQKLG I  
EASQSAQAELTSQMEAGMLCLDQGVANCSMLQVHMKNLNQKYEKETNENVGSVRVHNNQV  
EIIICQESKQOLEAVQEKTEVNLEQMVDARQQLITEDRQRFIGHATVATDLVQESNRQFSE  
HAEHQRQQLQICEQELVRFQQSELKTYAPTGTTPSKRDFVYPRTLVATSPHQEIVRRYRQ  
ELDWSLDLTTATIDECSEGEHDVSMHSVQELSETETIMNSTPIEPVDGVTVKRGCCTTRN  
SNSNALKPPVATGGKRSSSLSRSLTPSKTSPRGSPAFVRHNKENVA

>O35082

MLARAPPRRPPRLVLLRLLLLLHLLLLLALRARCLSAEPGQGAQTWARFARAPAPEAAGLLH  
DTFPDGF LWAVGSAAYQTEGGWRQHKGKASIWDTFTTHHSGAAPSDSPIVVAPSGAPSPPL  
SSTGDVASDSYNNVYRDTEGLRELGVTHYRFSISWARVLPNGTAGTPNREGLRYRRLLE  
RLRELGVQPVVTLYHWDLPQRLQD TYGGWANRALADHFRDYAELCFRHF GGQVKYWITID  
NPYVVAWHGYATGRLAPGVRGSSRLGYLVAHNLLLAHAKVWHLYNTSFRPTQGGRVSIAL  
SSHWINPRRMTDYNIRECQKSLDFVLGWFAKPIFIDGDYPE SMKNNLSLLPDFTESEKR  
LIRGTADFFALSFGPTLSFQLLDPNMKFRQLESPNLRQLLSWIDLEYNHPPIFIVENGWF  
VSGTTKRDDAKYMYLKKFIMETLKAIRLDGVDVIGYTAWSLMDGF EWHRGYSIRRGLFY  
VDFLSQDKELLPKSSALFYQKLI EDNGFPPLPENQPLEGTFPCDFAWGVVDNYVQVD TTL  
SQFTDPNVYLWDVHHSKRLIKVDGVVAKKRKPYCVDFSAIRPQITLLREMRVTHFRFSLD  
WALILPLGNQTQVNHTVLHFYRCMISELVHANITPVVALWQPAAPHQGLPHALAKHGAW E  
NPHTALAFADYANL CFKELGHWNLWITMNEPNTRNMTYRAGHLLRAHALAWHLYDDKF  
RAAQKGI SIALQADWIEPACPFSSQNDKEVAERVLEFDIGWLAEP I FGS GDYPRV MRDWL  
NQKNNFLLPYFTEDEKKLVRGSFDFLAVSHYTTILVDWEKEDPMKYNDYLEVQEMTDITW

LNSPSQVAVVPWGLRKLVLNWLRFKYGDLPMYVTANGIDDDPHAEQDSLRIYYIKNYVNEA  
LKAYVLDDINLCGYFAYSLSDRSAPKSGFYRYAANQFEPKPSMKHYRRIIDSNGFLGSGT  
LGRFCPEEYTVCTECGFFQTRKSLLVFISFLVFTFIIISLALIFHYSKKGQRSYK

>Q60660

MSEQEVTYTTLRFBKSSGLQNPVRPEETQRPRDVGHRECSVPWKFIVIVLGIILCFLLLLLT  
VAVLVIHIFRDGQEKHEQEKTLLNLRQEQVMKNDSSLMEEMLRNKSSECKALNDSLHYL  
NREQNRCLRKTKIVLDCSQNKGKQVEGYWFCCGMKCYFIMDDKKWNGCKQICQDYNLTL  
LKTNDEDELKFLKSQLQRNTYIWISLTHHKSKEESQOIGDRPSKLDAAARNVSNRQKCA  
LSSFSTEEDDCARTHGCICEKRLNKFPIPGSCAKGRTQSALQRDEDES

>Q60654

MSEQEVTYSTVRFHSSRLQKLVRTTEEPQRPREACYREYSVPWKLIVIACGIILCFLLLV  
VALLAITIFQHSQQKHELQETLNCHDNCSPQSDVNLKDELLRNKSIIECRPGNDLLESLS  
RDQNRWYSETKTFSDSSQHTGVHERPISKAEGKGRGFKEYWFCYGIKCYFNMDRKTWSG  
CKQTCQISSLSLLKIDNEDELKFLQNLAPSDISWIGLSYDNKKKDWVWIDNGPSKLALNT  
TKYNIRDGLCMSLSKTRLDNGDCDKSYICICGKRLDKFPH

>Q60682

MSEQEVTFTMRFBKSSGLNSQVRLEGTQSRKAGLRVCSVPWQLIVIALGIILCSLRLVI  
VAVFVTKFFQYSQHKQEINETLNHRHNCNMQRDFNLKEEMLTNKSIDCRPSYELLEYIK  
REQERWDSETKSVSDSSRDTGRGVKYWFCYGTCKCYFIMNKT'TWSGCKANCQHYVPIVK  
IEDEDELKFLQRHVILESYWIGLSYDKKKKEWAWIHNGQSKLDMKIKKMNFTSRGCVFLS  
KARIEDTDCNTPYYCICGKKLDFPD

>Q12918

MDQQAIIYAELNLPDTSGPSSPSSLPDVCQGSPWHQFALKLSCAGIILLVLVVTGLSV  
SVTSLIQKSSIEKCSVDIQQSRNKTTERPGLLNCPYIWQQLREKCLLFSTVNPWNNSLA  
DCSTKESLLLLIRDKDELIHTQNLIRDKAILFWIGLNFSLSEKNWKWINGSFLNSNDLEI  
RGDAKENSISISQTSVYSEYCYSTEIRWICQKELTPVRNKVYPDS

>P27471

MDTARVYLSLKPSTAAQAQCVSPSLPPDACRCPRSHRLALKLSCAGIILLVLALVGM  
ILVRVLVQKPSVEPCRVLIQENLSKTGSPAKLKCPKDWLSHRDKCFHVSQTSITWKESLA  
DCGGKATLLLVQDQEELRFLRNLTKRISSSFWIGLSYTLSDENWKWINGSTLNSDVL  
TGDTEKDSCASVSQDKVLSESCSDNIWVCQKELKCECMCND

>Q9NZS2

MQDEERYMTLNVQSKKRSSAQTSQLTFKDYSVTLHWYKILLGISGTVNGILTTLTSLIL  
LVSQGVLLKCKQKSCSNATQYEDTGLKVNNGTRRNISNKDLCASRSADQTVLCQSEWLK  
YQKCYWFSNEMKSWSDSYVYCLERKSHLLI IHDQLEMAFIQKNLRQLNYVWIGLNF  
TSLKMTWTWVDGSPIDSKIFFIKGPAKENSCAAIKESKIFSETCSSVFKWICQY

>P42216

MKAVIVIPARYGSSRLPGKPLLDIVGKPMIQHVYERALQVAGVAEWWATDDPRVEQAV  
QAFGGKAIMTRNDHESGTDRLVEVMHKVEADIYINLQGDPEMIRPRDVE'TLLQMRDDPA  
LPVATLCHAI SAAEAAEPSTVKVVVNTRQDALYFSRSPIPYPRNAEKARYLKHVGIYAYR  
RDVLQNYSQLPESMPEQAESLEQLRLMNAGINIRTFEVAATGPGVDTPACLEKVRALMAQ  
ELAENA

>P22200

MANIDIAGIMKDL PNDGRIPKTKIVCTLG PSSRTVPMLEKLLRAGMNVARFNFSHGTHEY  
HQETLDNLKIAMQNTQILCAVMLDTKGPEIRTFGLTDGKPIQLKEGQEITVSTDYTIKGN  
EEMISMSYKKLVM DLKPGNTILCADGTITLTVLSCDPPSGTVRCRCENTATLGERKNVNL  
PGVVVDLPTL TEKDKEDILEWGV PNNIDMIALS FVRKGS DLVNVVRKVLGPHAKRIQLMSK  
VENQEGVIN FDEILRETDSFMVARGDLGMEIPVEKIFLAQKMMIYKCNLAGKAVVTATQM  
LESMIKSPAPTRAEATDVANAVLDGTDCVMLS GESAAGAYPELAVKIMSRI CIEAESSLD  
NEAIFKEMIRCTPLPMSPLESLASSAVRTANKARAKLIVVLTRGGSTAKLVAKYRPAVPI  
LSVVVPVLT TDSFDWSISDETPARHSLVYRGLIPLLGEGSAKATDSESTEVI LEAALKSA  
VTRGLCKPGDAVVALHRIGSASVIKICVVK

>P0AD61

MKKTIVCTIGPKTESEEMLAKMLDAGMNVMLNFSHG DYAEHGQRIQNLRNVMSKTGKT  
AAILLDTKGPEIRTMKLEGGNDVSLKAGQTF TTTDKSVIGNSEMVAVTYEGFTTDL SVG  
NTVLVDDGLIGMEVTAIEGNKVICKVLNNGDLGENKGVNLPGVSI ALPALAEKDKQDLIF  
GCEQGVDFVAASFIRKRSVIEIREHLKAHGGENIHIISKIENQEGLN NFDEILEASDGI  
MVARGDLGVEIPVEEVIFAQKMMIEK CIRARKVVITATQMLDSMIKNPRP TRAEAGDVAN  
AILDGTDAVMLS GESAAGKYPLEAVSIMATICERTDRVMNSRLEFNNDNRKLRIT EAVCR  
GAVETAEKLDAPLIVVATQGGKSARAVRKYFPDATILALTTNEKTAHQVLVLSKGVVPQLV  
KEITSTDDFYRLGKELALQSGLAHKGDVVVMVSGALVPSGTTNTASVHVL

>P21599

MSRRLRRTKIVTTLGPATDRDNMLEKVIAAGANVVRMNF SHGSPEDHKMRADKVREIAAK  
LGRHVAILGDLQGP KIRVSTFKEGKVFLNIGDKFLLDANLGKGE GDEKVGIDYKGLPAD  
VVPGDILLDDGRVQLKVLEVQGMKVFTFVTVGGPLSNNKGINKLGGGLSAEALTEKDKA  
DIKTAALIGVDYLAVSFPRCGEDLNYARRLARDAGCDAKIVAKVERAEAVCSQDAMDDII  
LASDVVMVARGDLGVEIGDPELVGIQKALIRRARQLNRAVITATQMMESMITNPMPTRAE  
VMDVANAVLDGTDAVMLS AETAAGQYPSETVAAMARVCLGAEKIPSIN VSKHRLDVQFDN  
VEEAIAMSAMYAANHLKGVTAIITMTESGR TALMTSRISGLPIFAMSRHERTLNLTALY  
RGVTPVHFDSANDGVAAASEAVNLLRDKGYLMSGDLVIVTQGDVMSTV GSTNTTRILTVE

>Q9YEU2

MRGPVKIVATVGPSSSSASILAQMLS LGVDVARINASHGGVEQWNSMLES LRRAEEAVGK  
RVGVAVDLEGPVRTGNSEPVKLEKGD LVTLGFMEGDVPVDARQFFETIDEGDIVLLDDG  
KIILQVESVEGFVRKARVLEGGV LGPRKGVVVRGKEPDL PPLSAKDRRALEFFADKGVSH  
VYVSFARSAEHVEKVRTVVRRLGLRQARIFAKIEGPSGVSRIGEIAEASDGVIIARGDLG  
MHYSLEELPEIQELIVWEARKRYKTVVLATEFLSSMIEKVPVTRSEVVDIYQAVLQTADA  
LMLTGETAIGKYPVKSQWMAKISSRAYKKLATSPPERPRPTSTPYKLALGLVELAESLD  
SPLVVYSKTGRFAERLASFKPLKTFYVGVPSREVERVVRHLWGAEP IVVGDYPYEAGLAK  
TYEKLRRENI IHGDETVEAAWSSSERGIYIIRVRNLEF

>Q02499

MKRKTKIVCTIGPASEVDKLVQLMEAGMNVARLNF SHGDHEEHGRRIANIREAAKRTGR  
TVAILLDTKGPEIRTHNMENGAIELKEGSKLVISMSEVLGTPEKISVTYPSLIDDVSVG  
KILLDDGLISLEVN AVDKQAGEIVTTVLNNGV LKNKGVNVPGVKVNLPGITEKDRADIL  
FGIRQGIDFIAASFVRRASDVLEIRELLEAHDALHIQIIAKIENEEGVANIDEILEAADG  
LMVARGDLGVEIPAEVPLIQKLLIKKCNMLGKPVITATQMLDSMQRNPRP TRAEASDVA  
NAIFDGTDAVMLS GETAAGQYPVEAVKTMHQIALRTEQALEHRDILSQRTKESQTTITDA  
IGQSV AHTALNLDVAAIVTPTVSGKTPQMVAKYRPKAPIIAVTSNEAVSRRLALVWGVYT  
KEAPHVNTTDEMLDVAVDAAVRSLVKHGD LVVITAGVPVGETGSTNLMKVHVISDLLAK

QGGIGRKSFAFGKAVVAKTAEEARQKMVDGGILVTVSTDADMPAIEKAAAIITEEGGLTS  
HAAVVGLSLGIPVIVGVENATTLFKDQGEITVDGGFGAVYRGHASVL

>Q46078

MDRRTKIVCTLGPAVASADGILRLVEDGMDVARLNFSHGDHPDHEQNYKWVREAAEKTGR  
AVGILADLQGPKIRLGRFTDGATVWENGETIRITVDDVEGTHDRVSTTYKNLAKDAKPGD  
RLLVDDGKVLVCVSVVEGNDVICEVVEGGPVSNNKGVSLPGMDISVPALSEKDIRDLRFA  
LKLGVDFIALSFVRSPADAELVHKIMDEEGRRVPVIAKLEKPEAVTSLEPIVLAFDAVMV  
ARGDLGVEVPLEEVPLVQKRAIQIARENAPVIVATQMLDSMIENSRPTRAEASDVANAV  
LDGADAVMLSGETSVGKDPHNVRTMSRIVRFAETDGRVDPDLTHIPRTKRGVISYSARDI  
AERLNARALVAFTTSGDTAKRVARLHSHLPLLVFTPNEAVRSELALTWGATTFLCPPVSD  
TDDMMREVDRALLAMPEYNKGDMMVVVAGSPPGVGTGNTNMIHVHLLGDDTRIAKL

>P22360

MAASSSLDHLNRMKLEWHSKLNTEMVPAKNFRRTSIICTIGPKTNSVEKINALRRAGLN  
VVRMNFSHGSYEHQSVIDHAREAEKQQAGRPVAIALDTKGPEIRTGNTVGDKDIPKAG  
HEMNI STDEQYATASDDQNMVVDYKNITKVISAGKLIYVDDGILSFVLEVVDKTLRVR  
CLNNGNISSRKGVNLPGTVDLPAKSEKDISDLKFGVKNKVDVVFASFIRRGSDIRHIRE  
VLGEEGREIQIIAKIENQQGVNMFDEILEETDGMVMVARGDLGIEIPAPKVFIAQKMMIAK  
CNIKGPVICATQMLESMTYNPRPTRAEVSDVANAVLDGADCVMLSGETAKGNYPCEAVT  
MMSETCLLAEVAIPHFNVDDELRLNAPRPTDTVESIAMAASASLELNAGAIIVLTTSGN  
TARMI SKYRVPVCIIMVSRNPAATRYSHLYRGVWPFYFPEKKPDFNVKIQEDVDRRLKW  
GINHGLKLGINKGDNIVCVQGWRRGGMGHTNTVVRVPAEENLGLSE

>P34038

MKKTIVSTLGPASDDIETITKLAEAGANVFRFNFSHGNHEEHLARMNMVREVEKKTGKL  
LGIALDTKGAEIRTTDQEGGKFTINTGDEIRVSMDATKAGNKDMIHVITYPGLFDDTHVGG  
TVLIDDGAVGLTIKAKDEEKRELVCEAQNTGVIGSKKGVNAPGVEIRLPGITEKDTDDIR  
FGLKHGINFIFASFVKAQDVLDIRALCEEANASYVKIFPKIESQEGIDNIDEILQVSDG  
LMVARGDMGVEIPFINVPFVQKTLIKKCNALGKPVITATQMLDSMQENPRPTRAEVTDVA  
NAVLDGTDATMLSGESANGLYPVQSVQAMHDIDVRTEKELDTRNTLALQRFEEYKGSNVT  
EAIGESVVRTAQELGVKTIIAATSSGYTARMISKYRDPATIVALTFDEKIQHSLGIWGWV  
EPVLAKKPSNTDEMFEAAARVAKEHGFKVGDGLVIIVAGVPPFGQSGTTNLMKLQIIGNQL  
AQGLGVGTGSVIGKAVVANSAAEENAKVHEGDILVAKTTDKDYMPAIIKASGMIVEASGL  
TSHAAVVGVSLGIPVVVGVADATSKIADGSTLTVDARRGAIYQGEVSNL

>Q27686

MSQLAHNLTLSIFDPVANYRAARIICTIGPSTQSVEALKGLIQSGMSVARMNFSHGSHEY  
HQTTINNVRQAAAELGVNIAIALDTKGPEIRTGQFVGGDAVMERGATCYVT'TDPAFADKG  
TKDKFYIDYQNLKVVVRPGNYIYIDDGILILQVQSHEDQTLLECTV'TNSHTISDRRGVNL  
PGCDVDLPAVSAKDRVDLQFGVEQGVDMIFASFIRSAEQVGDVRKALGPKGRDIMICKI  
ENHQGVQNIDSIIIEESDGIMVARGDLGVEIPA EKVVVAQKILISKCNVAGKPVICATQML  
ESMTYNPRPTRAEVSDVANAVFNGADCVMLSGETAKGKYPNEVVQYMARICLEAQSALNE  
YVFFNSIKKLQHIPMSADEAVCGSAVNSVSETKAKAMVVL'SNTGAGARLVAKYRPNCP'IV  
CVTTRLQTCRQLNITQGVESVFFDADKLGHDEGKEHRVAAGVEFAKSKGYVQTGDYCVVI  
HADHKVKGYANQTRILLVE

>Q8ZYE0

MSAPRGDHAILRARNLTKRVATLGPST'DVLRPDEL'IKFLDLVDGVRINLAHASPNEVKFR  
IEAVRSYEKAKNRPLAVIVDLKGPSIRVGSTSPINVQEGEVVKFKLSDKSDGTYIPV'PNK

AFFSAVEQNDVILMLDGRRLRLKVTNTGSDWIEAVAESSGVITGGKAIIVVEGKDYDISTPA  
EEDVEALKAI SPIRDNIDYVAISLAKSCKDVDSVRSLLTELGFQSQVAVK IETKGA VNNL  
EELVQCSDYVVVARGDLGLHYGLDALPIVQRRIVHTSLKYGKPIAVATQLLDSMQSSPI  
TRAEINDVFTTASMGVDSLWLTNETASGKYPLAAVSWLSRILMNVEYQIPQSPLLQNSRD  
RFAKGLVELAQDLGANILVFSMSGTLARRIAKFRPRGVVYVGT PNVVRVARSLSIWALEP  
LYIPAENYEEGLEKLI SLKGTTPFVATYGIRGGVH SVKVKL

>P32044

MKTKIVATIGPASSSPEIMKQ MIDNGLSLVR INSAHADIKDVSKITQM VRSINRDVGIMI  
DLKGPELRTGEFAGGTLKISSGKDYVMGKDIVLNNMNVLSAVQV GDRILMSDGEVSFEVE  
STDPFTIRALNDGVL RDRSRVNI PGRFIELGTITDRDRAFI REGIADGVDF FALS FVQKS  
ENVDSL RDFVIDSGGDQYII SKIETKSGLDNIEEIVKSSDGIMVARGDLGVELPLKEVVL  
AQKHIIKTAHEDGDF TIVATQVLESMVNNSSPTRAEISDITNAI IDNADALMLSEESAIG  
KYPVQAVRTLKEVSDYVEDKVSFDSSYYFKGNTIAYSVARAAKILSDDIKSDGIVALHTHT  
GSTVRMISSLRPKAMVYAATVSESLARKLNIYFGVLP LHMEGNAEDLSFSEIMEYIVRS  
GFADGSKLVMTSGDPYFTFGGTNDVKVAVVGKFIGRGSFGDSL SGTATYGTKGDILMSE  
DGRIPGTD FRAFI FTSDIKPSLMSLKGKTVVTKARLV RQIKEGERIYIDGNTGIILMAS  
PDQK

>Q9WY51

MRSTKIVCTVGPRTDSYEMIEKMIDLGVNVFRINTSHGDWNEQE QKILKIKDLREKKKKP  
VAILIDLAGPKIRTYGLEYKEFVELKEGQIFTLTTKEILGNEHIVSVNLSSLPKDVKKGDT  
ILLS DGEIVLEVIETTDTEVKTVVKVGGKITHRRGVNVP TADLSVESITDRDREFIKLGT  
LHDVEFFALS FVRKPEDVLKAKEEIRKHGKEIPVISKIETKKALERLEEIKVSDGIMVA  
RGDLGVEIPIEEVPIVQKEI IKLSKYYSKPVIVATQILESMIENPFPTRAE VTDIANAIF  
DGADALLLTAETA VGKHPLEAIKVL SKVAKEAEKKLEFFRTIEYDTS DISEAISHACWQL  
SESLNAKLIITPTISGSTAVRVSKYNVSQPIVALTPEEKTYR LSLVRKVIPVLAEKCSQ  
ELEFIEKGLKKVEEMGLAEKGD LVVLTSGVPGKVGT TNTIRVLKVD

>P30613

MSIQENISSLQLRSWVSKSQ RDLAKSILIGAPGGPAGYLRRASVAQLTQELGTAFFQQQQ  
LPAAMADTFLEHLCLLDIDSEPVAARSTSI IATIGPASRSVERLKEMIKAGMNIARL NFS  
HGSHEYHAESIANVREAVESFAGSPLSYRPVAIALDTKGPEIRTGILQGGPESEVELVK  
SQVLVTVDPAFRTRGNANTVWVDYPNIVRVVPGGR IYIDDLISLVVQKIGPEGLVTQV  
ENGGVLGSRKGVNLPGAQVDLPGLSEQDVRDLRFVGEHGV DIVFASFVRKASDVAAVRAA  
LGPEGHGIKIISKIENHEGVKRFDEILEVSDGIMVARGDLGIEIPA EKVFLAQKMMIGRC  
NLAGKPVVCATQML ESMITKPRPTRAETS DVANAVLDGADCIMLSGETAKGNFPVEAVKM  
QHAIAREAEAAVYHRQLFEELRRAAPLSRDPTEVTAIGAVEAAFKCCAAA IIVLTTTGRS  
AQLLSRYRPRAAVI AVTRSAQAARQVHL CRGVFPLLYREPPEAIWADDVDRRVQFGIESG  
KLRGFLRVGDLVIVVTGWRPGSGYTNIMRVLSIS

>P0A720

MRSKYIVIEGLEGAGKTTARNVVVETLEQLGIRDMVFTREPGGTQLAEKLRSLVLDIKSV  
GDEVITDKAEVLMFYAARVQLVETVIK PALANGTWWIGDRHDLSTQAYQGGGRGIDQHML  
ATLRDAVLGDFRPDLTLYLDVTPEVGLKRARARGELDRIEQESFDFFNRT RARYLELAAQ  
DKSIHTIDATQPLEAVMDAIRTTVTHWVKELDA

>O05891

MLIAIEGVDGAGKRTLVEKLSGAFRAAGRSVATLAFPRYGQSVAAADIAAEALHGEHGD  
LASSVYAMATL FALDRAGAVHTIQGLCRGYDVVILDRYVASNAA YSAARLHENAAGKAAAW



QRIEFARLGLPKPDWQVLLAVSAELAGERSRGRAQRDPGRARDNYERDAELQQRTGAVYA  
ELAAQGWGGRWLVVGADVDPGRILAATLAPPDVPS

>P00572

MMGRGKLLILIEGLDRTGKTTQCNILYKKLQPNCKLLKFFPERSTRIGGLINEYLTDDSFQL  
SDQAIHLLFSANRWEIVDKIKKDLLEGKNIVMDRYVYSGVAYSAAKGTNGMDLDWCLQPD  
VGLLKPDLTFLSTQDVDNNAEKSGFGDERYETVKFQEKVKQTFMKLLDKEIRKGDSEIT  
IVDVTNKGIQEVEALIWQIVEPVLSTHIDHDKFSFF

>P70712

MEPSPLELPVDAVRRRIATELNCDPTDERVALRLDEEDKLRFKDCFYIPKMRDLPSIDL  
LVNEDDNIYFLGNLGLQPKMVKTYLEEEELDKWAKIGAYGHEVGKRPWIGDESIVSLM  
KDIVGAHEKEIALMNALTVNHLHLLLSFFKPTPKRHKILLEAKAFPSDHYAIESQIQHLG  
LDVEKSMRMKIPREGEETLRMEDILEVIEKEGDSIAVVLFSGLHFYTGQLFNIPAITQAG  
HAKGCFVGFDLAHAVGNVELHLHDWDVDFACWCSYKYLNSGAGGLAGAFIHEKHAHTIKP  
ALVGWFGHELSTRFNMDNKLQLIPGVNGFRISNPPILLVCSLHASLEIFQQATMTALRRK  
SILLTGYLEYLLKHYHGGNDTENKRPVNIITPSRAEERGQTLTFTSISKKGVFKELEK  
RGVVCDKREPEGIRVAPVPLYSFHDVYKFIIRLLTALDSTERN

>P03023

MKPVTLYDVAEYAGVSYQTVSRVVNQASHVSAKTREKVEAAMAELNYIPNRVAQQLAGKQ  
SLLIGVATSSALHAPSQIVAAIKSRADQLGASVVVSMVERSGVEACKAAVHNLLAQRVS  
GLIINYPLDDQDAIAVEAACTNVPALFLDVSDQTPINSIIFSHEDGTRLGVEHLVALGHQ  
QIALLAGPLSSVSARLRLAGWHKYLTRNQIQPIAEREGDWSAMSGFQQTMQMLNEGIVPT  
AMLVANDQMALGAMRAITESGLRVGADISVVGYDDTEDSSCYIPPLTTIKQDFRLLGQTS  
VDRLQLSQGQAVKGNQLLPVSLVKRKTTLAPNTQTASPRALADSLMQLARQVSRLESGQ

>P06220

MPRRTATLEDVARRGRVPADGLRRVLRNRPVVVSARTREQVIRAMQALHYVPNRSAQLLAG  
KAAPSIGLITASVTLHAPSQIAAAIKSHASHQLEVAIAMPQAADFVALQARLDELRAQH  
IRGVIVSLPLESATAERLVQDNPDMACLFLDVSPVADVCCVRFDRDGCACVRLWEMG  
HREFGLLAGPESSVSARLRLASWREALHSLNIARSTTVFGDWSAASGWQKTFELHLQPR  
ISAIVVANDQMALGVLSALAQLNRSQSQAVSVTYDDTADSLYFQPPLTTVAQDFDLLGK  
RAVERLIALMAAPQLRIRELLPTRLIVRQSAWPVAAAEDRQQTALQKALVEKL

>P26466

MMITLRKPLAVAVAAGVMSAQAMAVDFHGYARSGIGWTGSGGEQQCFQATGAQSKYRLG  
NECETYAELKLGQEVWKEGDKSFYFDTNVAYSVNQQNDWESTDPAFREANVQGNLIEWL  
PGSTIWAGKRFYQRHVDHMDIFYYWDISGPGAGIENIDLGFGLSLAATRSTEAGGSYTF  
SSQNIYDEVKDTANDVFDVRLAGLQTNPDGVLELGVLDYGRANTTDGYKLDGASKDGWMF  
TAEHTQSMLKGYNKVYQYATDAMTTQKGQARGSDGSSSFTEELSDGTKINYANKVINN  
NGNMWRILDHGAISLGDKWDLMYVGMQYQNDWDNNLGTWWTVGVRPMPYKWPIMSTLLE  
VGYDNVKSQQTGDRNNQYKITLAQQWQAGDSIWSRPAIRIFATYAKWDEKGYIKDGDNI  
SRYAAATNSGISTNSRGSDEWTFGAQMEIWW

>P23631

MISVGEIMERANHSLVRMRREGEDLTLEEKAEICSELELQKYVDIASNIIGDLSLPIA  
GKIAGTIAAAAMTATHVASGRDLIEQTLGCSDLFPDQIKEVLENRFNEIDRKLDSHSA  
LEEITKLVEKSI SVVEKTRKQMNKRFDEVMKSIQDAKVSPILSKINNFARYFDTEKERIR  
GLKLN DYILKLEEPNGILLHFKESTRPTDDSLQAPLFSIEEGYAVPKSIDDELAFKVLY

ALLYGTQTYVSVMFLLLEQYSFLANHYEYKGYLEKYDEYFNLSLNNVFLDFKSSSLVGTGTS  
NNEGLLDRVLQVLMTVKNSEFLGLEKNGVDEMLNEKINLNFNKIKEEIEGKQKMTLSETPE  
NFAQISFDKIDITTPIGDWRDGREVRYAVQYASETLFSKISHWSDPVSVREKACPTLRMPV  
DQTRRNVLVFRKFDSSKPQLVGEITPYLSNFIDIDRDLYNAASNPD SAVGFKEFTKLNVD  
GANIRATFDHGRTVVFHAAAKSGNDKIMFGLTFLAKSTELNQPDKKGYTPIHVAADSGNAG  
IVNLLIQRGVINSKTYHFLQTPHLHAAQRGFVTTFFQRLMESPEININERDKDGF TPLHY  
AIRGGERILEAFLNQISIDVNAKSNTGLTPFHLAIKNDWPVASTLLGSKKVDINAVDEN  
NITALHYAAILGYLETTKQLINLKEINANVVSSPGLLSALHYAILYKHDDVASFLMRSSN  
VNVNLKALGGITPLHLAVIQGRKQILSLMFDIGVNI EQKTDEKYTPHLHAAAMSKYPELIQ  
ILLDQGSNF EAKTNSGATPLHLATFKGKSQAALILLNNEVNWRD TDENGQMPIHGAAMTG  
LLDVAQAIISIDATVVDIEDKNSDTPNLNAAQNSHIDVIKYFIDQGADINTRNKKGLAPL  
LAFSKKGNLDMVKYLF DKNANVYIADNDGMNFFYYAVQNGHLNIVKYAMSEKDKFEWSNT  
DNNRRDECPNEECAISHFAVCDAVQFDRIEIVKYFVGT LGNFAICGPLHQAAARYGHLDIV  
KYLVEEEFLSVDGSKTDTPLCYASENGHFTTVQYLVSN GAKVNHDCGNGMTAIDKAITKN  
HLQVVQFLAANGVDFRRKNSRGTTPFLTAVAENALHIAEYLIREKRQDININEQNVDKDT  
ALHLAVYYKNLQMIKLLIKYGIDVTIRNAYDKTALDIAIDAKFSNIVEY LKTKSGKFRRE  
YKSSYGERSL LQTNQISNFIDRKNIEHDHPLFINADNESSELSFKTASNIDVIGTLLLLID  
VLIRYFSKQGYISKESDSASDGITQAAALSITEKFEDVLNSLHNE SAKEQVDLAEVHGKV  
YAALKSGRNSQIHQILCSSLNSISTLKPEDMEKLESVIMNSHSSVSLPEV TDSANEAYGE  
TLHLFGESCLHSDGILTKKLM

>Q9UIQ6

MEPFTNDRLQLPRNMIENSMFEEEPDVVDLAKEPCLHPLEPDEVEYEP RGSRLLV RGLGE  
HEMEEDEEDYESSAKLLGMSFMNRSSGLRNSATGYRQSPDGACSVPSARTMVVCAFVIVV  
AVSVIMVIYLLPRCTFTKEGCHKKNQSIGLIQPFATNGKLF PWAQIRLPTAVVPLRYELS  
LHPNLTSM TFRGSVTISVQALQVTWNIILHSTGHNISRVTFMSAVSSQEKQAEILEYAYH  
GQIAIVAPEALLAGHNYTLKIEYSANISSSYGFGYFSYTD ESNEKKYFAATQFEPLAAR  
SAFPCFDEPAFKATFIKIRDEQYTALSNMPKKS SVVLD DGLVQDEFSESVKMSTYLVA  
FIVGEMKNLSQDVNGTLVSIYAVPEKIGQVHYALETTVKLLEFFQNYFEIQYPLKKLDLV  
AIPDFEAGAMENWGLLTFREETLLYDSNTSSMADRKLVTKIIAHEL AHQWFGNLVTMKWW  
NDLWLN EGFATFMEYFSLEKIFKELSSYEDFLDARFKTMKKDSLNS SHPISSSVQSSEQI  
EEMFDSL SYFKGSSLLMLKTYLSEDFVQHAVVLYLHNHSYASIQSDDLWDSFNEVTNQT  
LDVKRMMKTWTLQKGFPLVTVQKKGKELFIQQERFFLN MKPEIQPSDTSYLWHIPLSYVT  
EGRNYSKYQSVSLLDKKSGVINL TEEVLWVKVINMNGYYIVHYADDDWEALIHQLKINP  
YVLSDKDRANLINNIFELAGLGKVP LKRAFDLINYLGNENHTAPI TEALFQTDLIYNLLE  
KLG YMDLASRLVTRVFKLLQNOIQOQTWTD EGTSPMRELR SALLEFACTHNLGNCSTTAM  
KLFDDW MASNGTQSLPTDVMTTVFKVGAKTDKGWSFLLGKYISIGSEAEKNKILEALASS  
EDVRKLYWLMKSSLNGDNFR TQKLSFIRTVGRHFPGHLLAWDFVKENWNKLVQKFP LGS  
YTIQNI VAGSTYLFSTKTHLSEVQAFFENQSEATFRLRCVQEAL EVIQLNIQWMEKNLKS  
LTWWL

>P19869

MAETTVKPTKLAVIGAGAVGSTLAF AAAQRGIAREIVLEDIAKERVEAEVLDMQHGS SFY  
PTV SIDGSDDPEICRDADMV VITAGPRQKPGQSRLELVGATVNILKAI MPNLVKVAPNAI  
YMLITNPVDIATHVAQKLTGLPENQIFGSGTNLDSARLRFLIAQQTGVNVKNVHAYIAGE  
HGDSEVPLWESATIGGVPMCDW TPLPGHDPLDADKREEIHQEVKNAA YKIINGKGATNYA  
IGMSGVDIEAVLHDTNRILPVSSMLKDFHGISDICMSVPTLLNRQGVNNTINTPVSDKE  
LAALKRSAETLKETA AQFGF

>P00345

MKTQFTPKTRKVAVIGTGFVGSYAFSMVNQGIANELVLIDMNKEKAEGEARDINHGMPF  
ATPMKIWAGDYKDCADADLAVITAGANQAPGETRLDLVEKNVKIFECIVKDIMNSGFDGI  
ILVATNPVDILAHVTQKVSGLPNGRVIGSGTILDTARFRYLLSDYFEVDSRNVHAYIMGE  
HGDTEFPVWSHAQIGGVKLEHFINTAAIEKEPDMQHLFEQTRDAAYHI INRKGATYYGIA  
MGLVRITKAILDDENSILTVSALLEGQYGISDVYIGVPAI INKNGVRQI IELNLT PHEQQ  
QLEHSASILKQTRDRAFV

>P13714

MNXHVNKVALIGAGFVGSYAFALINQGITDELVVIDVNKEKAMGDVMDLPHGKAFGLQP  
VKTSYGTIEDCKDADIVCICAGANQKPGETRLELVEKNLKI FKGIVSEVMASGFDGIFLV  
ATNPVDILTYATWKFSGLPKERVIGSGTTLDSARFRFMLSEYFGAAPQNVHAHI IGEHGD  
TELPVWSHANVGGVPVSELVEKNDAYKQEELDQIVDDVKNAAAYHI IEKKGATYYGVAMSL  
ARITKAILHNENSILTVSTYLDGQYGADDVYIGVPAVVNRGGIAGITELNLTNEKEKEQFL  
HSAGVLKNILKPHFAEQVN

>P00343

MASITDKDHQKVILVGDGAVGSSYAYAMVLQGIAQIEGIVDIFKDKTKGDAIDL SNALPF  
TSPKKIYSAEYSDAKDADLVVITAGAPQKPGETRLDLVNKNLKI LKSIVDP IVDSGFNGI  
FLVAANPVDILTYATWKLSGFPKNRVVSGTSLDTARFRQSI AEMVNV DARSVHAYIMGE  
HGDTEFPVWSHANIGGVTIAEWVKAHPEIKEDKLVKMFEDVRDAAYE I IKLKGATFYGIA  
TALARISKAILNDENAVLPLSVYMDGQYGLNDIYIGTPAVINRNGIQNILEIPLTDHEEE  
SMQKSASQLKKVLTDAFAKNDIETRQ

>P29038

MKKATSLSELGFDAGDASSGFFRPVSGDSSSTPTSQHRRRLTKVSVIGAGNVGMAIAQTI  
LTRDLADEIALVDAVPDKLRGEMLDLQHAAAF LPRTRLVSGTDM SVTRGSDLVIVTAGAR  
QIQGETRLDLLQRNVALFRKIVPPLAEQSHDALLLVVSNPVDVLT YVAVKLSGFPASRVI  
GSGTNLDSRFRFLLAEHLVDNAQDVQAYMVGEHGDSSVAVWSSVSVAGMPVLKSLQESH  
RCFDEEALLEGIRRAVVD SAYEVI SLKGYT SWAIGYSVASLAASLLRDQRR IHPVSVLARG  
FHGIPDGTTSSACPPRRPRRRPGRREMELETEEEAKRLRRSAKTIWENCQLLGL

>Q7SI97

MAPKAKIVLVGSGMIGGMATLIVQKNLGDVVMF D I VKNMPHGKALDTSHTNVMAYSNCK  
VSGSNTYDDLKDADVIVTAGFTKAPGKSDKEWNRDDLPLNKNIMIEIGGHIKNNCPNA  
FIIIVVTNPVDMVQLLHQHSGVPKNKIVGLGGVLDTSRLKYYISQKLNVCPRDVNAHIVG  
AHGNKMLLKYRITVGGIPLQEFINNKKITDQELDAIFDR TINTALEIVNLHASPYVAPA  
AAIIEMAESYIRDLRKVLICSTLLEGQYGHKDI FAGTPLVIGNGVEQVIELQLNADEKK  
KFDEAVAETSRMKALI

>P13715

MKVGIVGSGFVGSATAYALVLQGVAREVVLVDLDRKLAQAHAEDILHATPFAHPVWVRSG  
WYEDLEGARVVIVAAGVAQRPGETRLQLLDRNAQVFADVVPKILKAAPEAVLLIATNPVD  
VMTQVAYRLSGLPPERVVGSGTILDTARFRALLAQHLLVAPQSVHAYVVEGHEGDSEVLVW  
SSAQVGGVDLEAFAQARGRALTPDDR LRIDEGVRRAAAYRI IEKGATYYGIGAGLARLTR  
AILTDEKGVFTVSLFTPEVEGVEEVALSLPRILGARGVEATLYPRLNEEERQALRRSAEI  
LKGAASALGF

>P16115

MKIGIVGLGRVGSSTAFALLMKGFAREMVLIDVDKKRAEGDALDLIHGTPFTRRANIYAG  
DYADLKGSDVVIVAAGVPQKPGETRLQLLGRNARVMKEIARNVSKYAPDSIVIVVTNPVD

VLTYFFLKESGMDPRKVFGSGTVLDTARLRTLIAQHCGFSPRSVHVYVIGEHDSEVPVW  
SGAMIGGIPLQNMCCQICQKCDKILENFAEKTKRAAYEIERKGATHYAIALAVADIVES  
IFFDEKRVLTLSVYLEDYLGVKDLCISVPVTLGKHGVERILELNLNEEELEAFRKSASIL  
KNAINETAEENKHQNTSG

>P42120

MASVQEKLITCVCQDKPAKPTNKITIVGVGQVGMACAVSVLLKELADELALVDILEDKLK  
GEMMDLQHGSLFLKTPTIVADKDYSVTANSRIVVVTGGVRQQEGESRLNLVQRNVNIFKF  
IIPQIVKYSPDCIILVVSNPVDILTYVTWKL SGLPQHR IIGSGTNLDSARFRHLIAEKL  
VHPTSCHGFILGEHGDSSVAVWSGVNVAGVSLQSLKPDIGTDEDCKWKEVHKQVVD  
SAYEVIKLGKGYTNWAIGFSVAEIVESITKNLGRVHPVSTMVKMGYGIETEVFLSLPCV  
LNGNGLTSVINQKLDNEVGQLQKSAETLWSIQKDLKDL

>P19629

MSTVKEQLIQNLAPDEKQSRCKITVVGVGNVGMACAISILLKGLADELALVDADENK  
LKG EALDLLHGSLFLSTPKIVFGKDYSVSANSKLVIIITAGARMVSGESRLALLQRN  
VTSMKAI VPGVIQNSPDCKIMIVTNPVDILTYVVWKISGLPVSSVIGSGCNLDSAR  
FRYLIGEKLG VNPSSCHGWVLGEHGDSSVPIWSGVNIAGVTLSLNPAGSDSDKEQW  
KTVHKQVVDGGYE VLNLKGYTSWAIALSVTDIAASILKNLKRHVAVTTLVKGLYGI  
KEEIFLSIPCVLQSGITDLVKVNMNTEEEALFKKSCDILWNIQKDLQL

>P30901

MTKVFAYAIRKDEEPFLNEWKEAHKDIDVDYTDKLLTPETAKLAKGADGVVYQQLDY  
TADTLQALADAGVTKMSLRNVGVDNIDMDKAKELGFQITNVPVYSPNAIAEHAAIQ  
AARVLR QDKRMDEKMAKRDRLRWAPTIGREVRDQVVGVTGHIGQVFMRI MEFGAK  
VIA YDIFKN PELEKKGYYVDSLDDLYKQADV ISLHVPDVPANVHMINDKSIAEMK  
DGVVIVNCSRGRV DTDAVIRGLDSGKIFGFVMDTYEDEVGVFNKDWEGKEFPDKR  
LADLIDRPNVLTPTHTAF YTTHAVRNMVVKAFNNNLKLINGEKPDSPVALNKNKF

>P26298

MKIIAYAVRDDRPFDDTWMKENPDVEVKLVPELLTEDNVDLAKGFDGADVQQKDY  
TAE VLNKLADGEGVKNISLRNVGVDNLDVPTVKARGLNISNPAYSPNAIAELSVTQ  
LMQLLRQ TPMFNKKLAKQDFRWAPDIAKELNTMTVGVIGTGRIGRAAIDIFKGF  
GAKVIGYDVYRNA ELEKEGMYVDTLDELYAQADVITLHVPALKDNYHMLNADAF  
SKMKDGAYILNFARGTLID SEDLIKALDSGKVAGAALVTYETKIFNKDLEGT  
IDDKVFMNLFNRDNVLTPTHTAFY TETAHVNMVHVSMSNKKQFIETGKADTQV  
KFD

>P22970

LNDHLSFNFDKFPVNPQNNILFQGEASVSTTGVLQVTKVSKPATRSIGRALYAAP  
VHIWDS TTGRVASFETSFSFVVKDEPEKSNGVDGLTFFFLAPANSQIPSGSSAGL  
FGLFNSSDNKSS NQIIAVEFDTYFGKTYNPWDPDFKHIGVDVNSIKSIKT  
VKWDRNGEVANVVITYRAPTK SLTVSLSYPSDQTSNIVTASVDLKAILEWVSVG  
FSAGVGNAAEFETHDVL SWYFTSNLE ANPA

>P22971

SNDISFKFKDFDPNGKQLTFQGYASVLDTGVLQLNKVGTLGPKIIGGIARYVAP  
FQIWSK ATGEVASFVTSFQFFLETSPNPANGASDGLTFFFLAPPNSPLRRAGG  
YLGLFETS NKSDSS YQTVAVEFDTVGAPANTWDPGYPHIGVDVNRVTSIKT  
TKEKWNKRYKREVANVWITYQAS SKTLTASLTYPQDQTSDSVSVDFKANL  
PEWVSVGFTGGTTVGGRETTHEILNWFSSSTLE YQT

>P17346

YGVPEEPPVPDTCGHVAEERVTQAFaelTTKLSELQENVtntfHGCNHCpNGWVTSEnk  
CFHVPLEKASWmVAHGVCARLDSRARLASIDAADQAVVEPLSSEKMWIGLSYDSANDAAV  
WADDSHSSHRNWyATQPdDESELcVLIkEDQYRQWHDYncNDryNFVCEIvLH

>P07439

MQRSEIVQAVtLLVVVFAITTAECTCPGNLDWQeYDGHcyWASTYQVRWndaQLACQTVH  
PGAYLatiQSQLENAFISetVSNRLWIGLNDIDLEGHYVWSNGEATDFTYWSSNPNPNW  
ENQDCGVVNYDtvTGQWDDDDCNKNKnfLCKMPIIGCPPCGI

>P24146

QNTVnFTYPDFWSYSLKNGTEITFLGDATRIPGALQLTKTDANGNPVRSSAGQASySEpV  
FLWDSTGKAASfYTSFTfLLKnyGAPTADGLAFFLAPVDSSVKDYGGFLGLFRHETAADP  
SKNQVVAVEFDtwINKDWNPPYPHIGIDVNSIVSVATTRWENDDAYGSSIATAHITYDA  
RSKILtVLLSYEHGRDYILSHVVDLAKVLPQKVRIGFSAGVGYDEVTYILSWHFFSTLDG  
TNK

>P49329

DNILYSSEVLHENQYISYGPYEFIMQHDCNLVLYESGNPTWASNTGGLALHCRATLQTDG  
NLVVQNSANRIIWQsNTGTGTNGDYLLVLQKNGNVVIVGPPiWATGTGR

>P30617

MAKASLLILAAIFLGVITPSCLSDNILYSGETLSTGefLNyGSFVfIMQEDCNLVLYDvd  
KPIWATNTGGLSRSCFLSMQTDGNLVVYNPSNKPiWASNTGGQNGNYVCILQKDRNVViy  
GTDRAWATGTHtGLVGIPASPPSEKYPTAGKIKLVtAK

>P16349

TETETTSFSiPKTDQPSSPKFVSGQPnLIfoGNAYSTdGKLILTEAKQNTVGRALYSAPi  
HIWDRKTGKVADFTASFTfyIRPNsDSQVvADGFTFFIAPVDTQPRGDGGLLGVFNREEY  
DPTIHTVAVEFDTFHNQPDpDYIHIGVDINSIKSRITRPWNPHYDTYSIAYIAYKAATN  
ELDVTVTYPNSRDYATLREVVDLKQIVPEWVRVGLSASTATYYSAHEVYSWSFhSELGGT  
SSSN

>Q9AYP9

MKRSNSIAVMLVLVLSLMLLLPVEGQGHGhGVGEILLMGKLGAPVCGVRASGRVCPDG  
YCCSQWGYCGTTEEYCGKGCQSQCDYNRCGKEFGGKECHDELCCSQYGCNSDGHCGEg  
CQSQCSYWRCKDFGGRLCTEDMCCSQYGCWGLTDDHCEdGCQSQCDLPTLLPSPLRRII  
AIRKlKANLANMLS

>P16108

MDYEILFSDETMNYADAGTYCQSRGMALVSSAMRDSTMVKAILAFTEVKGHdYwVGADNL  
QDGAYNfLWNDGVSPLPTSDSLWSPNEPSNPQSWQLCVQIWSKYNLDDVGCgGARRVICE  
KELDD

>P06027

GCCPTFWTSFGSNcyRFFAVSLTWAEGEQFCQSFVPSRGDIDSIghLVSIHSETEQNFV  
YHYFETSTKDDTTPEMWLGFNDRTTEGNFQWTDGSPNDFtAWVGSNPDNYGSGEDCTQMV  
MGAGLNWIDLPCSSTRHYLIckLPLWE

>Q9YGP1

MGRFIFVVSFGLLVVFLSLSGAKGSCCTNDSLPMNGMCYKIFDEPKTWEDAEMFCRKYKPG  
CHLASFHRLAESLDIAEYISDYHKRQAEVWIGLLDRKKDFSWEWTDRSCTDYLNWDKNQP  
DHYKDKEFCVELVSLTGYHRWNDQVCESKNSFLCQCKF

>P22031

ELVSEFCLKKERVCEDSSLTISCPPEGGIVYDAIYGRKRGEVCPGLFGAFTKNRKRCS  
NSQQVVENSCEGKSSCTVLASNSVFGDPCPGTAKYLAVTYICSFL

>P42455

MSPNDAFISAPAKIETPVGPRNEGQPAWNKQRGSSMPVNRYPFEVEVEDISLPDRTPWD  
KKITVAPQWCAVDLRDGNQALIDPMSPERKRRMFELLVQMGFKEIEVGFPSASQTDFFV  
REIIEKGMIPDDVTIQVLVQAREHLIRRTFEACEGAKNVIVHFYNSTSI LQRNVVFRMDK  
VQVKKLATDAAELIKTIAQDYPDTNWRWQYSPESFTGTEVEYAKEVVDAVVEVMDPTPEN  
PMIINLPSTVEMITPNVYADSI EWMHRNLNRRDSI ILSLHPHNDRGTGVGAAELGYMAGA  
DRIEGLFGNGERTGNVCLVTLALNMLTQGVDPQLDFTDIRQIRSTVEYCNQLRVPERHP  
YGGDLVFTAFSGSHQDAVNKGLDAMAAKVQPGASSTEVSWEQLRDTWEVYPYLPIDPKDV  
GRDYEAVIRVNSQSGKGGVAYIMKTDHGLQIPRSMQVEFSTVVQNVTD AEGGEVNSKAMW  
DIFATEYLERTAPVEQIALRVENAQTENEDASITAE LIHNGKDVTVDRGNGPLAAYANA  
LEKLGIDVEIQEYNQHARTSGDDAEAAAAYVLAEVNGRKVVWGVGIAGSITYASLKAVTSAV  
NRALDVNHEAVLAGGV

>P09151

MSQQVIFDFTLRDGEQALQASLSVKEKLQIALALERMGVDVMEVGFVSSPGDFESVQT  
IARQVKNSRVCALARCVEKDIDVAAESLKVAAEFRIHTFIATSPMHIA TKLRSTLDEVIE  
RAIYMVKRARNYTDDVEFSCEDAGRTP IADLARVVEAAINAGATTINIPDTVGYTMPFEF  
AGIISGLYERVPNIDKAIISVHTHDDLGLAVGNSLAAVHAGARQVEGAMNGIGERAGNCS  
LEEVIMAIVKVRKIDILNVHTAINHQEIWRTSQLVSQICNMPIPANKAIVGSGAFHSSGIH  
QDGV LKNRENYEIMTPESIGLNQIQNLNLSRSGRAAVKHRMDEM GYKESEYNLDNLYDAF  
LKLADKKGQVFDYDLEALAFIGKQQEPEHFRLDYFSVQSGSNDIATAAVKLACGEEVKA  
EAANGNGPVD AVYQAINRITEYNVELVKYSLTAKGHGKDALGQVDIVANYNGRRFHGVGL  
ATDIVESSAKAMVHVLNNIWRAAEVEKELQRKAQHNNENK ETV

>Q02141

MRKIEFFDTSRLRDGEQTPGVSF SISEKV TIAKQLEKWRISVIEAGFSAASPD SF EAVKQI  
ADSLNDTAVTALARCVISDIDKAVEAVKGAKYPQIHVF IATSP IHMKYK LKISPEEVLKN  
IDKCVRYARERVEVVEFSPEDATRTELNF LLEAVQTAVDAGATYINIPDTVGYTTP E EYG  
KIFKFLIDNTKSDREIIFSPHCHDDLGM AVANSLAAIKAGAGRVEGTVNGIGERAGNAAL  
EEIAVALHIRKDFYQAQSPLK LSETAATAELISQFSGIAIPKNK AIVGANAF AHESGIHQ  
DGV LKNAETYEIITPELVGIKHNSLPLGKLSGRHAFSEKLT E LNIA YDDESLAILFEKFK  
KLADKKKEITDADIHALFTGETVKNLAGFILDNVQIDGHKALVQLKNQ EEEIYVSQGEGS  
GSVDAIFKAIDKVFNHQLKLISYSVDAVTDGIDAQATTLVSVENLSTGTIFNAKGVDYDV  
LKGSAIAYMNANVLVQKENLQ GKVEQISAH DGI

>P06208

MVKESIIALAEHAASRASRVIPPVK LAYKNMLKDPSSKYKPFNAPKLSNRKWP DNRITRA  
PRWLSTDLRDGNQSLPDPMSVEQKKEYFHKL VNI GFKEIEVSFP SASQTDFFDFTRYAVEN  
APDDVSIQCLVQSREHLIKRTVEALTGAKKATIHTY LATS DMFREIVFNMSREEAISKAV  
EATKLV RKLTKDDPSQQATRWSYEF SPECFS DTPGEFAVEICEAVKKAWEPT EENPIIFN  
LPATVEVASPNVYADQIEYFATHITEREKVCISTHCHNDRGCGVAATELGMLAGADRVEG

CLFGNGERTGNVDLVTVAMNMYTQGVSPNLDFSDLTSVLDVVERCNKIPVSQRAPYGGDL  
VVCASFSGSHQDAIKKGFNLQNKKRAQGETQWRIPYPLPLDPKDIGRDYEAVIRVNSQSGKG  
GAAWVILRSLGLDLPRNMQIEFSSAVQDHADSLGRELKSDEISKLFKEAYNYNDEQYQAI  
SLVNYNVEKFGTERRVFTGQVKVGDQIVDIEGTGNGPISSSLVDALSNLLNVRFAVANYTE  
HSLGSGSSTQAASYIHLSYRRNADNEKAYKWGVGVSSEDVGDSSVRAIFATINNI IHSGDV  
SIPSLAEVEGKNAASGSA

>P24404

MTVRSFLFLPGDGIGPEAMTEVRKLI EYMNSAHNAGFTVSEGLVGG SAYDAHGVAISDAD  
MEKALAADAAILFGAVGGPKWDGVPYEH RPEAGLLRRLRKDLELFANLRPAICYPALAAASS  
LKPELVEGLDILIVRELTGGVYFGE PKQIIDLGNGQKRGIDTQIYDTFEIERIASVAFEL  
ARSRDNRVCSMEKRNVMKSGVLWNQVVTETHAAKYKDVQLEHMLADAGGMQLVRKPKQFD  
VIVTDNLFGDMLSDVAAMLTGSLGMLPSASLGAPDAKTGKRKAMYEPVHGSAPDIAGKSI  
ANPIAMIASFAMCLRYSFNMVDEATKLEAAIANVLDKGI RTADIMADGCRQVGTSDMGDA  
VLAEFKALSA

>P30125

MSKNYHIAVLPDGDIGPEVMTQALKVLD AVRNR FAMRI TTSHYDVGGA IDNHGQPLPPA  
TVEGCEQADAVLFGSVGGPKWEHLPPDQQPERGALLPLRKHF KLF SNLRPAKLYQGLEAF  
CPLRADI AANGFDILCVRELTGGIYFGQPKGREGSGQYEKAFDTEVYHRFEIERIARIAF  
ESARKRRHKVTSIDKANVLQSSILWREIVNEIATEY PDVELAHMYIDNATMQLIKDPSQF  
DVL LCSNLF GDILSDECAMITGSMGMLPSASLNEQGFGLYEPAGGSAPDIAGKNIANPIA  
QILSLALLLRYSLDADDAACAIERAINRALEEGIR TGD LARGAAA VSTDEM GDI IARYVA  
EGV

>P95313

MKLAI IAGDGIGPEVTAEAVKVLDAVVPGVQKTSYDLGARRFHATGEVLPDSVVAELRNH  
DAILLGAIGDPSVPSGVLERGLLLRRLRFELDHHINLRPARLYPGVASPLSGNPGIDFVVV  
REGTEGPTYTGNGGAI RVTGPNEVATEVSVNTAFGVRRVVADAFERARRRRKHLTLVHKTN  
VLTFAGGLWLRVTDEVEGECYPDVEVAYQH VDAATIHMITDPGRFDVIVTDNLF GDIITDL  
AAAVCGGIGLAASGNIDATRANPSMFEPVHGSAPDIAGQGIADPTAAIMSVALLLSHLGE  
HDAAARVDRAVEAHLATRGSERLATS DVGERIAAAL

>P50455

MGFTVALIQGDGIGPEIVSKSKRILAKINELYSLPIEYIEVEAGDRALARYGEALPKDSL  
KIIDKADIILKGPVGESAADVVVKLRQIYDMYANIRPAKSIPGIDTKYGNVDILIVRENT  
EDLYKGF EHVSDGVAVGMKIIITRFASERIAKVGLNFALRRRKKVTCVHKANVMRI TDGL  
FAEACRSVLK GKVEYSEMYVDAAAANLVRNPQMFDVIVTENYGDILSDEASQIAGSLGI  
APSANIGDKKALFEPVHGAAFDIAGKNIGNPTAFLLSVSMYERMYELSNDDRYIKASRA  
LENAIYLVYKERKALTPDVGGNATTDDLINEIYNKLG

>Q5SIY4

MKVAVLPDGDIGPEVTEAALKVLRALDEAEGLGLAYEVFPFGGAAIDAFGEPPPEPTRKG  
VEEAEAVLLG SVGGPKWDGLPRKIRPETGLLSLRKSQDLFANLRPAKVFPGLERLSPLKE  
EIARGVDVLI VRELTGGIYFGEPRGMSEAEAWNTERYSKPEVERVARVAFEAARKRRKHV  
VSVDKANVLEVEGFWRKTVEEVGRGYPDVALEHQYVDAMAMHLVRS PARFDVVVTGNIFG  
DILSDLASVLP GSLGLLPSASLGRGTPVFEPVHGSAPDIAGKGIANPTAAILSAAMMLEH  
AFGLVELARKVEDAVAKALLETPPPDLGGSAGTEAFTATVLRHLA

>Q56268

MKKIAIFAGDGIGPEIVAAARQVLDVAVDQAAHLGLRCTEGLVGGAAALDASDDPLPAASLQ  
LAMAADAVILGAVGGPRWDAYPPAKRPEQGLLRRLRKGLDLYANLRPAQIFPQLLDASPLR  
PELVRDVIDILVVRELTGDIYFGQPRGLEVIDGKRRGFNTMVYDEDEIRR IAHVAFRAAQG  
RRKQLCSVDKANVLETTRLWREVVTVEVARDYPDVRLSHMYVDNAAMQLIRAPAQFDVLLT  
GNMFGDILSDEASQLTGSIGMLPSASLGEGRAMYEP IHGSAPDIAGQDKANPLATILLSVA  
MMLRHSLSNAEPWAQRVEAAVQRVLDQGLRTADIAAPGTPVIGTKAMGAAVVNALNLKD

>P0A7C2

MKALTARQQEVFDLIRDHISQTMPPTRAEIAQRLGFRSPNAAEEHLKALARKGVIEIVS  
GASRGIRLLQEEEEGLPLVGRVAAGEPLLAQQHIEGHYQVDP SLFKPNADFLLRVSGMSM  
KDIGIMDGDLLAVHKTQDVRNGQVVVARIDDEVTVKRLKKQGNKVLELLPENSEFKPIVVD  
LRQQSFTIEGLAVGVIRNGDWL

>Q946J8

MKGASGAVKKKPQVLNEAGEAETA VETVGESRKISGDGGFGSDDGGGGGGGGSGESILRE  
IGDDRPTEDGDEEEEEDEDEDGDEEDEEGEGEGGQEERPKLDEGFYIEAIRRKRVRK  
GKVQYLKWRGWPEANTWEPLENLQSIADVIDAFEGSLKPGKPRKRKRKYAGPHSQMK  
KKQRLTSTSHDATEKSDSSTSLNSSLDPIDPDLDSLGSLLNRDVEAKNAYVSNQVEAN  
SGSVGMARQVRLIDNEKEYDPTLNELRGPVNNSNGAGCSQGGGIGSEGDNVRPNGLLKVY  
PKELDKNSRFI GAKRRKSGSVKRFKQDGSTSNHTAPTQNLTPDLTTLDSFGR IARMGN  
EYPGVMENCNLSQKTKIEELDITKILKPMSTASVSDNVQEVLVTF LALRSDGKEALVDN  
RFLKAHNPHLLIEFYEQHLKYNRTP

>Q944N1

MKEGKRKSSRLQSEAAGAGSSRKL DLDGVAAERQERNGY PEDAGSKCEEEPVAGEGEGEG  
EEKDEAPEVVRVEKGDGDVAKKVKPKLAEGFYIEETVRRRRRTVKGVVYLIKWRGWPE  
ANTWEPETNLSSCTDI IDAYEESLKSGLRRRKRKFGATQTHPMIKQRRFSAPVATYNG  
PAVKVRIIEEPTSPPLNVLKATDLVDSNGSELNSKVDEVVNGNGLRLREQNELNLKLS  
LKGATSTNGNPVDISGNGLTNGFPKVNGAEFYQSDRCTGAKKRKSGCVRRFKRETTSAVK  
DDTQDALAGGPLATFMQDGSNHVMVADDSKDGTYITITQLVNPVSYKASF SNDMLDVSVTF  
VAKRADGNLVLVDNKFLKMNPLLLLINFYEEENMRYHPTE

>Q9UUS2

MTVSTHHDDSPGLSGRLRDL LHHVFGNQKSP TVYPNAPGNSAKPVPTGLADDIDKLGFKD  
IDTLLIFLNSAVKGVNDDQQFLLEKMIQLLAKLPASREGKKT DGLINDLWDSL DHPV  
ASLGKGF SFREP DGSNNNIHLPSLGAANTPYARSTKPLVFNPNPPDPATIFDTLMVRDP  
AKFRPHPNKISSMLFYLATIITHDIFQTSRDFNINLTSSYLDLSPLYGRNHDEQMAVRT  
GKDGLLKPDTFSSKRVI GFPPGVGAFLIMFNRFHNYVVTQLAK INEGGRFKRPTTPDDTA  
GWETYDNSLFQTGR LITCGLYINIVLGDYVRTILNLRANTTWNLDPRTKEGKSLLSKPT  
PEAVGNQVSVEFNLIYRWHCTISERDDKWTNAMREALGGQDPATAKMEDVMRALGMFEK  
NIPDEPEKRTL AGLTRQSDGAFDDTELVKILQESIEDVAGAFGNHVPACMRAIEILGIK  
QSRTWNVATLNEFRQF IGLTPHDSFYHMNPDPKICKILAQMYDSPDAVELYPGIMAEAAK  
PPFSPGSLCPPYTTSRAILS DAVSLVRGDRFYTVDYTPRNITNWGFNEASTDKAVDWGH  
VIYKLF FRAFPNHFLPNSVYAHFPFVVPSENKLIF EGLGAANKYSWDPPKARAPIQFIRS  
HKAVLEVLSNQKDYKVTWGA PKMLSGDPATSFALAGDEPANAASRHHVIAALTAPKQWR  
DEVRRFYEVTT RDLLRRHGAPVHGVGAGPRTHEVDVIRDVIGLAHARFMASLFSPLKKEE  
GKEEGAYGEHEL YRSLVTIFAAIFWSDVCNSLKLHQASKAAADKMSALIAEHVREMEAG  
TGFLGALGKLDLITGNDVHANGNGVYTNGNGVYTNNGVHTNNGVHTNNGVPHAAPS  
LRSFGDQLLQRLMSQDGRSIEETVSGTILPVVMAGTANQTQLLAQCLDYLLGVGEKHLPE  
MKRLAMLNTSEADEKLLK



>Q96FE5

MQVSKRMLAGGVRSMPSPLLACWQPILLLLVLGSLVSGSATGCPPRCECSAQDRAVLCHRK  
RFVAVPEGIPTETRLLDLGNRIKTLNQDEFASFPHLEELNENIVSAVEPGAFNNLNFN  
LRTLGLRSNRLKLIPLGVFTGLSNLTKLDISENKIVILLDYMFDLYNLKSLEVGDNDLV  
YISHRAFSGLSLEQLTLEKCNLTSIPTREALSHLHGLIVLRLRHLNINAIRDYSFKRLYR  
LKVLEISHWPYLDTMTPNCLYGLNLTSLSI THCNLTAVPYLAVRHLVYLRFLNLSYNPIS  
TIEGSMHELLRLQEIQLVGGQLAVVEPYAFRGLNYLRVLNVSGNQLT TLEESVFHSGVN  
LETLILDSNPLACDCRLLWVFRWRRLNFRNQPTCATPEFVQKFEKDFPDVLLPNYFT  
CRRARIRDRKAQQVFVDEGHTVQFVCRADGDPPPAILWLSPRKHLVSAKSNGR LTVFPDG  
TLEVRYAQVQDNGTYLCLIAANAGGND SMPAHLHVRSYSPDWPHQPNTFAFISNQPGEGE  
ANSTRATVPFPFDIKTLIIATTMGFISFLGVVLFCLVLLFLWSRKGKNTKHNI EIEYVPR  
KSDAGISSADAPRKFNMKMI

>P11602

MERGRGMGKTALLAVLCLCLRGAAGSDPEAEMNFEGIESKFSLRTPAEPDEDVCYLVPGQ  
MDSL AQCNFNHTSKTFVVIHGWTVTGMYESWVPKLV DALYKREPDSNVIVVDWLVRAQQH  
YPVSAAYTKLVGKDVAMFIDWMEEFNYPLMNVHLLGYSLGAHAAGIAGSLTKKKVNRIT  
GLDPAGPTFEYADAPIRLSPDDADFVDVLHTYTRGSPDRSIGIQKPVGHIDIYPNGGGFQ  
PGCNLGEALRLIAEKGFSDVDQLVKCSHERSIHLFIDSLLYEEKPSMAYRCNTKEAFEKG  
LCLSCRKNRCNNLGYKVNVRVTRKRN TKMYLKTRAQMPYKVFHYQVKIHFFGKTNVTKVDQ  
PFLISLYGTLDESENI PFTLPEVSSNKTF SFLIYTEVDIGDLLMLKLQWEKDTFFSWSDW  
WTPFAFTIQRVRVKSGETQKKVVFCSR DGSSRLGKGEEAAIFVKCLEQPVS RKRGGAKKA  
SKENSAHESA

>P02545

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSL ETENAGLR  
LRIT ESEEVVSREVSGIKAAYEAELGDARKTLDSVAKERARLQLELSKVREEFKELKARN  
TKKEGLIAAQARLKDLEALLNSKEAALSTALSEKRTLEGE LHDLRGQVAKLEAALGEAK  
KQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETRLVEIDNGKQREFESR  
LADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERN SNLVGAAHEELQQSRIRID  
SLSAQLSQLQKQLAAKEAKLRDLED SLARERDTSRRL LAEKEREMAEMRARMQQQLDEYQ  
ELLDIKLALDMEIHAYRKLLEGE EERLRLSPSPTSQRSRGRASSHSSQTQGGGSVTKKRK  
LESTESRSSFSQHARTSGRVAVEEVDEEGKFVRLRNKSNEDQSMGNWQIKRQNGDDPLLT  
YRFPFKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWGCNLSRTALINSTGEEVAM  
RKLVRSVTVVEDDEDEDGDDLLHHHHGSHCSSSGDPAEYNLRSRTVLCGTCGQPADKASA  
SGSGAQVGGPISSGSSASSVTVTRS YRSVGGSGGSGFDNLVTRSYLLGNSSPRTQSPQN  
CSIM

>P36774

MSDEKKKGSAA SAMPTAMAPPGLINKEDI PQVLPILPLRNSVFFPGGVLP LAVGRQKTIA  
LIKDAVRDDQVIGVVTQRRAE EEDPGAADLYTMGTVARIVKLLKMGEDNYSLVVQGLARF  
RVVELVQEAPYLKARVDAVEDKTSSENVEVEALGINLKKLAREVIELMPELPAAATELVE  
SITHPGHLADLIAANVDVPIEEKQAVLETVDLKARMKLVLELLNRKREILKLSNKIDSAV  
KGEMSKTQREYYLRQQLKAIKEELGEMGEEEEELDELQERLKKAGLPPDVEKVANKELNR  
LKTIP AASSEYTVARTYLDWIADLPWAKISEDNLDIENARQLDKDHFGIKKVKKRILEY  
LAVRKLKNDMRGPILCLVGGPPGVGKTS LGQSVAKATGRKFVRLSLGGVRDEAEIRGHRRT  
YVGALPGRFIQSMKKAGTKNPVMMLDEIDKLGADFRGDP SAALLEVLDP EQNNTFSDHYL  
DVPFDLSKVMFVATANQLDPIPGPLRDRMEIIELTGYTFEEKQS IAR IHLVPKQLKEHGL  
SPDHIDITDEALLTLTAYTREAGVRNLERRIADICRAVAVEVAGGKTEKQTINADRVKE

ILGPEMFYSEVAERTEVPGVATGLAWTAAGGDLLEFIEATKMAGKGGMTLTGQLGDVMKES  
ATAALSYLRSKAEQLGISPNFLEKTDLHLHFHPAGSIPKDGPSAGVTILTALTSLLTGIRV  
RHDTAMTGEATLRGLVLPVGGIKEKVLAAHRAGIKRVILPERCRKDLIDVPDQARNELEF  
IFVTHMDDVLKAALETTPVGVAGTPGGEPGKEAPLPKPAESAPEVRA

>P0A9M0

MNPERSERIEIPVPLPLRDVVVYPHVMVPLFVGREKSIRCLEAAMDHDKKIMLVAQKEAST  
DEPGVNDLFTVGTVASILQMLKLPDGTVKVLVEGLQRARISALSDNGEHFSAKAEYLESP  
TIDEREQEVLRVTAISQFEGYIKLNKKIPPEVLTSLNSIDDPARLADTIAAHMPLKLADK  
QSVLEMSDVNERLEYLMAMMESEIDLLQVEKRIRNRVKKQMEKSQREYYLNEQMKAIQKE  
LGEMDDAPDENEALKRKRIDAAMPKEAKEKAEAEELQKLKMMSPMSAEATVVVRGYIDWMVQ  
VPWNARSKVKKDLRQAQEIILDTDHYGLERVKDRILEYLAVQSRVNIKGPILCLVGPVGV  
GKTSLGQSIKATGRKYVRMALGGVRDEAEIRGHRRTYIGSMPGKLIQKMAKVGKPNPLF  
LLDEIDKMSSDMRGDPASALLEVLDPQNVAFSDHYLEVDYDLSVDMFVATSNSMNIAP  
LLDRMEVIRLSGYTEDEKLNIAKRHLKPKQIERNALKKGELTVDDSAIIGIRYVYTREAG  
VRGLEREISKLCRAVKQLLLDKSLKHIEINGDNLHDYLGVRFDYGRADNENRVGQVTG  
LAWTEVGGDLLTIETACVPGKGLTYTGSLSGEMQESIQAALTVVRARAELKGINPDFYE  
KRDIHVHVPEGATPKDGPSAGIAMCTALVSCLTGNPVRADVAMTGEITLRGQVLPIGGLK  
EKLLAAHRGGIKTVLIPFENKRDLEEIPDNVIADLDIHPVKRIEEVLTALQNEPSGMQV  
VTAK

>P36775

MLRTRTTKTLSTVARTTRAIQYYRSIAKTAAVSQRRFASTLTVRDVENIKPSHIKSPW  
QEFQHQLKDPYMEHFAQLDAQFARHFMATNSGKSIKAKDDSTSQKKDEDVKIVPDEKDT  
DNDVEPTRDDEIVNKDQEGEASKNSRSSASGGGQSSSSRSDSGDGSSKQKPPKDVPEVYP  
QMLALPIARRPLFPGFYKAVVISDERVMKAIKEMLDROQPYIGAFMLKNSEEDTDVITDK  
NDVYDVGVLAQITSAPFSKDEKTGTETMTALLYPHRRIKIDELFPPNEEKESKEQAKDT  
DTETTVVEDANNPEDQESTSPATPKLEDIVVERIPDSELQHHKRVEATEEESEELDDIQE  
GEDINPTEFLKNYNVSLVNVNLNLEDEPFDRKSPVINALTSEILKVFKEISQLNTMFREQI  
ATFSASIQSATTNIFEPPARLADFAAAVSAGEEDELQDILSSLNIEHRLEKSLLVLKKEL  
MNAELQNKISKDVETKIQKRQREYYLMEQLKGIKRELGIDDGRDKLIDTYKERIKSLKLP  
DSVQKIFDDEITKLSTLETSMSEFGVIRNYLDWLTSSIPWGKHSKEQYSIPRAKKILDEDH  
YGMVDVKDRILEFIAVGKLLGKVDGKIIICFVGPVGVGKTSIGKSIARALNRKFFRFSVGG  
MTDVAEIKGHRRTYIGALPGRVVQALKKQQTQNPLILIDEIDKIGHGGIHGDP SAALLEV  
LDPEQNNFLDNVLDIPIDLSKVLVCTANSLETIPRPLLDLDRMEVIELTGYVAEDKVKIA  
EQYLVP SAKKSAGLENSHVDMTEDAITALMKYYCRESGVRNLKKHIEKIYRKAALQVVKI  
LSIEDSPTSSADSKPKESVSSEEKAENNAKSSSEKTKDNNSEKTSDDIEALKTSEKINVS  
ISQKNLKDYVGPVYTTDRLYETTPPGVVMGLAWTNMGGCSLYVESVLEQPLHNCKHPTF  
ERTGQLGDVMKESRLAYSFAKMYLAQKFPENRFFEKASIHLCPEGATPKDGPSAGVTM  
ATSFLSLALNKSIDPTVAMTGETLTLTGKVLRIIGGLREKAVAAKRSKAKTIIFPKDNLNDW  
EELPDNVKEGLEPLAADWYNDIFQKLFKDVNTKEGNSVWKAEFEILDAKKEKD

>Q07923

MKVGIIIMGSVRAKRVCP EIAAYVKRTIENSEELIDQKLIKQVVDLQQIALPLYEDDDELI  
PAQIKSVDEYADSKTRSWSRIVNALDIIVFVTPQYNWGYPAALKNAIDRLYHEWHGKPAL  
VVSYGGHGGSKCNDQLQEVHLHGLKMNVIIGGVAVKIPVGTIPLPEDIVPQLSVHNEEILQL  
LASCIEETRNK

>Q61469

MFDKTRLPYVALDVICVLLAGLPFAILTSTRHTPFQRGIFCNDDSIKYPYKEDTIPYALLG

GIVIPFCIIIVMSIGESLSVYFNVLHSNSFVGNPYIATIYKAVGAFVLFVGSASQSLTDIAK  
YTIGSLRPHFLAICNPDWSKINCSDGYIEDYICQGNEEKVKEGRLSFYSGHSSFMYCML  
FVALYLQARMKGDWARLLRPLMQFGLIAFSIYVGLSRVSDYKHHWSDVTVGLIQGAAMAI  
LVALYVSDFFKDTHSYKERKEEDPHTTLHETASSRNYSTNHEP

>O14495

MQNYKYDKAIVPESKNGGSPALNNNPRRSGSKRVLLICLDLFCFLMAGLPFLIIETSTIK  
PYHRGFYCNDESIYKPLKTGETINDAVLCAVGIVIAILAIITGEFYRIYYLKKSRSTIQN  
PYVAALYKQVGCFLFGCAISQSFTDIKVSIGRLRPHFLSVCNPDFSQINCSEGYIQNYR  
CRGDDSKVQEARKSFFSGHASFSMYTMLYLVLVYLQARFTWRGARLLRPLLQFTLIMMAFY  
TGLSRVSDHKHHPDVLGAFQAQALVACCIVFFVSDLFKTKTTLTSLPAPAIRKEILSPVD  
IIDRNNHHNMM

>P69776

MKATKLVLGAVILGSTLLAGCSSNAKIDQLSSDVQTLNAKVDQLSNDVNAMRSDVQAAKD  
DAARANQRLDNMATKYRK

>P0A722

MIDKSAFVHPTAIVEEGASIGANAHI GPFICVGPVHEIGEGTVLKSHVVVNGHTKIGRDN  
EIIYQFASIGEVENQDLKYAGEPTRVEIGDRNRIRESVTIHRGTVQGGGLTKVGSNDLLMIN  
AHIAHDCTVGNRCILANNATLAGHVSVDFAIIGGMTAVHQFCIGAHVMVGGCSGVAQD  
VPPYVIAQGNHATPFGVNI EGLKRRGFSREAITAIRNAYKLIYRSGKTLDEVKPEIAELA  
ETYPEVKAFTDFFARSTRGLIR

>Q9JMH2

MLWLLALGGPHQAWSFCPSQCSCSLHILSDGSKARTVVCSDPDLTLPPASIPPDTCCKLRL  
ERTAIRRVPGETFRLSRLEQLWL PYNALSELSTMLRGLRRLRELRPLPGNHLVTFPWAA  
LKDTPQLQLDLQANRLSTLPPEAVHFLENLTFDLDSNNQLMRLPEELLDTWHLKTGPY  
LSSRRLVGLGLQDNPWVCDRLYDLVHLLDGWASNLI FIEARLRCSGSPRSLAGVAFSQL  
ELRKCQSPELRPGVTSIISPLGSTVLLRCGATGIPGPEMSWRRANRPLNGTVHQEVSSD  
GSSWTLLDLPVVSLFDSDGYICQAKNFLGASETLISLIVTEPQTSTEYTGIPGALWARTG  
EGAEAAAYNNKLVARHVPHVPEPVALATKPSVPSIKEELPLQNFQMDVPGEFSREPSEHQ  
ETQMVRSLKVVGDYTHSVSLVWKAPQAGNTTAFSVLYAVFGQRDMRRMTVEAGKTSVTIE  
GLAPKTKYVACVCVRGLVPTKEQCVIFSTDEVVDAEGTQRLINMVVISVAAI IALPPTLL  
VCCGALRRRCHKCRAGGSAEASGAYVNLERLGHSEGDSEELSRSSLSEADRLLSARSSLD  
SQVLGVRGGRRINEYFC

>P0ACJ0

MVDSKKRPGKDLDRIDRNILNELQKDGRISNVELSKRVGLSPTPCLERVRRLERQGFIOG  
YTALLNPHYLDASLLVFVEITLNRGAPDVFEQFNTAVQKLEEQECHLVSGDFDYLLKTR  
VPDMSAYRKLGETLLRPLPGVNDTRTYVVMEEVKQSNRLVIKTR

>O93774

MQVENIRVRLPSGKEVGLVDALNFCYDISDTDFQVLKTLNLSGPKTEDELAEMHLHLSKAS  
INRSVNKLVSGLFVDRVKDSSSKGGRPRYIYKPIDADRITTKISNDFKYCADLFSVPIQ  
ELKEK

>Q9WU74

MAPAAGACAGAPDHPATVVFVCLFLIIFCPDPASAIQVTVSDPYHVIVILFQPVTLPCY  
QMSNTLTVPIVIVKYKSFCDRIADAFSPASVDNQLNAQLAAGNPGYNPYVEQCDSVRTV

RVVATKQGNVAVTLGDYYQRRITITGNADLTFEQTAWGDSGVYYCSVVSAQDLDGNNEAY  
AELIVLGRITSEAPELLPGFRAGPLEDWLFFVVVCLASLLLFLLLGICWCQCCPHTCCCYV  
RCPCCPKCCCPEALYAAGKAATSGVPSIYAPSIYTHLSPAKTPPPPPAMIPMGPPYGYF  
GDFDRHSSVGGHSSQVPLLRDVGSVSSEVRSGYRIQANQQDDSMRVLYYMEKELANFDP  
SRPGPPNGRVERAMSEVTSLHEDDWRSRPSRAPALTPIRDEEWNRHSPQSPRTWEQEPLQ  
EQPRGGWGSGRPRARSVDALDDINRPGSTESGRSSPPSSGRRGRAYAPPRSRSRDDLQYD  
DDPRDLPHSRDPHYDDIRSRDPRADPRSRQSRDPRDAGFRSRDPQYDGRLLLEEALKKK  
GSGERRRVYREEEEEEEGQYPPAPPYSETDSQASRERRLKKNLALSRESLVV

>O07051

MRYIDLRSDTVTPQTDAMRQCMLHAEVGGDDVYGEDPGVNALEAYGADLLGKEAALFVPSG  
TMSNLLAVMSHCQRGEGAVLGSAAHIYRYEAQGSAVLGSVALQPVPMQADGSLALADVRA  
AIAPDDVHFTPTRLVLCLENTHNGKVLPLPYLREMRELVDEHGLQLHLDGARLFNAVVASG  
HTVRELVAFFDSVSIKLSKGLGAPVGSLLVGSFAFIARARRLRKMGVGGMRQAGILAQAG  
LFALQQHVVRLADDHRRARQLAEGLAALPGIRLDLAQVQTNMVFQLTSGESAPLLAFMK  
ARGILFSGYGELRLVTHLQIHDDDIEEVIDAFTEYLGA

>Q16873

MKDEVALLAAVTLLGVLLQAYFSLQVISARRAFRVSPPLTTGPPEFERVYRAQVNCSEYF  
PLFLATLWVAGIFFHEGAAALCGLVYLFARLRYFQGYARSAQLRLAPLYASARALWLLVA  
LAALGLLAHFLPAALRAALLGRLRRTLLPWA

>P09142

MTKWNYGVFFLNFYHVGQQEPLTMSNALETLRIIDEDTSIYDVVAFSEHHIDKSYNDET  
KLAPFVSLGKQIHILATSPETVVKAACYGMPPLLFKWDDSQQKRIELLNHYQAAAAKFNVD  
IAGVRHRLMLFVNVNDNPTQAKAELSIYLEDYLSYTAETSIDEIINSNAAGNFDTCLHH  
VAEMAQGLNKNVDFLFCFESMKDQENKKSMLINFDKRVINYRKEHNLN

>P12745

MNKWNYGVFFVNFYKGGQEPSKTMNALETLRIIDEDTSIYDVINIDDHYLVKKDSEDK  
KLASFITLGEKLYVLATSENTVDIAAKYALPLVFKWDDINEERLKLKLSFYNASASKYNKN  
IDLVRHQLMLHVNVEAETVAKEELKLYIENYVACTQPSNFNGSIDSIIQSNVTGSYKDC  
LSYVANLAGKFDNTVDFLLCFESMQDQNKKSVMIDLNNQVIKFRQDNLLI

>O34667

MPSVESFELDHNAVVPYVRHCGVHKVGTGVDGVVNFDIRFCQPNKQAMKPDITHTLEHLL  
AFTIRSHAKEYDHFIDIIDISPMGCQTGYLLVVSSEPTSAEIVDLEEDTMKEAVEITEIPA  
ANEKQCGQAKLHDLEGAKRLMRFWLSQDKEELLKVFG

>Q9RRU8

MPDMANVESFDLDHTKVKAPYVRLAGVKTTPKGDQISKYDLRFLQPNQGAIDPAAIHTLE  
HLLAGYMRDHLEGVVDVSPMGCRTGMYMAVIGEPDEQGVKAFEAALKDTAGHDQPIPGV  
SELECGNYRDHDLAAARQHARDVLDQGLKVQETILLER

>P44007

MPLLDSEFKVDHTKMNAVAVRIAKTMLTPKGDNITVFDLRFICPNKEILSPKGIHTLEHLF  
AGFMRDHLNGDSIEIIDISPMGCRTGFYMSLIGTPNEQKVSEAWLASMQDVLGVQDQASI  
PELNIYQCGSYTEHSLEDAHEIAKNVIARGIGVNKNEDLSLDNSLLK

>Q9ZMW8

MKMNVESFNLDHTKVKAPYVRIADRKKGVNGDLIVKYDVRFKQPNRDHMDMPSLHSLEHL  
VAEII RNHANYVVDWSPMGCQTGFYLTVLNHDNYTEILEVLEKTMQDVLKAKEVPASNEK  
QCGWAANHTLEGAQNLRARAFLDKRAEWSEVGV

>P21578

MFKGIVEGIGII EKIDIYTDLDKYAIRFPENMLNGIKKESIMFNGCFLT VTSVNSNI VW  
FDIFEKEARKLDTFREYKVGDRVNLGTFPKFGAASGGHILSARISCVASIEIEIENEDYQ  
QMWIQIPENFTEFLIDKDYIAVDGISLTIDTIKNNQFFISLPLKIAQNTNMKWRKKGDKV  
NVELSNKINANQCW

>P80748

YVLTQPPSVSVAPGETARLTCGGNDIGSESVHWYQQKPGQAPVLVIYFDRDRPSGIPERF  
SGSNSGNTATLTI SRVEAGDEADYYCQLWDSSEHVVFGGGTKLTVLSQPK

>O75608

MCGNNMSTPLPAIVPAARKATAAVIFLHGLGDTGHGWAEAFAGIRSSHIKIYICPHAPVRP  
VTLNMNVAMP SWFDI IGLSPDSQEDESGIKQAAENIKALIDQEVKNGIPSNRIILGGFSQ  
GGALSLYTALTTQQKLAGVTALSCWLPLRASFPQGP IGGANRDISILQCHGDCDPLVPLM  
FGSLTVEKLLKTLVNPANVTFKTYEGMMHSSCQEMMDVKQFIDKLLPPI D

>Q9P4R4

MATKSVLMLGSGFVTRPTLDVLTDSGIVTVACRTLESAKKLSAGVQHSTPISLDVNDDA  
ALDAEVAKHDLVISLIPYTFHATVIKSAIRQKKHVVTTSYVSPAMMELDQAAKDAGITVM  
NEIGLDPGIDHLYAIKTIIEVHAAGGKIKTFLSYCGGLPAPESSDNPLGYKFSWSSRGVL  
LALRNAASFYKDGKVTNVAGPELMATAKPYFIYPGFVAVYPNRDSTPYKERYQIPEADN  
IVRGTLRYQGFPQFIKVLVDIGFLSDEEQPFLKEAIPWKEATQKIVKASSASEQDIVSTI  
VSNATFESTEEQKRIVAGLKWLGIFSDKKITPRGNALDTLCATLEEKMQFEEGERDLVML  
QHKFEIENKDGSRERTRSSLCEYGAPIGSGGYSAMAKLVGVPCAVAVKFLDGTISDRGV  
LAPMNSKINDPLMKELKEKYGIECKEKVVA

>Q980W9

MGNANIDESDLKILEILKKNARTPYTLIAKELKVSEAAIRKRIEKLIRQGI IKRFTIEYE  
LENEIRAIVMVQSTPQIPTPEISKKIAKIPGVEVVYETTGDYDILVIVRGTNITSINRTI  
DEIRSIQGVVGTNSTIILRTWF

>P39848

MKKRLIAPMLLSAASLAFFAMSGSAQAAAYTDYSLYKVEPSNTFSTESQASQAVAKLEKD  
TGWDASYQASGTTTTTYQISASGIHSESEAKA ILSGLAKQTSITGTSSPVGSKQP YVTISS  
GAISGEKQANTILAKLKQETGVAGAVKAYGAAQPYMNVMTSDIADETKVKALIQSLAKQT  
GIKSSYQPIHTHTVSVTTIQSGTIVGDSRAAQIKNAFQKESGLQASLKETVKGQAYYFTTT  
AAISGEANAKTLLQQLKQSTGITGSYKSINQKTTVESYNVQSAYFKGLSTVKDAISQIKK  
NTGVSGSYQQVGKSTS YTVNMKGITKQQLQKIDTFFFKKKKWHYTSSSVKKTTSAAAYQIT  
TAKILGEQQANKAAFFAQKKVKAATAAGSTAENQYQLISEETSQAKVTKGLN I LKKN  
QLSASAKSVKKQIADTFKITTESLLDQTKVNQALTFFKSNHISVASQKTGQTAASSYQIT  
TEAIISQEEIDRVLTFFKQNHIAVTTSTGTAYTQYKIVTTQLSSKTALNNGLT YL KSK  
SVTPSYTTKSN TLYKISVNEQFTGNDTAAAASTKLKQLYGWTSSIVKIKNGPQIMKTNYN  
LSLRDMVQKQMTVSPQTDGAAYVSLTYINTATSTVTADVLNIRSTPEVSP T NVIGQFKKG  
DKVKVIGQINGWAKINLGWRNASSDEVVQYVDPNMF SRDSKYFQFLKLSQTAGLSVTEV  
NQKVLGAGKILTGRAKAFIDAANQYSINELYLISHALLETGNGTSALANGLTYNGKTVYN  
MYGIGAYDSNP NYYGAKYAYEQGWFTPEAAI IGGAKFIGSSYIHNTAYNQDTLYKMRWSA

TATHQYATDIGWAYKQVNRMYSLYSLLDGYTLYFDVPEYR

>Q8BHC0

MLQHTSLVLLLASIWTTTRHPVQGADLVQDLSISTCRIMGVALVGRNKNPQMNFTANEAC  
KMLGLTLASRDQVESAQKSGFETCSYGWVGEQFVSVIPRIFSNPRCGKNGKGVLIWNAPSS  
QKFKAYCHNSSDTWVNSCIPEIVTTTFYPVLDTQTPATEFSVSSSAYLASSPDSTTPVSAT  
TRAPPLTSMARKTKKICITEVYTEPITMATETEAFVASGAAFKNEAAGFGGVPTALLVLA  
LLFFGAAAVLAVCYVKRYVKAFFPTTKNQKEMIEFKVVKEEKADDVNANEESSKKTIKNP  
EEAKSPPKTTVRCLAEV

>P37677

MTQYWLGLDCGGSWLKAGLYDREGREAGVQRLPLCALSPQPGWAERDMAELWQCCMAVIR  
ALLTHSGVSGEQIVGIGISAQKGLFLLDKNDKPLGNAILSSDRRAMEIVRRWQEDGIPE  
KLYPLTRQTLWTGHPVSLLRWLKEHEPERYAQIGCVMMTHDYLRWCLTGKGCESNISE  
SNLYNMSLGEYDPCLTDLWLGIAEINHALPPVVGSAEICGEITAQTAALTGLKAGTPVVG  
LFDVVSTALCAGIEDEFTLNAVMTWAVTSGITRGLRDGEAHPYVYGRYVNDGEFIVHEA  
SPTSSGNLEWFTAQWGEISFDEINQAVASLPKAGGDLFFLPFLYGSNAGLEMTSGFYGMQ  
AIHTRAHLLQAIYEGVVFSHMTHLNRMRERFTDVHTLRVTGGPAHSDVWMQMLADVGLR  
IELPQVEETGCFGAALAAARVGTGVYHNFSEAQRDLRHPVRTLLPDMTAHQLYQKKYQRYQ  
HLIAALQGFHARIKEHTL

>P63231

MSLLTEVETPIRNEWGCRCNDSSDPLVVAASIIGILHLILWILDRLFFKCIYRFFEHLK  
RGPSTEGVPESMREEYRKEQOQSAVDADDSHFVSI ELE

>Q16584

MEPLKSLFLKSPPLGSWNGSGSGGGGGGGGRPEGSPKAAGYANPVWTALFDYEPGQDEL  
ALRKGDREVLRSRAAISGDEGWAGQVGGQVGFPSNYVSRGGPPPCEVASFQELRLE  
EVIGIGGFVKYRGSWRGELVAVKAARQDPDEDISVTAESVRQEARLFAMLAHPNIIALK  
AVCLEEPNLCLVMEYAAGGPLSRALAGRVPVPHVLVNWAVQIARGMHYLHCEALVPVIHR  
DLKSNNILLLOPIESDDMEHKTITDFGLAREWHKTTQMSAAGTYAWMAPEVIKASTFS  
KGSVWSFGVLLWELLTGEVYPYRGIDCLAVAYGVAVNKLTLPSTCPEPFAQLMADCWA  
QDPHRRPDFASILQQLEALEAQLREMPRDSFHSMQEGWKREIQGLFDELRAKEKELLSR  
EEELTRAAREQRSQAEQLRRREHLLAQWELEVFERELTLLLQQVDRERPHVRRRRGTFR  
SKLRARDGGERISMPDLFKHRITVQASPLDRRRNVFEVGPDSPTFFPRFRAIQLEPAEP  
GQAWGRQSPRLEDSSNGERRACWAWGPSSPKPGEAQNGRRRSRMDEATWYLDSDSSPL  
GSPSTPPALNGNPPRPSLEPEEPKRPVPAERGSSTPKLIQRALLRGTALLASLGLGRD  
LQPPGGPGRERGESPTTPTPTPAPCPTEPPPSPLICFSLKTPDSPPTPAPLLLDLGPV  
GQRSASPREEEPRGGTVSPPPGTSRSAPGTPGTSPPLGLISRPRPSPLRSRIDPWS  
FVSAGPRPSPLPSPQAPRRAPWTLFPDSDPFWDSPPANPFQGGPQDCRAQTKDMGAQAP  
WVPEAGP

>O43283

MANFQEHLSGSSPHLPFSESKTFNGLQDELTAAGNHPSPKLLLEDQEQKGMVRTELIESV  
HSPVTTTTLVTSVSEDSRDQFENSVLQREHDESETAVSQNSNTVDGESTSGTEDIKIQF  
SRSGSGSGGFLEGLFGCLRPVWNIIGKAYSTDYKQQQDTWEVFPFEEISELQWLGSQAQ  
AVFLGKFRAEVAIKKVRQNETDIKHLRKLKHPNIIAFKGVCTQAPCYCIIMEYCAHGQ  
LYEVLRAGRKITPRLLVDWSTGIASGMNYLHLHKIHRDLKSPNVLVTHTDVAVKISDFGT  
SKELSDKSTKMSFAGTVAWMAPEVIRNEPVSEKVDIWSFGVVLWELLTGEIPYKDVDS  
IIWVGNSNSLHLPVPSTCPDGFKILMKQWQSKPRNRPSFRQTLMHLDIASADVLATPQE

TYFKSQAEWREEVKKHFEEKIKSEGTCIHRLEDEELIRRRREELRHALDIREHYERKLERAN  
NLYMELSAIMLQLEMREKELIKREQAVEKKYPGTYKRHPVVRPIIHPNAMEKLMKRKGVPH  
KSGMQTKRPDLLRSEGIPTTEVAPTASPLSGSPKMSTSSSKSRYRSKPRHRRGNSTRGSHS  
DFAAILKNQPAQENSPHPTYLHQASQYPSLHHHNSLQQQYQQPPPAMSQSHHPRLNMHG  
QDIATCANNLRYFGPAAALRSPLSNHAQRQLPGSSPDLISTAMAADCWRSSEPDKGQAGP  
WGCCQADAYDPCQCRPEQYGLDIPSAEPVGRSPDLSPAHNPLENAQSSEKTEENE  
FSGCRSESSLGTSHLGTTPALPRKTRPLQKSGDSSSEEEEGEVDSEVEFPRRQRPHRCIS  
SCQSYSTFSENFSVSDGEEGNTSDHSNSPDELADKLEDRLAEKLDLLSQTPEIPIDIS  
SHSDGLSDKECAVRRVKTQMSLGKLCVEERGYENPMQFEESDCDSSDGECSDATVVRTNKH  
YSSATW

>P27046

MKLSRQFTVFGSAIFCVVIFSLYLMLDRGHLDDYPRGPRQEGSFPPQGQLSILQEKIDHLER  
LLAENNEIISNIRDSVINLSESVEDGPRGSPGNASQGS IHLHSPQLALQADPRDCLFASQ  
SGSQPRDVQMLDVYDLIPFDNDPDGGVWVKQGFDIKYEADWDHEPLQVFVPHSHNDPGWL  
KTFNDYFRDKTQYIFNNMVLKLEKEDSSRKFWMSEISYLAKWWDIIDIPKKEAVKSLQNG  
QLEIVTGGWVMPDEATPHYFALIDQLIEGHQWLEKNLGVKPRSGWAIDPFHSPPTMAYLL  
KRAGFSHMLIQRVHYAIKHHFSLHKTLEFFWRQNWDLGSATDILCHMMPFYSYDIPHTCG  
PDPKICCCQFDKRLPGGRYGCWPVPEAISPQNVQSRAQMLLDQYRKKSKLFRTKVLLA  
PLGDDFRFSEYTEWDLQCRNYEQLFSYMNSQPHLKVKIQFGTSLSDYFDDALEKAVAAEKKS  
SQSVFPALSGDFFTYADRDDHYWSGYFTSRPFYKRMDRIMESRIRAAEILYQLALKQAQK  
YKINKFLSSPHYTTLTEARRNLGLFQHDAITGTAKDWVVVDYGTRLFQSLNSLEKIIIGD  
SAFLILKDKKLYQSDPSKAFLMDTKQSSQDLSLPQKIIIIQLSAQEPRYLVVYNPFQER  
HSVVSIRVNSATGKVLSDSGKPVEVQVSAVWVNDMRTISQAAYEVSF LAHIPPLGLKVFKI  
LESQSSSSHLADYVLYNNDGLAENGI FHVKNMVDAGDAIT IENPFLAIWFDRSGLMEKVR  
RKEDSRQHELKVQFLWYGT TNKRDKSGAYLFLPDGQGPVYVSLRPPFVRVTRGR IYSDVT  
CFLEHVTHKVRLYNIQIGIEGQSMEVSNIVNIRNVHNREIVMRIS SKINNQRYYTDLNGY  
QIQPRRTMSKLPQANVYPMCTMAYIQDAEHRLTLLSAQSLGASSMASGQIEVFMDRRLM  
QDDNRGLGQGVHDNKITANLFRILLEKRSAVNMEEKKSPVSYPSLLSHMTSSFLNHPFL  
PMVLSGQLPSPAFELLSEFPLLQSSLPDCIHLVNLRTIQSKMGKGYSDAALILHRKGF  
CQFSSRIGLPCSTTQGKMSVLKLFNKFAVESLVPSSLSLMHSPDAQNMSEVSLSPMEI  
STFRIRLRWT

>Q29451

MVG DARPSGVRAGGCRGAVGSR TSSRALRPPLPPLSSLFVLF LAAPCAWAAGYKTC PKVK  
PDMLNVHLVPHTHDDVGLKTVDQYFYGIYNNIQPAGVQYILDSVISSLLANPTRRFIYV  
EIAFFSRWWRQQT NATQKIVRELVRQGRLEFANGGWMNDEATTHYGAIIDQMTLRLRFL  
EETFSGDGRPRVAWHIDPFGHSREQASLFAQMFGDFGFFGRLDYQDKKVRKKTLMQEQVW  
RASTSLKPPTADLFTSVLPNMYNPPEGLCWDMLCADKPVVEDTRSP EYNAKELVRYFLKL  
ATDQGKLYRTKHTVMTMGSDFYENANTWFKNLDKLIQLVNAQQRANGIRVNVLYSTPAC  
YLWELNKANLSWSVKKDDFFPYADGPYMFWTGYFSSRPALKRYERLSYNFLQVCNQLEAL  
AGPAANVGPYSGSDSAPLNEAMAVLQHHDVAVSGTSRQH VANDYARQLSEGWRPCEVLSMN  
ALAHLSGLKEDFAFCRKLNISICPLTQTAERFQVIVYNPLGRKVDWMVRLPVSKHVYLVK  
DPGGKIVPSDVVTIPSSDSQELLSALVPAVGFSIYSVSQMPNQRFPQKSWSRDLVIQNEY  
LRARFDPNTGLLMELENLEQNLLLPVRQAFYWYNASTGNNLSSQASGAYIFRPNQNKPLF  
VSHWAQTHLVKASLVQEVHQNFSAWCSQVVRLYPRQRHLELEWTVGP IPVGDGWGKEVIS  
RFDTALATRGLFYTDSNGREILERRRNYRPTWKLNQTEPVAGNYYPVNSRIYITDGNMQL  
TVLTD RSQGGSSLRDGSLELMVHRLLKDDARGVGEPLNKEGSGLWVRGRHLVLLDKKET  
AAARHRLQAEMEVLAPQVVLAQGGGARYRLEKAPRTQFSGLRRELPPSVRLLTLARWGPE  
TLLLRLEHQFAVGEDSGRNLSSPVTLDLTNLFSAFTITNLRETTLANQLLAYASRLQWT

TDTGPTPHPSRPVSATITLQPMEIRTFVLASVQWEEDG

>P77791

MSTEKEKMIAGELYRSADETLRSRDLRRLARQLIHRYNHSLAEHETLRQQILADLFGQVTEA  
YIEPTFRCDYGYNIFLGNFFANFDCVMLDVCPIRIGDNCMLAPGVHIYTATHPIDPVAR  
NSGAELGKPVITIGNNVWIGGRAVINPGVTIGDNNVVASGAVVTKDVPDNNVVGGNPARII  
KKL

>O43708

MQAGKPIILYSYFRSSCSWRVRIALALKGIDYKTPVINLIKDRGQQFSKDFQALNPMKQVP  
TLKIDGITIHQSLAIEYLEETRPTPRLLPQDPKKRASVRMISDLIAGGIQPLQNLVSLK  
QVGEEMQLTWAQNAITCGFNALEQILQSTAGIYCVGDEVMTADLCLVPQVANAERFKVDL  
TPYPTISSINKRLLVLEAFQVSHPCRQPDTPTELRA

>P40513

MFLRSVNRAVTRSILTTPKPAVVKSSWRVFTVANSKRCFTPAAIMRNQETQRVGDILQSE  
LKIEKETLPESTSLDSFNDFLNKYKFSLVETPGKNEAIEVRRTESGETVHVFFDVAQIAN  
LPYNNAMDENTEQNEGDINEDDFDALSDNFANVNVVISKESASEPAVSFELLMNLQEGSF  
YVDSATPYPSVDAALNQSAEAEITRELVYHGPPFSNLDEELQESLEAYLESRGVNEELAS  
FISAYSEFKENNEYISWLEKMKKFFH

>O30807

MNTGDKAKSQAVPASGDIDQQALFFHRYPRPGKLEIQPTKPLGNQRDLALAYSPGVAAPC  
LAIKDNPETAADFTARANLVAVVSNGTAVLGLGNIGPLASKPVMGKAVLFKKFAGIDVF  
DIEIDAPTVDRMVDVISALEPTFGGINLEDIKAPECFEVERRLREKMEIPVFHDDQHGT  
IIVAAAVLNGLELAGKDIAEAKIVASGAGAAALACLNLVTLGARRENIWVHDI EGLVYK  
GREALMDEWKAVYAQESDNRVLADSIGGADVFLGLSAAGVLKPELLARMAEKPLIMALAN  
PTPEIMPEVARAARPDAMICTGRSDFPNQVMNVLCFPHIFRGALDCGARTINEEMKMAAV  
RAIAGLAREEPSDVAARAYSGETPVFGPDYLIIPSPFDQRLILRIAPAVAKAAAESGVATR  
PIQDFDAYLDKLNRFVFRSGFIMKPVFAAKNAAKNRVIFAEGEDERVLRAAQVLLLEGT  
AKPILIGRPQIIETRLRRYGLRIRPDVDFEVVNPEGDPYRDIYVDDYFALVGRGLGVIPEA  
ARTIVRTNTTVIGALAVKRGEADALICGVEGRYSRHLRDVSQIIGKRSGLDFSALESLLI  
SQRGATFFTDYVSFSPSAEEIAQTTVMAANEIRRFGITPRAALVSHSNFGSRDSESAFK  
MRTALQLVRELAPDLEVDGEMHGDSASEVLRQRVMPDSTLNGEANLLVFPNLDAANITL  
GVVKTMTDSLHVGPILLGSALPAHILSPSVTSRGVVMMAALAVVESHVP

>O30808

MPGIDKTDRAVTSVTAQEALDFHSQGRPGKLEISPTKPMATQRDLISLAYSPGVAVPVKAI  
ADDPATAYDYTARGNMVAVISNGTAILGLGNLALASKPVMGKAVLFKRFADVDSIDLE  
VDTENVDEFVNCVRFGLGFSFGGINLEDIKAPDCFIEQRLREVMDIPVFHDDQHGTAIIA  
AAGLVNALTLTGRDFKTAKLVCNGAGAAAIAELIKAMGFNPENIILCDTKGVIYKGR  
DGMNQKSAHAVETDRRTLAEALDGADVFFGLSAKGALSADMVRSMGARPIIFAMANPDP  
EITPEEVALIRDDAIVATGRSDYPNQVMNVLGFPYIFRGALDVRASINDAMKIAAAEAL  
ANLAKEDVPPDDVAAAYQGNRPRFGPYIIPVFPDPRILISAIIPMAVAKAAMETGVARKPIE  
DLKAYGQQLSARRDPIASTLQRIVERVRRQPKRIVFAEGEEVQMMRSIAIYANQQLTAL  
LLGEEVMRETAEREGIDLDRAGIQIVNARLSKRVGAYTDFLYSRLQRKGYLFRDVQR  
LINTDRNHFAASMVALGDADGMVTGLTRNYSTALEDVRRCIDPKPGHRVIGVSIALCRGRTV  
LVADTAVHDMPTSEELADIAEEAAGLAKRLGYVPRVAMLAYSTFGHPSGERSERVREAVK  
ILDRRRVDFEYDGEAADVALNARVMEQYFPCRLSGTANVLVMPAFHSASISTKMLQELG  
GSTVIGPLLVGLDKSVQIASMSAKSDLVNLAIAAYNAGT



>P22178

MISLNSFLERSSVTGGSRQTQSLSRLSARRPVVTSMLNSNSLPERNVSVSVDSAVRDVN  
APVAVEVDRSVGEKPFAAVGGGVEDMYGEDTATEDHYITPWSVSVASGYSLLRDPHHNKG  
LAFTEKERDAHFLRGLLPPVVVNHDLQVKKMMHNIRQYQVPLQRYQAMMDLQQRNERLFY  
KLLIENVEELLPIVYTPTVGEACQKYGSIFENSQGLFISLKDKGRILEILKNWPHKKIQV  
IVVTDGERILGLGDLGCQGMGIPVGLKALYALGGVVRPSACLPIITIDVGTNNEKLLNDDE  
FYIGLKQKRAAGQEYAEMLNEFMSAVKQNYGENLLIQFEDFANHNAFDLLEKYRTHLVE  
NDDIQGTASVVLGGLISALKLVGGSLADQKFLFLGAGEAGTGIAELIALEISKQTNIPLE  
ESRKKVWLVDSKGLIVRSRLDSLQHFKKPWAHDHEPVNEFLDAIKTIRPTVLIGSSGTGQ  
TFTKEVVETMSSLNEKPIILALSNTSQTSECTAEQAYTWSEGRAIFASGSPFKPVEYNGK  
LYVSGQANNAYIFPGFGLGLIISGAIRVHDDMLLAASEAPAEQVTQEHFDKGLIFPPFTS  
IRKISAHIAAKVAAKAYELGLASRLPQPENLVAYAESC MYSPKYRIYR

>P23368

MLSRLRVVSTTCTLACRHLHIKEK GKPLMLNPRNTNKGMAFTLQERQMLGLQGLLPPKIET  
QDIQALRFHRNLK KMTSPLEKYIYIMGIQERNEKLFYRILQDDIESLMPIVYTPTVGLAC  
SQYGHIFRRPKGLFISISDRGHVRSIVDNW PENHVKA VVVTDGERILGLGDLGVYGMGIP  
VGKLCLYTACAGIRPDRCLPVCIDVGTDNIALLKDPFYMGLYQKRDRTOQYDDLIDEFMK  
AITDRYGRNTLIQFEDFGNHNAFRFLRKYREKYCTFNDDIQGTAVALAGLLAAQKVISK  
PISEHKILFLGAGEAALGIANLIVMSMVENGLSEQEAQKKIWMFDKYGLLVKGRKAKIDS  
YQEPFTHSAPESIPDTFEDAVNILKPSTIIGVAGAGRLFTPDVIRAMASINERPVIFALS  
NPTAQAECTAEEAYTLTEGRCLFASGSPFGPVKLT DGRVFTPGQGNVYIFPGVALAVIL  
CNTRHISDSVFLEAAKALTSQLTDEELAQGRLYPPLANIQEV SINIAIKVTEYLYANKMA  
FRYPEPEDKAKYVKERTWRSEYDSSLDPVYEWPE SASSPPVITE

>P48163

MEPEAPRRRHTHQRGYLLTRNPHLNKDLAFTLEERQQLNIHGLLPPSFNSQEIQVLRVVK  
NFEHLNSDFDRYLLMLDLQDRNEKLFYRVLTS D IEKFMPIVYTPTVGLACQQYSLVFRKP  
RGLFITIHDRGHIASVLNAWPEDVIKAI VVTDGERILGLGDLGCNMGIPVGLKALY TAC  
GGMNPQECLPVILDVGTENEELLKDPLYIGLRQRRVRGSEYDDFLDEFMEAVSSKYGMNC  
LIQFEDFANVNAFRLLNKYRNQYCTFNDDIQGTASVAVAGLLAALRITKNKLSDQTILFQ  
GAGEAALGIAHLIVMALEKEGLPKEKAIKKIWLVD SKGLIVKGRASLTQEKEKFAHEHEE  
MKNLEAIVQEI KPTALIGVAAIGGAFSEQILKDMAAFNERPIIFALSNPTS KAEC SAEQC  
YKITKGRAIFASGSPFDPVTL PNGQTL YPGQGNNSYVFPGVALGVVACGLRQITDNIFLT  
TAEVIAQQVSDKHLEEGRLYPPLNTIRDVSLKIAEKIVKDAYQEK TATVYPEPQNKEAFV  
RSQMYSTDYDQILPDCYSWPEEVQKIQTKVDQ

>Q15691

MAVNVYSTSVTSDNLSRHDMLAWINESLQNLNLT KIEQLCSGAA YCQFMDMLFPGSIALKK  
VKFQAKLEHEYIQNFKILQAGFKRMGVDKIIPVDKLVKGFQDNFEFVQWFKKFFDANYD  
GKDYDPVAARQGQETAVAPSLVAPALNKPKKPLTSSSAAPQRPISTQRTAAAPKAGPGVV  
RKNPGVGNGDDEAAELMQQVNVLKLTVEDLEKERDFYFGKLRNIELICQENEGENDPVLQ  
RIVDILYATDEGFVIPDEGGPQEEQEY

>Q86YJ5

MLKSRLRMFLNELKLLVLTGGGRPRAEPQPRGGRGGGCGWAPFAGCSTRDGDGDEEEYYG  
SEPRARGLAGDKEPRAGPLPPPAPPLPPPGALDALSLS SSSLD SGLRTPQCRICFQGPQQ  
ELLSPCRCDG SVRCTHQPC LIRWISERGSWSCELCYFKYQVLAISTKNPLQWQAISLTVI  
EKVQIAAIVLGSFLVASISWLIWSSLS SPSAKWQRQDLLFQICYGMYGFMDVVCIGLI IH

EGSSVYRIFKRWQAVNQWKVNLNYDKTKDIGGDAGGGTAGKSGPRNSRTGPTSGATSRPP  
AAQRMRTLLPQRCGYTILHLLGQLRPPDARSSSSHSGREVVMRVTTV

>P25491

MVKETKFDYDILGVPVTATDVEIKKAYRKCALKYHPDKNPSEEAEEKFKEASAAYEILSDP  
EKRDIDYQFGEDGLSGAGGAGGFPGGGFGFGDDIFSQQFFGAGGAQRPRGPQRGKDIKHEI  
SASLEELYKGRATAKLALNKQILCKECEGRGGKKGAVKKCTSCNGQGKIKFVTRQMGPMIQR  
FQTECDVCHGTGDIIDPKDRCKSCNGKVKVENERKILEVHVPEPMKDGQRIVFKGEADQAP  
DVIIPGDVVFIVSERPHKSFKRDGDDLVEYAEIDLTLTAIAGGEFALEHVSGDWLKVGI VPG  
EVIAPGMRKVIEGKGMPIPKYGGYGNLI IKFTIKFPENHFTSEENLKKLEEILPPRIVPA  
IPKKATVDECVLADFDPAKYNRTRASRGGANYDSDEEEQGGEGVQCASQ

>O00187

MRLLTLLGLLCSVATPLGPKWPEPVFGRILASPGFPGEYANDQERRWTLTAPPGYRLRLY  
FTHFDLELSHLCEYDFVKLSSGAKVLATLTCGQESTDTERAPGKDTFYSLGSSLDITFRSD  
YSNEKPFTGFEAFYAAEDIDECQVAPGEAPTCDHHCHNHLGGFYCSCRAGYVLRNKRKC  
SALCSGQVFTQRSSELSSPEYPRPYPKLSSCTYSISLEEGFSVILDFVESFDVETHPETL  
CPYDFLKIQTDRREEHGFPCGKTLPHRIETKSNVTITFTVDES DHTGWKIHYTSTA HAC  
PYPMAPPNGHVSPVQAKYILKDSFSIFCETGYELLQGHLPKSF TAVCQKDGSDWRPMPA  
CSIVDCGPPDYLP SGRVEYITGPGVTTYKAVIQYSCEETFYTMKVNDGKYVCEADGFWTS  
SKGEKSLPVCEPVCGLSARTTGGRIYGGQKAKPGDFPWQVLI LGGTTAAGALLYDNWVLT  
AAHAVYEQKHDA S ALDIRMGTLKRLSPHYTQAWSEAVFIHEGYTHDAGFDNDIALIKLNN  
KVVINSNITPICLPRKEAESFMRTDDIGTASGWGLTQRGFLARNLMYVDIPIVDHQKCTA  
AYEKPPYPRGSVTANMLCAGLES GGDSCRGDSSGGALVFLDSETERWFVGGIVSWGSMNC  
GEAGQYGVYTKVINYIPWIENIISDF

>P21941

MRVLSGTSLMLCSLLLLLQALCSPGLAPQSRGHLCRTRPTDLV FVV DSSRSVRPVEFEKV  
KVFLSQVIESLDVGNATRVGMVNYASTVKQEFSLRAHVSKAALLQAVRRIQPLSTGTMT  
GLAIQFAITKAFGDAEGRSRSPDISKVVIVVTDGRPQDSVQDVSARARASGVELFAIGV  
GSVDKATLRQIASEPQDEHVDYVESYSVIEKLSRKFQEAFCVVS D LCATGDHDCEQVCIS  
SPGSYTCACHEGFTLNSDGKTCNVCSGGGGSSATDLVFLIDGSKSVR PENFELVKKFISQ  
IVDTLDVSDKLAQVGLVQYSSSVRQEFPLGRFHKKDIKAAVRNMSYMEKGTMTGAALKY  
LIDNSFTVSSGARPGAQKVGIVFTDGRSQDYINDAAKKAKDLGFKMFAVGVGNAVEDEL R  
EIASSEPVAEHYFYTADFKTINQIGKKLQKKICVEEDPCACESLVK FQAKVEGLLQALTRK  
LEAVSKRLAILENTVV

>Q02251

MESRVTPVAVIGMGCRLPGGINS PDKLWESLLRGDDLVT EIPPDRWDADDYYDPEPGVPG  
RSVSRWGGFLDDVAGFDAEFFGISEREATSIDPQQRLLLETSWEAIEHAGLDPASLAGSS  
TAVFTGLTHEDYLVLT TTTAGGLASPYVVTGLMNSVASGR IAHTLGLHG PAMTFDTACSSG  
LMAVHLACRSLHDGEADLALAGGCAVLL EPHACVAASAQGMLSSTGRCHSFDADADGFVR  
SEGCAMVLLKRLPDALRDGNRIFAVVRGTATNQDGRTE TLTMPSEDAQVAVYRAALAAAG  
VQPETVGVVEAHGTGTPIGDPIEYRSLARVYGAGTPCALGSAKSNMGHSTASAGTVGLIK  
AILSLRHGVVPLLHFNRLPDELSDVETGLFVPQAVTPWPNGNDHTPKRVAVSSFGMSGT  
NVHAIVEEAPAEASAPESP GDAEVEGPRFLMLSSTSSDALRQTARQLATWVEEHQDCVAA  
SDLAYTLARGRAHRPVRTAVVAANLPELVEGLREVADGDALYDAAVGHGDRGPVWVFSGQ  
GSQWAAMGTQLLASEPVFAATIAKLEPVIAAESGFSVTEAITAQQTVTGIDKVQPAVFAV  
QVALAATMEQTYGVRPGAVVGHSMGESAAAVVAGALSLEDAARVICRRSKLMTRIAGAGA  
MGSVELPAKQVNSELMARGIDDVVSVVASPQSTVIGGTS DTVRDLIARWEQRDVMAREV

AVDVASHSPQVDPILDDLAALADIAPMTPKVPYYSATLFDPREQPVC DGAYWVDNLRNT  
VQFAAAVQAAMEDGYRVFAELSPHPLLTHAVEQTGRSLDMSVAALAGMRREQPLPHGLRG  
LLTELHRAGAALDYSALYPAGRLVDAPLPAWTHARLFIDDDGQE QRAQGACTITVHPLL  
SHVRLTEEPERHVWQGDVGT SVLSWLS DHQVHNVAALPGAAYCEMALAAAAE VFGAAEV  
RDITFEQMLLLDEQTPIDAVASIDAPGVNFTVETNRDGETTRHATAALRAAEDDCPPPG  
YDITALLQAHPHAVNGTAMRESFAERGVTLGAAFGGLTTAHTAEAGAA TVLAEVALPASI  
RFQQGAYRIHPALLDACFQSVGAGVQAGTATGGLLLPLGVRSLRAYGPTRNARYCYTRLT  
KAFNDGTRGGEADLDVLD EHGTVLLAVRGLRMGTGT SERDERDLV SERLLTLGWQQRAL  
PEVGDGEAGSWLLIDT SNAVDT PDMLASTLTDALKSHGPQGTECASLSWSVQDTPPNDQA  
GLEKLGSQLRGRDGVVIVYGPRVGDPEHSLLAGREQVRHLVRI TRELAEFEGELPRLFV  
VTRQAQIVKPHDSGERANLEQAGLRGLLRVISSEHPMLRTTLIDVDEHTDVERVAQQLLS  
GSEEDETAWRNGDWYVARLTPSPLGHEERRTAVLDPDHDGMRVQVRRPGDLQTLFVVASD  
RVPPGPGQIEVAVSMSSINFADVLI AFGRFP IIDDREPQLGMD FVG VVTAVGEGVTGHQV  
GDRVGGFSEGGCWRTFLTC DANLAVTLP PGLTDEQAITAATAHATAWYGLNDLAQIKAGD  
KVL IHSATGGV GQAAI SIARAKGAEI FATAGNPAKRAML RDMGVEHVYDSRSVEFAEQIR  
RDTDGYGVDIVLNSLTGAAQRAGLELLAFGGRFVEIGKADVGNTRLGLFPFRRLTFYY  
LDLALMSVTQPDRVRELLATVFKLTADGVL TAPQCTHYPLAEADAIRAMSNAEHTGKLV  
LDVPRSGRRSVAVTPEQAPLYRRDGSYIITGGLGGLGLFFASKLAAAAGCGRIVLTARSQP  
NPKARQTI EGLRAAGADIVVECGNIAEPDTADRLVSAATATGLPLRGLVLSAAVVEDATL  
TNITDELIDRDWSPKVF GSWNLHRATL GQPLDWFCLFSSGAALLGSPGQ GAYAAANSWVD  
VFAHWRAQGLPVSAIAWGAWEVGRATFLAEGGEIMITPEEGAYAFETLVRHDRAYSQY  
IPILGAPWLADLVRRSPW GEMFASTGQRSRGP SKFRMELLSLPQDEWAGRLRRLLEQAS  
VILRRTIDADRSFIEYGLDSLGMLEMRTHVETETGIRLTPKVIATNNTARALAQYLADTL  
AEEQAAAPAAS

>O28344

MLSVNEIAAEIVEDMLDYEEELRIESKKLENGAIVVDCGVNVP GSYDAGIMYTQVCMGGL  
ADVDIVVDTINDVPFAFVTEYTDHPAIACLGSQKAGWQIKVDKYFAMGSGPARALALKPK  
KTYERIEYEDDADVAVIALEANQLPDEKVMFIAKECDVDPENVYALVAPTASIVGSVQI  
SGRIVETAIFKMNEIGYDPKLI VSGAGRCPISP ILENDLKAMGSTNDSMMYYG SVFLTVK  
KYDEILKNVP SCTSRDYGKPFYEIFKAANYDFYKIDPNLFAPAQIAVNDLETGKTYVHGK  
LNAEVL FQSYQIVLEE

>O85014

MSSNTSAPSLNALAGPLVESLVADA AKLRLIVAQENGARTVDAGANARGSIEAGRRIAEI  
CLGGLGTVTIAPIGPVASWPYTVVVHSADPVLACLGSQYAGW SLADEEGDSGFFALGSGP  
GRAVAVVEELYKELGYRDNATTTALVLESGSAPPASV VNKVAAATGLAPENVTFIYAPTQ  
SLAGSTQVVARVLEVALHKAHTVGF DLHKILDGIGSAPLSPPHPDFIQAMGR TNDAI IYG  
GRVQLFVDADDADAKQLAEQIPSTTSADHGAPFAEIFSRVNGDFYKIDGALFSPA EAI VT  
SVKTGKSFRGGRLEPQLVDASFV

>P94954

MVSVNENALPLVERMIERAELLNVEVQELENGTTVIDCGVEAAGGF EAGLLFSEVCMGGL  
ATVELTEFEHDGLCLPAVQVTTDHPAVSTLAAQKAGWQVQVGDYFAMGSGPARALALKPK  
ETYYEIDYEDDADVAAILCLESSEL PDEDVAEHVADECGVDPENLYLLVAPTASIVGSVQV  
SARVVETGLYKLLLEVLEYDVTRVKYATGTAP IAPVADDDGEAMGR TNDCILYGGTVYLYV  
EGDDELPEVVEELPSEASEDYGKPFMKIFEEADYDFYKIDPGVFAPARVVNDLSTGKTY  
TAGEINVDVLKESFGL

>P51616

MVSVNIEAKKIVDRMIEGADDLKI SVDKLENGSTVIDCGVNV DGS IKAGELYTAVCLGGL  
ADVGISIPGDL SERFALPSVKIKTDFPAISTLGAQKAGWSV SVGDF FALGSGPARALALK  
PAETYEEIGYQDEADIAVLTLEADKLPGEDVTDKIAEECDVSPENVYVLVAPTSSLVGSI  
QISGRVVENGTYKMLEALHFVNVKVKYAAGIAP IAPVDPDSLKAMGKTNDVLF GGRYY  
YIESEEGDDIKSLAENLPSSASEGYGKPFYDVFKEADYDFYKIDKGMFAPA E VVINDLRT  
GEVFRAGFVNEELLMKS FGL

>Q9Y6D9

MEDLGENTMVLSTLRSLNNFISQRVEGGSGLDIST SAPGSLQM QYQQSMQLEERAEQIRS  
KSHLIQVEREKMQMELSHKRARVELERA AASTSARNYEREVD RNQELLTRIRQLQEREAGA  
EEKMQEQLERNRQCQONLDAASKRLREKEDSLAQAGETINALKGR ISELQWSVMDQEMRV  
KRLESEKQELQEQLDLQHKKCQEANQKI QELQASQEARADHEQQ IKDLEQKLSLQE QDAA  
IVKNMKSELVRLPRLERELKQLREESAHLREMTNGLLQEELEGLQRKLGRQEKMQETL  
VGLELENERLLAKLQSWERLDQTMGLSIRTPEDLSRFVVELQQRELALKDKNSAVTSSAR  
GLEKARQQLQEELRQVSGQLLEERKKRETHEALARRLQKRVL LTKERDGMRAILGSYDS  
ELTPAEYSPQLTRRMREAEDMVQKVHSHSAEMEAQLSQALEELGGQQRADMLEMELKML  
KSQSSSAEQSFLFSREEADTLRLKVEELEGERSRLEEEKRMLEAQLERRALQGDYDQSR T  
KVLHMSLNPTSVARQLREDHSQLQAE CERLRGLLRAMERGGTVPADLEAAAASLPSSKE  
VAELKKQVESAE LKNQRLKEVFQTKIQEFRKACYTLTG YQIDITTENQYRLTSLYAEHPG  
DCLIFKATSPSGSKMQLLETEFSHTV GELIEVHLRRQDSIPAF LSSLTLELFSRQTVA

>Q9YEA1

MITILGAGKVG MATAVMLMMRGYDDL LLIARTPGKPQGEALDLA HAAAELGVDIRISGSN  
SYEDMRGSDIVLVTAGIGRKPGMTREQLLEANANTMADLAEKIKAYAKDAIVVIT TNPVD  
AMTYVMYKKTGFPRERVIGFSGILDSARMAYYISQKLGVSFKSVNAIVLGMHGQKMFV P  
RLSSVGGVPLEHLMSKEEIEEVVSETVNAGAKITELRGYSSNYGPAAGLVLTVEAIKRDS  
KRIYPYSLYLQGEYGYNDIVAEVPAVIGKSGIERIEI ELPLETEDEKRKFDEAVQAVKKLVE  
TLPPQLRE

>Q9ZF99

MAKTPMRVAVTGAAGQICYSLLFRIANGDMLGKDQPVILQLLEIPNEKAQKALQGVMM EI  
DDCAFPLLAGMTAHADPMTAFKDDADVALLVGARPRGPGMERKDLLEANAQIFTVQ GK AID  
AVASRNKIVLVGNPANTNAYIAMKSAPSLPAKNFTAMLRLDHN RALSQIAAKTGKPVSS  
IEKLFVWGNHSPTMYADYRYAQIDGASVKDMINDDAWN RDTFLPTV GKRGA A I IDARGVS  
SAASAANA AIDHIHDWVLGTAGKWTMTGIPSDGSYGIPEGVIFGFPVTTENGEYKIVQGL  
SIDAFSQERINVTLNELLEEQNGVQHLLG

>O08349

MKLGFGVAGRVGSTS AFTCLLNLDVDEIALVDIAEDLAVGEAMDLA HAAAAGIDKYPKIVG  
GADYSL LK GSEIIVV TAGLARKPGMTRLDLAHKNAGI IKDIAKKIVENAPESKILVVTNP  
MDVMTYIMWKESGKPRNEVF GMGNQLDSQRLKERLYNAGARNIRRAWI IGEHGDSMFVAK  
SLADFDGEVDWEAVENDVRFVAAEVIKRKGATIFGPAVAIYRMVKAVVEDTGEI IPTSMI  
LQGEYGIENAVGVPAKL GKNGAEVADIKLSDEEIEKLRNSAKILRERLEELGY

>Q59202

MAIKRKKISVIGAGFTGATTAFLLAKKELGDVVLVDIPQAENPTKGKALDML ESSPVLGF  
DANIIGTSNYEETADSDIVVITAGIARKPGMSRDDL VQTNQKVMKSVTK EVVKYSPNSII  
IVLTNPVDAMTYTVYKESGF PKHRVIGQSGVLDTARFRTFVAQELNLSVKDITGFVLGGH  
GDDMVPLVRYSYAGGIPLEKLI PKERLEAIVERTRKGGGEIVNLLGNGSAYYAPAASLVE  
MVEAIVKDQRRVLP AIAYLEGEYGFEGIYLGVP TILGGNGLEQIIELELTDEEKA ALEKS

AESVRNVMKALI

>P80040

MRKKISIIIGAGFVVGSTTAHWLAAKELGDIVLLDFVEGVPQKALDLYEASPIEGFDVRVT  
GTNNYADTANSDIVVVTSGAPRKPGMSREDLIKVNADITRACISQAAPLSPNAVIIMVNN  
PLDAMTYLAAEVSGFPGKERVIGQAGVLDAAARYRTFIAMEAGVSVEDVQAMLMGGHGDEM  
PLPRFSTISGIPVSEFIAPDRLAQIVERTRKGGGEIVNLLKTGSAYYAPAAATAQMVEAV  
LKDKKRVMVAAYLTGQYGLNDIYFGVPVILGAGGVEKILELPLNEEEMALLNASAKAVR  
ATLDTLKSL

>P80039

MKITVIGAGNVGATTAFRLAEKQLARELVLLDVVEGIPQKALDMYESGPVGLFDTKVTG  
SNDYADTANSDIVVITAGLPRKPGMTREDLLSMNAGIVREVTGRIMEHSKNPIIVVSNP  
LDIMTHVAWQKSGLPKERVIGMAGVLD SARFRSFIAMELGVSMQDVTACVLGGHGDMVP  
VVKYTTVAGIPVADLISAERIAELVERTRTGGAEIVNHLKQGSAFYAPATSVVEMVESIV  
LDRKRVLTCAVSLDGQYGDGTFFVGVVVKLGKNGVEHIYEIKLDQSDLDLLQKSAKIVDE  
NCKMLDASQG

>P61889

MKVAVLGAAGGIGQALALLLKTQLPSGSELSLYDIAPVTPGVAVDLSHIPTAVKIKGFSG  
EDATPALEGADVVLISAGVARKPGMDRSDLFNVNAGIVKNLVQQVAKTCPKACIGIITNP  
VNTTVAIAAEVLKKGAGVYDKNKLFVVTLLDIIRSNTFVAELKKGQPGEVEVPVIGHSGV  
TILPLLSQVPGVSFTEQEVDLTKRIQNAGTEVVEAKAGGGSATLSMGQAAARFGLSLVR  
ALQGEQGVVECAYVEGDGQYARFFSQPLLLGKNGVEERKSIGTLSAFEQNALEGMLDTLK  
KDIALGEEFVNK

>Q07841

MTKVSVVGAAGTVGAAAGYNIALRDIADVVFDIPDKEDDTVGQAADTNHGIAYDSNTR  
VRQGGYEDTAGSDVVVITAGIPRQPGQTRIDLADGNAPIMEDIQSSLDEHNDDYISLTTS  
NPVDLLNRHLYEAGDRSREQVIGFGGRLDSARFRYVLSSEEFDAPVQNVEGTILGEHGDAQ  
VPVFSKVRVDGTDPEFSGDEKEQLLGDLOESAMDVIERKGATEWGPARGVAHMVEAILHD  
TGEVLPASVKLEGEFGHEDTAFGVVRLGSGNGVEEIVEWDLDDYEQDLMADAAEKLSQY  
DKIS

>P16142

MIISPEEERSLIIKILNALGVSEEHAKITADVIVDADLKGFTSHGIGRFPQYVEGIKLT  
IKTSGNIEIEKETDSVALINGNHLGQVVAYKGMKLAIEKAKNTGVGIVGIHDSNHFGIA  
GYYSMDAMKNDMIGITMTNTEPAVAPLGGKIPVLGTNP I A I S I P S N E Y Y V A V D M S T A A V A  
RGKLLAARKNEKIPEGIAVDKNGNPTTDPNEALNGSILPFGGHKGYALCFMIEILAGPL  
VKAIEFGSKVKGTVDPSQMCTKGDLLIAIDPSKFYDIEEFKRNVEDEFVKEIKSTGKDVLP  
GDRERMNIKKREKEGIELDKKLVEKLKEIADELNIELTW

>Q60176

MKVTTIIGASGRVGSATALLLAKEPFMKDLVLI GREHSINKLEGLREDIYDALAGTRSDAN  
IYVESDENLRIIDESDVVITITSGVPRKEGMSRMDLAKTNAKIVGKYAKKIAEICDTKIFV  
ITNPDVDMTYKALVDSKFERNQVFGLGTHLDSLRFKVAIAKFFGVHIDEVRTRIIGEHGD  
SMVPLLSATSIGGIPIQKFERFKELPIDEIIEDVKTKEQIIRLKGSEFGPAAAILNVV  
RCIVNNEKRLTL SAYVDGEFDGIRDVCIGVPVKIGRDGIEEVVSIELDKDEIIAFRKS  
EIIKKYCEEVKNL

>Q04820

MPGPLRVLITGAAGQIAYNLSNMVANGNLFQKQDQIILHLLDIPFAKTVLDGVVMEQLQDC  
AFTVLAGIVPTHCLKEAFTDIDVALMVGAMPRKQGMERRDLLSSNVKIFKEQGEALDKYA  
KKTVKVLVVGPNANTNCLIMSKYAPSIPKENFTALTRLDHNRAIYQVAAKAGVPNTCVKN  
VCIWGNHNSNKQFPDLSSHAVVTKDGKQHPAKELINDEKWWKEVFI PCVQNRGAAVIGLRKL  
SRAASAAKAIVDQMRDWWFGTKEGEWVSMVYSTGDHYGAPKDIYFSFPVTIKDGHYKVV  
DGLSMDEWSRSLFNLSADELVDEREVALASF

>P40925

MSEPIRVLVTGAAGQIAYSLLYSIGNSVFQKQDQPIILVLLDITPMMGVLDGVLMEQLQDC  
ALPLLKDVIAATDKEDVAFKDLVDVAILVGSMPRREGMERKDLLKANVKIFKSQGAALDKYA  
KKSVKVIVVGNPANTNCLTASKSAPSIPKENFSCLTRLDHNRAKQIALKLGVNTANDVKN  
VIIWGNHSSSTQYPDVNHAKVKLQKQEVGVYEALKDDSWLKGEFVTTVQQRGAAVIKARKL  
SSAMSAAKAICDHVRDIWFGTPEGEFVSMGVISDGNYSYGVPPDLLYSFPVVIKNTWKV  
EGLPINDFSREKMDLTAKELTEEKESAFEFLLSSA

>P22133

MPHSVTPSIEQDSLKIAILGAAGGIGQSLSLLLKQQLQYQLKESNRSVTHIHLALYDVNQ  
EAINGVTADLSHIDTPISVSSHSPAGGIENCLHNASIVVIPAGVPRKPGMTRDDLDFNVNA  
GIISQLGDSIAECCDLKVFVLSNPVNSLVPVMVSNILKNHPQSRNSGIERRIMGVTK  
LDIVRASTFLREINIESGLTPRVNSMPDVPVIGGHSGETIIPLFQSNSFLSRLNEDQLKY  
LIHRVQYGGDEVVKAKNGKGSATLSMAHAGYKCVVQFVSLLLGNIEQIHGTYYVPLKDN  
NFPPIAPGADQLLPLVDGADYFAIPLTITTKGVSYVDYDIVNRMNDMERNQMLPICVSQK  
KNIDKGLEFVASRSASS

>P19446

MQPIPDVNQRIARISAHLHPPKSSQMEESSALRRANCRAKGGAPGFKVAILGAAGGIGQPL  
AMLKMNPLVSVLHLYDVVNAPGVTDISHMDTGAVVRGFLGQQQLEAALTGMDLIIVPA  
GVPRKPGMTRDDLDFKINAGIVKTLCEGIAKCCPRAIVNLSNPVNSTVPIAAEVFKKAGT  
YDPKRLLGVTMLDVVRANTFVAEVLGLDPRDVPVVGGHAGVTILPLLSQVKPPSSFTQ  
EEISYLTDRIQNGGTEVVEAKAGAGSATLSMAYAAVKFADACLRLRGDAGVIECAFVSS  
QVTELPFFASKVRLGRNGIEEVYSLGPLNEYERIGLEKAKKELAGSIEKGVSFIRS

>P40926

MLSALARPVSAALRRSFSTSAQNNAKVAVLGASGGIGQPLSLLLKNSPLVSRLTLYDIAH  
TPGVAADLSHIETKAAVKGYLGPEQLPDCLKGCDDVVIPAGVPRKPGMTRDDLDFNTNATI  
VATLTAACAQHCPEAMICVIANPVNSTIPITAIEVFKKHGVNPNKIFGVTTLDIVRANTF  
VAELKGLDPAVNVVPIVIGGHAGKTIIPILISQCTPKVDFFQDQLTALTGRIQEAGTEVKA  
KAGAGSATLSMAYAGARFVFSLVDMNGKEGVVECSFVKSQETECTYFSTPLLLGKKGIE  
KNLGIGKVSSFEEMISDAIPELKASIKKGEDFVKTLK

>P17505

MLSRVAKRAFSSTVANPYKVTVLGAGGGIGQPLSLLLKLNHKVTDLRLYDLKGAKGVATD  
LSHIPTNSVVKGFTPEEPDGLNNAKDTDMVLIIPAGVPRKPGMTRDDLFAINASIVRDLA  
AATAESAPNAAILVISNPVNSTVPIVAQVLKNKGVNPNKLFVTTLDSIRAARFISEVE  
NTDPTQERVNVIIGGHSGITIIPLISQTNHKLMSDDKRHELIHRIQFGGDEVVKAKNGAGS  
ATLSMAHAGAKFANAVALSGFKGERDVIEPSFVDSPLFKSEGIEFFASPVTLGPDGIEKIH  
PIGELSSEEEEMLQCKKETLKNIEKGVNFVASK

>P46489

MAVVKLSPWANYSSSKSEIKSSSSSSSSKSSLSAYVINVSSSPRLSFYNPYPRRLHHQRL  
SSPASIRCSVTSSDQIQAPLPAKQKPECFGVFCLTYDLKAEETKSWKKI INVAVSGAAG  
MISNHLFLKLASGEVFGPDQPI SLKLLGSEERSFAALEGVAMELEDSLYPLLRQVSI GIDP  
YEIFQDAEWALLIGAKPRGPGMERADLLDINGQIFAEQ GKALNAVASPNVKVMVGNPCN  
TNALICLNAPNIPPKNFHALTRLDENRAKQQLALKAGVFYDKVSNVTIWGNHSTTQVPD  
FLNAKIHGIPVTEVIRDRKWLEDEFTNMVQTRGGVLIKKWGRSSAASTAVSIVDAIRSLV  
TPTPEGDFSTGVYTNNGNYPYGAEDIVFSMPCRSKGDGDYEFVKDVI FDDYLSKKIKKSE  
DELLAEKKCVAHLTGEGIAVCDLPEDTMLPGEM

>P32419

MVKVAILGASGGVGQPLSLLLKLSPYVSELALYDIRAAEGIGKDL SHINTNSSCVGYDKD  
SIENTLSNAQVVLIPAGVPRKPGLTRDDL FKMNAGIVKSLVTAVGKFAPNARILVISNPV  
NSLVP IAVETLKKMGKFKPGNMGVTNLDLVRAETFLVDYLM LKNPKIGQE QDKTTMHRK  
VTVIGGHSGETI IPIITDKSLVFQLDKQYEHF IHRVQFGGDEIVKAKQGAGSATLSMAFA  
GAKFAEEVLR SFHNEK PETESLSAFVYLPGLKNGKKAQQLVGDNSIEYFSLP I VLRNGSV  
VSIDTSVLEKLSPREEQLVNTAVKELRKNIEKGSFILDSSKL

>P20932

MSQNLFNVEDYRKL RQKRLPKMVYDYLEGGAEDEYGVKHN RDVFQQWRFKPKRLVDVSRR  
SLQAEVLGKRQSMPLLI GPTGLNGALWPKGDLALARAATKAGIPFVLSTASNMSIEDLAR  
QCDGDLWFQLYVIHREIAQGMVLKALHTGYTTLVLT TDVAVNGYRERDLHNRFKIPMSYS  
AKVVL DGLHPRWSLDFVRHGMPQLANFVSSQTSSLEMQAALMSRQMDASFNWEALRWLR  
DLWPHKLLVKGLLSAEDADRCIAEGADGVILSNHGGRQLDCAISPMEVLAQSVAKTGKPV  
LIDSGFRRGSDIVKALALGAEAVLLGRATLYGLAARGETGVDEVLTLLKADIDRTLAQIG  
CPDITSLSPDYLQNEGV TNTAPVDHLIGKGTHA

>P20906

MASVHGTTYELLRRQGIDTVFGNPGSNELPFLKDFPEDFRYILALQEACVVG IADGYAQA  
SRKPAFINLHSAAGTGNAMGALSNAWN SHSPLIVTAGQQTRAMIGVEALLTNVDAANLPR  
PLVKWSYEPASAAEVP HAMSRAIHMASMAPQGPVYLSVPYDDWDK DADPQSHHLFDRHVS  
SSVRLNDQDL DILVKALNSASNPAIVLGPDVDAANANADCVM LAERLKAPVWVAPSAPRC  
PFPTRHPCFRGLMPAGIAAISQLLEGH DVVLVIGAPVFRYHQYDPGQY LKPGTRLISVTC  
DPLEAARAPMGDAIVADIGAMASALANLVEESSRQLPTAAPEPAKVDQDAGR LHPE TVFD  
TLNDMAPENAIYLN ESTSTTAQM WQRLNMRNPGSYYFCAAGGLGFALPAAIGVQLAEPER  
QVIAVIGDGSANYSISALW TAAQYNIPTIFVIMNNGTYGALRWFAGVLEAENVPGLDVP  
IDFRALAKGYGVQALKADNLEQLKGS LQEALSAKGPVLI EVSTVSPVK

>P37636

MNRRRKL LIPLLCGAMLTACDDKSAENAAAMTPEVGVVTLSPG SVNVLS ELPGRTPYE  
VAEIRPQVGGII IKRN FIEGDKVNQGD SLYQIDPAPLQAE LNSAKGSLAKALSTASNARI  
TFNRQASLLKTNYVSRQDYDTARTQLNEAEANVTVAKAAVEQATINLQYANVTSPITGVS  
GKSSVTVGALVTANQADSLVTVQRLDPIYVDLTQSVQDFLRMKEEVASGQIKQVQGSTPV  
QLNLENGKRYSTGT LKFS DPTVDETTG SVTLRAIFPNPNGDLLPGMYVTALVDEGSRQN  
VLLVPQEGVTHNAQ GKATALILDKDDVVQLREIEASKAIGDQWVVT SGLQAGDRVIVSGL  
QRIRPGIKARAISSSQENASTESKQ

>P37958

MEIERINEHTVKFYMSYGDIEDRGFDREEI WYNRERSEELFWEVMDEVHEEEEF AVEGPL  
WIQVQALDKGLEIIVTKAQLSKDGQKLELP I PEDKKQEPASEDL DALLD DDFQKEEQAVNQ  
EEKEQKLQFVLRFGDFEDVISLSKLN VNGSKTTLYSFENRYLYVDFCNMTDEEVENQLS

ILLEYATESSISIHRL E EY GKLI I SEHALETIKKH FAS

>Q7YS70

MWVCGALCRTRAPAQLGQRLLPESRRRRRPASASFSASAEPSRVRALVYGHGDPKVVVEL  
KNLELAAVGGSHVHVKMLAAPINPSDINMIQGNYGLLPQLPAVGGNEGVGQVAVGSGVT  
GVKPGDWVIPANPGLGTWRTEAVFGEEELITVPSDIPLQSAATLGVNPCTAYRMLVDFER  
LRPRDSIIQNASNSGVGQAVIQIAAARGLR TINVL RDT PDLQKLTDTLKNL GANHVVTEE  
ELRKPEMKSFFKDVQPRLALNCVGGKSSTELLRHLAPGGTMV TYGMAKQPVIASVSQ L  
IFKDLKLRGFWLSQWKKDHSPDQFKELILTLCDLIRRGQLTAPACSEVPLQDYLCAL EAS  
TQPFVSSKQILTM

>P04824

MFAFYFLTACISLKG VFGVSPSYNGLGLTPQM GWDNWN T F ACDVSEQLLLD TADRISDLG  
LKDMGYKYIILDDCWSSGRDSDGFLVADEQKFPNGMGHVADHLHNNSFLFGMYSSAGEYT  
CAGYPSL GREEDAQFFANNRVDYLKYDNCYNKGQFGTPEISYHRYKAMSDALNK TGRP  
IFYSLCNWQDLTFYWGSGIANSWRMSGDVTAEFTRPDSRCP CDGDEYDCKYAGFHCSIM  
NILNKAAPMGQONAGVGGWNDLDNLEVG VGNLTDDEEKAHFSMWAMVKSPLIIGANVNNLK  
ASSYSIYSQASVIAINQDSNGIPATRVWRYVSDTDEYQGGEIQMWSGPLDNGDQV VALL  
NGGSVSRPMNTTLEEIFFDSNLGSKKLTSTWDIYDLWANRVDNSTASAILGRNK TATGIL  
YNATEQSYKDGLSKNDTRLFGQKIGSLSPNAILNTTVP AHGIAFYRLRPS S

>P16171

MKKYRVNVQGMTCSGCEQHVAVALENMGAKAIEVDFRRGEAVFELPDDVKVEDAKNAIAD  
ANYHPGEAE EFQSEQKTNLLKKYRLNVEGMTCTGCEEHIAVALENAGAKGIEVDFRRGEA  
LFELPYDVIDIDIAKTAITDAQYQPGEAEEIQVQSEKRTDVSLNDEGNYDYDYIIIGSGGA  
AFSSAIEAVALNAKVAMIERGTVGGTCVNVGCVPSKTL LRAGEINH LAKNNPFVGLHTSA  
SNVDLAPLVKQKNDLVTEMRNEKYVNLIDDYGFELIKGESKFNENTVEVNGNQITAKRF  
LIATGASSTAPNIPGLDEVDYLTSTSLLELKKVPNRLTVIGSGYIGMELGQLFHN LGSEV  
TLIQRSERLLKEYDPEISEAITKALTEQG INLVTGATYERVEQDGIKKVHVEINGKKRI  
IEAEQLLIATGRKPIQTSNLNHAAGVEVGSRGEIVIDDY LKTNSRIYSAGDVT PGPQFV  
YVAAYEGGLAARNAIGGLNQKVNLEVVPGVFTFTSPSIATVGLTEQQAKEKGYEVKTSVLP  
LDAVPRALVNRETTGVFKLVADAKTLKVLGAHVVAENAGDVIYAATLAVKFGLTVGDLRE  
TMAPYLTMAEGLKLAVLTFDKDVSKLSCCAG

>P08332

MSTLKITGMTCDSCAVHVKDALEKVPVQVSADVSYAKGSAKLAIEVGTSPDALTA AVAGL  
GYRATLADAPSVSTPGGLLDKMRDLLGRNDKTGSSGALHIAVIGSGGAAMAAALKAVEQG  
ARVTLIERGTIGGTCVNVGCVPSKIMIRAAHIAHLRRESFPDGGIAATTPTIQRTALLAQ  
QQARVDEL RHAKYEGILEGNPAITVLHGSARFKDNRNLIVQLNDGGERVVA FDRCLIATG  
ASPAVPPIPGLKDTPYWTSTEALVSETIPKRLAVIGSSVVALELAQAFARLGAKVTILAR  
STLFFREDPAIGEAVTAAFRMEGIEVREHTQASQVAYINGVRDGEFVLT TAHGELRADKL  
LVATGRAPNTRKLLALDATGVTLTPQGAIVIDPGMRTSVEHIYAAGDCTDQPQFVYVAAAA  
GTRAAINMTGGDAALNLTAMPVVFTDPQVATVGYSEAEAHHDGIKTDSRTLTLDNVPRA  
LANFDTRGF IKLVVEEGSRLIGVQAVAPEAGELIQTAALAIRNRMTVQELADQLFPYLT  
MVEGLKLAAQTFNKDVKQLSCCAG

>P22853

MKFRIGELADKCGVNKETIRYYERLGLIPEPERTEKGYRMYSQQTVDRLHF IKRMQELGF  
TLNEIDKLLGVVDRDEAKCRDMYDFTILKIEDIQRKIEDLKR IERMLMDLKERCPENKDI  
YECPIIETLMKK



>P22874

MGMKISELAKACDVNKETVRYEYERKGLIAGPPRNESEGYRIYSEETADRVRFIKRMKELDF  
SLKEIHLLFGVVDQDGERCKDMYAFTVQKTKEIERKVQGLLR IQRLLLEELKEKCPDEKAM  
YTCPIIETLMGGPDK

>P06106

MPSHFDTVQLHAGQENPGDNAHRRAVPIYATTSYVFEENSKHGSQFLGLEVPGYVYSRFQ  
NPTSNVLEERIAALEGGAAALAVSSGQAAQTLAIQGLAHTGDNIVSTSYLYGGTYNQFKI  
SFKRFGIEARFVEGDNPEEFKVFDETRKAVYLETIGNPKYNVPDFEKIVAI AHKHGIPV  
VVDNTFGAGGYFCQPIKYGADIVTHSATKWIGGHGTTIGGIIVDSGKFPWKDYPEKFPQF  
SQPAEGYHGTIYNEAYGNLAYIVHVRTELLRDLGPLMNPFAFLLQLQVETLSLRAERHG  
ENALKLAKWLEQSPYVSWVSYPGLASHSHHENAKKYL SNGFGGVLSFGVKDLPNADKETD  
PFKLSGAQVVDNLKLANVGDAKTLVIAPYFTTHKQLNDKEK LASGVTKDLIRVSVG  
IEFIDDI IADFQQSFETVVFAGQKP

>Q12650

MANAPHGGVLKDLLARDAPRQAELAAEAESLPAVTLTERQLCDLELIMNGGFSPLEGFMN  
QADYDRVCEDNRLADGNVFSMPTITLDASQEVIDEKKLQAASRITLRDFRDDRNLAILTID  
DIYRPDKTKEAKLVFGGDPEHPAIVYLNNTVKEFYIGGKIEAVNKLNHYDYVALRYTPAE  
LRVHFDKLGWSRVVAFQTRNPMHRAHRELTVRAARSRQANVLIHPVVGLTKPGDIDHFTR  
VRAYQALLPRYPNGMAVLGGLGLAMRMGGPREAIWHAIRKNHGATHFIVGRDHAGPGSN  
SKGEDFYGPYDAQHAVEKYKDELGIEVVEFQMVTYLPDTEYRPVDQVPAGVKTNLISGT  
ELRRRLRSAHIPWF SYPEVVKILRESNPPRATQGF TIFLTGYMNSGKDAIARALQVTLN  
QQGGRSVSLLLGDTVREHLSSELGFTREDRHTNIQR IAFVATELTRAGAAVIAAPIAPYE  
ESRKFARDAVSQAGSFFLVHVATPLEHCEQSDKRG IYAAARRGEIKGFTGVDDPYETPEK  
ADLVVDFSKQSVRSIVHEIILVLESQGFLEERQ

>P08536

MPAPHGGILQDLIARDALKKNELLSEAQSSDILVWNLTPRQLCDIELILNGGFSPLTGFL  
NENDYSSVVTDSRLADGTLWTIPITLDVDEAFANQIKPDTRIALFQDDEIP IAILTVQDV  
YKPNKTI EAQKVFVRGDPEHPAISYLFNVAGDYVVGGSLEAIQLPQH YDYPGLRKTPAQLR  
LEFQSRQWDRVAFQTRNPMHRAHRELTVRAAREANAKVLIHPVVGLTKPGDIDHHTRVR  
VYQEI IKRYPNGIAFLSLLPLAMRMSGDREAVWHAIRKNYGASHFIVGRDHAGPGKNSK  
GVDFYGPYDAQELVESYKHELDIEVVPFRMVTYLPDEDRYAPIDQIDTTRTRTLNISGTE  
LRRRLRVGGEIPEWFSYPEVVKILRESNPPRPKQGF SIVLGNSTVSRQLSIALLLSTFL  
QFGGGRYKIFEHNNKTELLSLIQDFIGSGSLIIPNQWEDDKDSVVGKQNVYLLDTSSS  
ADIQLESADEPISHIVQKVVLFLFLEDNGFFVF

>P00935

MTRKQATI AVRSGLNDDQYGCVVPP IHLSSSTYNFTGFNEPRAHDYSRRGNPTRD VVQRA  
LAELEGGAGAVLTNTGMSAIHLVTTVFLKPGDLLVAPHDCYGGSYRLFDSLAKRGCYRVL  
FVDQGDQALRAALAEKPKLVLVESPSNPLLRVVDIAKICHLAREVGAVSVVDNTFLSPA  
LQNPLALGADLVLHSC TKYLNHSDVVAGVVIKDPDVVTE LAWWANNIGVTGGAFDSYL  
LLRGLRTL VPRMELAQRNAQAI VKYLQTPLVKKLYHPSLPENQGHEIAARQQKGF GAML  
SFELDGDEQTLRRFLGGLSLFTLAESLGGVESLISHAATMTHAGMAPEARAAAGISETLL  
RISTGIEDGEDLIADLENGFRAANKG

>P53780

MTSSLSLHSSFVPSFADLSDRGLISKNSPTS SVSISKVPTWEKKQISNRNSFKLNCVMEKS

VDGQTHSTVNNTTDSLNTMNIKEEASVSTLLVNLDNKFDPFDMSTPLYQTATFKQPSAI  
ENGPYDYTRSNGNPTRDALESLLAKLKDADRAFCTTSGMAALSAVTHLIKNGEEIVAGDDV  
YGGSDRLLSQVVPRSGVVVKRVNTTKLDEVAAAIGPQTKLVWLESPTNPRQQISDIRKIS  
EMAHAQGALVLDNSIMSPVLSRPLELGADIVMHSATKFIAGHSDVMAGVLAVKGEKLAK  
EVYFLQNSEGSLAPFDCWLCLRGIKTMALRIEKQQENARKIAMYLSSHPRVKKVYYAGL  
PDHPGHHLHFSQAKGAGSVFSFITGSVALSKHLVETTKYFSIAVSFGSVKSLISMPCFMS  
HASIPAEVREARGLTEDLVRIISAGIEDVDDLISDLIDIAFKTFPL

>Q07703

MSDTSAKHIDTLLQHLGSAPFNPDTGAAPVNLPSVRASTVRFQSLAKLEDAQRRKAAGER  
ASTYGRMGMDTHAALEQVFAELEGGTHCYLASSGLAGISMVFLSLLSAGEHALVADCAYG  
PVHELHEAVLSRLGIDVTFDDAKADLASLVRPTTRLIFAEAPGSLLFEMLDMPALARFAK  
QHDLILATDNTWGSYIYRPLTLGAQVSVIAGTKYVGGHSDMLGAVVTNDEAIAKRLNR  
TQYALGYSVSADDAWLALRGVTRMPVRMAQHARHALEVCEFLQNRPEVVRLYHPAWPADP  
GHALWQRDCSGSNGMLAVQLGLSPQAARDFVNALTLFGIGFSWGGFESLVQLVTPGELAR  
HQYWQGGSDALVRLHIGLESPADLIADLAQALDRAA

>P06721

MADKKLDTQLVNAGRSKKYTLGAVNSVIQRASSLVFDSVEAKKHATRNRANGELFYGRRG  
TLTHFSLQQAMCELEGGAGCVLFCGAAAVANSILAFIEQGDHVLMTNTAYEPSQDFCSK  
ILSKLGVTTSWFDPLIGADIVKHLQPNTKIVFLESPPGSI TMEVHDVPAIVAAVRSVVPDA  
IIMIDNTWAAGVLFKALDFGIDVSIQAATKYLVGHSDAMIGTAVCNARCWEQLRENAYLM  
GQMVDADTAYITSRGLRTLGVRLRQHHESSLKVAEWLAEHPQVARVNHPALPGSKGHEFW  
KRDFGTGSSGLFSFVLKKKLNNEELANYLDNFSLSMAYSWGGYESLILANQPEHIAAIRP  
QGEIDFSGTLIRLHIGLEDVDDLIDLDAGFARIV

>P0AEZ1

MSFFHASQRDALNQSLAEVQQGINVSFEFFPPRTSEMEQTLWNSIDRLSSLKPKFVSVTY  
GANSGERDRTHSIIKGIKDRGTGLEAAPHLTCIDATPDELRTIARDYWNNGIRHIVALRGD  
LPPGSGKPEMYASDLVTLLEKAVDFDISVAAYPEVHPEAKSAQADLLNLKRKVDAGANRA  
ITQFFFVDESYLRFDRDCVSAGIDVEIIPGILPVSNFQAKKFADMTNVRIPAWMAQMFD  
GLDDDAETRKLVGANIAMDVVKILSREGVKDFHFYTLNRAEMSYAICHTLGVPRGL

>Q58605

MRNIIVKKLDVEPIEERPTEIVERKGLGHPDSICDGAESVSRALCKMYMEKFGTILHHN  
TDQVELVGGHAYPKFGGVMVSPYIYILLSGRATMEILDKEKNEVIKLPVGTAVKAAKEY  
LKKVLRNVVDVKDVIIDCRIGQGSMDLVDVFERQKNEVPLANDTSFGVGYAPLSTTERLV  
LETERFLNSDELKNEIPAVGEDIKVMGLREGKKITLTIAMAVVDYVKNIEEYKEVIEKV  
RKKVEDLAKKIADGYEVEIHINTADDYERESVYLTVTGTSAEMGDDGSVGRGNRVNGLIT  
PFRPMSMEAASGKNPNVHVGIYINILANLIANDIAKLEGVKECYVRILSQIGKPINPKA  
LDIEIITEDSYDIKDIEPKAKEIANKWLDNIMEVQKMIVEGKVTF

>P52477

MQRTPAMRVLVPALLVAISALSGCGKSEAPPPAQTPVEGIVTLEAQTVTLNTELPGRINA  
FRIAEVRPQVNGIILKRLFKEGSDVKAGQQLYQIDPATYEADYQSAQANLASTQEQAQRY  
KLLVADQAVSKQOYADANAAYLQSKAAVEQARINLRYTKVLSPISGRIGRSVTEGALVT  
NGQANAMATVQQLDPIYVDVTQPSTALLRLRRELASGQLERAGDNAKVSLKLEDGSQYP  
LEGRLEFSEVSVDEGTGSVTIRAVFPNPNNELLPGMFVHAQLQEGVKQKAILAPQQGVTR  
DLKGQATALVVNAQNKVELRVIKADRVIIDKWLVTTEGLNAGDKIITEGLQFVQPGVEVKT  
VPAKNVASAQKADAAPAKTDSKG

>P52003

MNYPVNPDLMPALMAVFQHVTRTRIQSELDQCRLDLTPPDVHVLKLIIDEQRGLNLQDLGRQ  
MCRDKALITRKIRELEGRNLVRRERNPSDQRSFQLFLTDEGLAIHQHAEAIMSRVHDELF  
APLTPVEQATLVHLLDQCLAAQPLEDI

>Q60358

MRNMQEKGVSEKEIILEELKKYRSLDLKYEDGNIFGSMCSNVLPITRKIVDIFLETNLGDP  
GLFKGTKLLEEKAVALLGSLLNKDAYGHIVSGGTEANLMALRCIKNIWREKRRKGLSKN  
EHPKIIVIPITAHFSFEKGREMMDLEYIYAPIKEDYTIIDEKFKDAVEDYDVDGIIGIAGT  
TELGTIDNIEELSKIAKENNIYIHVDAAFGGLVIPFLDDKYKKKGVNYKFDVSLGVDSIT  
IDPHKMGHCPIPSGGILFKDIGYKRYLDVDAPYLTETRQATILGTRVGFGGACTYAVLRY  
LGREGQRKIVNECMENLYLYKLLKENNFKPVIEPILNIVAIEDEDEDYKEVCKKLRDRGIY  
VSVNCNVKALRIVVMPHIKREHIDNFIEILNSIKRD

>P0A731

MELTTRTLPAKHIALVAHDHCKQMLMSWVERHQPLLEQHVLYATGTTGNLISRATGMNV  
NAMLSGPMGGDQQVGALISEGKIDVLIFFWDPLNAVPHDPDKALLRLATVWNIIPVATNV  
ATADFI IQSPHFNDAVDILIPDYQRYLADRLK

>P10620

MVDLTQVMDDEVFMAFASYATIILSKMMLMSTATAFYRLTRKVFANPEDCVAFGKGENAK  
KYLRTDDRVERVRAHLNDLENIIPFLGIGLLYSLSGPD PSTAILHFRLFVGARIYHTIA  
YLTPLPQPNRALSFFVGYGVTL SMAYRLLKSKLYL

>Q99735

MAGNSILLA AVSILSACQQSYFALQVGKARLKYKVTTPPAVTGSPEFERVFRAQQNCVEFY  
PIFIITLWMAGWYFNQVFATCLGLVYIYGRHLYFWGYSEAAKKRITGFRLSLGILLALLTL  
LGALGIANSFLDEYLDLNI AKKLRQF

>P14174

MPMFIVNTNVPRASVPDGF LSEL TQQLAQATGKPPQYIAVHVVPDQLMAFGGSSEPCALC  
SLHSIGKIGGAQNRSYSKLLCGLLAERLRISPDRVYINYYDMNAANVGWNNSTFA

>P13087

MKELTMLSLSFFFVSALLAAAANPLLSAADSAPNPVLDIDGKLRGTNYIIVPVLRDHG  
GGLTVSATTPNGTFVCPPRVVQTRKEVDHDRPLAFFPENPKEDVVRVSTDNLNINFSAFMP  
CRWTSSTVWRLDKYDESTGQYFVTIGGVKGNPGETISSWFKIEEF CGSGFYKLVFCPTV  
CGSCKVKCGDVGIIYIDQKRRRLALS DKPFAFEFNKTVYF

>P03972

MPGPSLSLALVLSAMGALLRPGTPREEVFST SALPREQATGSGALIFQQAWDWPLSSLWL  
PGSPDLPLCLVTLHGSGNGSRAPLRVVGVLSSYEQAFLAVRRTHWGLSDLTTFVAVCPAG  
NGQPVLPHLQRLQAWLGEPGGRWLVLHLEEV TWEP TPLLR FQEP PPGGAS PPELALLV  
YPGGLEVTVTGAGLPGTQSLCLTADSDFLALVVDHPEGAWRRPGLALTLRRRNGGALLS  
TAQLQALLFGADSRCTRKTPALLLLL PARSSAPMPAHGRLLDLPFPQPRASPEPEEAPP  
SADPFLETTLRLV RALAGPPARASPPRLALDPGALAGFPQGQVNLSDPAALERLLDGEEP  
LLLLLPPTAATTGVPATPQGPKSPLWAAGLARRVAAELQAVAAELRALPGLPPAAPPLLA  
RL LALCPGNPDSPPGPLRALLLLKALQGLRAEWRGRERSGSARAQRSAGAAAADGPCALR  
ELSVDLRAERSVLIPETYQANNCQGACGWPQSDRNPRYGNHVLLLLKMQARGATLARPPC

CVPTAYTGKLLISLSEERISAHHVPMNVATECGCR

>O75030

MQSESGIVPDFEVGEEFHHEEPKTYEELKSQPLKSSSSAEHPGASKPPISSSSMTSRILLR  
QQLMREQMQEQERREQQQKLQAAQFMQQRVPSQTPAINVSVPTTLPSATQVPMVVKVQ  
THLENPTKYHIQQAQRQQVKQYLSTTLANKHANQVLSLPCPNQPGDHVMPVPGSSAPNS  
PMAMLTLSNCEKEGFKFEEQNRAESECPCGMNTHSRASCMQDDVIDDIISLESSYNEE  
ILGLMDPALQMANLTPVSGNLIDLYGNQGLPPPGLTISNSCPANLBNIKRELTACIFPTE  
SEARALAKERQKKDNHNLIERRRRFNINDRIKELGTLIPKSNPDMRWKGTILKASVDY  
IRKLRQREQQRAKELNRQKKLEHANRHLLLRIQELEMQARAHGLSLIPSTGLCSPDLVNR  
IIKQEPVLENCSDLLQHHADLTCTTTLDLTDGTITFNMLGTGTGANQAYSVPKMGSK  
LEDILMDDTLSPVGVTDPLLSVSPGASKTSSRRSSMSMEETEHTC

>P21741

MQHRGFLLLTLLALLALTSAVAKKKDKVKKGGPGSECAEWAWGPCTPSSKDCGVGFREGT  
CGAQTQRIRCRVPCNWKKEFGADCKYKFENWGACDGGTGTKVRQGTLLKARYNAQCQETI  
RVTKPCTPKTKAKAKAKKGGKGD

>Q9NYL2

MSSLGASFVQIKFDDLQFFENC GGGSFSGSVYRAKWISQDKEVAVKLLKIEKEAEILSVL  
SHRNI IQFYGVILEPPNYGIVTEYASLGSLYDY INSNRSEEMDMDHIMTWATDVAKGMHY  
LHMEAPVKVIHRDLKSRNVVIAADGVKICDFGASRFHNHTTHMSLVGTFPWWAPEVIQS  
LPVSETCDTYSYGVVLWEMLTREVPFKGLEGLQVAWLVEKNERLTIPSSCPRSF AELLH  
QCWEADAKKRPSFKQIISILESMSNDTSLPDKCNSFLHNKA EWRCEIEATLERLKKLERD  
LSFKEQELKERERRLKMWEQKLTEQSNTPLLP SFEIGAWTEDDVYCWVQQLVKRGDSSAE  
MSVYASLFKENNITGKRLLLLEEDLKD MGIVSKGHIHFKSAIEKLTHDYINLFHFPPPL  
IKDSGGEPEENEKIVNLELVFGFHLKPGTGPQDCKWKMYMEMDGEIAITYIKDVTFNT  
NLPDAEILKMTKPPFVMEKWIVGIAKSQTVECTV TYESDVRTPKSTKHVHLIQWSRTKPQ  
DEVKAVQLAIQTLFTNSDGNPGRSDSSAD CQWLDTLRMRQIASNTSLQRSQSNPILGSP  
FFSHFDGQDSYAAAVRRPQVP IKYQQITPVNQSRSSSPTQYGLTKNFSSHLNSRDSGFS  
SGNTDTSSERGRYSDRSRNYGRGSI SLNSSPRGRYSGKSQHSTPSRGRYPGKFYRVSQS  
ALNPHQSPDFKRSRDLHQPN TIPGMPLHPETDSRASEEDSKVSEGGWTKVEYRKKPHRP  
SPAKTNKERARGDHRGWRNF

>Q9UH92

MTEPGASPEDPWVKASPVGAHAGEGRAGRARARRGARRGASLLSPKSPTLSVPRGRED  
SSHPACAKVEYAYS DNSLDPGLFVESTRKGSVVSRANSIGSTSASSVPNTDDEDSYHQE  
AYKESYKDRRRRAHTQAEQKRRDAIKRGYDDLQTI VPTCQQQDFSIGSQKLSKAI VLQKT  
IDYIQFLHKEKKKQEEEVSTLRKDV TALKIMKVNYEQIVKAHQDNPHEGEDQVSDQVKFN  
VFQGIMDSLQSFNASISVASFQELSACVFSWIEEHCKPQTLREIVIGVLHQLKNQLY

>Q9HAP2

MAADVFMCSRRRPRSRGRQVLLKPQVSEDDDDSDTDEPSPPPASGAATPARAHASAAPPP  
PRAGPGREEPPRRQOI IHSGHFMVSSPHREHPPKKGYDFD'TVNKQTCQTYSGKTSSCHL  
SIDASLTKLFECMTLAYSGKLVSPKWNFKGLKLQWRDKIRLNNAIWRAYMQYLEKRKN  
PVCHFVTPLDGSVDVDEHRRPEAITTEGKYWKSRIEIVIREYHKWRTYFKKRLQQHKDED  
LSSLVQDDDMLYWHKHGDGWKTPVPM EEDPLLDTDMLMSEFSDTLFSTLSSHQPVAWPNP  
REIAHLGNADMIQPLIPLQPNLDFMDTFEPFQDLFSSSR SIFGSMLPASASAPVDPNN  
PPAQESILPTTALPTVSLPDSL IAPPTAPSLAHMDEQCEHTSRTEDPFIQPTDFGPSEP  
PLSVPQPFLPVFTMPLLSPPAPPPISPVLPLVPPPATALNPPAPPTFHQPQKFAGVNKA

PSVITHTASATLTHDAPATTFSSQSQGLVITTHHPAPSAAPCGLALSPVTRPPQPRLTFVH  
PKPVSLTGGRPKQPHKIVPAPKPEPVSLVLKNARIAPAAFSGQPQAVIMTSGPLKREGML  
ASTVSQSNVVIAPAAIARAPGVPEFHSSILVTDLGHGTSSPPAPVSRFLFPSTAQDPLGKG  
EQVPLHGGSPQVTVTGPSRDCPNNGQASPCASEQSPSPQSPQNNCSGKSDPKNVAALKNR  
QMKHISAEQKRRFNKMCFDMLNSLISNNSKLTSHAITLQKTVEYITKLQQERGMQEEA  
RRLREEIEELNATIISCCQLLPATGVPVTRRQFDHMKDMFDEYVKTRTLQNWKFWFISII  
IKPLFESFKGMVSTSSLEELHRTALSWLDQHCSLPILRPMVLSTLRQLSTSTSIITDPAQ  
LPEQASKAVTRIGKRLGES

>Q13201

MKGARLFVLLSSSLWSSGIGLNNKHSWTIPEDGNSQKTMPASVPPNKIQSLQILPTRV  
MSAEIATTPEARTSEDSLLKSTLPPSETSAPAEQVNRQTLTSTEKAEGVVKLQNLTLPTN  
ASIKFNPGAESVVLNSNSTLQFLQSFARKSNEQATSLNTVGGTGGIGVGGTGGVGNRPR  
ETYL SRGDSSSSQRTDYQKSNFETTRGKNWCAYVHTRLSPTVILDNQVTYVPGGKGPCGW  
TGGSCPQRSQKISNPVYRMQHKIVTSLDWRCCPGYSGPKCQLRAQEQQSLIHTNQAESHT  
AVGRGVAEQQQQCGDPEVMQKMTDQVNYQAMKLTLLQKKIDNISLTVNDVRNTYSSLE  
GKVSEDKSREFQSLKGLKSKSINVLIRDIVREQFKIFQNDMQETVAQLFKTVSSLSDEL  
ESTRQIIQKVNESVVSIAAQQKFLVQENRPTLTDIVELRNHIVNVRQEMTLTCEKPIKE  
LEVKQTHLEGALEQEHRSILYYESLNKTL SKLKEVHEQLLSTEQVSDQKNAPAAESVSN  
NVTEYMSTLHENIKKQSLMMLQMFEDLHIQESKINNLTVSLEMEKESLRGECEDMLSKCR  
NDFKFQLKDTEENLHVLNQTLAEVLFPMDNKMDKMSEQLNDLTYDMEILQPLLEQGASLR  
QTMTYEQPKAEIVIRKKIENLTSAVNSLNFIIKELTKRHNLLRNEVQGRDDALERRINEY  
ALEMEDGLNKMTMIINNAIDFIQDNYALKETLSTIKDNSEIHHKCTSDMETILTFIPQFH  
RLNDSIQTLVNDNQRYNFVLQVAKTLAGIPRDEKLNQSNFQKMYQMFNETTSQVRKYQQN  
MSHLEEKLLLLTKISKNFETRLQDIESKVTQTLIPYYISVKKGSVVTNERDQALQLQVLN  
SRFKALEAKSIHLSINFFSLNKTLHEVLTMCHNASTSVSELNATIPKWKHSLPDIQLLQ  
KGLTEFVEPIIQIKTQAALSNLTCCIDRSLPGSLANVVKSQKQVKSPLPKINALKKPTVN  
LTTVLIGRTQRNTDNI IYPEEYSSCSRHPQCQNGGTCINGRTSFTCACRHPFTGDNCTIKL  
VEENALAPDFSKGSYRYAPMVAFFASHTYGMTIPGPILFNNLDVNYGASYTPRTGKFRIP  
YLGVVYFKYTI ESFSAHISGFLVVDGIDKLAFESENINSEIHCDRVLTDGALLELNYGQE  
VWLRLAKGTIPAKFPPVTTTFSGYLLYRT

>P42412

MAEIRKLNKYNINGEVVESKTDQYEDVVNPATKEVLCQVPISTKEDIDYAAQTAAEAFKTW  
SKVAVPRRARILFNFQQLLSQHKEELAHLITIEGKNTKEALGEVGRGIENVEFAAGAPS  
LMMGDSLASIAATDVEAANYRYPIGVVGGIAPFNFPMMVPCWMPMAIALGNTFILLKPSER  
TPLLLEKLVLEFEKAGLPKGVFNVVYGAHDVVNGILEHPEIKAISFVGSKPVGEYVYKKG  
SENLRVQSLTGAKNHTIVLNDANLEDTVNI VGAAFGSAGERCMACAVVTVEEGIADEF  
MAKLQEKVADIKIGNGLDDGVFLGPVIREDNKKRRTLSYIEKGLEEGARLVCDGRENVSDD  
GYFVGPTIFDNTTEMTIWKDEIFAPVLSVIRVKNLKEAIEIANKSEFANGACLFTSN  
AIRYFRENIDAGMLGINLGVPAFFFPFSGWKSSFFGTLHANGKDSVDFYTRKKVV TAR  
YPAPDFN

>Q07536

MAAVAVAAAAAALRARILQVSSKVNSSWQPASSFSSSSVPTVKLFDGKFI ESKSDKWID  
IHNPATNEVIGRVP ESTKAEMDAAVSSCKRTFP AWADTSLSRQQVLLRYQQLIKENLKE  
IARLIMLEQGKTLADAEGDVFRGLQVVEHACSVTSLMLGDTMPSITKMDLYSYRLPLGV  
CAGIAPFNFPAMIPLWMPMAMVCGNTFLMKPSERVP GATMLLAKLQD SGAPDGTLNII  
HGQHEAVNFI CDHPDIKAI SFVGSNQAGEYIFERGSRHGKRVQANMGAKNHGVVMPDANK  
ENTLNQLVGAAFGAAGQRCMALSTAILVGEAKKWLPELVERAKKLRVNAGDQPGADLGPL

ITPQAKERVCNLIDSGTKEGASILLDGRSIVKVKGYENGNFVGPTIISNVKPNMTCYKEEI  
FGPVLVVLETDLDEAIKIVNDNPYNGTAIFTTNGATARKYSHLVDVGQVGNVPIVVP  
LPMFSFTGSRASFRGDTNFYQKQGIQFYTQLKTIITSQWKEEDASLSSPAVVMPTMGR

>P28810

MSVPPVRHLIAGAFVEGLGAQRIPVSNPLDNSTLAEIACASAEQVEQAVASARETFASWKE  
TPVSEARARVMLRYQALLKEHHDELAKIVSSELGKTFEDAKGDVWRGIEVVEHACNVPSLL  
MGETVENVARNIDTYSITQPLGVCVGITPFNFPAMIPLWMFPLAIACGNAFILKPSEQVP  
LTSVRLAELFLEAGAPKGVLQVVHGGKEQVDQLLKHPQVKAVSFVGSVAVGQVYVYHTGTA  
HNKRVSQSFAGAKNHMIMPADAKAQVISNLV GASVGAAGQRCMAISVAVLVGAAREWIPE  
IRDALAKVRPGPWDDSGASYGPVINPQAKARIERLIGQGVEEGAQLLLDGRGYKVEGYPD  
GNWVGPTLTFAGVRPDMAIYREEVFGPVLCLAEVDSLEQAIRLINESPYNGTSTIFTSSGA  
AARTFQHHIEVGQVGINIPVPLPFFSFTGWKGSFYGDLHAYGKQGVRFYETETKTVTAR  
WFDSDSVAGTNFSIQMR

>O08789

MSIETLLEAARFLEWQAQQQQRAREEQERLRLEREREREQEOKRASNLARLAHALPVEEP  
RIEAPPLPLSPPAPPAPPPLATPAPLTVIPVVTNSPQSLPPPPPLPPAAQPLPLAP  
RQPALVSTPGLSIKEPVTLPTRPQVPTPAPLLPDAKTTVAPTGSPKPLQPLPAPILTIAP  
HPGVQPQLAPQQPPPTLGTLLKLAPEEAKSSEQKKRPGGIGTREVHNKLEKNRRAHLKE  
CFETLKRNI PNVDKKT SNLSVLR TALRYIQSLKRKEKEYEHMERLAREKIATQQRLAE  
LKHEL SQWMDVLEIDRVL RQTGQPEDDQASTSTASEGEDNVD EEMEGDRAGLGP PKNHR  
PQPELLKSALPTPSTAPATLPHPHPHPVVLSPAHLPVQEEQPPQKTPLPGPPPPPA  
TPTQTLVPAPVHLVATAGGGSTVIAHTATTHASVIQTVNHVLQAGGKHIAHIAPSAPSP  
AVQLAPATPPIGHI TVHPATLNHV AHLGSQLPLYQPVAVSQPVTVSHIAHTLSHQQVNG  
TAGLGPPATVMAPAVGGQVVHHPQLVGTV LNPVTMVTMPSFPVSTLKLA

>Q816R0

MSVTEHKKQAPKEVRCKIVTISDTRTEETDKSGQLLHELLKEAGHKVTSYEIVKDDKESI  
QQAVLAGYHKEDVDVVL TNGGTGITKR DVTIEAVSALLDKEIVGFGELFRMISYLEDIGS  
SAML SRAIGGTIGRKVVFSMPGSSGAVRLAMNKLILPELGHITFELHRQ

>P0AEZ9

MSQVSTEFIPTRIAILTVSNRRGEEDDTS GHYLRDSAQEAGHHVVDKAI VKENRYAIRAQ  
VSAWIASDDVQVVLITGGTGLTEGDQAPEALLPLFDREVEGFGEVFRMLSFEIIGTSTLQ  
SRAVAGVANKTLIFAMPGSTKACRTAWENI IAPQLDARTRPCNFHPLK

>P32125

MAGKTMIPLLAFAAWSGTGKTTLLKKLIPALCARGIRPGLIKHTHHMDVDKPGKDSYEL  
RKAGAAQTIVASQQRWALMTETPDEEELDLQFLASRMDTSKLDLILVEGFKHEEIAKIVL  
FRDGAGHRPEELVIDRHVIAVASDVPLNLDVALLDINDVEGLADFVVEWMQKQNG

>P0A9G8

MQAEILLTLKLQKLFADPRRISLLKHIALSGSISQGAKDAGISYKSAWDAINEMNQLSE  
HILVERATGGKGGGAVLTRYGQR LIQLYDLLAQIQKAFDVLSDDDALPLNSLLAAISR  
FSLQTSARNQWFGTITARDHDDVQHV DVLADGKTRLKVAITAQSGARLGLDEGKEVLI  
LLKAPWVGITQDEAVAQNADNQLPGIISHIERGAEQCEVLMALPDGQTL CATVPVNEATS  
LQQGQNV TAYFNADSVIIATLC

>P12281

MEFTTGLMSLDTALNEMLSRVTPLTAQETLPLVQCFGRILASDVVSPLDVPGFDNSAMDG  
YAVRLADIASGQPLPVAGKSFAGQPYHGEWPAGTCIRIMTGAPVPEGCEAVVMQEQTQM  
DNGVRFTA EVRSGQNIRRRGEDISAGAVVFPAGTRLTTAELPVIASLGIAEVPVIRKVRV  
ALFSTGDELQLPGQPLGDGQIYDTNRLAVHLMLEQLGCEVINLGIIRDDPHALRAAFIEA  
DSQADVVISSGGVSVGEADYTKTILEELGEIAFWKLAIKPGKPFAGFKLSNSWFCGLPGN  
PVSATLTFYQLVQPLLAKLSGNTASGLPARQVRV TASRLKKTTPGRLLDFQRGVLQRNADGE  
LEVTTTGHQGS HIFSSFSLGNCFIVLERDRGNVEVGEWVEVEPFNALFGGL

>P0AF03

MNTLRIGLVSISDRASSGVYQDKGIPALEEWLTSALTTPFLETRLIIPDEQAIIEQTLCE  
LVDEMSCHLVLTGGTGPARRDVTPDATLAVADREMPGFGEQMRQISLHFVPTAILSRQV  
GVIRKQALILNLPGQPKSIKETLEGVKDAEGNVVVHGFIFASVPYCIQLEGPYVETAPEV  
VAAFRPKSARRDVSE

>Q46509

MIQKVIITVNGIEQNLFVDAEALLSDVLRQQLGLTGVKVGCQGCACSVILDGKVVVAC  
VTKMKRVADGAQITTTIEGVGQPENLHPLQKAWVLHGGAQCFCSPGFIVSAKGLLDTNAD  
PSREDVRDWFQKHRNACRCTGYKPLVDVAVMDAAAVINGKKPETDLEFKMPADGRIWGSKY  
PRPTAVAKVTGTLDYGADLGLKMPAGTLHLAMVQAKVSHANIKGIDTSEALTMPGVH SVI  
THKDVKGKNRITGLITFPNKG DGWDRPILCDEKVFQYGDCIALVCADSEANARAAA EKV  
KVDLEELPAYMSGPAAAAEDAIEIHPGTPNVYFEQPIVKGEDTGP IFASADVTVEGDFYV  
GRQPHPMIEPDVAFAYMGDDGKCYIHSKSIGVHLHLYMIAPGVGLEPDQLVLVANPMGGT  
FGYKFSPTSEALVAVAAMATGRPVHLRYNYQQQQYTGKRSPWEMNVKFAAKKDGTLLAM  
ESDWLVDHGPYSEFGDLLTLRGAQF IGAGYNI PNIRGLGRTVATNHVWGS AFRGYGAPQS  
MFASECLMDMLAEKLGMDPLELRYKNAYRPGDTNPTGQEP EVFSLPDMIDQLRPKYQAAL  
EKAQKESTATHKKGVGISIGVYGSGLDGPDASEAWAELNADGTTTVHTAWEDHGQGADIG  
CVGTAHEALRPMGVAPEKIKFTWPNTATTPNSGPGSGSRQQVMTGN AIRVACENLLKACE  
KPGGGYYTYDELKAADKPTKITGNWTASGATHCDAVTGLGKPFVVYMYGVFMAEVTVDVA  
TGQTTVDGMTLMADLGS LCNQLATDGQIYGGLAQGIGLALSEDFEDIKKHATLVGAGFPF  
IKQIPDKLDIVYVNHPRPDGPF GASGVGELPLTSPHAAI INAIKSATGVR IYRLPAYPEK  
VLEALKA

>P20645

MFPFYSCWRTGLLLLLLAVAVRESWQTEEKTCDLVGEKKGKESKELALVKRLKPLFNKSF  
ESTVQGQSDTYIYIFRVCREAGNHTSGAGLVQINKSNGKETTVVGRNLNETHIFNGSNWIML  
IYKGGDEYDNHCQKORRAVVMISCNRH TLADNFPVSEERGVQDCFYLFEMDSSLACS  
PEISHLSVGSILLVTFASLVAVYVVGFFLYQRLVVGAKGMEQFPHLAFWQDLGNLVADGC  
DFVCRSKPRNVPAAYRGGVDDQLGEESEERDDHLLPM

>Q5VT25

MSGEVRLRQLEQFILDGPAQTNGQCF SVETLLDILICLYDECNNSPLRREKNILEYLEWA  
KPFTSKVKQMR LHREDFEILKVI GRGAFGEVAVVKLNADKVFAMKILNKWEMLKRAETA  
CFREERDVLVNGDNKWITTLHYAFQDDNLYLVMDYVVGDDLTL LSKFEDRLPEDMARF  
YLAEMVIAIDSVHQLHYVHRDIKPDNILMDMNGHIRLADFGSCLKLMEDGTVQSSVAVGT  
PDYISPEILQAMEDGKGRYGPECDWWSLGVCMYEMLYGETPFYAESLVETYGKIMNHKER  
FQFPAQVTDVSENAKDLIRRLIC SREHRLGQNGIEDFKKHPFFSGIDWDNIRNCEAPYIP  
EVSSPTDTSNFDVDDDCLKNSETMPPPTHTAFSGHHLPFVGFYTYTSSCVLSDRSCLRVTA  
GPTSLDLVNVQRTL DNNLATEAYERRIKRLEQEKLELSRKLQESTQTVQALQYSTVDGP  
L TASKDLEIKNLKEEIEKLRKQVTESSHLEQQLEEANAVRQELDDAFRQIKAYEKQIKTL  
QQUEREDLNKELVQASERLKNQSKELKDAHCQRK LAMQEFMEINERLTELHTQKQKLARHV

RDKEEEVDLVMQKVESLRQELRRTERAKKELEVHTEALAAEASKDRKLREQSEHYSKQLE  
NELEGLKQKQISYSPGVCSIEHQQEITKTKTDLEKKSIFYEEELSKREGIHANEIKNLKK  
ELHDSEGOQLALNKEIMILKDKLEKTRRESQSEREFESEFKQQYEREKVLNTEENKLLT  
SELDKLTTLTYENLSIHNQOLEEEVKDLADKKESVAHWAEQITEIQWVSDEKDARGYLQA  
LASKMTEELEALRNSSLGTRATDMPWKMRRFAKLDM SARLELQSALDAEIRAKQAIQEEL  
NKVKASNIITECKLKDSEKKNLELLSEIEQLIKDTEELRSEKGIHQDSQHSFLAFLNTP  
TDALDQFERSPSPCTPASKGRRTVDSTPLSVHTPTLRKKKGCSTGFPKPKRKTHTQFFVKSF  
TTPTKCHQCTSLMVGLIRQGCSCVCGFSCHITCVNKAPTTCVPPPEQTKGPLGIDPQKG  
IGTAYEGHVRI PKPAGVKKGWQRALAI VCDFKLFLYDIAEGKASQPSVVISQVIDMRDEE  
FSVSSVLASDVIHASKRDIPCI FRVTASQLSASNKCSILMLADTENEKNKWWGVLSSELH  
KILKKNKFRDRSVYVPKEAYDSTLPLIKTTQAAAIDHERIALGNEEGLFVVHVTKDEII  
RVGDNKKIHQIELIPNDQLVAVISGRNRHVRLFPMSALDGRETDYKLSSETKGCQTVTSG  
KVRHGALTCLCVAMKRQVLCYELFQSKTRHRKFKEIQVPYNVQWMAIFSEQLCVGFQSGF  
LRYPLNGEGNPYSMLHSNDHTLSFIAHQPMDAICAVEISSKEYLLCFNSIGIYDTCQRRR  
SRQOELMWPANPSSCCYNAPYLSVYSENAVDIFDVNSMEWIIQTLPLKVRPLNNEGSLNL  
LGLETIRLIYFKNKMAEGDELVVPETSDNSRKQMRNINNKRRYSFRVPEEERMQQRREM  
LRDPEMRNKLI SNPTNFNHIAHMGPGDGIQILKDLPMNPRPQESRTVFSGSVSI PSITKS  
RPEPGRSMSASSGLSARSSAQNGSALKREFSGGSYSAKRQMPSPSEGLSSGGMDQGS  
APARDFDGEDSDSPRHSTASNSSNLSSPPSPASPRKTKSLSLSESTDRGSWDP

>Q9KQW9

MSLHSDENWQTFKRLWYIRLYKAGLVVSTIALVINAAADTYMISLLKPLLDEGFNAE  
SNFLRILPFMILGLMFVRGLSGFASSYCLSWVSGNVVMQMRRLFNHFMHMPVRFDFQES  
TGGLLSRITYDSEQVAGATSRALVSIVREGASII GLLTLMFWNSWQLSLVLIIVVAPVVA  
AISFVSKRFRKISRNMQTAMGHVTSSAEQMLKGHKVVL SYGGQEVERKRFDKVSNSMRQQ  
TMKLVSAQSIADPVIQMIASLALFAVLFLASVDSIRAELTPGTF'TVVFSAMFGLMRPLKA  
LTSVTSEFQRGMAACQTLFGLMDLETERDNGKYEAERVNGEVDVKDVTFTYQGEKPA  
HVSFSIPQGKTVALVGRSGSGKSTIANLFTRFYDVDSGSI CLDGHVDVRDYKLTNLRHF  
LVSQNVHLFNDTIANNIAYAAEGEYTREQIEQAARQAHAHEFIENMPQGLD TVIGENGTS  
LSGGQRQVAIARALLRDAPVLI LDEATSALDTE SERAIQAALDELQKNKTVLVIAHRLS  
TIEQADEILVVDEGEI IERGRHADLLAQDGAYAQLHRIQFGE

>P0A742

MSIIKEFREFAMRGNVVDLAVGVI IGAAFGKIVSSLVADI IMPPLGLLIGGIDFKQFAVT  
LRDAQGDIPAVVMHYGVFIQNVDFLIVAFVAFMAIKLINKLNKKEEPAAPAPTKEEV  
LLTEIRDLLKEQNNRS

>A5U127

MLKGFKEFLARGNIVDLAVAVVIGTAFTALVTKFTDSIITPLINRIGVNAQSDVGILRIG  
IGGGQTIDLNVLLSAAINFFLIAFAVYFLVVL PYNTLRKKGEVEQPGDTQVLLTEIRDL  
LAQTNGDSPGRHGGRGTPSPTDGPRASTESQ

>P0C0S1

MEDLNVVDSINGAGSWLVANQALLLSYAVNIVAALAI IIVGLI IARMISNAVNRLMISRK  
IDATVADFLSALVRYGIIAFTLIAALGRVGVQTASVIAVLGAAGLAVGLALQGSLSNLAA  
GVLLVMFRPFRAGEYVDLGGVAGTVLSVQIFSTTMRADGKIIVIPNGKIIAGNIINFSR  
EPVRRNEFIIGVAYDSDIDQVKQILTNI IQSEDRILKDREMTVRLNELGASSIN FVVRVW  
SNSGDLQNVYWDVLERIKREFDAAGISFPYPQMDVNFKRVKEDKAA

>P30204



MTKEMTENQRLCPHEREDADCSSESVKFDARSMTASLPHSTKNGPSVQEKLKSFKAALIA  
LYLLVFAVLIPVVGIVTAQLLNWEMKNCLVCSRNTSDTSQGPMEKENTSNVEMRFTIIMA  
HMKDMEERIQSISNSKADLIDTGRFQNFSMATDQRLNDILLQLNSLILSVQEHGNSLDAI  
SKSLQSLNMTLLDVQLHTETLHVVRVRESTAKQQEDISKLEERVYKVS AEVQSVKEEQAHV  
EQEVKQEVVRVLLNITNDLRLKDW EHSQTLKNITFIQGPFGPQGEKGDRLTGQTGPPGAP  
GIRGIPGVKGDGRQIGFPPGGRGNPGAPGKPGRSRSGSPGPKGQKGEKGSVGGSTPLKTVRLV  
GGSGAHEGRVEIFHQGQWGTICDDRWDIRAGQVVCRLSLGYQEVLA VHKRAHFGQGTGPIW  
LNEVMCFGRESSIENCKINQWGVLSCSHSEDAGVTCTS

>Q13126

MASGTTTTAVKIGIIGGTGLDDPEILEGRTEKYVDTPFGKPSDALILGKIKNVDCVLLAR  
HGRQHTIMP SKVNYQANIWALKEEGCTHVIVTTACGSLREEIQPGDIVIIDQFIDRTTMR  
PQSFYDGS HSCARGVCHIPMAEPFCPKTREVLIETAKKLGLRCHSKGTMVTIEGPRFSSR  
AESFMFRTWGADV INMTTVPEVVLAKEAGICYASIAMATDYDCWKEHEEA VSVDRVLKTL  
KENANKAKSLLLLTTIPQIGSTEWSETLHNLKNMAQFSVLLPRH

>P50389

MNPVHILAKKGEVAERVLVVGDPGRARLLSTLLQNPKLTNENRGFLVYTGKYNGETVSI A  
THGIGGPSIAIVLEELAMLGANVFI RYGTTGALVPYINLGEYIIVTGASYNQGLFYQYL  
RDNACVASTPDFELTNKLVTSFSKRNLKYYVGNVFS SDAFYAEDEEFVKKWSSRGNIAVE  
MECATLFTLSKVKGWKSATVLVSDNLAKGGI WITKEELEKSVMDGAKAVLDTLTS

>Q02046

MSKPGRTILASKVAETFNTEIINNVEEYKKT HNGQGPLLVGFLANNDPAAKMYATWTQKT  
SESMGFRYDLRVI EDKDFLEEAI IQANGDDSVNGIMVYFPVFGNAQDQYLQQVVC KEKDV  
EGLNHVYYQNL YHNVRYLDKENRLKSILPCTPLAIVKILEFLKIYNNLLPEGNRLYGKKC  
IVINRSEIVGRPLAALLANDGATVYSVDVNNIQKFTRGESLKL NKHHVEDLGEYSEDLLK  
KCSLSDSVVITGVPS ENYKFPTEYIKEGAVCINFAC TKNFSDDVKEKASLYVPMTGKVTI  
AMLLRNMLRLVRNVELSKEK

>P09358

MKNNEYKYGGVLMTKPYYNKNKMILVHSDTFKFLSKMKPESMDMIFADPPYFLSNGGISN  
SGGQVVSVDKGDWDKISSFEEKHEFN RKWIRLAKEVLKPNGTVWISGSLHNIYSVGMAL E  
QEGFKILN NITWQKTNPAPNLSCRYFTHSTETILWARKNDKKARHYNYDLMKELNDGKQ  
MKDVWTGSLTKKVEKWAGKHPTQKPEYLLERIILASTKEGDYILDPFVGS GTTGVAKRL  
GRRFIGIDAEKEYLKIARKRLEAENETN

>P94951

MTVAKAIFIKCGNLGTSMMMDMLLDERADREDVEFRVVGTSVKMDPECVEAAVEMALDIA  
EDFEPDFIVYGGPNPAAPGPSKAREMLADSEYPAVIIGDAPGLKVKDEMEEQGLGYILVK  
PDAMLGARREFLDPVEMAIYNADLMKVLAA TGVFVRVQEA FDELIEKAKEDEISENDLPK  
LVIDRNTLLEREEFENPYAMVKAMAAL EIAENVADV SVEGCFVEQDKERYVP IVASAHM  
MRKAAELADEARELEKSNDAVLRTPHAPDGKVL SKRKFMEDPE

>Q04448

MRFTSNMAQIIDGKAI AQEVRTQLAHELKGM EAAGYPKPHLTAVIVGEDPASEKYVANKM  
VACREVGISSETKRLPASTTQEELLQLIADLNKDPQVTGILVQLPVPEHINERTICNAVD  
VDKDVDGFNEVNIGRTALDMEANIPATPLGVKRLLEHMKIETLGRNAV VVGRSKNVSLPM  
AILLHADGKYATKAMDATVTICHRYTPPKELARHCRQADIIVVAVGK PGLITKDMVKPGA  
CVIDVGINRIKDESTGQFKLVGDVDFEEVRQVAGHITPVPGGVGPMTVAML MHN TLKAAR

KQFDDRKSS

>P13995

MAATSLMSALAAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVRRQVEVEEW  
VASGNKRPHLSVILVGENPASHSYVLNKTRAAAVVGINSETIMKPASISEEELNLINKL  
NNDDNDVGLLVLPLPEHIDERRICNAVSPDKDVGDFHVINVGRMCLDQYSMLPATPWGV  
WEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTISHRYTPKEQL  
KKHTILADIVISAAGIPNLITADMIKEGAAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQ  
KAGYITPVPGVGPMTVAMLKNTIIAAKKVLRLEEREVLKSKELGVATN

>O93868

MAPGFTISFVNKTIIVTGGNRGIGLAFTRAVAAAGANVAVIYRSKDAVEVTEKVGKEFG  
VKTKAYQCDVSNVDIVTKTIQQIDADLGAISGLIANAGVSVVKPATELTHEDFKFDVYD  
VFGVFNTCRAVAKLWLKQKQKGSIVVTSSMSSQIINQSSLNGLTQVFYNSSKAACSNLV  
KGLAAEWASAGIRVNALSPGYVNTDQTAHMDKKIRDHQASNIPLNRFAPQPEEMTGQAILL  
LSDHATYMTGGEYFIDGGQLIW

>O97148

MKTLVLVLRISTVILVVLVIQKSYADILECDYFDTVDISAAQKLQNGSYLFEGLLVPAILT  
GEYDFRILPDDSKQKVARHIRGCVCKLKPCVRFCCPHDHIMDNGVCYDNMSDEELAEELDP  
FLNVTLDDGSVSRRHFKNELIVQWDLPMPCDGMFYLDNREEQDKYTLFENGTFFRHFDRV  
TLRKREYCLQHLTFADGNATSIRIAPHNCLIVPSITGQTVVMISLIMVLTIAVYLFVK  
KLQNLHGKCFICYMVCFLMGYLFLLLDLWQISISFCKPAGFLGYFFVMAAFFWLSVISLH  
LWNTFRGSSHKANRFLFEHRFLAYNTYAWGMAVVLTGITVLDNIVENQDWNPRVGHEGH  
CWIYTQAWSAMLYFYGPMVFLIAFNITMFIILTAKRILGVKKDIQNFHRQERKQKLN  
SDKQTYTFFLRLFIIMGLSWSLEIGSYFSQSNQTNANVFLVADYLNWSQGIIFILFV  
LKRSTWRLLEQESIRGEGEEVNNSEEEISLENTTTRNVLL

>O27564

MVLVIEIIRKHLPRVLKVPATRILLVLAVIDYGTAGFHFIEGESWTVSLSYWTFTIATV  
GYGDYSPSTPLGMYFTVTLIVLIGIGTFFAVAVERLLEFLINREQMKLMGLIDVAKSRH  
VVICGWSESTLECLRELRGSEVFLAEDENVRKKVLRSGANFVHGDPTRVSDLEKANVRG  
ARAVIVDLESDSETIHCILGIRKIDESVRIIAEAERYENIEQLRMAGADQVISPFVISGR  
LMSRSIDDGYEAMFVQDVLAEESTRRMVEVPIPEGSKLEGVSVLDADIHDVTGVIIIGV  
GRGDELIIDPPRDYSFRAGDIILGIGKPEEIERLKNYISA

>Q9SE60

MKVVDKIKSVTEQGQTAFSFEFFPPKTEDGVENLFERMDRLVSYGPTFCDITWGAGG  
STADLTLEIASRMQNVICVETMMHLTCTNMPIEKIDHALETIRSNGIQNVLALRGDP  
PHGQDKFVQVEGGFACALDLVNHIRSKYGDYFGITVAGYPEAHPDVEADGLATPESYQ  
SDLAYLKKVDAGADLIVTQLFYDTDIFLKFVNDCRQIGINCPVPGIMPISNYKGLRMAG  
FCKTKIPAELTAALEPIKDNDEAVKAYGIHFATEMCKKILAHGITSLHLYTLNVDKSAI  
GILMNLGLIDESKISRSLPWRRPANVFRTEKEDVRPIFWANRPKSYISRTKGWNDP  
PHGRWGDSSHAAYSTLSDYQFARPKGRDKKLQEQEWVPLKSIEDVQEKFKELCIGNL  
KSSPWSELDGLQPETKIINEQLGKINSNGFLTINSQPSVNAAKSDSPAIGWGGPGGYVY  
QKAYLEFFCCKDKLDTLVEKSKAFPSITYMAVNKSENWVSNTGESDVNAVTVGVP  
AKEVIQPTIVDPASFVVKDEAFEIWSRSWANLYPEDDPSRKLLEEVKNSSYYLVSLV  
DNNYINGDIFSVFA

>P42898

MVNEARGNSSLNPCLEGSASSGSESSKDSRCSTPGLDPERHERLREKMRRLRESGDKWF

SLEFFPPRTAEGAVNLI SRFD RMAAGGPLYIDVTWHPAGDPGSDKETSSMMIASTAVNYC  
GLETILHMTCCRQRLEEITGHLHKAKQLGLKNIMALRGDPIGDQWEEEEGGFNAYVDLVK  
HIRSEFGDYFDICVAGYPKGHPEAGSFEADLKHLKEKVSAGADFIITQLFFEADTFFRFV  
KACTDMGITCPIVPGIFPIQGYHSLRQLVKLSKLEVPQEI KDVI EPIKDNDAAIRNYGIE  
LAVSLCQELLASGLVPLGHFYTLNREMATTEVLKRLGMWTE D PRRPLPWALS AHPKREE  
DVRPIFWASRPKSYIYRTQEWDEFPNGRWGNSSSPAFGELKDYYLFYLSKSPKEELLKM  
WGEELTSEESVFEVFLYLSGEPNRNGHKVTCLPWNPDEPLAAETSLKKEELLRVNRQGIL  
TINSQPNINGKPPSSDPIVWGWPSSGGYVFKAYLEFFTSRETA EALLQVLK KYELRVNYHL  
VNVKGENITNAPELQPNVAVTWGIFPGREIIQPTVVDPV SFMFWKDEAFALWIERWGKLYE  
EESPSRTIIQYIHDNYFLVNLVDNDFPLDNCLWQVVEDTLELLNRPTQNARETEAP

>P23192

MLEINKI HQMNCFDFLDQVENKSVQLAVIDPPYNLSKADWDSFDSHNEFLPFTYRWIDKV  
LDKLDKDGSLYIFNTPFNCAFICQYLVS KGMIFQNWITWDKRDGMGSAKRGFSTGQETIL  
FFSKSKNHTFN YDEV RVPYESTDRIKHASEK GILKNGKRWF PNPNGRLCGEVWHFSSQRH  
KEKVNGKTVKLTHTITPKPRDLIERIRASSNPNDLVLD CFMGS GTTAIVAKKLGRNFICG  
DMNAEYVNQANFVLNQL E IN

>Q9H3R2

MKAI IHLTL LALLSVN TATNQNSADAVTTTETATSGPTVAAADTTETNFPETASTTANT  
PSFPTATSPAPPIISTHSSSTIPTAPPIISTHSSSTIPIPTAADSESTTNVNSLATS DI  
ITASSPNDGLITMVPSETQSN NEMSP TTEDNQSSGPPTGTALLE TSTLNSTGPSNPCQDD  
PCADNSLCVKLHNTSFCLCLEGYYNSSTCKKGKVFPGKISVTVSETFDPEEKHSMAYQD  
LHSEITSLFKDVF GTSVYQTVILTVSTLS PRSEMRADDK FVNVTIVTILAETTS DNEK  
TVTEKINKAIRSSSNFLNYDLTLRCDY YGCNQ TADDCLNGLACDCKSDLQRPNPQSPFC  
VASSLKCPDACNAQH KQCLIKKSGGAPECACVPGYQEDANGNCQKCAF GYSGLDCKDKFQ  
LILTIVGTIAGIVILSMI IALIVTARSNNKTKHIEEENLIDEDFQNLKLRSTGF'TNLGAE  
GSVFPKVRITASRDSQM QNPYSRHSMPRPDY

>O60682

MSTGVSVDPEEMELRGLQREY PVPASKRPPLRGVERS YASPSDNSSAE EEDPDGEEERCA  
LGTAGSAEGCKRKRPRVAGGGGAGGSAGGGGKKPLPAKGSAAECKQSQRNAANARERARM  
RVLSKA FSR LKTSLPWVPD TKLSKLDTLRLASSYIAHLRQLLQEDRYENGYVHPVNLTW  
PFVVSGRPDSDTKEVSAANRLCGTTA

>Q92614

MFNLMKKDKDKDGRKEKKEKKEKERMSSAAELRSLEEMSLRRGFFNLNRSSKRESKTRL  
EISNPIPIKVASGSDLHLTDIDSDSNRGSVILDSGHLSTASSSDDLKGE EGSFRG SVLQR  
AAKFGLAKQNSQMIVKRFSFSQRSRDESASETSTPSEHSAAPSPQVEVRTLEGQLVQHP  
GPGIPRPGHRSRAPELVTKKFPVDLRLPPVPLPPPTLRELELQRRPTGDFGFSLRRTTM  
LDRGPEGQACRRVVHFAEPGAGTKDLALGLVPGDRLVEINGHNVESKSRDEIVEMIRQSG  
DSVRLKVQPIPELSELSRSWLRSGEGPRREPSDAKTEEQIAAEEAWN ETEKVWL VHRDGF  
SLASQLKSEELNLPEGKVRVKLDHDGAILD VDEDDVEKANAPSCDRLEDL ASLVYLNES  
VLHRTL RQRYGASLLHTYAGPSLLVLGPRGAPAVYSEKVMHMFKGCRREDMAPHIYAVAQT  
AYRAMLSRQDQSIILLGSSGSGKTTSCQHLVQYLATIAGISGNKVF SVEKWQALYTLLE  
AFGNSPTIINGNATRF SQILSLDFDQAGQVASASIQTM LLEKLRVARRPASEATFN VFYY  
LLACGDGTLRTELHLNHLAENNVF GIVPLAKPEEKQKAAQQF SKLQAAMKVLGISPDEQK  
ACWFILAAIYHLGAAGATKEAAEAGRKQFARHEWAQKAA YLLGCSLEELSSAIFKHQHKG  
GTLQRSTSF RQGPEESGLGDGTGPKLSALECLEGMAAGLYSELFTLLVSLVNRALKSSQH  
SLCSMMIVDTPGFQNP EQGSARGASFEELCHNYTQDRLQRLFHERTFVQELERYKEENI

ELAFDDLEPPTDDSVAAVDQASHQSLVRS LARTDEARGLLWLLEEEALVPGASEDTLLER  
LFSYYGPQEGDKKQSPLLHSSKPHHFLLGHSHTNWWVEYNVTGWLNYTKQNPATQNAPR  
LLQDSQKKIISNLFLGRAGSATVLSGSIAGLEGGSQLALRRATSMRKTFTTGMAAVKKKS  
LCIQMKLQVDALIDTIKSKLHFVHCFLPVAEGWAGEPRSASSRRVSSSELDLPSGDHC  
EAGLLQLDVP LLRTQLRGSRLLDAMRMYRQGYPDHMFSEFRRRFDVLAPHLTKKHGRNY  
IVVDERRAVEELLECLDLEKSSCCMGLSRVFFRAGTLARLEEQRDEQTSRNLTLFQAACR  
GYLARQHFKKRKIQDLAIRCQVQKNIKKNKGVKDWPWWKLF'TTVRPLIEVQLSEEQIRNKD  
EEIQQLRSKLEKAEKERNELRLNSDRLESRISEL'TSEL'TDERNTGESASQLLDAETAERL  
RAEKEMKELQTOYDALKKQMEVMEVMEARLIRAAE INGEVDDDDAGGEWRLKYERAVR  
EVDFTKKRLQQEFEDKLEVEQQNKRQLEERRLGDLQADSEESQRALQQKKKCQRLTAELQ  
DTKLHLEGQQVRNHELEKKQRRFDSSELSQAHEEAQREKLQREKLQREKDMLLAEAFSLKQ  
QLEEKDMDIAGFTQKVVSLEAELQDISSQESKDEASLAKVKKQLRDLEAKVKDQEEELDE  
QAGTIQMLEQAKLRLEMEMERMRQTHSKEMESRDEEVEEARQSCQKKLKQMEVQLEEEYE  
DKQKVLREKRELEGKLATLSQVNRDRDFESEKRLRKDLKRTKALLADAQLMLDHLKNSAP  
SKREIAQLKNQLEESEFTCAA AVKARKAMEVEIEDLHLQIDDI AKAKTAL EEQLSRLQRE  
KNEIQNRLEEDQEDMNELMKKHA AVAQASRDLAQINDLQAQLEEANKEKQELQEKLQAL  
QSQVEFLEQSMVDKSLVSRQEA KIRELETRLEFERTQVKRLES LASRLKENMEKLT EERD  
QRIAAENREKEQNKRLQRQLRDTKEEMGELARKEAEASRKKHELEMDLESLEAANQSLQA  
DLKLAFKRIGDLQAAIEDEMESDENEDLINSLQDMVTKYQKRKNKLEGSDVDSELEDRV  
DGVKSWLSKNKGPSKAASDDGSLKSSSPTS YWKS LAPDRSDDEHDPDNTSRPRYSHSYL  
SDSDTEAKLTETNA

>Q8IUG5

MAISSRLALWEQKIREEDKSPPPSSPPPLFSVIPGGFIKQLVRGTEKEAKEARQRKQLAV  
ASPEREIP EISISQPNSKSSSGTRSGSQQISQDDQSSSPGSSDILGKESEGSRS PDPEQM  
TSINGEKAQELGSSATPTKKTVPFKRGVRRGDVLLMVAKLDPDSAKPEKTHPHDAPCKT  
SPPATDTGKEKKGETSRTPCGSQASTEILAPKAEKTRTGGLGDPGQGTVALKKGEEGQSI  
VGKGLGTPKTTELKEAEPQ GKDRQGTRPQAQGPGEVVRPGKAEKEGAEPTNTVEKGNVSK  
DVGSEGKHVRPQIPGRKWWGFLGRRSKWDGFPQNKKDKEGVLLSKAEKTGEPQTQMEKTSQ  
VQGELGDDL RMGEKAGELRSTTGKAGESWDKKEKMGQPQ GKSGNAGEARSQTEKGCEAPK  
EVSTMVESPAAPGKGGWPGSRGQEAEEPCSRAGDGAGALETELEGPSQPALEKDAERPRI  
RKENQDGPAPQEEGKGGQSRDSDQAPEDRWYEA EKVWLAQKDGF'TLATV LKPD EGTADLP  
AGRVRLWIDADKTITEVDEEHVHRANPPELDQVEDLASLISVNESSVLN'TLLQRYKAQLL  
HTCTGPD LIVLQPRGPSVPSAGKVPKGRRDGLPAHIGSMAQRAYWALLNQRRDQSIVALG  
RSGAGKTTCC EQVLEHLVGMAGSVDGRVSVEKIRATFTVLR AFGSVSMASRSATRF SMV  
MSLDFNATGRITAAQLQTM LLEKSRVARQPEGESN'FLVFSQMLAGLDDLDRTELNLHOMA  
DSSSFGMGVWSKPEDKQKAAAFAQLQGAM EMLGISESEQR AVWRVLA AIYHLGAAGACK  
VGRKQFMRFEWANYAAEALGCEYEELNTATFKHHLRQIIQQMTFGPSRWGLEDEETSSGL  
KMTGVDCVEGMASGLYQELFAAVVSLINRSFSSHLSMASIMVVDSPGFQNP RHQ GKDRA  
ATFEELCHNYAHERLQLLFYQRTFVSTLQRYQEEGVPVQFDLPDPSPGTTVA VVDQNPSQ  
VRLPAGGGAQDARGLFWVLDEEVHVEGSSDSVVLERLCAAFEKKGAGTEGSSALRTCEQP  
LQCEIFHQ LGWDPVRYDLTGWLHRAKPNLSALDAPQVLHQSKREELRSLFQARAKLP PVC  
RAVAGLEGTSQQALQRSRMVRRTFASSLA AVRRKAPCSQIKLQMDAL'TSMIKRSRLHF IH  
CLVNPVVE SRSGQESPPPPQPGRDKPGAGGPLALDIPALRVQLAGFHILEALRLHRTGY  
ADHMGLTRFRRQFQVLDAPLLKLMSTSEGIDERKAVEELLE'TLDLEKKAVAVGHSQVFL  
KAGVISRLEKQREKLVQSIVL FQAACKGFLSRQEFK'KLKIRRLAAQCIQKNVAVFLAVK  
DWPWWQLLGS LQPLLSATIGTEQLRAKEEEL'TTLRRKLEKSEKLRNELRQNTDLLESKIA  
DLTSDLADERFKGDVACQVLESERAERLQAFREVQELKSKHEQVQKKG DVNKLQLEEAQQ  
KIQLNDLERNPTGGADEWQMRFDCAQ MENEF'LRKRLQQCEERLDS ELTARKELEQKLGEL  
QSAYDGAKKMAHQ LKRKCHHLL'CDLEDTCVLLENQQSRNHELEKKQK'KFDLQALQALGES

VFEKGLREKVTQENTSVRWELGQLQQQLKQKEQEASQLKQQVEMLDHKKRELLGSPSLGE  
NCVAGLKERLWKLESSALEQQKIQSQQENTIKQLEQLRQRFELERERMKQMHQKDREDQE  
EELEDVRQSCQKRLHQLEMQLEQEYEEKQMVLEHEKQDLEGLIGTLCDQIGHRDFDVEKRL  
RRDLRRTHALLSDVQLLLGTMEDGKTSVSKEELEKVHSQLEQSEAKCEEALKTKQVLTAD  
LESMHSELENMTRNKSILVDEQLYRLQFEKADLLKRIDEDQDDLNELMQKHKDLIAQSAAD  
IGQIQELQLQLEEAKKEKHKLQEQQLQVAQMRIEYLEQSTVDRAIVSRQEAVICDLENKTE  
FQKVQIKRFEVLVIRLRDSLKMGEEELSQAATSESQQRESSQYYQRRLEELKADMEELVQ  
REAEASRRCMELEKYVEELA AVRQTLQTDLETSIRRIADLQAAL EEVASSDSDTESVQTA  
VDCGSSGRKEMDNVLSLSSQPEGLSQSWLSCTLSLATDTMRTPSRQSATSSRILSPRINE  
EAGDTEREQSALALSRARSTNVHSKTSGDKPVSPHFVRRQKYCHFGDGEVLAVQRKSTER  
LEPASSPLASRSTNTSPLSREKLPSPSAALSEFVEGLRRKRAQRGQGSTLGLDWP TLP I  
YQTTGASTLRRGRAGSDEGNLSLRVGA KSPLEIEGAAGLLRSTSLKCISSDGVGGTTLL  
PEKSKTQFSSCESLLESRPSMGRKLSSTTPRDMLLSPTLRPRRRCLESSVDDAGCPDLG  
KEPLVFQNRQFAHLMEEPLGSDPFSWKLP SLDYERKTKVDFDDFLPAIRKPQTPTSLAGS  
AKGGQDGSQRSSIHFEETEANRSFLSGIKTILKKSPEPKEDPAHLSDSSSSSGSIVSFKS  
ADSIKSRPGIPRLAGDGGERTSPERREPGTGRKDDDDVASIMKKYLQK

>Q99836

MAAGGPGAGSAAPVSSSTSLPLAALNMRVRRRLSLFLNVRTQVAADWTALAEEMDFEYLE  
IRQLETQADPTGRLLDAWQGRPGASVGRLLLELLTKLGRDDVLELGP SIEEDCQKYILKQ  
QQEEAEKPLQVA AVDSSVPRTAELAGITTLDDPLGHMPERF DAFICYCPSDIQFVQEMIR  
QLEQTNYRLKLCVSDRDVLP GTCVWSIASELIEKRCRMVVVSDDYLSKECDFQTKFA  
LSLSPGAHQKRLIP IKYKAMKKEFPSILRFITVCDYTNPCTKSWFWTRLAKALS LP

>P19524

MSFEVGTWCWYPHKELGWIGAEVIKNEFNDGKYHLELQLEDEDIVSVDTKDLNNDKDQSL  
PLLRNPPILEATEDLTSLSYLNEPAVLHAIKQRYSQLNIYTYSGIVLIATNPFDRVDQLY  
TQDMIQAYAGKRGELEPHLFAIAEEAYRLMKNDKQNQTIVVSGESGAGKTVSAKYIMRY  
FASVEEENSATVQHQVEMSETEQKILATNPI MEAFGNAKTTRNDNSSRFGKYLEILFDKD  
TSIIIGARIRTYLLERSRLVYQPP IERNYHIFYQLMAGLPAQTKEELHLTDASDYFYMNQG  
GDTKINGIDDAKEYKITVDALTLVGITKETQHQIFKILAALLHIGNIEIKKTRNDASLSA  
DEPNLKLACELLGIDAYNFAKWVTKKQIITRSEKIVSNLNYSQALVAKDSVAKFIYSALF  
DWLVENINTVLCNPAVNDQISSFIGVLDIYGFHEHFEKNSFEQFCINYANEKLQQEFNQHV  
FKLEQEEYVKEEIEWSFIEFNDNQPCIDL IENKLGILSLLD EESRLPAGSDESWTQKLYQ  
TLDKSPTNKVFSKPRFGQTKFIVSHYALDVAYDVEGFIEKNRDTVSDGHLEVLKASTNET  
LINILEGLEKAAKKLEEAKKLELEQAGSKKPGPIRTVNRKPTLGSMFKQSLIELMNTINS  
TNVHYIRCIKPNADKEAWQFDNLMVLSQLRACGVLETIRISCAGFPPSRWTFEEFVLRYYI  
LIPHEQWDLIFKKKETT EEDIISVVKMILDATVKDKSKYQIGNTKIFFKAGMLAYLEKLR  
SNKMHSIVMIQKKIRAKYYRKQYLQISQA IKYLQNNIKGFIIRQRVNDEMKNVCATLLQ  
AAYRGHSIRANVFSVLRITITNLQKKIRKELKQRQLKQEHEYNAAVTIQSKVRTFEPRSRF  
LRTKKDTV VVQSLIRRRAAQRKLKQLKADAKSVNHLKEVSYKLENKVIELTQNLASKVKE  
NKEMTERIKELQVQVEESAKLQETLENMKKEHLIDIDNQSKDMELQKTIENNLQSTEQT  
LKDAQLELEDVMVQHDELKEESKQLEEELEQTKKTLVEYQTLNGDLQNEVKS LKEE IARL  
QTAMSLGTVTT SVLPQTPLKDV MGGGASNFNMML ENSDLSPNDLNLKSRSTPSSGNNHI  
DSLSDRENGVNATQINEELYRLLEDTEILNQEITEGLLKGFEVDPDAGVAIQLSKR DVVY  
PARILIIVLSEMWRFLTKQSESFLAQVLT TIQKVVTQLKGN DLIPSGVFWLANVRELYS  
FVVFALNSILTEETFKNGMTDEEYKEYVSLVTELKDDFEALS YNIYNIWLKKLQKQLQKK  
AINAVVISESLPGFSAGETSGFLNKIFANTEEYTMDDILTFFNSIYWCMSFHIENEV FH  
AVVTLLNYVDAICFNELIMKRNFLSWKRGLQLNYNVTRLEEWCKTHGLTDGTECLQH LI  
QTAKLLQVRKYTIEDIDILRGICYSLTPAQLQK LISQYQVADYESPIPQEILRYVADIVK

KEAALSSSGNDSKGHEHSSSIFITPETGPFTDPFSLIKTRKFDQVEAYIPAWLSLPSTKR  
IVDLVAQQVVQDGH

>Q99104

MAASELYTKFARVWIPDPEEVWKSSELLKDYKPGDKVLLLLHLEEGKDLEYRLDPKTGELP  
HLRNPDIIVGENDLTALSYLHEPAVLHNLRVRFIDSKLIYTYCGIVLVA INPYEQLP IYG  
EDIINAYSGQNMGMDPHIFAVAEAEAYKQMARDERNQSIIVSGESGAGKTVSAKYAMRYF  
ATVSGSASEANVEEKVLASNPIMESIGNAKTTRNDNSSRFKYLEIGFDKRYRIIGANMR  
TYLLEKSRVVFQAEERNYHIFYQLCASAKLPEFKMLRLGNADSFHYTKQGGSPMIEGVD  
DAKEMAHRQACTLLGISESYQMGI FRILAGILHLGNVGFASRSDSDSCTIPPKHEPLTIF  
CDLMGV DYEEMCHWLCHRKLATATETYIKPISKLQATNARDALAKHIYAKLFWIVDHVN  
QALHSAVKQHSFIGVLDIYGFETFEINSFEQFCINYANEKLQQQFNMHVFKLEQEEYMKE  
QIPWTLIDFYDNQPCINLIESKLGILDLLDEECKMPKGTDDTWAQKLYNTHLNKCALFEK  
PRMSNKAFFIKHFADKVEYQCEGFLEKNKDTVFEQIKVLKSSKFKMLPELFDDEKAIS  
PTSATSSGRTPLTRVPVKPTKGRPGQTAKHEHKKTVGHQFRNSLHLLMETLNATTPHYVRC  
IKPNDFKFPFTFDEKRAVQQLRACGVLETIRISARGFPSRWTYQEFFSRYRVL MKQKDV L  
GDRKQTCKNVLEKLIIDKDKYQFGKTKIFFRAGQVAYLEKLRADKLRAACIRIQKTIRGW  
LLRKRYLCMQRAAITVQRYVRGYQARCYAKFLRRTKAATTIQKYWRMYVRRRYKIRRAA  
TIVIQSYLRGYLTRNRYRKILREYKAVIIQKRVRGWLRARTH YKRTMKAIVYLQCCFRMM  
AKRDVKKLKI EARSVERYKLLHIGMENKIMQLQRKVDEQNKDYKCLMEKLTNLEGVYNSE  
TEKLRNDVERLQLSEEEAKVATGRVLSLQEEIAKLRKDLEQTRSEKKSIEERADKYKQET  
DQLVSNLKEENTLLKQEKETLNHRIVEQAKEMTETMERKLVEETKQLELDLNDERLRYQN  
LLNEFSRLEERYDDLKEEMTLMNVPKPGHKRTDSTHSSNESEYTFSEFAETEDIAPRT  
EETIEKKVPLDMSLFLKLOKRVTELEQEKQLMQDELDRKEEQVFRSKAKEEERPQIRGAE  
LEYESLKRQELESENKLLKNELNELRKALSEKSAPEVTAPGAPAYRVLMEQLTSVSEELD  
VRKEEVLILRSQVLSQKEAIQPKDDKNTMTDSTILLEDVQMKDKGEIAQAYIGLKETNR  
LLESQVLSQKRSHEENAEALRGEIQSLKEENNRQQQLLAQNLQLPPEARIEASLQHEITR  
LTNENLYFEELYADDPKKYQSYRISLYKRMIDLMEQLEKQDKTVRKLKQLKVF AKKIGE  
LEVGMENISPGQIIDEPIRPVNI PRKEKDFQGMLEYKREDEQKLVKNLILELKPGRVAV  
NLIPGLPAYILFMCVRHADYLNDDQKVRSLTSTINSIKKVLKRRGDDFETVSFWLSNTC  
RFLHCLKQYSGEEGFMKHNTSRQNEHCLTNFDLAEYRQVLSDLAIQIYQQLVRVLENILQ  
PMIVSGMLEHETIQGVSGVKPTGLRKRRTSSIADEGTYTLDSILRQLNSFHSVMCQHGM DP  
ELIKQVVKQMFYIVGAI TLNLLLRKDMCSWSKGMQIRYNVSQLEEWLRDKNLMNSGAKE  
TLEPLIQAAQLLQVKKKTDDDAEAI CSMCNALTTAQIVKVLNLYTPVNEFEERVSVSFI R  
TIQMRLRDRKDSQQLLMDAKHIFPVTFFPNPSSLALETIQIPASLGLGFIARV

>Q99972

MRFFCARCCSFGPEMPAVQLLLLLACLVDVVGARTALRKANDQSGRCQYTF SVASPNESS  
CPEQSQAMSVIHNLQRDSSTQRDLDEATKARLSSLESLLHQLTLDQAARPQETQEGLQRE  
LGTLRRRERDQLETQTRELETAYSNLLRDKSVLEEEKKRLRQENENLARRLESSSQEVARL  
RRGQCPQTRDTARAVPPGSREVSTWNLDTLAFQELKSELTEVPASRILKESPSGYLRSGE  
GDTGCGELVWVGEPLTLRTAETITGKYGVWMRDPKPTYPTQETTWRIDTVGTDVRQVFE  
YDLISQFMQGYPSKVHILPRPLESTGAVVYSGSLYFQGAESRTVIRYELNTE TVKAEKEI  
PGAGYHGQFPYSWGGYTDIDLAVDEAGLWVIYSTDEAKGAI VLSKLN PENLELEQTWETN  
IRKQSVANAFIICGTLYTVSSYTSADATVNFA YDTGTGISKTLTIPFKNRYKYSSMIDYN  
PLEKKLFAWDNLNMV TYDIKLSKM

>P54697

MTTSTIENGASSPIIVSSSTPKLYQEGAGVWIPDQELGWIGADVIEHSET SADQVLVRTE  
DDREVKIPLSKVFQKNPDILEGVDDL SFLSHLHEPAI LHNLHHRYNLNQIYTYIGKILIA

INPYTSLPLYGKEMISAYYGKQLGTLAPHVYAVAEDAFAKDMRYDGTSSQSILVSGESGAGK  
TETTKFLLQYFAAMGNMIKESTSSSSINGINTSSDGIPVTPPPSPMKKSPVDKSVEERVL  
ESTPLLEAFGNAKTLRNDNSSRFGKFIEIHFNEMGSIIGAKILTYLLEKSRIVRQVYNER  
NYHIFYQLLSGASEELKEKLNKLTIEEYSYLNKSGCFEIEGVSDDEEHFNKTCHAMQVAGI  
TLVEQENVFRILSAILLIGNFEFENIAGSNDDSCQLIDRDPLEKVSVLLGCAQPDELLNS  
MLTRKVVVTGKESYISHNTKERAENARDSLSMFLYGMDFDLVVKINSSMSISTQQKSKSF  
IGVLDIYGFESFEVNGFEQFCINYANEKLQQLFNQHFVKEEQEYIKEKIDWSYIDFNDN  
QDTLDLIEKKPICILTLLEETMFPKATPQTLATKLYSKMTSHSKFEKPRFSSTAFTINH  
YAGKVTYETDQFLDKNKDFIIEPQISILQRSNFSFIKVLMSHSDKFTQSPGGHPQGNNGP  
TSSNTKGTSGSSSMKFLSVGSQFSTSLATLMKTIISTTTPHYVRCIKPNPEKLPQTFNKQD  
VIHQLRCCGVMESVRICCAGFPTRLLSEFYQRYKILYVKDINTGSGGGKKSNNKIKD  
PKILVQNLLTGIELSDDKYKIGLTKVFLRAGQLASLEDMRLEQLDRSATVIQKRWKGYLY  
RKRYKQLRDASLIIQTKLRVHAKQQLSALQRTHSAILIQKVRRAHRDRVQYQKIRDASL  
QLQTVMRRLHFSEQVHRERCENAAIILQTKIRQILSKREVDKLRGIIILIQARWRMKLAK  
RVYIQLRAEARSLRTVQEQKNLQEKLEELQWRLTSEAKRKQQLLEDQVKVSDTTISELSS  
NNDHLELQLSEIQLKYQELDKSNQSSQLQLSECLSKLEEQTQQLDHSSKLNKKLEKDLSD  
QHDSIEKLSQSFNETEQQLQQFKQOSEELSSKLSKT'TQQLDFNKQEFDRLSQERDNTDN  
NQLEIQQLKKANSTLEEDYFSLSGIRDNLERQVLELRDENQLIKERLDSLGGQSSQFQSG  
AALEKQOLEQLVQEQSEQLIKLSSEKLGSEEEAKQINQLELELTDHKSCLKIQLQLTEQ  
SNEKIKKLGKLEEQDEKKQLQOELERIKQSKQSVEDKNSLITQLTTVKFESTQVSTN  
VSHQKEKITTLKSTIEELNKSIGKLAEQKNKDDEIRKIQFELNDQKQFTRQTKESDL  
QSQQSIDRQKSEITIHSLERTNETLKSDFERVQQLKQOERDCQYKDTINRLENEVKQL  
TQLKERFENEFFVAKEQNSNQTQESVYLKEVTTQMQQNQSRIERELEEKKQHITRIDDER  
DELKKQLTQLOQQHEQSSTQLLLAQNELERLRKKELKYKERGHETSQOQDQFNMEIQSLR  
ITNNDQLKSLQDYEQEKKKLKDKLSSSKQEAQQQRESIIKMDAELSAIKQHSQWVENSFT  
DMKQRNQELIESSALYKQQLLQQTSTIDSTIKEKENEISKLQQOLETSNQQHLHQLKEELN  
SMKQSNQLESTEQSKQLNQLIQENQQLKSVTNEISKQLDDAVFENQKINNTIKEQEIKSK  
RMSVELQQHIDEGKQOEIQQLQSTIAQLKQQQOSETDRLEKEIQQMKRERETQMKLVEST  
KLNHYHMLEDRMELRYNVMIEIDYKETEWEKLARLAGCKELDTKLLSDFLLSCKLEHTSLG  
SQMWFHQIDYWPYERDSSKGIIFYGIIRSIVDFTIKNFDDVDLLSYLLACCSLTLFLYKK  
NLVKHLNGANSIMPIIPTLGDLEELNERLSHQSLTTSKGFSGGGGGGIDFIDQLQQSTG  
ITFGLIFKATTLKLSPLVDGAILNENYNKKLTSISASSFGSGSFGGLGSNGVGSVLSIELI  
TTYLSSIIITIFQHRMVHFTLSQRFFNQVFCWIGALIMKGFMLRQTFCTETTFATFVKTKID  
FLTRWADDIGNVWGDVANAFQQVREVINVLNKDKKIIDDKIRKQYCP'LN'NSQLKQV  
LSL'FSPGEF'GGKRVSAKVIASICPPNKSSAGQSFVQDENKLN'TIPIDSLHYLEIQDIKTL  
SLPLSIRQTIETEIINLKQQIACKK

>Q9UBF9

MFNYERP'KHFIQSQNPCGSRLQPPGPETSSSFSSQTKQSSIIIQPRQCTEQRFSASSTLSS  
HITMSSAFPASPQQHAGSNPGQRVTTTYNQSPASFLSSILPSQPDYNSSKIPSAMDSNY  
QQSSAGQPINAKPSQTANAKPIPRTPDHEIQGSKEALIQDLERKLCCKDTLLHNGNQRLT  
YEEKMARRLLGPNAAAVFQAQDDSGAQDSQQHNSHARLQVPTSQVRSRSTSRGDVNDQ  
DAIQEKFYPPRFIQVPENMSIDEGRCRMDFKVSGLPAPDVSWYLN'GR'VTVQSDDLHKMIV  
SEKGLHSLIFEVV'RASDAGAYACVAKNRAGEATF'TVQLDVLAKEH'KRAPMFIYK'PQSKKV  
LEGDSVKLE'EQISAI'PPP'KLFWKRNNEMVQFNTDRISLYQDNTGRV'TLLIKDVNKKDAGW  
YTVSAVNEAGV'TTCNTRL'DVTARPNQTL'PAPKQLRVRP'TFSKYLALNGKGLNVKQAFNPE  
GEFQRLAAQSGLYESEEL

>Q00326

MKLLHGLALVFLLAASCKADEEITCEENNPFTCSNTDILSSKNFGKDFIFGVASSAYQI

EGGRGRGVNVWDGFSHRYPEKAGSDLKNGDTTCEASYTRWQKDVDVMGELNATGYRFSFAW  
SRIIPKGVSRGVNQGLDYYHKLIDALLEKNI TPFVTLFHWDLPQTLQDEYEGFLDRQI  
IQDFKDYADLCFKEFGGKVKHWITINQLYTPTRGYAIGTDAPGRCSPMVDTKHRCYGGN  
SSTEPYIVAHNQLLAHATVVLDLYRTKYKFQKGI GPVMITRWF LPFDESDPASIEAAERM  
NQFFHGWYMEPLTKGRYPDIRQIVGSRLPNFT EEEAE L VAGSYDFLGLNYVTQYAQPK  
PNPYPSEHTAMMDAGVKLT YDNSRGEFLGPLFVEDKVN GNSYYPKGIYVMDYFKTKY  
GDPLIYVTENGFSTPSSENREQAIADYKRIDYLC SHLCFLR KVIKEKGVNVRGYFAWALG  
DNYEFCKGFTVRFLGSYVNWEDLDDRNLKESGKWYQRFINGTVKNAV KQDFLRSSLSSQS  
QKKRFADA

>P0C0K9

MIPGMGMNPKQLKQMQRAMKQMGMDMKDLRGVEEVV I K L K R K E I I I K N P K V N V M E F M G Q K  
TYQVTGKARERSLEAEMEIPEDDIELVMNQ TGASRE DATRALQETGGDLAEA IMRLS

>P30011

MPPRRYNPDTRRDELLERINLDIPGAVAQALREDLGGTV DANNDITAKLLPENSRSHATV  
ITRENGVFCGKRWVEEVFIQLAGDDVTI IWHVDDGDVINANQSLFELEGPSRVLLTGERT  
ALNFVQTL SGVASKVRHYVELLEGTNTQLLDTRK TLPGLRSALKYAVLCGGGANHRLGLS  
DAFLIKENHIIASGSVRQAVEKASWLHPDAPVEVEVENLEELDEALKAGADIIMLDNFET  
EQMREAVKRTNGKALLEVSGNVTDKTLREFAETGVDFISVGALTKHVQALDLSMRFR

>O06594

MGLSDWELAAARAAIARGLDEDLRYGPDVTTLATVPASATTTASLVTREAGVVAGLDVAL  
LTLNEVLGTNGYRVLDRVEDGARVPPGEALMTLEAQTRGLLTAERTMLNLVGHLSGIATA  
TAAWVDAVRGTKAKIRDTRKTL PGLRALQKYAVRTGGGVNHRLGLGDAALIKDNHVAAG  
SVVDALRAVRNAAPDL PCEVEVDSLEQLDAVLPEKPEL ILLDNFAVWQTQTAVQRRDSRA  
PTVMLESSGGLSLQTAATYAETGV DYLA VGAL THSVRVLDIGLDM

>Q6IA69

MGRKVTVATCALNQWALDFEGLQRILKSIEIAKNRGARYRLGPELEICGYGCWDHYYES  
DTLLHSFQVLAALVESPVTDIICDVGM PVMHRNVRYNCRVIFLNRKILLIRPKMALANE  
GNYRELRFWFTPWSRSRHTEEYFLPRMIQDLTKQETVPFGDAVLVTWDT CIGSEICEELWT  
PHSPHIDMGLDGVEIITNASGSHHVLKANTRVDLVTMVT SKNGGIYLLANQKGC DGDRL  
YYDGCAMIAMNGSVFAQGSQFSLDDVEVL TATLDLEDVRSYRAEISSRNLAASRASPYP  
VKVDFALSCHEDLLAPISEPIEWKYHSP EEEISLGPACWLWDFLRRSQQAGFLLPLSGGV  
DSAATACLIYSMCCQVCEAVRSGNEEVLADVRTIVNQISYTPQDPRDLCGRILTT CYMAS  
KNSSQETCTRARELAQQIGSHHISLNIDPAVKAVMGIFSLVTGKSPLFAAHGGSSRENLA  
LQNVQARIRMVLAFLFAQLSLWSRQVHGGLLVLSANVDESLLGYLTKYDCSSADINPIG  
GISKTDLRAFVQFCIQRFQLPALQSILLAPATAELEPLADGQVSQTDEEDMGMTYAE LSV  
YGKLRKVAKMGYPYMFCKLLGMWRHICTPRQVADKVKRFFSKYSMNRHKMTTLTPAYHAE  
NYSPEDNRFDLRPFLYNTSWPWQFRCIENQVLQLERAEPQSLDGVD

>P08164

MSMQEKIMRELHVKPSIDPKQEI ED RVN FLKQYVKKTGAKGFVLGISGGQDSTLAGRLAQ  
LAVESIREEGDAQFI AVRLPHGTQQDEDDAQLALKFIKPKDSWKFDIKSTVSAFSDQYQ  
QETGDQLTDFNKG NVKARTRMIAQYAI GGQEGLLVLGTDHAAEAVTGFFTKYGDGGADLL  
PLTGLTKRQGR TLLKELGAPERLYLKEPTADLLDEKPPQSD ETELGISYDEIDDYLEGKE  
VSAKVSEALEKRYSMTEHKRQVPASMFDDWKK

>P18843



MTLQQQIIKALGAKPQINAEIIIIRRSVDFLKSYLQTYPFIKSLVVLGISGGQDSTLAGKLC  
QMAINELRLETGNESSLQFIARLRYGVQADEQDCQDAIAFIQPDRLTVNIKGAVLASEQ  
ALREAGIELSDFVRGNEKARERMKAQYSIAGMTSGVVVGTDHAAEAITGFFTKYDGGTD  
INPLYRLNKRQGKQLLAALACPEHLYKKAPTADLEDDRPSLPDEVALGVTYDNIIDYLEG  
KNVPQQVARTIENWYLKTEHKRRPPITVFDDFWKK

>Q500Y9

MAIRKLLLLLLKPIDPYPFLQTEGASLIKNPQVLQYLESRCKVHKNAIKFCQEILSKKPVE  
WKPISRNDLSHPIRDVDMVITVGGDGTLLHASHFIDDSVPVLGVNSDPTQAHEVEELSDQ  
FDASRSTGHLCAATVENFEQVLDDILFGRVVPKVSRIKLNSETLLSHALNDILIAQP  
CPAAVSRFSFKIKNKDGASSPKTVNCRSSGLRICTAAGSTAAMQSAGGFVMPMLSRDLQF  
MVREPI SPGSTASLMHSTFKPDQFMDVNWYSDHGTIYIDGCQVQHSVQLGDTIEISSDAP  
VLNVFLSHGISQIRSR

>P32382

MTHFPNLFSEGRIGNLVIRNRIVMPPMATNLANEDGSVSQRLIDYYVARARGGVGLIILE  
NVQVDYPQGNVACQLRLDDDKYMAGFFELAEAVHSYGAKIFMQIHHAGRQTPGITEGL  
QPVPASPVPFSLGTQPRELTINEIEEIIQKFVDAAVRAKAMFDGIELHGAGHYLIGQF  
MSPRTNRRVDKYGGSFERRMRFPLEIIRRIKEAVGEDYPI SFRFSADEFVEGGNTLEEGK  
QIAKMLEEAGVHVLHVSAGIYESMPTLLEPSRFEQGWRYLAEEIKKVVNIPIVITVGVIR  
EPEFAEKIIAEGRADFVAVGRGLIADPEWPKAKEGRQNEIRKICISCNIGCIGGRVFQNL  
RLRCTVNPVAGREGVYSEIKQAPVKKKVVVVGGGPAGMQAAITAARKGHQVILYEKKQHL  
GGQLEIASASPGKAKIKWFRDWLEAELSRAVEVRSVGTADAETIAALSPDYVILATGSE  
PVTPRIKGAEKENTFVFAQWDVLGKVSFDKDEEVVIGGGLVGCETAHYLAEKGAKVTI  
VEMLSDIAIDMEPISRFDMMQQFTKLGISARTGKVVTEILPRGVAAVGKEGKQDFIRAHK  
VVLAIQSPVGNELKKTLEDKIDVIRVIGDAYNVGKIIDAVSSGFQVAWQI

>P0A759

MRLIPLTTAEQVGKWAARHIVNRINAFKPTADRPVFLGLPTGGTPMTTYKALVEMHKAGQ  
VSFKHVVTFFNMDEYVGLPKEHPESYYSFMHRNFFDHVDIPAENINLLNGNAPDIDAECRQ  
YEEKIRSYGKIHLFMGGVNDGHI AFNEPASSLASRTRIKTLTHDTRVANSRFFDNDVNQ  
VPKYALTVGVGTLTLLDAEEVMILVLSQKALALQAAVEGCVNHMWTISCLQLHPKAIMVCD  
EPSTMELKVKTLRYFNELEAENIKGL

>Q9UJ70

MAAIYGGVEGGGTRSEVLLVSEDGKILAEADGLSTNHWLIGTDKCVERINEMVNRKRKA  
GVDPLVPLRSLGLSLSGGDQEDAGRILIEELRDRFPYLSSESYLITTDAGSIATATPDGG  
VVLISGTGSNCRILINPDGSESGCGGWGHMMGDEGSAYWIAHQAVKIVFDSIDNLEAAPHD  
IGYVKQAMFHYFQVPDRLGILTHLYRDFDKCRFAGFCRKAIEGAQQGDPLSRYIFRKAGE  
MLGRHIVAVLPEIDPVLFQKGKIGLPILCVGSVWKS WELLKEGFLALALTQGREIQAQNFFS  
SFTLMKLRHSSALGGASLGARHIGHLPMDY SANAI AFYSYTF S

>P54550

MARKLFTPITIKDMLKNRIVMSPMCMYSSHEKDGLTPFHMAHYISRAIGQVGLIIVEA  
SAVNPQGRITDQDLGIWSDEHIEGF AKL TEQVKEQGSKIGIQLAHAGRKAEELEGDIFAPS  
AIAFDEQSATPVEMSAEKVKETVQEFKQAAARAKEAGFDVIEIHAAGHYLIHEFLSPLSN  
HRTDEYGGSPENRYRFLREIIDEVKQVWDGPLFVVRVSASDYTDKGLDIADHIGFAKWMKE  
QGVLDIDCSSGALVHADINVFPQYQVSFAEKIREQADMATGAVGMITDGSMAEEILQNGR  
ADLIFIGRELLRDPFFARTAAKQLNTEIPAPVQYERGW

>P0A6L4

MATNLRGVMAALLTPFDQQQALDKASLRRLVQFNIQQGIDGLYVGGSTGEAFVQSLSERE  
QVLEIVAAEEAKGKIKLIAHVGCVSTAESQQLAASAKRYGFDAVSAVTPFYYPFSFEEHCD  
HYRAIIDSADGLPMVVYNIIPALSGVKLTLTDQINTLVTLPGVGALKQTSGDLYQMEQIRRE  
HPDLVLYNGYDEIFASGLLAGADGGIGSTYINIMGWRYQGIVKALKEGDIQTAQKLQTECN  
KVIDLLIKTGVFRGLKTVLHYMDVVSVPLCRKPFPGPVDEKYLPELKALAAQQLMQERG

>P44539

MRDLKGFISALLVSFNEDGTINEKGLRQIIRHNIDKMKVDGLYVGGSTGENFMLSTEEKK  
EIFRIAKDEAKDQIALIAQVGSVNLKEAVELGKYATELGYDCLSAVTPFYKFSFPEIKH  
YYDTIIAETGNNMIVYSIPFLTGVNMGIEQFGELYKNPKVLGVKFTAGDFYLLERLKKAY  
PNHLI WAGFDEMMLPAASLGVDGAIGSTFNVNGVRARQIFELTKAGKLAEALEIQHVTND  
LIEGILANGLYLTIKELLKLEGVDAGYCREPMTSKATEEQ LAKAKDLKAKFLS

>P37061

MKVVVVVGCTHAGTSAVKSILANHPEAEVTVYERNDNISFLSCGIALYVGGVVKNAADLFY  
SNPEELASLGATVKMEHNVEEINVDDKTVTAKNLQTGATEVSYDKLVMTTGSWPIIPPI  
PGIDAENILLCKNYSQANVIEKAKDAKRVVVVGGGYIGIELVEAFVESGKQVTLVDGLD  
RIILNKYLDKPFPTDVLEKELVDRGVNLALGENVQQFVADEQGVAKVITPSQEFVADMVIM  
CVGFRPNTPELLKDKVDMLPNGAIEVNEYMQTSNPDI FAAGDSAVVHYNPSQTKNYIPLAT  
NAVRQGMLVGRNLTEQKLAYRGTQGTSGLYLFGWKIGSTGVTKESAKLNGLDVEATVFED  
NYRPEFMPTTEKVLMELVYEKGTQRIVGGQLMSKYDITQSANTLSLAVQNKMTVEDLAIS  
DFFFQPHFDRPWNYLNLQAALENM

>A2RIB7

MKIVVIGT NHAGIATANTLLEQYPGHEIVMIDRNSNMSYLGCGTAIWVGRQIEKPDELFI  
AKAEDFEAKGVKILTETEVSEIDFANKKVYAKTKSDDEIEAYDKLVLATGSRPIIPNLP  
GKDLKGIHFLKLFQEQAIDAFAKEKVKRIAVIGAGYIGTEIAEAAKRRGKEVLLFDAE  
NTSLASYYDEEFAKGMDENLAQHGIELHFGELAKEFKANEEGYVSQIVTNKATYDVDLVI  
NCIGFTANSALASDKLATFKNGAIKVDKHQSSDPDVYAVGDVATIYSNALQDFTYIALA  
SNAVRSGIVAGHNIGGKELESVGVQGSNGISIFGYNMTSTGLSVKAAKKGLEVSFSDFE  
DKQKAWFLHENNDSVKIRIVYETKSRRRIGAQLASKSEI IAGNINMFS LAIQEKKTIDEL  
ALLDLFFLPHFNSPYNYMTVAALNAK

>P25293

MSDP IRTKPKSSMQIDNAPT PHNTPASVLNPSYLNKGNPVRAQAQEQQDKIGTINEEDIL  
ANQPLLLQSIQDRLGSLVGQDSGYVGGLPKNVKEKLLSLKTLQSELFEVEKEFEQVEMFEL  
ENKFLQKYKPIWEQRSRIISGQEQPKPEQIAKGQEVESLNETELLVDEEEKAQNDSEEE  
QVKGIPSWLTALENLP IVCDTITDRDAEVLEYLQDIGLEYLTDGRPGFKLLFRFDSSAN  
PFFTNDILCKTYFYQKELGYSGDFIYDHAEGCEISWKDNAHNVTVDLEMRKQRNKTKQV  
RTIEKITPIESFFNFDPKIQNEDQDEELEEDLEERLALDYSIGEQLKDKLIPRAVDWF  
TGAALFEFEFEDEEEADEDEDEEEDDDHGLEDDDDGESAEEQDDFAGRPEQAPECKQS

>P37062

MKVIVLGSSHGGYEAVEELLNLHPDAEIQWYKGD FISFLSCGMQLYLEGKVKDVNSVRY  
MTGKEMESRGVNVFSNTEITAIQPKHQVTVKDLVSGEERVENYDKLIISPGAVPFELDI  
PGKDL DNIYLMRGRQWAIKQKQKTVDPVNNVVVIGSGYIGIEAAEAFKAGKKVTVIDI  
LDRPLGVYLDKEFTDVLTEEMEANNIT IATGETVERYEGDGRVQKIVTDKNAYDADLVV  
AVGVRPNTAWLKGTLLEHPNGLIKTDEYMR TSEP DVFAVG DATLIKYNPADTEVNIALAT  
NARKQGRFAVKNLEEPVKPFPGVQSSGLAVFDYKFASTGINEVMAQKLGKETKAVTVVE

DYLMDFNPKQKAWFKLVYDPETTQILGAQLMSKADLTANINAI SLAIQAKMTIEDLAYA  
DFFFQPAFDKPWNI INTAAALEAVKQER

>Q07661

MEQSFIMIKPDGVQRGLIGDII SRFEKKGFYLRGMKFMNVERSFAQQHYADLSDKPPFFPG  
LVEYIIISGPVVAMVWEGKDVVATGRRIIIGATRPWEAAPGTIRADYAVEVGRNVIHGSDSV  
DNGKKEIALWFFPEGLAEWRSNLHPWIYES

>P0A763

MAIERTFSIIKPNVAKNVIGNIFARFEAAGFKIVGTMKMLHLTVEQARGFYAEHDGKPPFF  
DGLVEFMTSGPIVVSVLEGENAVQRHRDLLGATNPANALAGTLRADYADSLTENGTGSD  
SVESAAREIAYFFGEVCPTR

>Q58661

MKERTFVALKPDVAVKRKLIGKIIERFENKGFIVAMKMIKLDREMAEKYEEHKGKEFYE  
RLINFMTSGRMIVMVEGENAISVVRKMIGKTNPAEAEPTIRGDFALTPDNI IHASDS  
KESAEREIKLFFKEDEIFDK

>P84284

MTERTLVLIKPDGIERQLIGEII SRIERKGLTIAALQLRTVSAELASQHYAEHEGKPPFFG  
SLLEFITSGPVVAAIVEGTRAI AAVRQLAGGTDVPVQAAAPGTIRGDFALETQFNLVHGSD  
SAESAQREIALWFFGA

>P15266

MAIERTLSIIKPDGLEKGVIGKII SRFEKGLKPVAIRLQHL SQAQAE GFYAVHKARPPF  
KDLVQFMISGPVVLVLEGENAVLANRDIMGATNPAAEPTIRKDFATSIDKNTVHGSD  
SLENAKIEIAYFFRETEIHSYPYQK

>P36010

MSSQTERTFIAVKPDGVQRGLVVSQILSRFEKKGYKLVAIKLVKADDKLLQHYAEHVGP  
FFPKMVSFMKSGPILATVWEGKDVVRQGRITILGATNPLGSAPGTIRGDFGIDLGRNVCHG  
SDSVDSAEREINLWFKKEELVDWESNQA KWIYE

>P52174

MANSERTFIAIKPDGVQRGLIGEIIKRFEQKGFRLVAMKFM RASEDLLKEHYIDLKDRPF  
FAGLVKYMHS GPVVAMVWEGLVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGS  
DSVESAEKEIALWFFPEELVNYKSCAQNWIYE

>P22887

MSTNKVNKERTFLAVKPDGVARGLVGEIIARYEKKGFVLVGLKQLVPTKDLAESHYAEHK  
ERPFFGGLVSFITSGPVVAMVFEGKGVVASARLMIGVTNPLASAPG SIRGDFGVDVGRNI  
IHGSDSVESANREIALWFKPEELLTEVKPNPNLYE

>O00746

MGGLFWRSALRGLRCGPRAPGPSLLVRHGSGGPSWTRERTLVAVKPDGVQRRLVGDVIQR  
FERRGFTLVGMKMLQAPESVLAEHYQDLRRKPFYPALIRYMSSGPVVAMVWEGYNVVRAS  
RAMIGHTDSAEAAPGTIRGDFSVHISRNVIHASDSVEGAQREIQLWFFQSELVSWADGGQ  
HSSIHPA

>O35867

MLKAESSGERTTLRSASPHRNAYRTEFQALKSTFDKPKPDGEQKTKEGEGSQQSRGRKYG  
SNVNR IKNL FMQMGMEPNENAAI IAKTRGKGRPSSPQKRMKPKKEFVEKTDGSVVKLESSV  
SERISRFDTMHDGPSYAKFTETRKMFERSGHESGQNNRHSPKKEKAGEAEPQDEWGGSKS  
NRGSSDSLDSLSPRTEAVSPTVSQLSAVFENSESPGAI TPGKAENSNYSVTGHYPLNLP  
VTVTNLDTFGRLKDNSRPSNNKQATDTEEPEKSEAVPVPEVAQKGTSLASLPSEERQLS  
TEAEDVTAQPDPDSTDKDSPGEPESAESQAMPKSN TLSRPKEPLEDAEANVVGSEAEQPQ  
RRDLTGGGDLTSPDASASSCGKEVPEDSN SFEGSHVYMHSDYNVYRVRSRYSNDWGETGT  
EQDEGDDSDENNYQPDMEYSEIVGLPQEEEEIPANRKIKFSCAPIKVFNTYSNEDYDRRN  
DDVDPVAASAEYELEKRVKLELFPVELEKDEDGLGISI IGMGVGADAGLEKLGIFVKTV  
TEGGAAQRDGR IQVNDQIVEVDGISLVGVTQNF AATVLRNTKGNVRFVIGREKPGQVSEV  
AQLISQTLQERRQRELLERHYAQYDADDDDETGEYATDEEEDEVGP I L PGGDMAIEVFEL  
PENEDMFSPSDLDTSKLSHKFKELQIKHAVTEAEIQK LKTKLQAAENEKVRWELEKNQLQ  
QNI EENKERMVKLESYWIEAQTLCHTVNEHLKETQSQYQALEKKYNKAKKLIKDFQQKEL  
DFIRREQEVERKKLEEV EKAHLVEVQGLQVRIRDL EAEVFRLLKQNGTQVNNNNNIFERRP  
SPGEVSKGDTMENVEVKQTSCQDGLSQDLNEAVPETERLDSKALKTRAQLSVKNRRQRPT  
RTRL YDSVSSTDGEDSLERKNFTFNDDFSPSSTSSADLSGLGAEPKTPGLS QSLALSDE  
SLDMIDDEILDDGQSPKHTQSQSRAVHEWSVQQVSHWLVLGSLDQYVSEFSAQNI SGEQL  
LQLDGNK LKALGMTSSQDRALVKKK LKEMKMSLEKARKAQEKMEKQREKLRRKEQE QMQR  
KSKKSEKMTSTTEQP

>O35274

MMKTEPRGPGGPLRSASPHRSAYEAGIQALKPPDAPGPDEAPKAAHHKKYGSNVHR I KSM  
FLQMGT TTTGPPGEAGGASGMAEAPRASDRGVR LSLPRASSLNENVDHSALLKLGTSVSER  
VSRFDSKPAPSAQPAPPPHPPSRLQETRKL FERSVPAASGGDKEAVARRLLRQERASLQD  
RKL DVVVR FNGSTEALDKLDADAVSPTVSQLSAVFEKADSRTGLHRAPGPPRAAGAPQVN  
SKLVTKRSRVFQPPPPPPAPSGDAATEKDRGPGGQPPQHRVAPARPPPKPREVRKIKPV  
EVEESGESEAESAPGEVIQAEVTVHAALENGSTTATTASPAP EEPKAEAVPEEEASSVA  
TLERGV DNGRAPDMAPEEVEDESKKEDFSEADLVDVSAYSGLGEDSGGSALEEDDEEDEED  
GEPPEPESEGCVEI PGLSEEDPAPSRK IHFSTAPIQV FSTYSNEDYDRRNEDVDPMAAS  
AEYELEKRVRELELFPVELEK DSEGLGISI IGMGAGADMGLEKLGIFVKTVTEGGAAHRD  
GRIQVNDLLVEVDGTSLVGVTQSFAASVLRNTKGRVRFMIGRERPGEQSEVAQLIQQTLE  
QERWQREMMEQRYAQYGEDDEETGEYATDEDEELSPTFP GGEMAI EVFELAENEDALSPV  
EMEPEKLVHKFKELQIKHAVTEAEIQQLKRKLQSLEQEKGRWRVEKAQLEQSVEENKERM  
EKLEGYWGEAQSLCQAVDEHLRETQAQYQALERKYSKAKRLIKDYQQKEIEFLKKETAQR  
RVLEES ELARKEEMDKLLDKISELEGNLQTLRNSNST

>Q8TD19

MSVLGEYERHCDSINSDFGSESGGCGDSSPGPSASQGP RAGGAAEQEELHYIP IRVLGR  
GAFGEATLYRRTEDDSL VVWKEVDLTRLSEKERRDALNEIVILALLQHDNIIAYYNHFMD  
NTTLLIELEYCNGGNLYDKILRQKDKLFEEEMVVWYLFQIVSAVSCIHKAGILHRDIKTL  
NIFLTKANLIKLDYGLAKKLNSEYSMAETLVGTPYYMSPELCQGVKYNFKSDIWA VGCV  
IFELLTLKRTFDATNPLNLCVKIVQGIRAMEVDSSQYSLELIQMVHSCLDQDPEQRPTAD  
ELLDRPLLRKRRREMEKVTLLNAPT KRPRSSTVTEAPIAVVTSRTSEVYVWGGGKSTPQ  
KLDVIKSGCSARQVCAGNTHFAVVTEKELYTWVNMQGGTKLHGQLGHGDKASYRQPKHV  
EKLQGAIRQVSCGDDFTVCVTDEGQLYAFGSDY YGCMGVDKVAGPEVLEPMQLNFFLSN  
PVEQVSCGDNHVVLTRNKEVYSWGCGEYGR LGLDSEEDYYPQKVDVPKALII VAVQCG  
CDGTFLLTQSGKVLACGLNEFNKLG LNQCM SGI INHEAYHEVPYTTSTFLAKQLSFYKIR  
TIIAPGKTHTA AIDERGRLTFCGNKCGQLGVGNYKKRLGINLLGGPLGGKQVIRVSCGDE  
FTIAATDDNHI FAWNGGNGRLAMTPTERPHGSDICTSWPRP IFGSLHHVPDLSCRGWHT  
ILIVEKVLNSKTI RSNSSGLSIGTVFQSSSPGGGGGGGGEEEDSQQESETPDPSSGGFRG

TMEADRGMEGLISPTTEAMGNSNGASSSCPGLWRKELENAEFIPMPDPSPLSAAFSESEK  
DTLPYEELQGLKVASEAPLEHKPQVEASSPRLNPAVTCAGKGTPLTPACACSSLQVEVE  
RLQGLVLKCLAEQQKLQQENLQIFFTQLQKLNKKLEGGQQVGMHSGTQTAKHEMEMDPKP  
DLSDSDSWCLLGTDSRPSL

>Q62919

MPMDVILVLFVFCVCTARTVLGFGMDPDLQLDII SELDLVNTTLGVTQVAGLHNASKAFLF  
QDVQREIHSAPHVSEKLIQLFRNKSEFTFLATVQQKPTSTSGVILSIRELEHSYFELESSG  
PREEIRYHYIHGGKPRTEALPYRMADGQWHKVALSVSASHLLHIDCNRIYERVIDPPET  
NLPPGSNLWLQQRNQHKGFFKGI IQDGKII FMPNGFITQCPNLNRTCPTCSDFLSLVQGI  
MDLQELLAKMTAKLNYAETRLGQLENCHCEKTCQVSGLLYRDQDSWVDGDNCGNCTCKSG  
AVECRRMSCPPLNCSPLPVHISGQCKVCRPKCIYGGKVLAEQRILTCTCRECRGGV  
LVKITEACPLNCSAKDHILPENQCCRVCPGHNFCAEAPKCGENSECKNWNTKATCECKN  
GYISVQGN SAYCEDIDECAAKMHYCHANTVCVNLPLGLYRCDVPGYIRVDDFSCTEHDDC  
GSGQHNCNKNAICTNTVQGHSTCQPGYVNGTICKAFCEEGCRYGGTCVAPNKCVCPSG  
FTGSHCEKDIDECAEGFVECHNYSRCVNLPGWYHCECRSGFHDDGTYSLSGESCIDIDEC  
ALRTHTCWNDSACINLAGGFDCPCSPGSCSGDCPHEGGLKHNGQVWILREDRCSVCCK  
DGKIFCRRACDCQNPVDFLFCPECDTRVTSQCLDQSGQKLYRSGDNWTHSCQQCRCLE  
GEADCWPLACPSLGCEYTAMFECECCPRCVSDPCLAGNIAYDIRKTCCLDSFGVSRLSGAV  
WTMAGSPCTTCKCKNGRVCCSVDLECIENN

>Q62918

MESRVLRLRTFCVILGLEAVWGLGVDPQLQIDVLSLELELGESTAGVRQVPLHNGTKAFLF  
QDSPRSIKAPIATAERFFQKLRNKHEFTILVTLKQIHLNSGVILSIHHLDRYLELESSG  
HRNEIRLHYRSGTHRPHTEVFPYILADAKWHKLSLAFSASHLILHIDCNKIYERVVEMPS  
TDLPLGTTFFWLQQRNNAHYFKGIMQDVQLLVMPPQGFIAQCPDLNRTCPTCNDFHGLVQK  
IMELQDILSKTSAKLSRAEQRMNRLDQCYCERTCTMKGATYREFESWTDGCKNCTCLNGT  
IQCETLVCPAPDCPAKSAPAYVDGKCKECKSTCQFQGRSYFEGERSTVFSASGMCVLYE  
CKDQTMKLVENAGCPALDCPESHQIALSHSCKVCKGYDFCSEKHTCMENSVCRLNDRA  
VCSCRDGFALREDNAYCEDIDECAEGRHYCRENTMCVNTPGSFLCICQTYIRIDDYSC  
TEHDECLTNQHNCDENALCFNTVGGHNCVCKPGYTGNGTTCFAFKDCKNGGACIAANV  
CACPQGFTGPPSCETDIDECSEGFVQCDSTRANCINLPGWYHCECRDGYHDNGMFAPGGESC  
EDIDECGTGRHSCANDTICFNLDGGYDCRCPHGKNTGDCVHDGKVKHNGQIWWLENDRC  
SVCSCQTGFVMCQRMVDCENPTVDLSCCPECDPRLSSQCLHQNGETVYNSGDTWAQDCR  
QCRCLQEEVDCWPLACPEVECEFSVLPENECCPRCVTDPCQADTIRNDITKTCLEDMNVV  
RFTGSSWIKHGTECTLCQCKNGHVCCSVDPOCLQEL

>Q9HB63

MGSCARLLLLWGCTVVAAGLSGVAGVSSRCEKACNPRMGNLALGRKLWADTTGQNA TEL  
YCFYSENTDLTCRQPKCDKCNAAYPHLAHLPSAMADSSFRFPRTWWQSAEDVHREKIQLD  
LEAEFYFTHLIVMFKSPRPAAMVLDQRSQDFGKTWKPYKYFATNCSATFGLEDDVVKKGA I  
CTSKYSSFPCTGGEVIFKALSPPYDTENPYSAKVQEQLKITNLRVQLLRQSCPCQRND  
LNEEPQHFTHYAIYDFIVKGSFCNGHADQCIPVHGFRPVKAPGTFHMHGKCMCKHNTA  
GSHCQHCAPLYNDRPWEAADGKTGAPNECRTCKCNGHADTCHF'DVNVWEASGNRSGGVCD  
DCQHNTGQYQCRCKPGFYRDLRRPFSAPDACKPCSCHPVGSAVLPANSVTFCDPSNGDC  
PCKPGVAGRRCDRCMVGYWGFYDYGCRPCDCAGSCDPITGDCISSHTDIDWYHEVPDFRP  
VHNKSEPAWEWEDAQGF SALLHSGKCECKEQTLGNAKAFCGMKYSYVLKIKILSAHDKGT  
HVEVNVKIKKVLKSTKLKIFRGKRTLYPESWTDRCGCTCPILNPGLEYLVAGHEDIRTGKL  
IVNMKSFVQHWKPSLGRKVM DILKRECK

>Q8NFW8

MDSVEKGAATSVSNPRGRPSRGRPPKLQRNSRGGQGRGVEKPPHLAALILARGGSKGIPL  
KNIKHLAGVPLIGWVLRaalDsgafQsvVvSTdHDEIENvAKQfGAQVhRRSSEVSKDSS  
TSLDAIIEFLNYHNEVDIVGNIQATSPCLHPTDLQKVAEMIREEGYDSVFSVVRRHQFRW  
SEIQKGVREVTEPLNLPakRPRRQDWDGELYENGsfYfAKRHliEMGYLQGGKMAYYEM  
RAEHSVDIDVDIDWPiAEQRVLRyGyFGKEKLKEIKLLVCNIDGCLTNGHIYVSGDQKEI  
ISYDVKDAIGISLLKKSgIEVRLISERACSKQTLSSlKLDCKMEVSVSDKLAVVDEWRKE  
MGLCWEKAVAYLgNEVSDEECLKRVGLSGAPADACSTAQKAVGYICKCNGGRGAIREFAEH  
ICLLMEKVNNSCQK

>Q02780

MKLADSVMAGKASDGSIKWQLCYDISARTWWMDEFHPIEALLPHVRAFAYTWFNLQARK  
RKYFKKHEKRMSKEEERAVKDELlSEKPEVKQKwasRLLAKLRKDIRPEYREDFVLTVTG  
KKPPCCVLSNPDQKGKMRRIDCLRQADKvWRLDLVMVILFKGIPLestDGERLVKSPQCS  
NPGLCVQPHHIGVSVKELDLyLAYfVHAADSSQSESPSQPSEADIKDQPenGHLGFQDSF  
VTSGVfSVTELVRVsqTPiAAGTGNfSLSDLESSSYSMSPGAMRRSLPSTSSSTSKR  
LKSVEDEMDSPGEEPFYTGQGRSPGSGSQSSGWHEVEPGLPSPSTLKKSEKSGFSSPSPS  
QTSSLGTAFTQHHRPVITGPRASPHATPSTLHFPTSPiIQQPGPYfSHPAIRYHPQETLK  
EFVQLVCPDAGQOAGQVGFlnPNGSSQgKVHNPfLPTPMLPPPPPPMARPVPLPMPDTK  
PPTTSTEGGAASPTSPtySTPSTSPANRFVSVGPRDPSfVNIpQQTQSWYLG

>P97863

MMYSPICLTQDEFHPIEALLPHVRAIAYTWFNLQARKRKYFKKHEKRMSKDEERAVKDE  
LLSEKPEIKQKwasRLLAKLRKDIRQEYREDFVLTVTGKKHPCCVLSNPDQKGKIRRIDC  
LRQADKvWRLDLVMVILFKGIPLestDGERLMKSPHCTNPALCVQPHHITVSVKELDLFL  
AYYVQEQDsgQSGSPSHSDPAKNPPGyLEDSfVKSGVfNVSELVRVSRTPITQGTGVNfP  
IGEIPSQPYHDMNSGVNLQRSLSSPPSSKRPKTISIDENMEPSPTGDFYPSPNSPAAGS  
RTWHERDQDMSSPTTMKKPEKPLfSSSTSPQDSSPRLSTFPQHHPGIPGVAHSVISTRTP  
PPPSPLPFPTQAILPPAPSSYfSHPTIRYPPHLNpQDTLKNYVPSYDPSSPQTSQPNSSG  
QVVGKVPGHFTPVlAPSPHPSAVRPVTLTMTDTKPIITTSTEGEAASPTATTYTASGTSQA  
NRYVGLSPRDPSFLHQQLRICDWTMNQNGRHLYPSTSEDTLGITWQSPGTWASLVPFQV  
SNRTPILPANVQNYGLNIIGEPFLQAETSN

>Q00653

MESCYNPLDGIIEYDDFKLNSsIVEPKEPAPETADGPYLVIVEQPKQRGFRFRYGCeGP  
SHGGLPGASSEKGRKTYPTVKICNYEGPAKIEVDLVTHSDPPRAHAHSLVGKQCSELGIC  
AVSVGPKDMTAQfNNLGVlHVTKKNMMGTMIQKLQRQRLRSRPQGLTEAEQRELEQEAKE  
LKKVMDLSIVRLRFSAFLRASDGSfSLPLKPVISQPIHDSKSPGASNLKISRMDKTAGSV  
RGGDEVYLLCDKvQKDDIEVRFYEDDENGWQAFGDFSPTDVHKQYAIvFRTPPYHKMKIE  
RPVTVFLQLKRKRGGDVSDSKQFTYyPLVEDKEEVQRKRRKALPTfSQPFggGSHMGGGS  
GGAAGGYGGAGGGGSLGFFPSSLAYSPYQSGAGPMGCYPGGGGGAQMAATVP SRDSGEEA  
AEPSAPSRTPQCEPQAPeMLQRAREYNARLFGLAQRSARALLDYGVTADARALLAGQRHL  
LTAQDENGDTPLHLAIIHGQTSVIEQIVYVIHHAQDLGVVNLTNHLHQTPHLHAVITGQT  
SVVSFLLRVGADPALLDRHGDSAMHLALRAGAGAPELLRALLQSGAPAVPQLLHMPDFEG  
LYPVHLAVRARspeCLDLLVDsgAEVEATERQGGRTALHLATEMEELGLVTHLVTKLRAN  
VNARTFAGNTPLHLAAGLGYPTLTRLLLKAGADIHAENEELCPLPSPPTSDSDSDSEGP  
EKDTRSSFRGHTPLDLTCSTKVKTLLLNAAQNTMEPPLTPPSPAGPGLSLGDTALQNLEQ  
LLDGPEAQGSWAELAERLGLRSLVDTYRQTTSPSGSLRSYELAGGDLAGLLEALS DMGL  
EEGVRLLRGPETRDKLPSTAEVKEDSAYGSQsVEQEAekLGPPPEPPGGGLCHGHPQPQVH

>O76463

MLSTVFRRTMATGRHFIAVCQMTSDNDLEKNFQAAKNMIERAGEKKCEMVFLPECFDFIG  
LNKNEQIDLAMATDCEYMEKYRELARKHNIWLSLGGHLHKKDPSDAAHPWNTHLIIDS  
DGV TRAEYNKHLHFDLEIPGKVRMSESEFSKAGTEMIPVDTPIGRGLSICYDVRFP  
ELSLW NRKRG AQLLSFP SAFTLNTGLAHWETLLRARAIENQCYVVAQAQTGAHNPKR  
QSYGHSMV VDPWGA VVAQC SERVDMCF AEIDLSYVDTLREM QPVF SHRRSDLYTL  
HINEKSSETGGLK FARFNIPADHIFYSTPHSFVFNLPVTDGHVLVSPKRVVPR  
LTDLTD AETADLFIVAKK VQAMLEKHHNVTSTTICVQDGDAGQTVPHVHIHILPRR  
AGDFGDNEIYQKLASHDKEPE RKPRSNEQMAEEAVVYRNLM

>P01138

MSMLFYTLITAFLLIGIQAEPHSESNVPAGHTIPQAHWTKLQHS  
LDTALRRARSAPAAAIA ARVAGQTRNITVDPRLFKRRRLRSPRVLFSTQPPREAA  
DTQDLDFEVGGAAPFNRTHRSK RSSSHPIFHRGEFSVCDSVSVVWGDKTTATD  
IKGKEVMVLGEVNIINNSVFKQYFFETKCR DPNPVDSGCRGIDSKHWSYCTT  
THTFVKALTM DGKQAAWRFIRIDTACV CVLSRKAVRR A

>P34129

MRSSMLVLFLLIFSAQAVAPIIGVLC SVTTAQDHP TSIPTVDPKLFNKRRHLS  
PRVLFSS QPPDAEPAGGQGVSRRTRRQPQHRGVY SVCE SVSVVWG NTKATD  
ISGKEVTVLPYVNIIN NVKKKQYFFETTCHSPPSGSRCLGIDARHWNSHCTNS  
HTFVRALTSSENQVAWRLIRIN VACV CVLSRKSWQH

>P25428

MSMLCYTLIIAFLIGIWAAPKSEDNVSLGSPATPDLSDTSCAKTHEALKTSRNTD  
QHYPAPKKAEDQEFGSAANIIVDPKLFQKRRFQSPRVLFSTQPPPLSRDEQSV  
EFLDNADSLNRN IRAKRATHPVHNRGEFSVCDSVSVVWANKTTATDIRGNVVT  
VMVDVKLNNNVYRQYFFET KCKNPSPVSSGCRGIDAKHWSYCTTTDTFVRAL  
TMEGNQASWRFIRIDTACV CVISRKN DNFG

>Q01170

RPPVTEVESQNYHFDNRVLP SHVDEALANSEGWWYKPDFIINDLNVQSAIGYPA  
HEEV VPLVAGTYAVRGYARGHGNIIRCEVSLDDGKSWRLG SVTHEGQPT EY  
GKHGWVWWSLE VPIAELLTTPEIICRAWDSSMNTQPNTFTWNVMGMMNCCYR  
VKIHPRQTTDGRFALQFE HPTIAGPTVGGWMNRAEDVAAAAAVTVAPPPAPAG  
AKSFTMAEVEHTTME SAWFVVDGK VYDATPFLKDHPPGADSI LLVAGIDAT  
DEFNAIHSLKAKKQLLEY YIGELAE EGQEAAS DRATPGPAAAIGTAVPVA

>P08619

MEAPALEQRQSLHDSERQQRFTSLILPNGVGCSSREEPQSGG LLVPHNDNDIDND  
LAS TRTASPTTTDFSSSSDDNSTTLET SVNYSHSSNTNTNTSCPPSPITSSSLK  
PAYPLPPP STRLTTILPTDLKTPDHLIRDPRLIRLTGSHPFNVEPPLTALFEH  
GFLTPQNLHYVRNHG PIPSSVATPPATINKEEDSLLNWEFTVEGLVEHPLKIS  
VRELM DASKWDNVTPVTLVC AGNRRKEQNVLRKSKGFSWGAGGLSTALWTG  
VGLSEILARAKPLTKKGGGARVYCFEGAD QLPNGTYGTSVKLAWAMPNKGIM  
VAHKMNGENLHPDHGRPVRVVVPGQIGGRSVKWLKR IVVTKGPSENWYHVFD  
NRVLPPTTVGPEESGEKTEEMERVWRDERYAIYDLNVNSVICEPG HGEVVS  
LRGDEGAGTYRLRGYAYAGGRRVTRLEVTL DQKSWRLAGIEY PEDRYREAQD  
GEELFGGRLDVSWRESCFCWCFWDL EIPLS ELRKAKDVCIRAMDES LALQPK  
EMYWSVLG MMNPNWFRVVIHHEGDTLRF EHPTQPMLTSDGWM DRVKKEG  
GNLANGFWG EKVPGAENV VKEEPVKEISMVDEKVTRLITLLELRQHDGEEEP  
WVFNQVYNGT PPFLEGHGGAASIT

GAAGQDVTDEFLAIHSENAKAMPTYHIGTLTPSAPAALKSSSTSDPALS DPSRPIFLQS  
KTWNSAILTFKESVSPDKIFHFALSHPAQSIGLPVQGHLMMRLPDKPTE SIRAYTP  
ISDGTLERGTLRVLVKIYYASPTEDIKGGQMTQALDALALGKAVEFKGPVGFVYQGRGV  
CSVNGRERKVKRFVMVCGGSGVTP IYQVAEAVAVDDQDGT ECLVLDGNRVEGDILMKSEL  
DELVERAKPMGRRCRVKYTL SRPGAWEGLRGRRLDKTMLEREVGEGDLRGETMVLLCGPEG  
MQNMVREVLKGMGWKDEDVLF

>P23312

MAASVDRQYHPAMSGVVRTPF SNHHRSDSPVRNGYTF SNPPSSNGVVKPGEKIKLVDNN  
SNSNNGSNNNNNRYDSDSEEDDENEMNVWNEMIKKGNSELEPSSVDSRDEGTADQWIER  
NPSMIRLTGKHPFNSEPLTRLMHGFLTPVPLHYVRNHGVPVNAKWEDWTVEVTGLVKR  
PIRFTMDQLVNDQFSREFPVTLVCAGNRRKEQNMTKQSIGFNWGSAAVSTSVWRGVPLRD  
VLKRCGVMSSSLK GALNVCFEGAEDLPGGGSKYGT SVKREFAMDPARDIILAYMQNGEKL  
SPDHGYPVRMIIPGFIGGRMVKWLKRIIVTTTESDNYYHYKDNRVLP SHVDAELANSEAW  
WYKQEYIINELNVNSVITSPCHEEILPINAWTTQRPYTMRGYAYSGGRKVTREVTMDG  
GDTWDICELDHQERGSKYGKFWCFCWSLEVEVLDLLGAKEIGVRAWDESLNTQPEKLIW  
NVMGMMNWCWFRVKTNVCKPHKGEIGIVFEHPTQPGNKSGGWMARERHLEISDSGPTLKR  
TASTPFMNTT SKMYSMSEVKKHNTADSAWIVVHGNVYNATRFLKDHPGGSDSILINAGTD  
CTEEFDAIHSDKAKRLLED FRIGELISTGYTSDSSSPGNSVHGGSVYSGLAGLAPITEAV  
PLRNVALNPRVKIPCKLIEKVSLSHDVRRFRFGLPSEDQVLGLPVGKHIIFLCANVDDKLC  
MRAYTPSSTIDVVGYFDLVVKVYFKDVHPRFPNGGVM SQHLDSLGLSIVDVKGPLGHIE  
YLKGNFTVHGKPKFAKKLAMI SGGTGITPIYQVMQAILKDPEDKTEMHVYANRTEEDI  
LLREELDKWADEFDRDRVKVWVVEKAEEGWKYDTGFISEKILRDHVPVAVGDDVLALTCGP  
PPMIQFAVQPNL DKMGFDIKEQLLIF

>Q9VC27

MEMRLNAASIWLLILSYGATIAQGERTRDKMYEPIGGASC FRRLNGTHQTGCSSTYSGSV  
GVLHLINVEADLEFLLSPPSPPYAPMIPPHLFTRNLMRLKEAGPKNISVLLINRTNQ  
MKQFSHELNC PNQYSGLNSTSETCDASNPAKNWNPWGTGLLHEDFPFPIYYIADLDQVTK  
LEKCFQDFNHNHNYETHALRSLCAVEVKSFMSAAVNTEVCMRRTNFINNLGGSKYCDPLEG  
RNVYATLYPRKPAIENNLETVHTNEKFILVTCRLD TTTMFDGVGLGAMDSL MGFVFTHV  
AYLLKQLLPPQSKDLHNVLVFTFNGESYDYIGSQRFVYDMEKQLQFPTESTGTPIAFDNI  
DFMLDIGTLDDISNIKLHALNGTTLAQQILERLNNYAKSPRYGFNLNIQSEMSAHLPTS  
AQSFLLRRDPNFNALILNARPTNKYYHSIYDDADNVDFTYANTSKDF'TQLTEVNDFKSLNP  
DSLQMKVRNVSSIVAMALYQTITGKEYTGTKVANPLMADEFLYCFLQSADCP LFKAASYP  
GSQTLNLP MRYISVLGGSQESSGYTYRLLGYLLSQLQPD IHRDNC'TDLPLHYFAGFNNI  
GECRLTTQNYSHALSPAFLIDGYDWSSGMYSTWTESTWSQFSARIFLRPSNVHQVTTLSV  
GIVVLIISFCLVYI ISSRSEVLFEDLPASNAALFG

>Q92542

MATAGGGSGADPGSRGLLRLLSFCVLLAGLCRGN SVERKIYIPLNK TAPCVRLLNATHQI  
GCQSSISGDTGVIHVVEKEEDLQWVLT DGPNNPPYMVLLSKHFTRDLMEKLGRTSRIAG  
LAVSLTKPSPASGFSPSVQCPNDGFGVYSNSYGPFAHCREIQWNSLGNGLAYEDFSFPI  
FLLEDENETKVIKQCYQDHNLSQNGSAPTFPLCAMQLFSHMHAVISTATCMRRSSIQSTF  
SINPEIVCDPLSDYNVWSMLKPIINTTGT LKPD DRVVVAATRLDSRSFFWNVAPGAESAVA  
SFVTQLAAAEALQKAPDVTTLP RNVMFVFFQGETFDYIGSSRMVYDMEKGFVPVQLENVD  
SFVELGQVALRTSLELWMHTDPVSQKNESVRNQVEDLLATLEKSGAGVPAVILRRPNQSQ  
PLPPSSLQRFLRARNISGVVLADHSGAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFV  
TDTAKALADVATV LGRALYELAGGTNFSDTVQADPQTVTRLLYGF LKANN SWFQSILRQ  
DLRSYLGDGPLQHYIAVSSPTNTTYVVQYALANLTGTVVNL TREQCQDP SKVPSENKDLY



EYSWVQGPLHSNETDRLPRCVRSTARLARALSPAFELSQWSSTEYSTWTESRWKDIRARI  
FLIASKELELITLTVGFGILIFSLIVTYCINAKADVLF IAPREPGAVSY

>P25767

MSFDEIAPDAKKVAIYGGGIGKSTTTQNTAAALAYFFDKKVMIHGCDPKADSTRMILHG  
KPQDTVMDVLRREEGEEAVTLEKVRKIGFKDILCVESGGPEPGVGCAGRGVITAVDMMREL  
EGYPDDLNLFFDVLGDVVCVGGFAMPLRDGLAQEIYIVTSGEMMALYAANNIAKGILKYA  
EQSGVRLGGI ICNARNVDGEKELMDEFCDKLGTKLIHYVPRDNIVQKAEFNKMTVIEFDP  
ECNQAKEYRTLAKNIDENDELVKPTPMTMDELEELVVKYGLIDL

>P08624

MSKRIAIYGGGIGKSTIVSNIAAAYSKDYNVLVIGCDPKADTTRTLIGKRLPTILDIVK  
KKKNASIEEVLFEYGNVVCVSGGPEPGVGCAGRGVIVAMGLLDKLGTFSDIDII IYD  
VLGDVVCVGGFAVPLREDFADEVYIVTSGEYMALYAANNICRGIKKLKS NLGGI ICNCRGI  
ENEVQIVSEFAGKVGSKVIGIIPGSEM VQKSEIDAKTVIEKFGESEQADLYRELAKSIYS  
NEDFVIPEPMGVDEFDEFRRGFQ

>P08625

MKQIAFYGKGGIGKSTTVCNIAAALADQKKVMVVGCDPKHDCTSNLRGGQEIPTVLDIL  
REKGLDKLGLLETIIEKEMIEINDIIEGYNGIYCVEAGGPKPGYGCAGRGVIVVIDLLKK  
MNLYKDLKLDIVLYDVLGDVVCVGGFAMPLRMGLAEQIYVVTSSDYMAIYAANNICRGI SE  
FVKRGGSKLGLLIYNVRGSM DAYDI INEFADKLGANIVGKVPNSHLIPEAEIEGKTVIEY  
DPNDEISQVYRELAKKIYENNEG T I PKPLENIEIMTIGKKIKERLKKERMKN

>P06119

MRKFCIYGGGIGKSTNVGNMAAALAEDGKKVLVVGCDPKADSTR TLMHGKINTVLD TFR  
DKGPEYMKI EDIVYEGFNGVYCVESGGPEPGVGCAGRGVITAVDMLDRLGVYDQLKPDVV  
IYDILGDVVCVGGFAMPLQKCLAEDVYIVTTCDPMAIYAANNICKGIKRYGNRGI ALGGI  
IYNGRSVVDEPEIIDKFVEGINSQVMGKVPMSNIITKAELRKQTTIEYAPDSEIANKFRE  
LANSIYENKTTIPTPLSEQGLDELTESIEELVRRKYE

>P26250

MTEENIRQIAFYGKGGIGKSTTSQNTLAAMAEMGQRILIVGCDPKADSTRMLLHSKAQTT  
VLHLAAERGAVEDIEIEEVMLTGFRNVRCVESGGPEPGVGCAGRGII TAINFLEENGAYQ  
DLDFVSYDVLGDVVCVGGFAMP IREGKAQEIYIVTSGEMMAMYAANNIARGVLKYAHTGGV  
RLGGLICNSRNTDREIELIETLAKRLNTQMIHYVPRDNIVQHAELRRMTVNEYAPESNQ A  
NEYRILAQKI IDKNLAIPTPIEMEELEELIEFGILESDENTAMLVGKTATEAPVV

>P05341

MADVYLDNNATTRVDDEIVQAML PFFTEQFGNPNSSLHSFGNQVGMALKKARQSVQKLLGA  
EHDSEILFTSCGTESDSTAILSALKAQPERKTVITTVVEHPAVLSLCDYLASEGYTVHKL  
PVDKKGRLDLEHYASLLTDDVAVVSVMWANNETGTLFP IEMARLADDAGIMFHTDAVQA  
VGKVPIDLKNSSIHMLSLCGHKLHAPKGVGVLYLRRGTRFRPLLRGGHQERGRRAGTENA  
ASIIIGLVAAERALQFMEHENTEVNLRDKLEAGILAVVPHAFVTGDPNRLPNTANIAF  
EYIEGEAILLLL NKVGI AASSGSACTSGSLEPSHVMRAMDIPYTAAGHTVRFSLSRYTE  
EEIDRVIREVPPIVAQLRNVSPYWSGNPVEDPGKAFAPVYG

>Q93W20

MQLLTLNPAAI SRTPPQAIDPSSSSSLLL PFPQILSSQRALGLVARPCNPLRRGLSRFLS  
SRQLFRRSKVVKAVATPDP ILEVPLTEENVESVLDEIRPYLMSDGGNVALHEIDGNIVRV

KLQGACGSCPSSTMTMKMGIERRLMEKIPEIVAVEALPDEETGLELNEENIEKVLEEIRP  
YLIQTADGSLDLVEIEDPIVKIRITGPAAGVMTVRVAVTQKLREKIPSIAAVQLI

>P05340

MWDYSEKVKHEFYNPKNAGAVEGANAIIGDVGSLSCGDALRLTLKVDPETDVIILDAGFQTF  
GCGSAIASSSALTEMVKGLTLDEALKISNQDIADYLDGLPPEKMHCSVMGREALQAAVAN  
YRGETIEDDHEEGALICKCFVAVDEVMVRDTIRANKLSTVEDVTNYTKAGGGCSACHEAIE  
RVLTEELAARGEVFVAAPIKAKKKVKVLAPEPAPAPVAEAPAAAAPKLSNLQRIRRIETVL  
AAIRPTLQRDKGDVELIDVDGKNVYVKLTGACTGCQMASMTLGGIQQLIEELGEFVKVI  
PVSAAAHAQMEV

>P30820

MKVRAQVPTVKNATNFMVADSKTAVGSTLENLKAAIAGETGAHAKYTAFAKAAREQGYE  
QIARLFEATAAAELIHIGLEYALVAEMEPGYEKPTVAAPSAYSCDLNLISGANGEIYETS  
DMYPAFIRKAQEEGNSKAVHVFTRAKLAESVHAERYLAAYNDIDAPDDDKFHLCPICGYI  
HKGEDFEKCPICFRPKDTFTAY

>P0A6Z6

MQRVTITLDDDLLETLDLSLQRRGYNNRSEAIRDILRSALAQEATQQHGTQGFVLSYVY  
EHEKRDLASRIVSTQHHHDL SVATLHVHINHDDCLEIAVLKGDMDVQHFADDVIAQRG  
VRHGHLQCLPKED

>P22944

MPLLDGPRNGETVTASAHNGIPIIDGVDPSTLRGDIQDPNRRQKIVVVGLGMVAVAFIE  
KLVKLDSERRKYDIVVIGEEPHIAYNRVGLSSYFEHRKIEDLYLNPKEWYGSFKDRSFDY  
YLNTRVTDVFPQHKTVKTSTGDIVSYDILVLATGSDAVLPTSTPGHDAKGIFVYRTISDL  
ERLMEFAANHKGQTVTVGGGLLGLEAAKAMTDLEDGFSVKLIDRNKWLARQLDGDAGS  
LVTKKIRDGLLEVLHEKRVAKIHTDDDNVVTGILFEDGQELDCCCICFAIGIRPRDELGG  
STGIQCAKRGGFVIDESLRTSVNDIYAI GECASWENQTFGI IAPGIEMADVLSFNLTPD  
KEPKRFNRPDLSTKLKLLGVDVASFGDFADRDGPKFLPGQRPSAESIGAADPNREEEPQ  
VKALTYRDPFGGVYKKYLFTMDGKYLLGMMIGDTKDYVKLNQMVKSQKPLEVPPSEFIL  
GAQSGGEENADDLDDSTQICSHNVTKGDVVE SVKSGTCKTIADVKSTKAGTGCGGCMF  
LVQSIFNKTMLDMGQEVSNLVCVHIPYSRADLYNVIAIRQLRTFDDVMKSAGKCPDSLGC  
EICKPAIASILSSLFNPHLMDKEYHELQETNDRFLANIQRNGTFSVVRVPGGEITADKL  
IAIGQVAKKYNLYCKITGGQRIDMFGARKQDLLDIWTELVDAGMESGHRYAKSLRTRVSKC  
VGTTWCRFGVGDVSGMAIRLEQRYKSI RAPHKFKGAVSGCVRECAEAQNKDFGLIATEKG  
FNIFVGGNGGAKPRHSELLAKDVPPEEVIPILDYVIFYIRTADKLR TARWLESPLGGI  
EYLKDVVLNDKLGIAAEMERQMQLVDSYFCEWTE TVRNPKRRKYFQQFANTDETVENVE  
IVKEREQVRPTYWPKDGANEDFKGHQWSSLSWQPVIKADYFSDGPPAISSANIKRGDTQL  
AIFKVKGKYATQQMCPHKRTFVLS DGLIGDDNGKYWVSCPYHKRN FELNGEQAGRCQN  
DEAMNIATFPVEEREDGWIYMKLPPVEELDSVLGTEKWKVKKGEAVDPFEAYDKKYSGMK  
GKRAGAKGIEGSKPTRSPSNTIDW

>P08201

MSKVR LAII GNMGVHRFIEDLLDKSDAANFDITVFC EEPRIAYDRVHLSSYF SHHTAEE  
LSLVREGFYEKHGKIKVLVGERAITINRQEKVIHSSAGRTV FYDKLIMATGSYPWIPPIKG  
SDTQDCFVYRTIEDLNAIESCARRSKRGAVVGGGLLGLEAAGALKNLGIETHVIEFAPML  
MAEQLDQMGGELRRKIESMGRVHTSKNTLEIVQEGVEARKTMR FADGSELEVD FIVFS  
TGIRPRDKLATQCGLDVAPRGGIVINDSCQTS DDPDIYAIGECASWNNRVFGLVAPGYKMA  
QVAVDHILGSENAFEGADLSAKLKL LGVDVGGIGDAHGRTPGARSYVYLDESKEIYKRLI

VSEDNKTLGAVLVGDTSDYGNLLQLVLNAIELPENPDSLILPAHSGSGKPSIGVDKLPD  
SAQICSCFDVTKGDLIAAINKGCHTVAALKAETKAGTGC GGCIPLVTQVLNAELAKQIE  
VNNNLCEHFAYS RQELFHLIRVEGIKTFEELLAKHGKGYGCEVCKPTVGSLLASCWNEYI  
LKPEHTPLQDSNDNFLANI QKDGTYSVIPRSPGGEITPEGLMAVGR IAREFNLYTKITGS  
QRLAMFGAQKDDLPEIWRQLIEAGFETGHAYAKALRMAKTCV GSTWCRYGVGDSVGLGVE  
LENRYKGI RTPHKMKFGVSGCTRECSEAQKDVGI IATEKGWNLYVCGNGGMKPRHADLL  
AADIDRETLIKYLDRFMMFYIRTADKLTRTAPWLENLEGGIDY LKAVI IDDKLGLNAHLE  
EEMARLREAVLCEWTE TVNTPSAQTRFKHF INSDKRDPNVQMPEREQHRPATPYERIPV  
TLVEDNA

>P72181

MRQRTPFARPGLLASAAALV LGLAASAQEQVAPPKDPAAALEDHKTRTDNRYEPSLDN  
LAQQDVAAPGAPEGVSALS DAQYNEANKIYFERCAGCHGVLRKGATGKALTPDLTRDLGF  
DYLQSFITYGSPAGMPNWGTSGELSAEQVDLMANYLLLDPAAPPEFGMKEMRESWKVHVA  
PEDRPTQQENDWDLENLFSVTLRDAGQIALIDGATYEIKSVLDTGYAVHISRLSASGRYL  
FVIGRDGKVN MIDLWMKEPTTVAEIKIGSEARS IETSKMEGWEDKYA IAGAYWPPQYVIM  
DGETLEPKKIQSTRGMTYDEQEYHPEPRVAA I LASHYRPEFIVNVKETGKILLVDYTDLD  
NLKTTEISAERFLHDGGLDGSHRYFITAAANARNKLVVIDTKEGKLVAIEDTGGQTPHPGR  
GANFVHPTFGPVWATSHMGDDSV ALIGTDPEGHPD NAWKILDSFPALGGGSLF IKTHPNS  
QYLYVDATLNPEAEISGSVAVFDIKAMTGDGSDPEFKTLP IAEWAGITEGQPRVVQGEFN  
KDGTEVWFVSVWNGKDQESALVVVDDKTLELKHVIKDERLVTPTGKFNVYNTMTDTY

>P24040

MSNVGKPILAGLIAGLSLLGLAVAQAAAPEMTAE EKEASKQIYFERCAGCHGVLRKGATG  
KNLEPHWSKTEADGKKTEGGTLNLGTRLENI IAYGTEGGMVNYDDILTKEE INMMARYI  
QHTPDIPPEFSLQDMKDSWNLIVPVEKRVTKQMNK INLQNVFAVTLRDAGKLALIDGDTH  
KIWKVLESGYAVHISRMSASGRYVYTTGRDGLTTI IDLWPEEPMTVATVRFSGDMRSVDV  
SKFEGYEDKYLIGGTYPWPQYSIVDGLTLEPIKVVSTRGQTV DGEYHPEPRVASIVASHI  
KPEWVVNVKETGQIILLVDYTDLKNLKT TTTIESAKFLHDGGWDYSKRYFMVAANASNKVAA  
VDTKTGKLAALIDTAKI PHPGRGANFVHPQFGPVWSTGHLGDDVVSLISTPSEESKYAKY  
KEHNWKVVQELKMPGAGNLFVKTHPKSKHF WADAPMNPEREVAESVYVFDMNDLSKAPIQ  
LNVAKDSGLPESKAIRRAVQPEYNKAGDEVWISLWGKTDQSAI VIYDDKTLKLRVITD  
PAVVTPTGKFNVFNTMNDVY

>P49954

MSASKILSQIKVALVQLSGSSPDKMANLQRAATFIERAMKEQPDTKLVVLPECFNSPYS  
TDQFRKYSEVINPKPSTSVQFLSNLANKFKI ILVGGTIP ELDPKTDKIYNTSII FNEDG  
KLIDKHKRVHLFDVDIPNGISFHESETLSPGEKSTTIDTKYKGFVGVICYDMRFP ELAML  
SARKGAFAMIYPSAFNTVTGPLHWHLLARSRAVDNQVYVMLCSPARNLQSSYHAYGHSIV  
VDPRGKIVAEAGEGEEIIYAELDPEVIESFRQAVPLTKQRRFDVYSDVNAH

>O54709

MALIRDRKSHHSEMSKCHNYDLKPAKWDT SQEQKQRLALTTSPGENGIIRGRYP IEKL  
KISPMFVVRVLAIALAIRFTLNTLMWLAIFKETFPVLCNKEVPVSSREGYCGPCPNWI  
CHRNNCYQFFNEEKTWNQSQASCLSQNSSLLKIYSKEEQDFLKLKLVKSYHWMGLVQIPANG  
SWQWEDGSSLSYNQLTLVEIPKGS CAVYGSSFKAYTEDCANLNTYICMKRAV

>Q27415

MAEESFYGVTLTAE SDSVTWVDVDEYARGQKLVIKQILLGAEAKENEFNVVEVNTPKDSV  
QIPIAVLKAGETRAVNP DVEFYESKVTFKLIKSGPVYIHGHNIKDDVEVVDMEEDDEED

DVAEDEEDEHPKKRAKIENAADGKNKNNKKK

>P11024

MANLLKTVVTGCSCPFSLNLGSCVKLPGKKNFLRTFHTHRIILWCSAPVKPGIPYKQLTVG  
VPKEIFQNEKRVALSPAGVQALVKQGFNVVVESEGAGEASKFSDDHYRAAGAQIQGAKEVL  
ASDLVVKVRAPMLNPTLGVHEADLLKTSGLTISFIYPAQNPDLLNKLSKRKTTVLAMDQV  
PRVTIAQGYDALSSMANIAGYKAVVLAANHFGRFFFTGQITAAGKVPPAKILIVGGGVAGL  
ASAGAAKSMGAIVRGFDTRAAALEQFKSLGAEPLVDLKESEGQGGYAKEMSKEFIEAE  
MKLFAQQCKEVDILISTALIPGKKAPILFNKEMIESMKEGSSVVVDLAAEAGGNFETTKPG  
ELYVHKGITHIGYTDLP SRMATQASTLYSNNITKLLKAI SPDKDNFYFEVKDDDFDFTMG  
HVIRGTVVMKDGQVIFPAPT PKNIPQGAPVKQKTVAELEAEKAATITPFRKTMTSASVYT  
AGLTGILGLGIAAPNLAFSQMVTTFFLAGLIVGYHTVWGVTPALHSPLMSVTNAISGLTAV  
GGLVLMGGHLYPSTTSQGLAALATFISSVNIAGGFLVTQRMLDMFKRPTDPPEYNYLYLL  
PAGTFVGGYLASLYSGYNI EQIMYLGSGLCCV GALAGLSTQGTARLGNALGMIGVAGGLA  
ATLGGKPCPELLAQMSGAMALGGTIGLTI AKRIQISDLPQLVAAFHSLVGLAAVLTCIA  
EYII EYPHFATDAAANLTKIVAYLGTYIGGVTFSGSLVAYGKLQGILKSAPLLLPRHLL  
NAGLLAGSVGGIIPFMMDP SFTTGITCLGSVSALSAVMGVTLTAAIGGADMPVVI TVLNS  
YSGWALCAEGFLNNNLLTIVGALIGSSGAILSYIMCVAMNRSLANVILGGYGTSTAGG  
KPMEISGTHTEINLDNAIDMIREANSIIITPGYGLCAAKAQYPIADLVKMLSEQKKVRF  
GIHPVAGRMPGQLNVLAAEAGVPYDIVLEMDEINHDFPDTDLVLVIGANDTVNSAAQEDP  
NSIIAGMPVLEVWKSQVIVMKRSLGVGYAAVDNPIFYKPNTAMLLGDAKKTCDALQAKV  
RESYQK

>P63056

MSAPLLKLGA VLSTMAMISNWM SQTLPSLVGLNTTRL SAPDTLTQISPKEGWQVYSSAQD  
PDGRICITVVAPEQNLCSRDAKSRQLRQLLEKQVQMSQSI EVLNLR TQRDFQYVLKMETQ  
MKGLKAKFRQIEDDRKTLMTKHFQELKEKMDLPLIPVLEQYKTDAKLITQFKEEIRNL  
SSVLTGIQEEIGAYDYELHQRVLSLETRLRDCMKKLT CGKLMKITGPI TVKTSGTRFGA  
WMTDPLASEKNNRVWYMSYTNKIVREYKSIAD FVSGAESRTYNLPFKWAGTNHVYNG  
SLYFNKYQSNIIKYSFDLGRVLAQRSL EYAGFHNVPYTWGGFSDIDLMADEIGLWAVY  
ATNQNAGNIVISQLNQDTLEVMKSWSTGYPKRSAGESFMICGTLVVTNSHLTGAKVYYSY  
STKTSTYEYTDIPFHNQYFHI SMLDYNARDRALYAWNNGHQVLFNVTLFHI IKTEDDT

>P49011

MDHSQCLVTIYALMVFLGLRIDQGGCQH YLHIRPAPSENLP LVDLIEHPDPIYDPKEKDL  
NETLLR TL MVGHFDPNFMATILPEERLGVEDLGELDLLLRQKPSGAMP AEIKGLEFYEGL  
QSKKHRLSKKLRKQLQMWLWSQTFCPVLYTWNDLGTRFWPRYVKV GSCYSKRSCSVPEGM  
VCKAAKSMHLTILRWRCQRRVQQKCAWITIQY PVI SECKCSC

>Q46877

MSIVVKNNIHWVGQRDWEVRDFHGTEYKTLRGSSYNSYLIREEKNVLIDTVDHKFSREFV  
QNLRNEIDLADIDYIVINHA EEDHAGALTELMAQIPDTP IYCTANAIDSINGHHHP EWN  
FNVVKTGDTLDIGNGKQLIFVETPMLHWPDSMMTYLTGDAVLF SNDAFGQHYCDEHLFND  
EVDQTELF EQCQRYYANILTPFSRLVTPKITEILGFNLPVDMIATSHGVVWRDNPTQIVE  
LYLKWAADYQEDRITIFDYDTMSNNTRMMADAIAQGIAETDPRVAVKIFNVARSDKNEILT  
NVFRSKGVLVGTSTMNVMMPK IAGLVEEMTGLRFRNKRASAFGSHGWSGGAVDRLSTRL  
QDAGFEMSLSLKAKWRPDQDALKLCREHGREIARQWALAPLPQSTVNTVVKEETSATTTA  
DLGPRMQCSVCQWIYDPAKGEPMQDVAPGTPWSEVPDNFLCPECSL GKDVFEELASEAK

>P35228

MACPWKFLFKTKFHQYAMNGEKDINNVEKAPCATSSPVTQDDLQYHNLSKQQNESPQPL  
VETGKKSPELSVKL DATPLSSPRHVR IKNWGSGMTFQDTLHHKAKGILTCRKSCLGSIM  
TPKSLTRGPRDKPTPPDELLPQAIEFVNQYYGSFKEAKIEEHLARVEAVTKEIETTGTQYQ  
LTGDELIFATKQAWRNAPRCIGRIQWSNLQVFDARSCSTAREMFEHICRHVRYSTNNGNI  
RSAITVFPQRSDGKHDFRVWNAQLIRYAGYQMPDGSIRGDPANVEFTQLCIDLGWPKYQ  
RFDVVPVLVQANGRDPELFEIPDLVLEVAMEHPKYEFRELELKWYALPAVANMLLEVG  
GLEFPGCPFNGWYMGTEIGVRDFCDVQRYNILEEVGRRMGLETHKLASLWKDQAVVEINI  
AVLHSFQKQNVTIMDHSAAESFMKYMONEYRSRGGCPADWIWLVPMSGSI TPVFHQEM  
LNYVLSPFYQQVEAWKTHVWQDEKRRPKRREIPLKVLVKAVL FACMLMRKTMASRVRT  
ILFATETGKSEALAWDLGALFSCAFNPKVVCMKRYLSCLEEERLLL VVTSTFGNGDCPG  
NGEKLKKSFLMELNKNFRYAVFGLGSSMYPRFCFAFAHDIDQKLSHLGASQLTPMGEED  
ELSGQEDAFRSWAVQTFKAACETFDVRGKQHIQIPKLYTSNVTWDPHHRVLRVQDSQPLDL  
SKALSSMHAKNVFTMRKSRQNLQSPSSRATILVELSCEDGQGLNYLPGHEHLGVCPCGNQ  
PALVQGILERVVDGPTPHQTVRLEALDESGSYWVSDKRLPPCSLSQALTYFLDITTPPTQ  
LLLQKLAQVATEEPERQRLEALCQPSEYSKWKFTNSPTFFLEVL EEFPSLRV SAGFLLSQL  
PILKPRFYSISSSRDHTPTEIHLTVAVVTYHTRDQGGLHHGVCSTWLNLSLKPQDPVPCF  
VRNASGFHLPEDPSHPCILIGPGTGIAPFRSFWQQLHDSQHKGVRGGRMTLVFGCRRPD  
EDHIYQEEMLMAQKGV LHAVHTAYSRLPGKPKVYVQDILRQQ LASEVLRVLHKEPGHLY  
VCGDVRMARDVAHTLQQLVA AKLKLNEEQVEDYFFQLKSQKRYHEDIFGAVFPYEAKKDR  
VAVQPSSLEMSAL

>P29474

MGNLKSVAQEPGPPCGLGLGLGLGCGKQGPATPAPEPSRAPASLLPPAPEHSPPSSPLT  
QPPEGPKFPRVKNWEVGSITYDTLSAQAAQDGPCTPRRCLGSLVFPKRLQGRPSGPPAP  
EQLLSQARDFINQYSSIKRSGSQAHEQRLQEVAEVAATGTQYQLRESELVFGAKQAWRN  
APRCVGRIQWGLQVFDARDCRSAQEMFTYICNHIKYATNRGNLRSAITVFPQRCPRGD  
FRIWNSQLVRYAGYRQQDGSVRGDPANVEITELCIQHGWTPGNGRFDVLP LLLQAPDEPP  
ELFLLPPELVLEVPLEHPTLEWFAALGLRWYALPAVSNMLLEIGGLEFPAAPFSGWYMST  
EIGTRNLCDPHRYNILEDVAVCMDLDTRTTSSLWKDKAAVEINVAVLHSYQLAKVTIVDH  
HAATASFMKHLENEQKARGGCPADWAWIVPPI SGSLTPVFHQEMVNYFLSPA FRYQPDWP  
KGSAAKGTGITRKKTFKEVANAVKISASLMGTVMAKRVKATILYGSETGRAQSYAQQ LGR  
LFRKAFDPRVLCMDEYDVVSLEHETLVLVVTSTFGNGDPPENGESFAAALMEMSGPYNSS  
PRPEQHKS YKIRFNSISCS DPLVSSWRRKRKESNTDSAGALGTLRF CVFGLGSRAYPHF  
CAFARAVDTRLEELGGERLLQLGQDEL CGQEEAFRGWAQAAFQAACETFCVGEDAKAAA  
RDIFSPKRSWKQRYSQAQAEGLQLLPGLIHVHRRKMFQATIRSVENLQSSKSTRATIL  
VRLDTGGQEGLYQPGDHIGVCPNRPGLVEALLSRVEDPPAPTEPVAVEQLEKGSPPGP  
PPGWVRDPRLPCTLRQALTFFLDITSPPSPQLLRLLSTLAE EPREQQELEALSQDPRRY  
EEWKWFRCP TLLLEVLEQFPSVALPAPLLL TQLPLLQPRYYSVSSAPSTHPGEIHLTVAVL  
AYRTQDGLGPLHYGVCSTWLSQLKPGDPVPCFIRGAPSFRLPPDPSLPCILVGPGTGIAP  
FRGFQERLHDIESKGLQPTPMTLVFGCRCSQLDHLRDEVQNAQQRGVFG RVLTAFSRE  
PDNPKTYVQDILRTELA AEVHRVLCCLERGHMFVCGDVTMATNVLQTVQRI LATEGDMELD  
EAGDVI GVL RDQQR YHEDIFGLTLRTQEVTSRIRTQSFSLQERQLRGAVPWAFDPPGSDT  
NSP

>O34453

MKDRLADIKSEIDL TGSYVHTKEELEHGAKMAWRNSNRCIGRLFWNLSLNVIDRRDVRTKE  
EVRDALFHHIETATNNGKIRPTITIFPPEEKGEKQVEIWNHQLIRYAGYESDGERIGDPA  
SCSLTAACEELGWRGERTDFDLLPLIFRMKGDEQPVWYELPRSLVIEVPITHPDIEAFSD  
LELKWYGVPIISDMKLEVGGIHYNAAPFNGWYMGTEIGARNLADEKRYDKLKKVASVIGI  
AADYNTDLWKDQALVELNKAVLHSYKKGVSIVDHHTAASQFKRFEEQEE EAGRKLTGDW

TWLIPPISPAATHIFHRSYDNSIVKPNYFYQDKPYE

>Q9RR97

MSCPAAAVLTPDMRAFLRRFHEEMGEPGLPARLRAVEEAGLWWPTSaelTWGAKVAWRNS  
TRCVGRLYWEALSVRDLRELNTAQAVYEALLQHLDDAFCGGHIRPVISVFGPGVRLHNPQ  
LIRYADDPINADFDKLRFRGWQPRGERFEVLPLLI EVNGRAELFSLPPQAVQEVAITHP  
VCLGIGELGLRWHALPVISDMHLDIGGLHLPCAFSGWYVQTEIAARDLADVGRYDQLPAV  
ARALGLDTSRERTLWRDRALVELNVAVLHSFDAAGVKLADHHTVTAHHVRFEEEREARAGR  
EVRGKWSWLVPPPLSPATTPPLWSRRYRAREESPRFVRRARCPFHPTVHASTGHAPTG

>P0A004

MLFKEAQAFIENMYKECHYETQIINKRLHDIELEIKETGTYTHTEEELIYGAKMAWRNSN  
RCIGRLFWDLSLVIDARDVTDEASFLSSITYHITQATNEGKLPYITIIYAPKDGPKIFNN  
QLIRYAGYDNCGDPAEKEVTRLANHLGWKKGKTNFDVLP LIYQLPNESVKFYEYPTSLIK  
EVP I EHNHYPKLRKLNKLYAVPIIISNMDLKIGGIVYPTAPFNGWYMVTEIGVRNFIDDY  
RYNLLKAVADAFEFDTLKNNSFNKDRALVELNYAVYHSFKKEGVSIVDHLTAAKQFELFE  
RNEAQQGRQVTGKWSWLAPPLSPTLTSNYHHGYDNTVKDPNFFYKKKESNANQCPFH

>Q51705

MESKQEKGLSRRALLGATAGGA AVAGAFGGRLALGPAALGLGTAGVATVAGS GAALAASG  
DGSVAPGQLDDYYGFWSSGQSGEMRILGIPSMRELMRVPVFNRC SATGWGQTNESVRIHE  
RTMSERTKKFLAANGKRIHDNGDLHHVHMSFTEGKYDGRFLFMNDKANTRVARVRCVDMK  
CDAILEIPNAKGIHGLRPQKWPRSNYVFCNGEDETPLVNDGTN MEDVANYVNVFTA VDAD  
KWEVAWQVLVSGNLDNCDADYEGKWAFSTSYNSEKGMTLP EMTAAEMDHIVVFNIAEIEK  
AIAAGDYQELNGVKVVDGRKEASSLFTYIPIANNPHGCNMAPDKKHL CVAGKLSPTATV  
LDVTRFDVAVFYENADPRSAVVAEPELGLGPLHTAFDGRGNAYTSLFLDSQVVKWNIEDAI  
RAYAGEKVDP IKDKLDVHYQPGHLKTVMGETL DATNDWL VCLSKFSKDRFLNVGPLK PEN  
DQLIDISGDKMVLVHDGPTFAEPHDAIAVHPSILSDIKSVWDRNDPMWAE TRAQAEADGV  
DIDNWT EEVIRDGNKVRVYMSSVAPSFSIESFTVKEGDEVTVIVTNLDEIDDLTHGFTMG  
NYGVAMEIGPQMTSSVTFVAANPGVYWYYCQWFCHALHMEMRGRMLVEPKEA

>P10776

MKATAALVAATLLLA VTLFHRAERNPISRSCEGANCVVDLTRCEYGDVTDFFGRK VCAKG  
PGDKCGGPYELHGKCGVGMDRCGLCSGCSLHNLQ CFFFEGGLPSSC

>Q91V88

MAVLLAAVLA SSLYLQVAADFDRWRPQIVSSIGLCRYGGRIDCCWGWARQSWGQCQPVC  
QPQCKHGECVGNPKCKCHPGFAGKTCNQDLNECGLKPRPCKHRCMNTFGSYKCYCLNGYM  
LLPDGSCSSALSCSMANCQYGC DVVKGQVRCQCPSPGLQLAPDGRTCVD IDECATGRVSC  
PRFRQCVNTFGSYICKCHTGF DLMYIGGKYQCHDIDECSLGQHQCSSYARCYNIHGSYKC  
QCRDGYEGDGLNCVYIPKVMIEPSGPIHMPERNGTISKGDGGHANRIPDAGSTRWPLKTP  
YIPPVITNRPTS KPTTRPTPNPTPQPTPPPPPPPLPTEPRTTPLPPTPERPSTRPTTIAPA  
TSTTTTRVITVDNRIQTDPQKPRGDVFI PRQPTNDLFEIFEIERGVSADEEVKDDPGILIH  
SCNFDHGLCGWIREKSDSLHWETARDPAGGQYLTVSAAKAPGGKAARLVLR LGLMHSGD  
LCLSFRHKVTGLHSGTLQVFVRKHGTHGAALWGRNNGHGWRQTQITLRGADVKS VIFKGE  
KRRGHTGEIGLDDVSLKRGRC

>P53164

MSTAVTFFGQHVLNRVSFLRCSKEFIKKS LNHDSTVFI PFIEGEALISPENGDLVQLSNS  
VKS YKNILSAIVPLYTTLLNTTRSRDESGINVTFLGLLEGTD SAFNF EWSNISYKGPY

FGLDIRVTESTLFKKVDFEPIFSYPKVTRDHIFKQTNEDASLYSQGKMYLDWLAKYKFCP  
GCGSPLFPVEAGTKLQCSNENRNVYCNVRDARINNVCFPRTPDPTV I IALTNSDYSKCCLA  
RSKKRYGDFVLYSTIAGFMPESETIEEACIREIWEETGISCKNIDIVRSQPWPYPCSLMI  
GCLGIVQFNSKNEVINLNHDDDELDAQWFDTTE I I QALDKYAGGYRVPFKNDINLPGSTT  
IAFQLINHVCENYKNLRKTSSSHL

>P15559

MVGRRALIVLAHSERTSFNYAMKEAAAAAALKKKGWEVVESDLYAMNFPN I I SRK DITGKL  
KDPANFQYPAESVLAYKEGHLSPDIVAEQKKLEAADLVIFQFPLQWFGVPAILKGWFERV  
FIFGEFAYTYAAMYDKGPFRRSKKAVLSITTTGGSGSMYSLQGIHGMNVILWPIQSGILHFC  
GFQVLEPQLTYSIGHTPADARIQILEGWKKRLNIWDETPLYFAPSSSLFDLNFQAGFLMK  
KEVQDEEKNKKFGLSVGHHLGKSIPTDNQIKARK

>P16083

MAGKKVLIVYAHQEPKSFNGSLKNVADEL SRQGVTVTVSDLYAMNFEPRATDKDITGTL  
SNPEVFNYGVETHEAYKQRSASDITDEQKKVREADLVIFQFPLYWFSVPAILKGWMDRV  
LCQGFAFDIPGFYDSGLLQGLLALLSVTTGGTAEMYTKTG VNGDSRYFLWPLQHGT L HFC  
GFKVLAPQISFAPEIASEEERKGMVAAWSQRLQTIWKEEP IPCTAHWHFGQ

>P51843

MAGENHQWQGSILYNMLMSAKQTRAAPEAPETRLVDQCWGCSCGDEPGVGREGLLGGRNV  
ALLYRCCFCGKDHPRQGSILYSMLTSAKQTYAAPKAPEATLGPCWGCSCGSDPGVGRAGL  
PGGRPVALLYRCCFCGEDHPRQGSILYSLTSSKQTHVAPAAPEARPGGAWDRSYFAQR  
PGGKEALPGGRATALLYRCCFCGEDHPQQGSTLYCVPTSTNQAQAPEERPRAPWWDTSS  
GALRPVALKSPQVVCEAASAGLLKTLRFVKYLPFCFQVLPDQQLVLRNCWASLLMLELA  
QDRLQFETVEVSEPSMLQKILTRRRETGGNEPLPVPTLQHHLAPPAEARKVPSASQVQA  
IKCFLSKCWSLNI STKEYAYLKGTVLFNPDV PGLQCVKYIQGLQWGTQQILSEHTRMTHQ  
GPHDRFIELNSTLFLLRFINANVIAELFFRPI IGTVSMDDMMLEMLCTKI

>P03470

MNPNQKIITIGSICMVVGIISLILQIGNIISIWISHSIQTGNQNHTGICNQGIITYNVVA  
GQDSTSVILTGNSSLCPIRGWAIHSDKNGIRIGSKGDV FVIREPFI SC SHLECR TFFLTQ  
GALLNDKHSNGTVKDRSPYRALM SCPVGEAPSPYNSRFESVAWSASACHDGMGWL TIGIS  
GPDNGAVAVLKYNGIITETIKSWRKKILRTQESECTCVNGSCFTIMTDGPSNGLASYKIF  
KIEKGKVTKSIELNAPNSHYEECSY PDTGKVMCVRDNW HGSNR PWSFDQNL DYQIGY  
ICSGVFGDNPRPKDGPSCGPVSADGANGVKGF SYRYGNGVWIGRTKSDSRHGFEMIWD  
PNGWTE TDSRF SVRQDVVAMTDRSGYSGSFVQHPELTGLDCMRPCFWVELIRGRPEEETI  
WTSGSIISFCGVNSD TVDWSWPDGAELPFTIDK

>P06820

MNPNQKIITIGSVSLTIATVCFMQIAILLVTTVTLHFQKQHECDSPASNQVMPCEPIIER  
NITEIVYLNNTTIEKEICPKVVEYRNWSKPQCQITGFAPFSKDNSIRLSAGGDIWVTREP  
YVSCDPVKCYQFALGQGTTLDNKHSNDTVHDRIPHRTLLMNELGVPFHLGTRQVCIAWSS  
SSCHD GKAWLHVCITGDDKNATASF IYDGR LVDSIGSWSQNILRTQESECVCTV  
MTDGSASGRADTRILFIEEGKIVHISPLAGSAQHVEECSCYPRYPGVRCICRDNWKGSNR  
PVVDINMEDYSIDSSYVCSGLVGDTPRNDRRSSNSNCRNPNERGTQGVKGWAFDNGNDL  
WMGRTISKDLRSGYETFKVIGGWSTPNSKSKQINRQVIVDSDNRSYSGIFSVEGKSCINR  
CFYVELIRGRKQETRVWVWTSNSIVVFCGTS GTYGTGSWPDGANINFMPI

>P03474

MLPSTVQTLTLLLTSGGVLLSLYVSASLSYLLYSDVLLKFSSTKTTAPTMSLECTNASNA  
QTVNHSATKEMTFPPPEPEWYPRLSQCQSTFQKALLISPFRFGEIKGNSAPLI IREP  
ACGPKECRHFALTHYAAQPGGYNGTRKDRNKLRLHLSVKLGKIP TVENSIFHMAAWSGS  
ACHDGREWYTYIGVDGPDNDALVKIKYGEAYTDTYHSYAHNII LRTOESACNCIGGDCYLMI  
TDGSASGISKCRFLKIREGRI I KEILPTGRVEHTEECTCGFASNKTIECACRDNSYTAKR  
PFVKLNVEDTDAEIRLMCTKTYLDTPRPDDGSIAGPCE SNGDKWLGKIGGFVHQRMASK  
IGRWYSRTMSKTNRMGMELYVKYDGPWTDSDALTL SGVMVSI EEPGWYSFGFEIKDKKC  
DVPCIGIEMVHDGGKDTWHSAAATAIYCLMGSGQLLWDTVTGVDMAL

>O54196

MTETTS GPARGSR TKGTKATKGLRI ERVHTTPGVHPYDEVVWERRDVMTNWRDGSVNFE  
QRGVEFPDFWSVNAVNI VTSKYFRGAVGTPQRETGLKQLIDRIVKTYRKAGEEYKYFASP  
ADAEIFEHELAYALLHQIFSFNSPVWVFNVTGPQPQVSACF ILSVDDSMESILDWYKEEG  
MIFKGGSGAGLNL SRIRSSKELLSSGGNASGPV S FMRGADASAGTIKSGGATRRRAAKMVI  
LDVDHPDIEGFIETKVKEEEKIRALRDAGFMDLGGDDITSVQYQNANNSVRVNDEFMRA  
VESGSAFGLRARM TGEIIEQVDAKALFRKMAQA AWACADPGIQYDDTINRWHTCPESGRI  
NGSNPCSEYMHL DNTSCNLASLNL MKFLTDDGEGNQSF DVERFAKVVELVITAMDISICF  
ADFPTQKIGENTRAFRQLGIGYANLGALLMATGHAYDS DGGRAIAGAISSLMTGTSYRRS  
AELAAVVGPPYDGYARNAAPHNQVMRQHADANDTAVRMDLDLTP IWAAATETWQDVLRLGE  
KNGFRNAQASVIAPTGTIGLAMSCDTTGLEPDLALVKFKKLVGGGSMQIVNGTVPQALRR  
LGYQAEQIEAIVEHIAEHGNVLDAPGLKTEHYKVFD CAMGERSISAMGHVRMMAAIQPWI  
SGALSKTVNMPESATVEEVEEIIYFEAWKMGVKALAIYRDNCKVGQPLSAKTKEKEQDZIA  
EKTEDTIRA AVEKVIEYRPVRKRLPKGRPGITTSFTVGGAEGYMTANSYPDDGLGEVFLK  
MSKQGSTLAGMMDAFSIAVSVGLQYGVPLETYVSKFTNMRFE PAGMTDDPDVRMAQSIVD  
NIFRRLALDFLPFETR SALGIHSAEERQRHLDTGSYEQVIEEDEL DVEGLAQ SAPRQQIP  
AVPAAPAEIPAPKQAHTSAELVEMQLGISADAPLCFSCG TKMQRAGSCYICEGCGSTSGC  
S

>Q03217

MVEYTN TTFKVA AVQAQPVWFDAAKTVDKTVSIIAE AARNGC ELVAFPEVFI PGYPYHIWV  
DSPLAGMAKFAVRYHENS LTMDSPHVQRLLDAARDHNI AVVVGISERDGGSLYMTQLVID  
ADGQLVARRRKLKPTHVERSVYGE GNGSDISVYDMPFARLGALNCWEHFQTLTKYAMYSM  
HEQVHVASWPGMSLYQPEVPAFGVDAQLTATRM YALEGQTFVVC TTQVVTPEAHEFFCDN  
DEQRKLI GRGGGFARIIGPDGRDLATPLAEDEEGILYADIDL SAITLAKQAADPVGHYSR  
PDVLSLNFNQRHTTPVNTAISTIHATH TLVPQSGALDGVRELNGADEQRALPSTHSDETD  
RATASI

>P10045

MDTTFKAAAVQAEPVWMDAAATADKTVTLVAKAAAAG AQLVAFPELWIPGYPGFMLTHNQ  
TETL PFI IKYRKQAI AADGPEIEKIRCAAQEHNIALSFGYSERAGR TLYMSQMLIDADGI  
TKIRRRKLKPTRFERELFGEGDGS DLQVAQTSVGRV GALNCAENLQSLNKFALAAEGEQI  
HISAWPFTL GSPVLVGD SIGAINQVYAAETGTFVLMSTQVVGPTGIAAFEIEDRYNPNQY  
LGGGYARIYGPDMQLKSKSLSPTEEGIVYAEIDL SML EAAKYS LDPTGHYSR PDVFSVSI  
NRQRQPAVSEVIDSNGDED PRAACEPDEGDREVVISTAIGVLP RYCGHS

>Q99748

MQRWKAALASVLCSSVLSIWMCREGLLLSHRLGPALVPLHRLPRTL DARIARLAQYRAL  
LQGAPDAMELRELTPWAGRPPGPRRRAGPRRRRARARLGARPCGLRELEVRVSELGLGYA  
SDET VLF RY CAGACEAAARVYDLGLRRLRQRRLRRERVR AQPCRPTAYEDEV SFLDAH  
SRYHTVHEL SARECACV



>P61970

MGDKPIWEQIGSSFIQHYYQLFDNDRTQLGAIYIDASCLTWEGQQFQGKAAIVEKLSLSP  
FQKIQHSITAQDHQPTDSCIIISMVVGQLKADEDPIMGFHQMFLLKNINDAWVCTNDMFR  
LALHNFG

>Q27893

MWLPVYVPLLLLVFGVSLSLPQGSGLGTDSSSLRGVDADTEKRINVGKKHLQTLRNLETRCH  
DSLQALVVIDAGSSSTRTNVFLAKTRSCPNKGRSIDPDSIQLIGAGKRFAGLRVVLEEWL  
DTYAGKDWESRPVDARLLFYVPMHEGAKKLMQLLEEDTVAIILDSQLNEKQKVQVKALG  
IPVMLCSTAGVRDFHEWYRDALFVLLRHLINNPSPAHGYKFFTNPFWTRPITGAEGLFA  
FITLNLHLSRRLGEDPARCMIDEYGVKQCRNDLAGVVEVGGASAQIVFPLQEGTVLPSSVR  
AVNLQRERLLPERYPSADVVSFSFMQLGMASAGLFLKELCSNDEFQGGICSNPCLFKG  
FQQSCSAGEVEVRPDGSASVNEDVRKNRLKPLATYCSVNNPEISFKVTNEMQCRENSIDP  
TKPLAERMKIENCSI I KGTGNFDKCVSQVESILVAPKLPPLPANIEAASSGFESVDQVFRF  
ASSTAPMIVTGGMLAAINTLKDHRLLRSDFSGDVEELAEAAAREFCSESEVIIRTDGPVIQ  
LPNARGEQKLNLSNFDLCKTMALTVSLLRHMAAGENQPSFIKWEKSIAGPDGKPLADLGW  
QVGVILHHVLFTEEWGRNAYEAGYSHNL

>Q57679

MQRTLGEIMKIYFATGNPNKIKEANIILKDLKDVEIEQIKISYPEIQGTLEEVAEFGAKW  
VYNILKKPVIVEDSGFFVEALNGFPPTYSKFVQETIGNEGILKLEGGKDNRNAYFKTVIG  
YCDENGVRLFKGIVKGRVSEEIRSKGYGFAYDSIFIPEEEERTFAEMTTEEKSQISHRKK  
AFEEFKKFLLDRI

>P35658

MGDEMDAMIPEREMKDFQFRALKKVRIFDSPEELPKERSLLAVSNKYGLVFAGGASGLQ  
IFPTKNLLIQNKPGDDPNKIVDKVQGLLVPMKFP IHHLLALSNDLTL SACMMSSEYGSII  
AFFDVRTFSNEAKQQRFPAYHKLLKDAAGMVIDMKWNPVPSMVAVCLADGSIDVLQVT  
ETVKVCATLPSTVAVTSVCWSPKQKQLAVGKQNGTVVQYLPQLQEKKVI PCPPFYESDHP  
VRVLDVLWIGTYVFAIVYAAADGTLETSPDVMMALLPKKEEKHPEIFVNFMEPCYGSCTE  
RQHHYYLSYIEEWDLVLAASAASTEVSILARQSDQINWESWLLLEDSSRAELPVTDKSDDS  
LPMGVVVDYTNQVEITISDEKTLPPAPVLMMLLSTDGVLCPFYMINQNPVKSILIKTPERL  
SLEGERQPKSPGSTPTTPTSSQAPQKLDASAAAAPASLPPSSPAAP IATFSLLPAGGAPT  
VFSFGSSSLKSSATVTGEPSSYSSGSDSSKAAPGPGPSTFSFVPPSKASLAPTPAASPVA  
PSAASFSGSSGFKPTLESTPVPSVSAPNIAMKSSFPSTSAVKVNLSEKFTAAATSTPV  
SSSQSAPPMPFSSASKPAASGPLSHPTPLSAPPSSVPLKSSVLPSPSGRSAQGSSSPVP  
SMVQKSPRITPPAAKPGSPQAKSLQPAVAEKQGHQWKSDPVMAGIGEEIAHFQKELEEL  
KARTSKACFQVGTSEEMKMLRTESDDLHTFLLEIKETTESLHGDISSLKTTLLEGFAGVE  
EAREQNERNRDSGYLHLLYKRPLDPKSEAQLQEIRRLHQYVKFAVQDVNDVLDLEWDQHL  
EQKKKQRHLLVPERETL FNTLANNREI INQQRKRLNHLVDSLQQLRLYKQTSLSLSSAV  
PSQSSIHSFSDLESLCNALLKTTIESHTKSLPKVPAKLSPMKQAQLRNFLAKRKTTPVVR  
STAPASLSRSAFLSQRYYEDLDEVSSSTSSVSQSLESEDARTSCKDDEAVVQAPRHAPVVR  
TPSIQPSLLPHAAPFAKSHLVHGSSPGVMGTSVATSASKIIPQGADSTMLATKTVKHGAP  
SPSHPI SAPQQLAAAALRRQMASQAPAVNTLTESTLKNVPQVNVQELKNNPATPSTAMG  
SSVPYSTAKTPHPVLT PVAANQAKQGLINSLKPSGPTPASGQLSSGDKASGTAKIETAV  
TSTPSASGQFSKPFSPSGTGFNFGIITPTPSSNFTAAQGATPSTKESQPDASFSSGGG  
SKPSYEAIPESPSPGITSASNTTPGEPAASSSRPVAPSGTALSTTSSKLETTPPSKLGEL  
LFPSSLAGETLGSFSGLRVQADDSTKPTNKASSTSLTSTQPTKTSQVPSGFNFTAPPVL  
GKHTEPPVTSSATTTSVAPPAATSTSSSTAVFGSLPVTSAAGSSGVISFGGTSLSAGKTSFS

FGSQQTNSTVPPSAPPPTTAATPLPTSFPPTLSFGSLLSSATTPSLPMSAGRSTEEATSSA  
LPEKPGDSEVSASAASLLEEQQSAQLPQAPPQTSDSVKKEPVLAQPAVNSNGTAASSTSL  
VALSAEATPATTGVPDARTEAVPPASSFSVPGQTAVTAAAISSAGPVAVETSSTPIASST  
TSIVAPGPSAEAAAFGTVTSGSSVFAQPPAASSSSAFNQLTNNTATAPSATPVFGQVAAS  
TAPSLFGQQTGSTASTAAATPQVSSSGFSSPAFGTTAPGVFGQTTFGQASVFGQSASSAA  
SVFVSQPGFSSVPAFGQPASSTPTSTSGSVFGAASSTSSSSSFSGQSSPNTGGGLFGQ  
SNAPAFGQSPGFGQGGSVFGGTTAATTTAATSGFSFCQASGFGSSNTGVSFVFGQAASTGGI  
VFGQQSSSSSGSVFGSGNTGRGGGFFSGLGGKPSQDAANKNPFSSASGGFGSTATSN  
LFGNSGAKTFGGFASSSGEQKPTGTFSGGGGSVASQGFSSPNTGGFGAAPVFGSPP  
TFGGSPGFGVPAFGSAPAFSTPLGSTGGKVFGEETAASAGGFGFGSSNTTSFGTLAS  
QNAPTFGSLSQQTSGFGTQSSGFSGFGSGTGGFSFGSNSSVQGFGGWRS

>P81204

MPIIRRTSRATASSSKSATSSILRQAILVFTGFLLGALFMVFPVSLYNAEPSSLHRLMN  
PIRRNTLSARASSDILKLGPNPVDLLERSGYILSYNRRDRLAHWVGEHLTASLQAGQ  
GVDRDKSNFQEDTDIPEMFRAHLKDYVSSGYDRGHQAPAADDLSSQEAMDETFLLSNMAP  
QVGVGFNRHYWAYLEGFMRDLTQNFQTDVYVYTGPLFLPSAASTGRKNPAYSI EYPFLGAT  
TPNVPVPTHFFKIALTTTASSEYALGAFVLPNQAIDSSTPLTNFKVELEAIEKAAGLVFF  
DKLDRSKFADLCSKTTTCQVR

>P08466

MCSRILLSGLVGLGAGTGLTYLLLNKHSPTQIIETPYPPPTQKPNNSNIQSHSFNVDPGFF  
KYGFPGPIHDLQNREEFISCYNRQTQNPYWVLEHITPESLAARNADRKNSFFKEDEVIPE  
KFRGKLRDYFRSGYDRGHQAPAAAKFSQQAMDDTFYLSNMCPQVGEFNRDYWAHLEYF  
CRGLTKKYKSVRIVTGPLYLPKPKDPIDNKFRVNYEVIGNPPSIAVPTHFFKLIVAEAPTA  
NPAREDIAVAAFVLPNEPISNETKLTDFEVPIDALERSTGLELLQKVPPSKKKALCKEVN  
CQIVVRDFSNAAIKQSKDVKLLPPPCKRN

>P05221

MASTVSNTSKLEKPVSLIWGCELNEQDKTFEFKVEDDEEKCEHQLALRTVCLGDKAKDEF  
NIVEIVTQEEGAEKSVPIATLKPSILPMATMVGIELTPPVTFRLKAGSGPLYISGQHVAM  
EEDYSWAEEDEGEAEGEDE  
DSPTKKKGAGRGRKPAACK

>P83689

MPFTIDTARSIFPETLAADVVPATIAARFKQLSAEDQLALIWFAYLEMGKTITIAAPGAAN  
MQFAENTLQEI RQMTPLQQTQAMCDLANRTDTPICRTYASWSPNIKLGFWYELGRFMDQG  
LVAPIPEGYKLSANANAIVTIQGIDPGQITVLRNCVDMGFDTSKLGSYQRVAEPVVP  
PQEMSQRKTVQIEGVTNSTVLQYMDNLANDFDNLISLFAEDGALQPPFQKPIVGKENTL  
RFFREECQNLKLI PERGVSEPTEDGYTQIKVTGKVQTPWFGGNVGMNIAWRFLNPNENKV  
FFVAIDL LASP KELLNL

>Q44297

MIESKTYAVLGLGNGGHAFAYLALKGQSVLAWDIDAQR IKEIQDRGAI I AEGPGLAGTA  
HPDLLTSDIGLAVKDADVILIVVPAIHHASIAANIASYISEGQLIILNPGATGGALEFRK  
ILRENGAPEVTIGETSSMLFTCRSERPGQVTVNAIKGAMDFACLPAKAGWALEQIGSVL  
PQYVAVENVLHTSLTNVNAVMPHPLPTLLNAARCESGTFQYYLEGITPSVGS LAEKVDAE  
RIAIKAFDLNVPVCEWYKESYGQSPATIYEAVQGNPAYRGIAGP INLNTRYFFEDVST  
GLVPLSELGRAVNVPTPLIDAVLDLISLIDTDFRKEGRTLEKLGSLTAAGIRSAVE

>P20707

MQDSVMQRMWNSAHLSSGNAAYVEELYELYLHDPNAVPEEWRTYFEKLPAEAGTSTDVPH  
APVRDQFVLLAKNQRRAPVATSSVSTEHEKKQVEVLRRLIQAYRTRGHQASQLDPLGLWQ  
RTAPSDLSITHYGLTNADLDTFRTGELYIGKEEATLREILQALQETYCRTIGAEFTHIV  
DSEQRNWFQAQRLESVRGRPVYSKEAKSHLLERLSAAEGLEKYLGTKYPGTRKRFGLLEGES  
LVPVVDEIIQRSGSYGTKEVVIGMAHRGRLNLLVNALGKNPRDLFDEFEGKHLVELGSGD  
VKYHQGFSSNVMTSGGEVHLAMAFNP SHLEIVSPVVEGSRVRRARQDRRVDATGEKVVPISI  
HGDSAFAGQGVMETFQMSQIRGYKTGGTIHIVVNNQVGF'TTSNPVDTRSTEYCTDPAKM  
IQAPVLHVNGDDPEAVLFVTQLAVDYRMQFKRDVVIDLVCYRRRGHNEADEPSGTQPLMY  
QKIAKQPTTRELAYADALVKEGSLSQEEVQAKVDEYRTALDNGQHVLKSLVKEPNTELFVD  
WTPYLGHAWTARHDTSFELKTLQELNAKLLQIPEGFVVQRQVAKILEDGRGMGVGAMPIN  
WGCAETLAYATLLKEGHPVRITGQDVGRGTF SHRHAALHNQK DASRYIPLQONLYEGQPKF  
ELYDSFLSEEAVLAFEYGYAT'TTPNALVIWEASSGDFANGAQVVIDQF ISSGETKWGALC  
GLTMLLPHGYEGQGPEHSSARLERYLQLCAEQNIQVCVPTTPAQVYHMLRRQVIRPLRKP  
LVALTPKSLLRHKSASTLEDLALGSFHPVLPPEVDSLDPKKVERLVLCSGKVYYDLLDKR  
HAEGREDIAIVRIEQLYPFPEEELAEVMAPYTNLKHVVWCQEEP MNQGAWYCSQHMMRRV  
ASAHKKELFLQYAGREASAAPACGYASMHAEQQEKLQDAFTV

>P23129

MFQNSMKQRMNWEDFYGNLGYALELYDQYTQDPYSIDPDLKEMFDELGAPPSDIKEASG  
TKEKGRVTADLIQKIASAVRLAEDIRTYGHLNASVNPLRKDEKKSELFPLSDYGLTEEEI  
KAIPASVICKDAPKNISNGLEAIQYLRNTYKRTISFEFDHVDHFKEREWLTRKIESGELF  
QKNSAEKLSAVLERL TEVEGFEQFLHRTFVQKRF SIEGLDALVPVLDDIIAQSVKSGTT  
SVNIGMAHRGRLNVLAVHLGKPYEIIIFSEFQHAPRSLVPSEDPLESATDGRGMSNTIWGR  
IGSFKTLKQNPALPLANNP SHLEFINPIVEGSTRAAQETRTQSGYPVQDETKSLAILIH  
GDAAFPGEGIVAETLNLSSLKGYQVGGAIHIIANMIGFTTESAESRSTKYASDLAKGYE  
IPIVHVNADDPEACL SAVKFAVEYRKT FNKDFLIDLIGYRRYGHNEMDEPSTTQPMLYDA  
VRKHPTSNKFSLKKLVKEGVVTEEVVQNI EKSVTKRIEVAIQKVPSKKEHTACEIELPEP  
VSNGFDPDVT SIFHVLRKLNGELITGESFMSQAKAHFRKTAKAFDDDRKVEVSLAESL  
AFASILKDGTPIRLTGQD SERGTFAQRNLVLHDSETGKEFVPLHHLSDCSTSFVHNSPL  
SEGSVLGF EYGYNVHSPETLVLWEAQYGFANAAQVYFDQFISAGRAKWGQKSGLVMLLP  
HGYEGQGPEHSSGRIERFLQLAAENNWTVANLTSAAQYFHILRRQAKMLLREEIRPLVIM  
TPKSLLRNPNTVSEVQELSES RFQPVYEQSGLSHDYEK VTRLVLSSGKVSIDISVHFNKL  
EDGKEWLHIARIEQLYPFPKAGVKELFAKLPNLKEIVVWQEEPQNMGAWGYISPYLTEIA  
PEGVSVQYIGRRRRSSPAEGDPTVHKKEQERIVSDSLTRKN

>P0AFG3

MQNSALKAWLDSSYLSGANQSWIEQLYEDFLTDPDSVDANWRSTFQQLPGTGVKPDQFHS  
QTREYFRRLAKDASRYSS TISDPDTNVKQVKVLQLINAYRFRGHQHANLDPLGLWQQDKV  
ADLDPSFHDLTEADFQETFNVGSFASGKETMKLGELLEALKQTYCGPIGAEYMHITSTEE  
KRWIQQRIESGRATFNSEEKKRFLSEL TAAEGLERYLGAKFP GAKRFSLEGGDALIPMLK  
EMIRHAGNSGTREVV LGMAHRGRLNVLVNLVGLKPKQDLFDEFAGKHKEHLGTGDVKYHMG  
FSSDFQTDGGLVHLALAFNP SHLEIVSPVVI GSVRRLDRLEPSSNKVLPITIHGDAAV  
TGQGVVQETLNM SKARGYEVGGTVRIVINNQVGF'TTSNPLDARSTPYCTDIGKMQAPIF  
HVNADDPEAVAFVTRLALDFRNTFKRDVFIDLVCYRRRGHNEADEPSATQPLMYQKIKKH  
PTPRKIYADKLEQEKVATLEDATEMVNLYRDALDAGDCVVAEWRPMMHSTWSPYLNHE  
WDEEYPNKVEMKRLQELAKRISTVPEAVEMQSRVAKIYGDRQAMAAGEKLFWDWGAENLA  
YATLVDEGIPVRLSGEDSGRGTFFHRHAVIHNQSNGSTYTPLQHIHNGQGAFRVWDSVLS  
EEAVLAFEYGYATAEPRTLTIWEAQGFDFANGAQVVIDQF ISSGEQKWGRMCGLVMLLP  
GYEGQGPEHSSARLERYLQLCAEQNMQVCVPTPAQVYHMLRRQALRGMRRPLVVMSPKS

LLRHPLAVSSLEELANGTFLPAIGE IDELDPKGVKRVVMCSGKVYYDLLEQRRKNNQHVDV  
AIVRIEQLYPPPHKAMQEVLLQOFAHVKDFVWCQEELNQGAWYCSQHFFREVIPFGASLR  
YAGRPASASPAVGYMSVHQKQQQDLVNDALNVE

>Q89ZI2

MKNNKIYLLGACLLCAVTTFAQNVSLQPPPQQLIVQNKTIDLPAVYQLNGGEEANPHAVK  
VLKELLSGKQSSKKGMLISIGEKGDKSVRKYSRQIPDHKEGYLLSVNEKEIVLAGNDERG  
TYAYALQTFQAQLLKDGKLEVEIKDYPSVRYRQVVEGFGYTPWVSHQARLSQLKFGKNKMN  
TYIYGPKDDPYHSAPNWRPLYPDKAAQLQELVAVANENEVDFVWAIHPGQDIKWNKEDR  
DLLLAKFEKMYQLGVRSFVAVFFDDISGEGTNPQKQAE LLNY IDEKFAQVKPDINQLVMCP  
TEYNKSWSNPNNGNYLTTLGDKLNPSIQIMWTGDRVISDITRDGISWINERIKRPAYIWWN  
FPVSDYVRDHLLLGVPVYGNDDTTIAKEMSGFVTNPMHAESSKIAIYSVASYAWNPAKYDT  
WQTKDAIRTIPLPSAAEELECFAMHNSDLGPNHGHRREESMDIQPAAERFLKAFKEGKN  
YDKADFETLQYTFERMKESADILLMNTENKPLIVEITPWVHQFKLTAEMGEEVLKMEGR  
NESYFLRKYNHVKALQQQMFYIDQTSNQNYPYQPGVKTATRVIKPLIDRTFATVVKFFNQK  
FNAHLDATTDYMPHKMISNVEQIKNLPLQVKANRVLISPANEVVKWAAGNSVEIELDAIY  
PGENIQINFGKDAPCTWGRLEISTDGKEWKTVDLQKQESRLSAGLQKAPVKFVRF'TNVSD  
EEQQVYLRQFVLTIEKK

>Q0TR53

MKRKMLKRLLTSAFACMFIANGLITTTVRAVGPKTGEENQVLVPLNPTPENLEVVDGDF  
KITSSINLVGEEADENAVNALREFLTANNIEINSENDPNSTTLIIGEVDDDIPELDEAL  
NGTTAENLKEEGYALVSNQDKIAIEGKDGDTFYGVQTFKQLVKESNIPEVNI TDYPTVS  
ARGIVEGFYGTPTWTHQDRLDQIKFYGENKLNTYIYAPKDDPYHREKWRPEYPESEMQRMQ  
ELINASAENKVDVFGISPGIDIRFDGDAGEEDFNHLITKAESLYDMGVRSFAYWDDIQ  
DKSAAKHAQVLNRFNEEFVKAKGDVKPLITVPTDYDTGAMVSNQPRAYTRIFAETVDP  
IEVMWTGPGVVTNEIPLSDAQLISGIYNRNMAVWVWVYPTDYFKGKLALGPMHGLDKGLN  
QYVDFFTVNPMEHAELSKISIHAAADYSWNMDNYDYDKAWNRAIDMLYGDLAEDMKVFAN  
HSTRMDNKTWAKSGREDAPELRAKMDLWNLKSSKEDASALIEELYGEFARMEEACNNLK  
ANLPEVALEECSRQDELITLAQGDKASLDMIVAQLNEDTEAYESAKEIAQNKLNTALSS  
FAVISEKVAQSFIQEALSFDLTLINPRTVKITASSEETSGENAPASFASDGMNTFWHSK  
WSSPAHEGPHHLTLELDNVYEINKVKYAPRQDSKNGRITGYKVSVSLDGENFTEVKTGTL  
EDNAAIKFIEFDSVDAKYVRLDVTDSVSDQANGRGKFAATAAEVNVHGKLENAEVTGSVS  
LEALEEVQVGENLEVGVGIDELVNAEAFAYDFTLNYDENAFEYVEAISDDGVFVNAKKEIE  
DGKVRVLVSSLTGEPLPAKEVLAKVVLRAEAKAEGSNLSVTNSSVGDGEGLVHEIAGTEK  
TVNIIEGTSPEIVVNPVRDFKASEINKKNVTVTWTEPETTEGLEGYILYKDGKKVAEIGK  
DETSYTFKKNRHTIYNFKIAAKYSNGEVSSKESLTLRTAR

>O34777

MENKFDHMKLENQLCFLLYASSREMTKYKPLLDKLNITYPQYLALLLLWEHETLTVKKM  
GEQLYLDSGTLTPMLKRMEQQGLITRKRSEEDERSVLISLTEDGALLKEKAVIDIPGTILG  
LSKQSGEDLKQLKSALYTLLETLHQKN

>P78380

MTFDDLKIQTVKDQPDDEKSNQKAKGLQFLYSPWWCLAAAATLGVLCGLVVTIMVLGMQL  
SQVSDLLTQEQANLTHQKKKLEGGQISARQQAEEASQSENELKEMIE TLARKLNEKSKEQ  
MELHHQNLNLQETLKRVANCSAPCPQDWIWHGENCYLFSGSGFNWEKSQEKCLSLDAKLL  
KINSTADLDFIQQAISYSSFPFWMGLSRRNPSYPWLWEDGSPLMPHLFRVRGAVSQTYPS  
GTCAYIQRGAVYAENCILAAFSICQKKANLRAQ

>Q6RYW5

MKLSRIALATMLVAAPLAAANAGVTVTPLLLGYTFQDSQHNNGGKDGNTNGPELQDDLF  
VGAALGIELTPWLGFEAEYNQVKGDVDGASAGAEYKQKQINGNFYVTSDLITKNYDSKIK  
PYVLLGAGHYKYDFDGVNRGTRGTSEEGTLGNAGVGAFWRLNDALSLRTEARATYNADDEE  
FWNNTALAGLNVVLGGHLKPAAPVVEVAPVEPTPVAPQPQELTEDLNMELRVFFDTNKS  
IKDQYKPEIAKVAEKLSEYPNATARIEGHTDNTGPRKLNRLSLARANSVKLSALVNEYNV  
DASRLSTQGFQAWDQPIADNKTKEGRAMNRRVFATITGSRTVVVQPGQEAAAAPAAAQ

>P05430

MKKSIALTLAALPVAAMADVTLYGTIKAGVETSRVVAHHGAQADRVTATEIADLGSKI  
GFKGQEDLGNGLKAIWQLEQKAYVSGTDTGWGNRQSF IGLKGGFGKVRVGRVRLNSVLKDTG  
GFNPWEGKSYLGLSNIAQPEERHVSRYDSPEFAGFRAVQYVPNDNSGKNHSESYHAGF  
NYKNSGFFVQYAGFYKRHSYTTTEKHQVHRLVGGYDHDALYASVAVQQQDAKLTWRNDNSH  
NSQTEVAATAAYRFGNVTPRVSYAHGFKGSVYDADNDNTYDQVVVGAEYDFSKRTSALVS  
AGWLQRGKGTEKFFVATVGGVGLRHKF

>P57041

MRKKLTALVLSALPLAAVADVSLYGEIKAGVEGRNYQLQLTEAQAANGGASGQVKVTKVT  
KAKSRIRTKISDFGSF IGFKGSEDLGEGLKAVWQLEQDVSVAGGGATQWGNRESF IGLAG  
EFGTLRAGRANQFDDASQAIDPWSNNDVASQLGIFKRHDDMPVSVRYDSPEFSGFSGS  
VQFVPAQNSKSAYKPAYWTTVNTGSATTTTTFVPAVVGKPGSDVYYAGLNYKNGGFAGNYA  
FKYARHANVGRDAFELFLLGSGSDQAKGTDPLKNHQBHRLTGGYEEGGLNLALAAQLDLS  
ENGDKTKNSTTEIAATASYRFGNAVPRISYAHGFDFIERGKKGENTS YDQIIAGVDYDFS  
KRTSAIVSGAWLKRNTGIGNYTQINAASVGLRHKF

>Q01969

MKRVLTLVAMLSVFFSAMFAFFPDVPKDHWAYEYVWKLWQRGIFIGYPDGEFKGDRIYTR  
YEAATAVSRLLDFIEQKMLAGASGDLAQVGNLSDKYMALKEEKVNGLTGILDTLASQIGT  
TQANLTETETERELLEKIDAVKEEIEMEFDKEISLNREVVNNIGLKLGNLSRDYERYKENVD  
AKISEVNEKLAALKEKDLGNKIADLEGI VNLHEKDIINIYNKISSVNEELNNKIAATEEKL  
SRKDEEISAMVELHEKDIINLYNKVAALNEDLNKKILDTKAELSAKIESQEKTLNMVYTK  
LLDTESKLNDEISALKEKDAEIQKTVDLHEQDIVNLYGKTS SLEEDLNMYNETNEKIDQ  
VKAEELEDKIESVKAYNRNLSILTGAF FGI LGLILIAISGK

>P18195

MKKSIALTLAALPVAATADVTLYGAIKAGVQTYRSVEHTDGKVSQVETGSEIADFGSKI  
GFKGQEDLGNGLKAVWQLEQGASVAGTNTGWGNKQSFVGLKGGFGTIRAGSLNSPLKNTD  
ANVNAWESGKFTGNVLEISGMAKREHRYLSVRYDSPEFAGFSGSVQYAPKDNSGNGESY  
HVGLNYQNSGFFAQYAGLFQRYGEGTKKIEYEHQVYSIPSLFVEKLVHRLVGGYDNNAL  
YVSVAQQQDAKLYGARRANSHNSQTEVAATAAYRFGNVTPRVSYAHGFKGTVDSADHDN  
TYDQVVVGAEYDFSKRTSALVSAGWLQEGKGADKIVSTASAVVLRHKF

>P30692

MKKSIALTLAALPVAAMADVTLYGQVKAGVEVSRTKETVNHVSTKNKTATEIADFGSRI  
GFKGHEHLSNNLNAIWQVEQNTSVAGTDKVGWGTRESF IGLEGGFGKVRAGKLNLTALKDNS  
DSVDPWESSDANASVLQFGKLRVDERKVSRYDSPVFAGFSASAQYQPRDNANPEDKHV  
HDVKTRHSFDLGLNYENSGFFGRYAGTFAKRKVLSDDHLELFNSNTTLGSGVYKDYQAH  
LVGGYDANNVLSVAGQYEGFKADVADAKKNERTEVAVTGGYRGMGNVMPRLSYAHGFKAK  
ENGVKQGN SQYNQVIVGADYDFSKRTSALVSAGWLKEGKGDKTQSTAGLVGLRHKF

>P09888

MQPAKNLLFSSLLFSSLLFSSAARAASEDGGGRGPYVQADLAYAAERITHDYPKPTGTGKN  
KISTVSDYFRNIRTHSVHPRVSVGYDFGSRWRIAADYARYRKWNNNKYSVSIKELLRNDNS  
ASGVRGHLNIQTQKTEHQENGTFFHAVSSSLGLSTIYDFDTGSRFKPYIGMRVAYGHVRHQV  
RSVEQETEIIITTYPSNGGGKVSLSKMPKSAHHSNSIRRVLGVIAGVGFDTIPNLT  
DTGYRYHNWGRLENTFRFKTHEASLGMRYRF

>P02931

MMKRNI L AVI V PALL VAGTANAAE I YNKDGNKVDLYGKAVGLHYFSKNGGENSYGGNGDM  
TYARLGFKGETQINSDLTGYGQWEYNFQGNNSGADAQTGNKTRLAFAAGLKYADVGSFDY  
GRNYGVVYDALGYTDMLEPFGGDTAYSDDFFVGRVGGVATYRNSNFFGLVDGLNFAVQYL  
GKNERDTARRSNGDGVGGSISYEYEGFGIVGAYGAADR TNLQEAQPLGNGKKAEQWATGL  
KYDANNIYLAANYGETRNATPITNKFTNTSGFANKTQDVLLVAQYQFDFGLRPSIAYTKS  
KAKDVEGIGDVLVNYFEVGATYYFNKNMSTYVDYIINQIDSDNKLGVGSDDTVAVGIVY  
QF

>P77747

MKSKVLALLIPALLAAGAAHAAEVYNKDGKLDLYGKVDGLHYFSDNSAKDGDQSYARLG  
FKGETQINDQLTGYGQWEYNIQANNTESKKNQSWTRLAFAAGLKFADYGSFDYGRNYGVMY  
DIEGWTDMLEPFGGDSYTNADNFMTGRANGVATYRNTDFFGLVNGLNFAVQYQGNNEGAS  
NGQEGTNNGRDVRHENGDWGLSTTYDLGMGFSAGAA YTS SDR TNDQVNHTAAGGDKADA  
WTAGLKYDANNIYLATMYSETRNMTPF GDSYAVANKTQNFVTAQYQFDFGLRPAVSFL  
MSKGRDLHAAGADNPAGVDDKDLVKYADIGATYYFNKNMSTYVDYKINLLDEDDSFYAA  
NGISTDDIVALGLVYQF

>P0A434

MQTRRVVLKSAAGTLLGGLAGCASVAGSIGTGDRINTVRGPITISEAGFTLTHEHICG  
SSAGFLRAWPEFFGSRKALAEKAVRGLRRARAAGVRTIVDVSTFDIGRDVSLLAEVSRAA  
DVHIVAATGLWFDPLSMRLRSVEELTQFFLREIQYGIEDTGIRAGIKVATTGKATPFQ  
ELVLKAAARASLATGVPVTTHTAASQRDGEQQA AIFESEGLSPSRVCIGHSDDTDDL SYL  
TALAARGYLIGLDHIPHSAIGLEDNASASALLGIRSWQTRALLIKALIDQGYMKQILVSN  
DWLFGFSSYVTNIMDMVRVNDPGMAFIPLRVIPFLREKGV PQETLAGITVTNPARFLSP  
TLRAS

>Q51487

MKRSFLSLAVAAVVLGCSLIPDYQRPEAPVAAA YPQGQAYGQNTGAAAVPAADIGWREF  
FRDPQLQQLIGVALENNRDLRVAALNVEAFRAQYRIQRADLFPRIGVDGSGTRQRLPGDL  
STTGSPAISSQYGVTLGTTAWELDLFGRLRSLRDQALEQYLATEQAQRSAQTTLVASVAT  
AYLTLKADQAQLQLTKD TLGTYQKSFDLTQRSYDVGVASALDLRQAQTAVEGARATLAQY  
TRLVAQDQNALVLLLGSGIPANLPQGLGLDQTLTTEVPAGLPSDLLQRRPDILEAEHQLM  
AANASIGAARAAFFPSISLTANAGTMSRQLSGLFDAGSGSWLFPQPSINLPIFTAGSLRAS  
LDYAKIQKDINVAQYEKAIQTAFQEVADGLAARGTFTEQLQAQRDLVKASDEYYQLADKR  
YRTGVDNYLTL LDAQRSLFTAQQQLITDRLNQLTSEVNLYKALGGGWNQQTVTQQQTAKK  
EDPQA

>P0A784

MSANENNLIIWIDLEMTGLDPERDRIEEEIATLVTDANLNILAEGPTIAVHQSDQLALMDD  
WNVRTHTASGLVERVKASTMGDREAELATLEFLKQWVPAGKSPICGNSIGQDRRFLFKYM  
PELEAYFHRYRLDVSTL KELARRWKPEILDGFTKQGT HQAMDDIRESVAELAYYREHF  
IK  
L

>P16258

MAATELRGVVGPAAIAAPGGGGAGPPVVGGGGGRGDAGPGSGAASGTVAAAAAGGQG  
PGAGGVAAAAGPAPTPPAGGSGSSGTGGSGSAREGWLFKWTNYIKGYQRRWFVLSNGLLS  
YYRSKAEMRHTCRGTINLATANITVEDSCNFIIISNGGAQTYHLKASSEVERQRWVTALEL  
AKAKAVKMLAESDESGDEESVSQTDKTELQNTLRTLSSKVEDLSTCNDLIAKHGTALQRS  
LSELESCLKLPAESNEKIKQVNERATLFRITSNAMINACRDFLVLAQTHSKKWQKSLQYER  
DQRIRLEETLEQLAKQHNHLERAFRGATVLPAAHTSGSAGSGKDQCCSGKGDMSDEDDENE  
FFDAPEIITMPENLGHKRTGSNISGASSDISLDEQYKHQLEETKKEKRTRIPYKPNYSLN  
LWSIMKNCIGKELSKI PMPVNFNEPLSMLQRLTEDLEYHELLDRAAKCENSLEQLCYVAA  
FTVSSYSTTVFRTSKPFNPLLGETFELDRLEENGYRSLCEQVSHHPAAAHHAESKNGWT  
LRQEIKITSKFRGKYLSIMPLGTIHCIFHATGHHYTWKVTTTVHNIIVGKLWIDQSGEI  
DIVNHKTGDKCNLKFVPYSYFSRDVARKVTGEVTDPSGKVHFALLGTWDEKMDCFKVQPV  
SGENGGDARQRGHEAEESRVMLWKRNP LPKNAENMYYFSELALTLNAWEGGTAPTDSRLR  
PDQRLMENGRWDEANAQKQRLLEEKQRLSRKKREAEAMKATEDGTPYDPYKALWFERKKDP  
VTKELTHIYRGEYWECKEKQDWNSCPDIF

>Q02047

MNARHFLSMMDYTPDELLGLIRRGVELKDLRIRGELFEPLKNRVLGMI FEKSSTRTRLSF  
EAGMIQLGGQAI FLSHRDTQLGRGEP IADSAKVMRMLDAVMIRTYAHSNLTEFAANSRV  
PVINGLSDDLHPCQLLADMQTFLEHRGSIKGTKVAWIGDGNMNCNSYIEAAIQFDFQLRV  
ACPAGYEPNPEFLALAGERVTIVRDPKAAVAGAHLVSTDVWTSMGQEEETARRMALFAPF  
QVTRASLDLAEKDVLFMHCLPAHRGEEISVDLLDDSRVAVDQAENRLHAQKALLEFLVA  
PSHQRA

>P11066

MPSPLRTAPQPPLRAFHNPPALRRLYSSTSHSAATPATSPFAPRHLLS IADLTPTEFATL  
VRNASSHKRAIKSGSIPQSLHGALSGKTVMAMF SKRSTRTRISTEGAVVQMGGHPMFLGK  
DDIQLVNESLYDTAVVVSSMVECI VARVKGHADVADLAKHSTKPVINALCDSYHPLQAI  
ADFQITISEHFAASGKGKLEGLGLNGLKIAWVGDANNVLFDMAISARKMGVDVAVATPKGY  
EIPKEMLEIIEKAGEGVKSPGKLVQTNVPEEAVKGADVLVTDTWVSMGQEEEAARLRDF  
AGFQITSELAKRGGAKEGWRFMHCLPRHPPEEVADEVFYGHRSLVFP EAENRLWAAISALE  
GFVVNKGKIE

>Q9YHY9

MLFNLKNLYRITKLTQNSKHLPRHFCRGPNNQMNVLKGRDLLTLQNYTADELKYLWVA  
SDLKQRIKDKGEYLP LMQGKSLAMIFEKRSTRTRLSAETGFALLGGHSSFLTQDIHLGT  
NESLTD TARVLS SMTNAILARVYKHNDLDMTKEATIPVINGLS DLYHPLQILADYLTQ  
EHYGGLNGLTIAWIGDGNVLSIMTSAAKLGMHLRIATPKGFEPDLRITKVTEQYSKEY  
GTRLLLLTTDPLEAANGANVLVTDTWISMGQEEERRLKAFQGYQITMQTVQSAASNWTF  
LHCLPRKPEEVDDEVFYSRSLVFQEAENRKTIMAVMVSLLDYSPQLQMPF

>Q43814

MGVITAHCYCFTTVGSHKPYLSPSSHNFRHSPSVLS SSSSSSSPSP LRRISCQASSAPAA  
ESTLTAKVGNGLKDFIHIDDFDKETILKILDRAIEVKTLKSGDRTFRPFEGKTM SMIFA  
KPSMRTRVSFETGFSLLGGHAIYLGPNDIQMGKREETRDVARVLSRYNDIIMARVFSHQD  
ILDLAKYASVPVINGLTDYNHPVQIMADALTMIEHIGRFEGTKVVYVGDGNNIVHSWLLL  
AAVVPFHVFCACPKGFEPDAKTVEKARKAGISKIEISHDPKEAVRGADVVS DVWASMGQ  
KEEAAYRREAFKGFQVDQNLMDAAGSKAFFMHCLPAERGV ETVDEVVEAPYSIVFPQ AEN  
RMHAQNAIMLHVLGK

>P96134

MGGEALTLPKDLLDFSGYGPKELQALLDLAERLKRERYRGEDLKGKVLALLFEKPSLRTR  
TTLEVAMVHLGGHAVYLDQKQVIGIGEREVPRDVAKNLERFVEGIAARVFRHETVEALARH  
AKVPVVALSDRAHPLQALADLLTLKEVFGGLAGLEVAVWGDGNNVLSLLEVAPLAGLK  
VRVATPKGYEPDPGLLKRANAFFTHDPKEAALGAHALYTDVWTSMGQEAERAKRLRDFQG  
FQVNGELLKLLRPEGVFLHCLPAHYGEETTEEAVHGPRSRVFDQAENRLHTAKAVLLTLL  
K

>Q48296

MEHLVDINDVESEEIEQLDLAASMKENPGEFSGVMDNKSVMMLFAKPSTRTRLSFETGM  
TQLGGHGIFFEFGSSQLSRGEPISDVSQVMSRYEDAIMARLFEHDEMMELAENADVPVNV  
GLTDFLHPCQALTDMTMQEKDRDLDTLAFVGDGNNVAHSLMQASAKMGVDCRIATPEGME  
PDEEIQDRVSDANVTVTNDPVEAVDGATAVYGDVVFVSMGEEEQREEKLAEFDGFQIDQDL  
MDAARDDAIFMHCLPAHRGEEVTAEVADGFPQSVIFDQAENRMHVQKAIVHTLVNQ

>P40149

MSNDDNVELTDGFHVLIDALKMNDIDTMYGVVGIPIITNLARMWQDDGQRFYSFRHEQHAG  
YAASIAGYIEGKPGVCLTVSAPGFLNGVTSLAHATTNCFPMILLSGSSEREIVDLQQGDY  
EEMDQMNVARPHCKASFRINSIKDIPIGIARAVRTAVSGRPGGVYVDLPAKLFQGQTI SVE  
EANKLLFKPIDPAPAQIPAEDAIARAADLIKNAKRPVIMLGKGAAYAQCDDERIALVEET  
GIPFLPMGMAKGLLPDNPQSAATRAFALAQCDVCVLIGARLNWLMQHKGKKTWGDELK  
KYVQIDIQANEMDSNPAAAPVVDIKSAVSLLRKALKGAPKADAWEWGALKAKVDGNKA  
KLAGKMTAETPSGMMNYSNSLGVVRDFMLANPDISLVNEGANALDNTRMIVDMLKPRKRL  
DSGTWGVMGIGMGYCVAAAAVTGKPVIAVEGDSAFGFGSMELETCRYNLPVTVIIMNNG  
GIYKGNADPQPGVISCTRLTRGRYDMMMEAFGGKGYVANTPAELKAALEEAVASGKPCCL  
INAMIDPDAGVESGRIKSLNVVSKVGGK

>P80324

MHSQKRVVVLGSGVIGLSSALILARKGYSVHILARDLPEDVSSQTFASPWAGANWTPFMT  
LTDGPRQAKWEESTFKKWVELVPTGHAMWLKGTTRRFAQNEDGLLGHWYKIDITPNYRPLPS  
SECPPGAIGVTYDLSVHAPKYCQYLARELQKLGATFERRTVTSLEQAFDGDADLVVNATG  
LGAKSIAGIDDQAAEPARGQTVLVKSPCKRCTMDSSDPASPAYIIPRPGGEVICGGTYGV  
GDWDLVSNPETVQRILKHCLRLDPTISSDGTIEGIEVLRHNVGLRPARRGGPRVEAERIV  
LPLDRTKSPLSLGRGSARAAKEKEVTLVHAYGFSSAGYQQSWGAAEDVAQLVDEAFQRYH  
GAARESKL

>O34714

MKKQNDIPQPIRGDKGATVKIPRNIERDRQNPDMLVPPETDHGTVSNMKFSFSDTHNRLE  
KGGYAREVTVRELPISENLASVNMRLKPGAIRELHWHKEAEWAYMIYGSARVTIVDEKGR  
SFIDDVGEGDLWYFPSGLPHSIQALEEGAEFLLVFDDGSFSENSTFQLTDWLAHTPKKEVI  
AANFGVTKEEISNLPKKEYIFENQLPGSLKDDIVEGPNGEVPPFTYRLLQEPIESEG  
GKVYIADSTNFKVSKTIASALVTVEPGAMRELHWHPNTHEWQYYISGKARMTVFASDGH  
RTFNQAGDVGYVPPFAMGHYVENIGDEPLVFLIEIFKDDHYADVSLNQWLAMLPE'TFVQAH  
LDLGKDFTDVLSKEKHPVVKKCSK

>Q4JHE1

MNVFFMFSLFLAALGSCADRRRPLEECFREADYEEFFLEIAKNGLQRTSNPKRVVVVGA  
GMAGLSAAYVLAGAGHQVTLLEASERVGGRVNTYRNEKDGWYVNLGPMRLPERHRIIREY  
IRKFGLELNEFIQENDNAWYFIKNIRKRVSEVKKDPGVFKYPVKPSEEGKSASQLYRESL



QKVIEELKRTNCSYILNKYDTYSTKEYLIKEGNLSPGAVDMIGDLLNEDSSYYLSFIESL  
KSDDIFSIEKRFDEIVGGFDQLPRSMYQAI AEKVHLNAQVIKIQQNAEDVRVITYQTPAKT  
LSYVIADYVIVCSTSRARRIHFEPPPLPPKKAHALRSIHYRSSTKIFLTCSQKFWEADGI  
HGGKSTTDLPSRFIYYPNHSFTSGIGVIVAYTLADDDTDFQALDIETSADIVINDLSLIH  
QLPKEQIQALCYPYSKI QKWSLDEYAMGAITSFTPYQFQDFFEIVAAPVGRIFYFAGEYTAS  
VHGWL DSTIKSGLTAARDVNLASQKPSRIQLSNDNEL

>P0ACQ4

MNIRDLEYLVALAEHRHFRAADSCHVSQPTLSGQIRKLEDELGVMLLERTSRKVLFTQA  
GMLLDVQARTVLRVVKVLEKEMASQQGETMSGPLHIGLIPTVGPYLLPHIIPMLHQTFPKL  
EMYLHEAQTHQLLAQLD SGKLD CVILALVKESEAFIEVPLFDEPMLLAIYEDHPWANREC  
VPMADLAGEKLLMLEDGHCLRDQAMGF CFEAGADEDT HFRATSLET LRNMVAAGSGITLL  
PALAVPPERKRDRGVVYLPCIKPEPRRTIGLVYRPGSPLRSRYEQLAEAIRARMDGHFDKV  
LKQAV

>P32263

MTYTLAILGCGVMGQALLSAIYNAPKAADETA AAFYPSKIITCNHDEPSAQQVTDLVETF  
DESPNGIKVESTYGHNVSAVEEASVLLGTKPFLAEV LNVKSVIGGKLLISLAAGWTI  
DQLSQYTSTVCRVMTNTPAKYGYGCAVVSYSADVSKEQKPLVNELISQVGKYVELPEKNM  
DAATALVSGPFAFVLLMLESLMESGLKLGIP LQESKECAMKVLEGTVMKMEKSGAHP SVL  
KHQVCTPGGTTIAGLCVMEEKGVKSGIINGVEEAARVASQLGQKKK

>Q9H3D4

MNFETSRCATLQYCPDPYIQR FVETPAHFSWKESYRSTMSQSTQTNEFLSPEV FQHIWD  
FLEQPICSVQPIDLNFVDEPSE DGATNKIEISMD CIRMQDSDLSDPMWPQYTNLGLLSNM  
DQQIQNGSSSTSPYNTDHAQNSVTAPSPYAQPSSTFDALSPSPAIPSN TDYPGPHSFDVS  
FQQSSTAKSATWYSTELK KLYCQIAKTCP IQIKVMTPPPQGA VIRAMPVYKKA EHVTEV  
VKRCPNHEL SREFNEGQIAPP SHLIRVEGN SHAQYVEDPITGRQSVLVPYEP PQVGTEFT  
TVLYNFM CNSSCVGGMNRRPILII VTL ETRDGQVLGRRCFEARICAC PGRDRKADEDSIR  
KQQVSDSTKNGDGT KRPF RQNT HGIQMTS IKKRRSPDDEL LYL PVRGRETYEMLLKIKES  
LELMQYLPQHTIET YRQQQQQHQLLQKQTSIQSPSSYGNSSPPLNKMNSMNLPSVSQ  
LINPQQRNALTPTTIPDGMGANIPMMGTHMPMAGDMNGLSPTQALPPPLSMPSTSHCTPP  
PPYPTDCSIVSFLARLGCSSCLDYFTTQGLTTIYQIEHYSMD DLASLKIPEQFRHAIWKG  
ILDHRQLHEFSSPSHLLRTPSSASTVSVGSSETRGERVIDAVRFTLRQTISFPPRDEWND  
FNFDMDARRNKQQR IKEEGE

>Q08542

MDCVLR SYLLLA FGF LICLFLFCLVVF IWFVYKQILFR TTAQSNEARHNHSTVV

>P0A921

MRTLQGWLLPVFMLPMAVYAQEATVKEVHDAPAVRGSIIANMLQEHDNPFTLYPYDTNYL  
IYTQTSDLNKEAIASYDWAENARKDEVK FQLSLAFPLWRGILGPNSVLGASYTQKSWWQL  
SNSEESSPFRETNYEPQLFLGFATDYRFAGWTLRDVEMGYNHDSNGRSDPTSRSWNRLYT  
RLMAENGNWLVEVKPWYVVGNTDDNPDITKYMGYQLKIGYHLGDAVLSAKGQYNWNTGY  
GGAELGLSYPITKHVRLYTQVYSGYGESLIDYNFNQTRVGVGVMLNDLF

>P28305

MFLINGHKQESLAVSDRATQFGDGCFTTARVIDGKVSLLSAHIQRLQDACQRLMISCDFW  
PQLEQEMKTLAAEQQNGVLKVVISRSGSGRGYSTLN SGPATRILSVTAYPAHYDR LRNEG  
ITLALSPVRLGRNPHLAGIKHLNRLEQV LIRSHLEQTNADEALVLDSEGWVTECCAANLF

WRKGNVVYTPRLDQAGVNGIMRQFCIRLLAQSSYQLVEVQASLEESLQADEMVICNALMP  
VMPVCACGDVFSFSSATLYEYLAPLCPERP

>P12256

MLGCSSLSIRTTDDKSLFARTMDFTEPDSKVIIVPRNYGIRLLEKENVVINNSYAFVGM  
GSTDITSPVLYDGVNEKGLMGAMLYYATFATYADEPKKGTGINPVYVISQVLGNCVTVD  
DVIEKLTSYTLLNEANIILGFAPPLHYTFTDASGESIVIEPDKTGITIHRTIGVMTNSP  
GYEWHQTNLRAYIGVTPNPPQDIMMGDLDTFPFGQGAGGLGLPGDFTPSARFLRVAYWKK  
YTEKAKNETEGVTNLFHILSSVNIIPKGVVLTNEGKTDYTIYTSAMCAQSKNYYFKLYDNS  
RISAVSLMAENLNSQDLITFEWDRKQDIKQLNQVNVMS

>Q97DP6

MKKYSICIVGGGSRYTPDMLAMLCNQKERFPLRKIVLYDNESEERQETVGNYAKILFKEYY  
PELEEVIIWTTDEKEAFEDIDFALMQIRAGRLKMREKDEKISLKHGCLGQETCGAGGFAYG  
LRSVPAVIDLIKSIRTYSPOKWCWILNYSNPAAIVAEATKRVFPNDYRIINICDMP IAIMDI  
YAAVLGLKRRDLEPKYFGLNHFGWFTHILDKKTGENYLPKLREILKTPVDVQTEPLFQEK  
SWKSTFEFMSQMINDYDEYLPNTYLQYYLYPAKMRNKENPEYTRANEVMDGNEKETYERM  
HKIISLKGKIHGTYELTSDVGCHAEYIVDLATAIANNTNEIFLIITENKGTINNVSKDMM  
VEVPCRVSNGVEPLVVGSIAPAFYKGLMENQYAYEKLSVDACLEGSYQKALQALVLRNRTV  
VNTDVAKELLKDLIEANKGYWNEH

>P37819

MERIDSHVSPRYAQIPTFMRLPHDPQPRGYDVVVI GAPYDGGTSYRPGARFGPQAIRSES  
GLIHGVGIDRGPFTFDLINCVDAGDINLTPFDMNIAIDTAQSHLSGLLKANAFLMIGGD  
HSLTVAALRAVAEQHGPLAVVHLDAHSDTNPAFYGGRYHHGTPFRHGIDEKLIDPAAMVQ  
IGIRGHNPKPDSLDYARGHGVRVVTADEFGELGVGGTADLIREKVGQRPVYVSVDIDVD  
PAFAPGTGTPAPGGLLSREVLALLRCVGDLPVGFVMEVSPLYDHGGITSILATEIGAE  
LLYQYARAHRTQL

>P46881

MTPSTIQTASPFRLASAGEISEVQGILRTAGLLGPEKRIAYLGVLDPARGAGSEAEDRRF  
RVFIHDVSGARPQEVTVSVTNGTVISAVELDTAATGELPVLEEEFEVVEQLLATDERWLK  
ALAARNLDVSKVRVAPLSAGVFYAEERGRILRGLAFVQDFPEDSAWAHPVDGLVAYVD  
VVSKEVTRVIDTGVFPVPAEHGNYTDPELTGPLRTTQKPI SITQPEGPSFTVTGGNHIEW  
EKWSLDVGFDVREGVVLHNIAFRDGDRLRPIINRASIAEMVVPYGDPSPIRSWQNYFDTG  
EYLVGQYANSLELGCDCDGLDITYLSPVISDAFGNPREIRNGICMHEEDWGILAKHSDLWS  
GINYTRRNRMMVISFFTTIGNYDYGFWYLYLDGTIEFEAKATGVVFTSAFPEGSDNIS  
QLAPGLGAPFHQHIF SARLDMAIDGFTNRVEEEDVVRQTMGPGNERGNAFSRKRTVLTRE  
SEAVREADARTGRTWII SNPESKNRLNEPVGYKLHAHNQPTLLADPGSSIARRAAFATKD  
LWVTRYADDERYPTGDFVNQHSGGAGLPSYIAQDRDIDGQDIVVWHTFGLTHFPRVEDWP  
IMPVDTVGFKL RPEGFFDRSPVLDV PANPSQSGSHCHG

>Q99497

MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRVDVICPDASLED  
AKKEGPYDVVVLPGGNLGAQNLSESAAVKEILKEQENRKGIIAAICAGPTALLAHEIGFG  
SKVTTHPLAKDKMMNGGHYTYSENVEKDGLILTSRGPSTSEFALAIVEALNGKEVAAQ  
VKAPLVLDK

>O95453

MEIIRS NFKSNLHKVYQAIIEADFFAIDGFEFSGISDGPVSALTNGFDTPEERYQKLLKKH

SMDFLLFQFGLCTFKYDYTDSKYITKSFNFYVFPKPFNRSSPDVKFVCQSSSIDFLASQG  
FDFNKVFRNGIPYLNQEEERQLREQYDEKRSQANGAGALSIVSPNTSKCPVTIPEDQKKF  
IDQVVEKIEDLLQSEENKNLDLEPCTGFQRKLIYQTLQSWKYPKGIHVETLETEKKERYIV  
ISKVDEEERKRREQQKHAKQEELNDAVGFSSRVIHAIANSGLVIGHNMLLDVMHTVHQF  
YCPLPADLSEFKEMTTCVFPRLLDTKLMASQPFKDIINNNTSLAELEKRLKETPFNPPKV  
ESAEGFPSYDTASEQLHEAGYDAYITGLCFISMANYLGSFLSPPKIHVSARSKLIEPFFN  
KLFLMRVMDIPYLNLEGPDLQPKRDHVLHVTFPKWKTSYDLYQLFSAFGNIQISWIDDS  
AFVSLSQPEQVKIAVNTSKYAESYRIQTYAEYMGKQEEKQIKRKTEDSWKEADSKRLN  
PQCIPYTLQNHYYRNNSFTAPSTVGKRNLSPSQEEAGLEDGVSSEISDTELEQTDSCAEP  
LSEGRKKAKKLRMKKELSPAGSISKNSPATLFEVPTW

>P32427

MTNQLFDAYFTAPAMREIFSDRGRQLQGMDFEAALARAEAAAAGLVPHSAVAAIEAACKAE  
RYDVGALANAIATAGNSAIPLVKALGKVIASGVPEAERYVHLGATSQDAMDTGLVLQLRD  
ALDLIEADLGLKADTSLQALKHADTPMVGRTWLQHATPVTLGMKLAGVLGALTRHRQL  
QELGPPCWCCSSGGASGLAALGSKAMPVAEALAEQLKLSLPEQPWHTQRDRLVEFASVL  
GLVAGSLGKFGKRDVSLMQTEAGEVFEPSPGKGGSSTMPHKRNPVGA AVLIGAATRVPG  
LVSTLFAAMPQEHESLGLWHAEWETLPDICCCLVSGALRQAQVIAEGIEVDAARMRRNLD  
LTQGLVLAEAVSIVLARTLGRDRAHLLLEQCCQRAVAEQRHLRAVLGDDPQVSAELSAEE  
LD

>P57765

MKVYVYDDVRVLKDI IQALARLVDEAVLKFKQDSVELVALDRAHISLISVNLPREMFKEYD  
VNDEFKFGFNTQYLMKILKVAKRKEAIEIASESPDSVIINIIGSTNREFNVRNLEVSEQE  
IPEINLQFDISATISSDGFKSAISEVSTVTDNVVVEGHEDRILIKAEGESEVEVEFSKDT  
GGLQDLEFSKESKNSYSAEYLDVLSLTKLSDYVKISFGNQKPLQLFFNMEGGGKVTYLL  
APKV

>O73947

MPFEIVFEGAKEFAQLIDTASKLIDEAAFKVTEGDGISMAMDPSRVVLIDLNLPSIFSK  
YEVVEPETIGVNMDHLKKILKRGKAKDTLILKKGEENFLEITIQGTATRTFRVPLIDVEE  
MEVDLPELPFTAKVVVLGEVLKDAVKDASLVSDSIKFIARENEFIMKAEGETQEVEIKLT  
LEDEGLLDIEVQEETKSAYGVSYSLSMDVKGLGKADEVTIKFGNEMPMQMEYYIRDEGRLT  
FLLAPRVEE

>P15873

MLEAKFEEASLFKRIIDGFKDCVQLVNFQCKEDGIIAQAVDDSRVLLVLSLEIGVEAFQEY  
RCDHPVTLGMDLTSLSKILRCGNNTDTLTLIADNTPDSIILLFEDTKKDRIAEYSLKLM  
IDADFLKIEELQYDSTLSLPSSEFSKIVRDLSQLSDSINIMITKETIKFVADGDIGSGSV  
I IKPFVDMHPETS IKLEMDQPVDLTFGAKYLLDI IKGSSLSDRVGIRLSSEAPALFQFD  
LKSGFLQFFLAPKFNDDEE

>P80483

DGIADASKKFS DATYPIAEKFDWGGSSAVAKYIADASASNPRQAALAVEKLETTGLTMDP  
KLVRAAVAAHASKALDTAVSNPKLVASKEDFAAVNEALARMIASADKQKFAALRTAFPEER  
ELQSSLFAGNNGYEA EKAYDSFKALTS AVR D AS INGANAPVIAEAA RSERYVPDGPVGRA  
AKKFSEATYPI MEKLNWVKSPEISKYLATASSKDPKMMAPGIDKTLEVALTMNQNLINNA  
VYAHVRAIKGALNTPGFVAERDDFARVNLALAKMIGSADPAKFKALLTAFPGNADLQMAL  
FAANPEQAKAAYETFVALTS AVV

>P46107

MEKKVLLTGFDFPFGGGETVNPSSWEAVKRLNGAAEGPASIVSEQVPTVVFYKSLAVLREAIKK  
HQPDIIICVQGAGGRMQITPERVAINLNARIPDNEGNQPVGEDISQGGPAAWYTGGLPIK  
RIVEEIKKEGIPAAVSYTAGTFVCNHLFYGLMDEISRHHPHIRGGFIHIPYIPEQTLQKS  
APSLSLDHITKALKIAAVTAAVHEDDIETGGGELH

>P42785

MGRRALLLLLLSSFLAPWATIALRPAALRALGSLHLPTNPTSLPAVAKNYSVLYFQQKVDHF  
GFNTVKTFNQRYLVADKYWKKNGGSILFYTGNEGDIWFCNNTGFMWDVAEELKAMLVFA  
EHRYYGESLPPFGDNSFKDSRHLNFLTSEQALADFAELIKHLKRTIPGAENQPVIAIGGSY  
GGMLAAWFRMKYPHVMVVGALAASAPIWQFEDLVPCGVFMKIVTTDFRKS GPHCSES IHRS  
WDAINRLSNTGSGLQWLTGALHLCSPLTSQDIQHLKDWISETWVNLAMVDYPYASNFLQP  
LPAWPIKVVQCQYLKNPNVSDSLLLQNIQALNVYNYSGQVKCLNISETATSSSLGTLGWS  
YQACTEVVMPFCTNGVDDMFEPHSWNLKELSDDCFQQWGVRRPSPWITTMYGKKNISSHT  
NIVFSNGELDPWSSGGVTKDITDTLVAVTISEGAHHLDLRTRKNALDPM SVLLARSLEVRH  
MKNWIRDFYDSAGKQH

>P42673

MRIVLLTGFEPFDQDPVNPSSWEAVRQLDGVQLGSDVKIVARRLP CAFATAGECLTRLIDE  
LHPAMVIATGLGPRSDISVERVAININDARIPDNLGEQPIDTAVVADGPAAFFTTLPPIK  
AMVKAVREAGIAASVSQTAGTFVCNQVFYLLQHALAGSGVRS GF IHVPPFLPEQVAGSQRP  
SMALDAMVAGLQAAVLTAWHTPVDVKEAGGQVS

>O73944

MKVLVTGFEPFGGKINPTERIAKDL DGIKIGDAQVFGRVLPVVF GKAKEVLEKTLEEIK  
PDIAIHVGLAPGRSAISIERIAVNAIDARIPDNEGK KIEDEPIVPGAPTAYFSTLP IKKI  
MKKLHERGIPAYISNSAGLYLCNYVMYLSLHHSATKGYPKMSGFIHVPIPEQIIDKIGK  
GQVPPSMCYEMELEAVKVAIEVALEELL

>O07883

MKKVLITGFEPFGGDSKNPTEQIAKYFDRKQIGNAMVYGRVLPVSVKRATIELKRYLEEI  
KPEIVINLGLAPTYSNITVERIAVNIIDARIPDNDGYQPIDEKIEEDAPLAYMATLPVRA  
ITKTLRDN GIPATISYSAGTYLCNYVMFKTLHFSKIEGYPLKAGFIHVPTPDQV VNKFF  
LLGKNTPSMCLEAEIKAIELAVKVSLDYLEKDRDDIKIPL

>Q03520

MPEVSLYNYTMSICSMKTRLAMEEFGVDYDDKQVDIGFALENFEPDYVRLNEKAVVPTLV  
VGDRVVTNSYNIVLEAAKLGKVGIPADPVENKAALDWFQKGDQVNFQVITYGHKGVPRGD  
ELLIARRERAKEEYAEKYPELRSIYQAAHDRIVEHGNCAVDADTVAQAEVDLQKRLDELDA  
HLADKPF IAGSNYSIADIMWTVLLARIEMLNMTAWISERP NLLAYYQRMKARRSFETARV  
MPNWKGGI

>P49585

MDAQCSAKVNARKRRKEAPGPN GATEEDGVPSKVQRCVGLRQPAPFSDEIEVDFSKPYV  
RVTMEEASRGTPCERPVRVYADGIFDLFHS GHARALMQAKNLFNTYLI VGVCSDELTHN  
FKGFTVMNENERYDAVQHCRYVDEVVRNAPWTLTPEFLAEHRIDFVAHDDIPYSSAGSDD  
VYKHIKEAGMFAPTQRTEGISTSDIITRIVRDYDVYARRNLQRGYTAKELNVSFINEKKY  
HLQERVDKVKKKVKDVEEKSKFEVQKVEEKSIDLIQWEEKSREFIGSFLEMFGPEGALK  
HMLKEGKGRMLQAI SPKQSPSSPTRERSPPSPFRWPFSGKTSPPCSPANLSRHKAAAYD  
ISEDEED

>P33149

MSEITLGRYLFERLKQVEVQTIFFGLPGDFNLSLLDKIYEVPGMRWAGNANELNAAAYAADG  
YARLKGMACVITTTFGVGENLSALNGIAGSYAEHVGLVHVGVPSISSQAKQLLLHHTLNGG  
DFTVVFHRMSSNISSETTAMITDINSAPSEIDRCIRTTYISQRPVYLGLPANLVDLKVPASL  
LETPIDLKPNDEPAENEVLETVLELIKDAKNPVILADACCSRHNVKAETKKLIDITQF  
PAFVTPMGKGSIDEQHPRFQGGVYVGTLSSEVKEAVESADLVLSVGALLSDFNTGSFSYS  
YKTKNIVEFHSDYIKVRNATFFPGVQMKFVQLKLLTKVKDAAKGYPVPHAPRDNKPVA  
DSTPLKQEWVWTQVGKFLQEGDVVLTETGTSAFGINQTHFPNDTYGISQVLWGSIGFTGG  
ATLGAAFAAEEIDPKKRVILFIGDGSQQLTVQEISTMIRWGLKPYLFLVNNNDGYTIERLI  
HGETAQYNCIQSWKHLDDLPTFGAKDYEAVRVATTGEWNKLTDDKKFQENSKIRLIEVML  
PVMDAPSNLVKQAQLTASINAKQE

>P06672

MSYTVGTYLAERLVQIGLKHHFAVAGDYNLVLDDNLLLKNMEQVYCCNELNCGFSAEGY  
ARAKGAAAAVVTYSVGLSADFDAIGGAYAENLPVILISGAPNNNDHAAGHVLHHALGKTD  
YHYQLEMAKNITAAAEAIYTPPEEAPAKIDHVIKTALREKKPVYLEIACNIASMPCAAPGP  
ASALFNDEASDEASLNAAVEETLKFIANRDKVAVLVGSKLRAAGAEAAVKFADALGGAV  
ATMAAAKSFFPEENPHYIGTSWGEVSYPGVEKTMKEADAVIALAPVFN DYSTTGWTDIPD  
PKKLVLAEPKSVVNGIRFSPVHLKDYLTRLAQKVSCKTGALDFFKSLNAGELKKAAPAD  
PSAPLVNAE IARQVEALLTPNTTVIAETGDSWFNAQRMKLPNGARVEYEMQWGHIGWSVP  
AAFQYAVGAPERRNIMVGDGSFQLTAQEVQMVRLKLPVILIFLINNYGYTIEVMIHDGP  
YNNIKNWDYAGLMEVFNGGGYDSGAGKGLKAKTGGELAEAIKVALANTDGP TLIECFIG  
REDCTEELVKWGRVAAANSRKPVNKLL

>Q01066

MELSPRSPPEMLESDCPSPLELKSAPSCKMWIKLRSLLRYMVKQLENGEVNIEELKKNLE  
YTASLLEAVYIDETRQILDTEDELRELRSDAVPSEVRDWLASTFTQQTRAKGRRAEKPK  
FRSIVHAVQAGIFVERMFRRTYTA VGPTYSTAVHNCLKNLDVWCFDVFSLNRAADHALR  
TIVFELLTRHSLISRFKIPTVFLMSFLEALETGYGKYKNPYHNQIHAADVTQTVHCFLLR  
TGMVHCLSEIEVLAIIFAAA IHDYEHTGTTNSFH I QTKSECAILYNDRSVLENHHISSVF  
RMMQDDEMNI F INLTKDEFVELRALVIEMVLATDMSCHFQQVKTMKTALQQLERIDKSKA  
LSLLLHAADISHPTKQWSVHSRWTKALMEEFFRQGDKEAELGLPFSPLCDRTSTLVAQSQ  
IGFIDFIVEPTFSVLT DVAEKSVQPLTDDDSKSKSQPSFQWRQPSLDVDVGDPNPDVVSF  
RSTWTKYIQENKQKWKERAASGITNQMSIDELSPCEEEAPSSPAEDEHNQNGNLD

>P14099

MRRQPAASRD LFAQEPVPPGSGD GALQDALLSLG SVIDVAGLQQAVKEALS AVLPK VETV  
YTYLLDGE SRLVCEEPHEL PQEGKVREAVISRKRLGCNGLGPSDLPGKPLARLVAPLAP  
DTQVLVIPLVDKEAGAVAAVILVHCGQLSDNEEWSLQAVEKHTLVALKRVQALQQRESSV  
APEATQNPPEEAAGDQKGGVAYTNQDRKILQLCGELYDL DASSLQLKVLQYLQQETQASR  
CCLLLVSEDNLQLSCKVIGDKVLEEEISFPLTTGRLGQVVEDKKS IQLKDLTSEDMQQLQ  
SMLGCEVQAMLCVPVISRATDQVVALACAFNKLGGDLFTDQDEHVIQHCFHYTSTVLTST  
LAFQKEQKLKCECQALLQVAKNLFTHLDDVSVLLQE IITEARNLSNAE ICSVFLLDQNEL  
VAKVFDGGVVEDESEYIIRIPADQGIAGHVATTGQILNIPDAYAHPLFYRGVDDSTGFRTR  
NILCFPIKNENQEVIGVAELVNKINGPWF SKFDEDLATAFSIYCGISIAHSLLYKKNVNEA  
QYRSHLANEMMYHMKVSDDEYTKLLHDGIQPVA AIDS NFASF TYTPRSLPEDDTSMAIL  
SMLQDMNF INNYKIDCPTLARFCLMVKKGYRDPYHNWMHAFSVSHFCYLLYKNLELTNY  
LEDMEIFALFISCMCHDLDRHGTNNSFQVASKSVLAALYSSEGSVMERHHFAQAIAILNT  
HGCNIFDHF SRKDYQRMLDLMRDIILATDLAHLRIFKDLQKMAEVGYDR TNKQHHSLLL

CLLMTSCDLSQTKGWKTTRKIAELIYKEFFSQGDLEKAMGNRPMEMMDREKAYIPELQI  
SFMEHIAMPIYKLLQDLFPKAAELYERVASNREHWTKVSHKFTIRGLPSNNSLDFLDEEY  
EVPDLGDARAPINGCCSLDAE

>Q9GZP0

MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKG  
NGYVQSPRFPNSYPRNLLLWRLHSQENTRIQLVFDNQFGLLEEAENDICRYDFVEVEDIS  
ETSTIIRGRWCGHKEVPPRIKSRTNQIKITFKSDDYFVAKPGFKIYYSLLEDFQAAAASE  
TNWESVTSSISGVSYNPSVTDPTLIADALDKKIAEFDTVEDLLKYFNPESWQEDLENMY  
LDTPRYRGRSYHDRKSKVDLDRNLNDDAKRYSCTPRNYSVNIREELKLANVVFPRCLLVQ  
RCGGNCGCGTVNWRSCCTNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERC  
DCICSSRPPR

>P77836

MRMVDLIEKKRDGHALTKEEIQFIIIEGYTKGDIPDYQMSALAMAIFFRGMNEEETAELTM  
AMVHSGDTIDLRIEIKVDKHSTGGVGDTTTTLVLGPLVASVGVPAKMSGRGLGHTGGT  
IDKLESVPGFHVEITNDEFIDLVNKNKIAVVGQSGNLTPADKKLYALRDVTATVNSIPLI  
ASSIMSKKIAAGADAIVLVDVKTGVGAFMKDLNDAKALAKAMVDIGNRVGRKTMAIISDMS  
QPLGYAIGNALEVKEAIDTLKGEPEDFQELCLVLGSHMVYLAEKASSLEEARHMLEKAM  
KDGSALQTFKTFLLAAQGGDASVDDPSKLPQAKYIIELEAKEDGYVSEIVADAVGTAAMW  
LGAGRATKESTIDLAVGLVLRKKVGDVKKGESLVTIYSNREQVDDVKQKLYENIRISAT  
PVQAPTLIYDKIS

>P58717

MSSAQRVVITPGEPAGSGPDLVVQLAQRAPWIELVVCADGALLTERAAMLGLPLSLLPYS  
PDVPAAPQPAGTLTLLPVSLRAPAISGQLTVENGPYVVE TLARACDGLNGEFAALITGP  
VHKGVINDAGISFTGHTEFFEERSQAKKVMMMLATEELRVALATTHLPLRAIADAITPAL  
LHEVIAILHHDRLTKFGIAEPRILVCGLNPHAGEGGHMGTEEIDTIIPVLDELRAQGMKL  
NGPLPADTLFQPKYLDNADAVLAMYHDQGLPVLKYQGFGRGVNITLGLPFI RTSVDHGTA  
LELAGRGKADVGSFITALNLAIKMIVNTQ

>P58718

METKTVAITMGDPAGIGPEIIVKALSEDGLNGAPLVVIGCLATLKRLQAKGITPNVELRA  
IERVAEARFAPGIIHVIDEPLAQPEALEAGKVQAQAGDLAYRCVKRATELALRGDVQAIA  
TAPLNKEALHLHAGHNYPGHTELLATLTHSRDYAMVLYTDKLVIVHSTHIALRKFDTLS  
TARVETVIGIADTFLKRVGYVKPRIAVAGVNP HAGENGLFGDEETRILTPAITDARAKGM  
DVYGPCPPD TVFLQAYEGQYDMVVAMYHDQGHIP LKLLGFYDGVNITAGLPFI RTSADHG  
TAFDIAWTGKAKSESMASIKLAMQLA

>Q9I3W9

MRILADENIPVVDAFFADQGSIRRLPGRAIDRAALAEVDVLLVRSVTEVSRAALAGSPVR  
FVGTCTIGTDHLDLDYFAEAGIAWSSAPGCNARGVVDYVLGCLLAMA EVRGADLAERTYG  
VVGAGQVGGRLVEVLRGLGWKVLVCDPPRQAREPDGEFVSLERLLAEADVISLHTPLNRD  
GEHPTRHLLDEPRLAALRPGTWLVNASRGAVVDNQALRRLLEGGADLEVALDVWEGEPQA  
DPELAARCL IATPHIAGYSLEGKLRGTAQIYQAYCAWRGIAERVSLQDVLPE TWLAGLQL  
NPGCDPAWALATLCRAVYDPRSDDAAFRRSLTGDSATRRAAF DALRKHYP PPREITGLRV  
ATGGQAE LQRVVRALGAQLV

>Q9NZ53

MGRL LRAARLPPLLSPLLLLLLVGGAF LGACVAGSDEPGPEGLTSTSLDLLLPTGLEPLD

SEEPSETMGLGAGLGAPGSGFPSEENEESRILQPPQYFWEEEEELNDSSLDLGPADYVF  
PDLTEKAGSIEDTSQAQELPNLPSPLPKMNLVEPPWHMPPREEEEEEEEEEREKEEVEK  
QEEEEEEELLPVNGSQEEAKPQVRDFSLTSSSQTPGATKSRHEDSGDQASSGVEVESMG  
PSLLLPVTPPTTTPGDQDSTSQAEEATVLPAAAGLGVEFEAPQEASEEATAGAAGLSGQH  
EEVPALPSFPQTTPASGAHPDEDPLGSRSTSASSPLAPGDMELTPSSATLGQEDLNQQLL  
EGQAAEAQSRIPWDSTQVICKDWSNLAKNYIILNMTEIDCEVFRQHRGPQLLALVEEV  
LPRHSGSHHGAWHISLSKPSEKEQHLLMTLVGEQGVVPTQDVL SMLGDIRRSLEEIGIQN  
YSTTSSCQARASQVRSYGTFLFVVLVVGAIICIIIALGLLYNCWQRRLPKPKHVSHGEE  
LRFVENGCHDNPTLDVASDSQSEMQEKHPSLNGGGALNGPGSWGALMGGKRPEDSDVFE  
EDTHL

>Q3URU2

MYHHEDDTNSDMNSDDMSRSGRETPPPRPSHAFGSEDLERRGRSRDVEPRDRWPYTRN  
PRSRLPQRDL SLPVMSRPHFGLDRDDRRSMDYESRSQDAESYQNVVELKEDKKPQNP IQ  
DNLENYRKL LSLGVQLAEDDRHSHMTQGHSSRSKRRTAYPSTSRGLKPMPEAKKPSHRGI  
CEDESSHGVIMEKFIKDVARNPKSGRARELNERPPPRFRPNNDWKDSSSSSRRESVIQER  
GYEGSAFRGGFRFNADLASRSRALERKRRYHFDSDERGSGHEHKSCVRKKPFECGAEMRQ  
AMSMGNLNSPSFSESQSIDFGANPYVCDECGRQFSVISEFVEHQIMHTRENLYEYGESFI  
HSVAVNEVQKGGGGKRFECKECGETFSR SAALAEHRQIHAREYLAECRDQEDDEETIMPS  
PTFSELQKMYGKDKFYECKVCKETFLHSSALIEHQIHGRGNSDDRNERERERDRRLRAR  
AREQRERERERERERELGEPFLTCPNFNEFRKMYRKDKIYECKVCGESFLHLSLREHQK  
IHTRGNPFENKSRMCEETFPVPSQSLRRRQKTYREKLFDFNNARDALMGNSDSSEHQKNRS  
RRNFFEGRGFEKPFVESQKSHTITRPPENKDDDKPFTISVNPNDKLFKFPIMENGSGKSY  
ERSVIHSLGSAEAQKSHGGLGFSKPRPVAESSTQSSSIYYPRAHSGGNTYEGKEYKDSI  
IHSLPAPRPLKRHRANDHIQCDEGGESSIYIPDIINKGRKIPAREDAYEGSSSNYHTPN  
VSRAEPPSLSGESHDKQDVTFVSPSSSVREHQKARAKKYYIEPRNNETSVIHSLPFGEL  
LAGHRRAKFFECQECGEAFARRSELIHQIHDRERPSGSRHYERSVIRSLAPSDPQTSY  
AQERFIQEQRVKFRAFQQRSTTSMNLSVQKIYAQETFNAAEPPHDKETHGQKIHDKEPYGK  
EPSGKEPHGDEPQDKEPLDQEMRSEEPHDDKPHGQEPHDDKPHGQEPHDDKPHGQEPHGD  
EPHGQEPHGDEPHDKPEIDQEMRSEEPHSEESHGDEPHGEEESHGQEKVEDATI QASVSEE  
HQKDDAGDAIYECQDCGLGFTDLNDLTSHQDTHSRKALVDSREYAHSEVHAHSVSEFEKK  
CSGEKLYECPKCGESFIHSSLLFEHQRVHEQDQLYSVKACDDAFIALLPVRRRNTCTVER  
NPAVSGSAIRCRQCGQGF IHSSALNEHMRQHRDNEIMEQSELSDEIFIQGLALTEYQGSE  
TEEKLFECTICGECFFTAKQLGDHHTKVHKDEPYEYGPSYTHASFLTEPLRKHIPLYECK  
DCGQSFLDDTVIAERMVHFPEREGGSEIVAATAQEVEANVLIPQEVLRIQGSNAEAAEPE  
VEAAEPEVEAAEPEVEAAEPNGEAEAGPDGEEAEQPNGEAEQPNGDADEPDGAGI  
EDPEERADEPEEDVEEPEGDADEPDGADIEDPEEEGEDQIEVEEPPYNCHECAETFASS  
SAFGEHLKSHASVIFEPANAPGECSGYIERASTSAGGAEQADDKYFKCDVCGQLFNDRL  
SLARHQNSHTG

>Q9RF52

MTEAMKITLSTQPADARWGDKATYSINNDGITLHLNGKDDLGLIQRARKIDGLGIKQVA  
LTGEGWDTERCWAFWAGYKGPVKVVRTVMWPDLDQAQRQELDNRLTIIDWVRTINAPAE  
LGPEQLAQRAVDLLCSVACDSVTYRITKGEDLREQNYMGLHTVGRGSRPPVLLALDYNP  
TGDKDAPVYACLVGKITFDSSGGYSIKQSAFMDMSKSDMGGAATVTGALAFAITRGLNKR  
VKLFLCCADNLI SGNAFKLGDIIRYRNGKNVEVMNTDAEGRLLVLADGLIDASAQHPQLII  
DMATLTGAAKTALGNDYHALFSFDDTLAGRLLTSAAQENEPFWRLPLAEFHRNQLPSNFA  
ELNNTGSAAYPAGASTAAGFLSHFVENYREGWLHIDCSATYRKAPVEQWAAGATGLGVRT  
IANLLTA

>Q04723

MTVTSDFDTQKLYENFAENTKLRAVENAVTKNGLLSSLEVRGSHAANLPEFSLDLTKDPVT  
NQKQSGRCWMMFAALNTFRHKFINEFKTEDFEFSQAYTFFWDKYEKSNWFMEQIIGDVA  
DRRLKFLQLQTPQQDGGQWDMVAIFDKYGI VPKAVYPESQASSSSRELNQYLNKLLRQDA  
EILRYTIEQDGDVQAVKEELLQEVFNFLAVTLGLPPQNF EF AFRNKDNEYKKFVGTPEF  
YNEYVGI DLNNYVSVINAPTADKPYNKSYTVEFLGNVVGKKEVKHLNVEMDRFKKLAIAQ  
MQAGETVWFGCDVQESNRSAGLLTMDSYDFKSSLDIEFTQSKAGRLDYGESLMTHAMVL  
AGVDLDADGNSTKWKVENSWGKDAGQKGYFVASDEWMD EYTYQIVVRKDLLSEEELAAE  
AKPQVLLPWPDPMGALA

>P12955

MAAATGPSFWLGNETLKVPLALFALNRQRLCERLRKNPAVQAGSIVVLQGG EETQRYCTD  
TGVLFQRQESFFHWAFFGVTEPGCYGVIDVD TGKSTL FVPRLPASHATWMGKIHSKEHFKEK  
YAVDDVQYVDEIASVLT SQKPSVLLTLRGVNTDSG SVCREASFDGISKFVNNTILHPEI  
VECRVFKTDM ELEVLR YTNKISSEAHREVMKAVKVMKEYELESLFEHYCYSRGMRHSS  
YTCICGSGENSAVLHYGHAGAPNDRTIQNGDMCLFDMGGEYCFASDITCSFPANGKFTA  
DQKAVYEAVLRSSRAVMGAMKPGVWVWPD MHRLADRIHLEELAHMGILSGSVDAMVQAHLG  
AVFMPHGLGHFLGIDVHDVGGYPEGVERIDEPGLRSLRTARHLQPGMVLTVEPGIYFIDH  
LLDEALADPARASFLNREVLQRFRGFGGVRIEEDVVVTD SGIELLTCVPRTVEEIEACMA  
GCDKAFTPFSGPK

>Q9S6S1

MNLDKQLQNLQENGM DVAYVSSPTTINYFTGFI TDPEERIFKLF AFKDAEPFLFCPALNY  
EEAKASAWDGDVVG YLDSEDPWGKIAEEIKQRTKDYQNWAVEKNGLTVAHYQALHAQFPD  
SDFSKDLSDFIAHIRLFKTESELVKLRKAGEEADFAFQIGFEALRNGVTERAVVSQIEYQ  
LKLQKGVMTSFD TIVQAGKNAANPHQGPSMNTVQPNELVLF DLGTMHEGYASDSSRTVA  
YGEPTDKMREIYE VNRTAQQA AIDA AKPGMTASELDGVARKIITDAGYGEYFIHRLGHGI  
GMEVHEFP SIANGNDV VLEEGMCF SIEPGIYIPGFAGVRIEDCGVLTKEGFKPFTHTSKE  
LKVLPVKE

>O58885

MDIMNEKVKKII EFMKDKN SIDAVLI AKNPNVYYIS GASPLAGGYILITGESATLYVPELE  
YEMAKEESNIPVEKFKKMDEFYKALEGIKSLGIESSLPYGFIEELKKKANIK EFKKVVDDV  
IRDMRIIKSEKEIKIIEKACEIADKAVMAAIEEITEGKKEREVA AKVEYLMKMNGAEKPA  
FDTIIASGYRSALPHGVASDKRIERGD LVVIDLGALYQHYN SDITRTIVVGS PNEKQKEI  
YEIVLEAQK KAVESAKPGITAKELDSIARNIIAEYGYGEYFNHSLGHGVGLEVHEWPRVS  
QYDETVLREGMVITIEPGIYIPKIGGVRIEDTILITKNGSKRLTKTERELI

>P0C2T7

MKYEKLLPRFLEYVKVNRSDENSTTTPSTQALVEFAHKMGEDMKALGLKDVHYLESNGY  
VIGTIPANTDKKVRKIGLLAHLDTADFNAEGVNPQILENYDGESVIQLGDTEFTLDPKDF  
PNLKNYKQTLVHTDGTLLGSDDKSGVAEIMTLADYLLNINP DFEHGEIRVGF GPDEEI  
GVGADKFDVADFVDFA YTVDDGGPLGELQYETFS AAGAVIEFQGNVHPGTAKNMMVNAL  
QLAIDYHNALPEFDRPEKTEGREGFFHLLKLDGTPEEARAQYIIRDHEEGKFNERKALMQ  
EIADKMNAELGQNRVKPLIKDQYYNMAQIIEKDMSIIDIAKKAMENLDIAPIIEPIRGGT  
DGSKISFMGLPTPNL FAGGENMHGRFEFVSVQTM EKAVDTLLEIIRLNNEVAK

>P26311

MDKLLERFLHYVSLDTQSKSGVRQVPSTEGQWKLLRLLKQQL EEMGLVNI TLSEKGT LMA  
TLPANVEGDIPAIGFISHVDTSPDFSGKNVNPQIVENYRGGDIALGIGDEVLS PVMFPVL



HQLLGQTLITTDGKTLGADDKAGVAEIMTALAVLKGNPIPHGDIKVAFTPDEEVGKGAK  
HFDVEAFGAQWAYTVDGGGVGELEFENFNAASVNIKIVGNVHHPGTAKGVMVNALS LAAR  
IHAEVPAD EAPETTEGYEGFYHLASMKGTVDRAEMHYIIRDFDRKQFEARKRKMMEIAKK  
VGKGLHPDCYIELVIEDSYNMRKVVVEHPHILDIAQQAMRDCHITPEMKPIRGGTDGAQ  
LSFMGLPCPNLFTGGYNYHGKHEFVTLEGMEKAVQVIVRIAELTAKRGQ

>Q59485

MKYNQYAYVETDFQQVKELIDINFLPKNYQVWDFSSLLAKLVKNAIAEAKTDAAKNAKL  
AEFAVSDHQTLADFLKEKPTEIGTKQFYNVALQLLGYHVHYDYDFADPTGFMQRNALPFL  
QDISDNQKLI SAFYRLLNTRAKNGQILLDVMAGKGYFTQFWGQNKFKFFNGKSI PVFDTN  
KVIREVVYVETDLDTDHDGKSDLIQVTVFRPEETNKGLKVPALYTASPYFGGI IANEKRN  
HNVDENLSDSTEWNDPQYVHSPIVKAEKPDGSSRPATEEAVHKSSYPLNEYMLARGFASV  
FAGAIGTRGSDGVRITGAPEETESAAAVIEWLHGDRVAYTDRTRTVQTTADWCNGNIGMT  
GRSYLGTLQIAIATTGVKGLKTVVSEAAISSWYDYREHGLVIAPEACQGEDLDLLAETC  
QSNLWDAGSYLKIKPEYDKMQKQLREKEDRNTGQYSDFWEARNYRHHADGIKCSWISVHG  
LNDWNVVKPNVYKIWLQVKKMPMKHHLFLHQGPHYNMNLSIDFTDLMNLWFVHELLGI  
ENNAYNQWPTVMIQDNLQADKWHEEPDWSNDLGOEKIYYPTDEGELFQDNGKAQKSFTD  
VGGIEFKKAGISESDWQYKFCGDEKWAKPSLRFETDEFTHPTTIVGRPEVKVRVSASLP  
KGEISVALVELGERQLTATPKFLMHGGQELGYRFGTDTLQEFVDPDKKTKAKLITKAHMN  
LQNFKDMKKPEAIDADKFYDLDFLLQPTYTIPSGSKLALI IYSTDQGMTKRPLEDETYT  
IDLANTEIKFYEK

>P22346

MRFNHFSIVDKNFDEQLAELDQLGFRWSVFWDEKKILKDFLIQSPSDMTALQATAELDVI  
EFLKSSIELDWEIFWNIALQLLDFVPNDFEIGKAFYAKNSNLPQIEAEMTTENIISAF  
YYLLCTRKTGMILVEHWVSEGLLPLDNHYHFFNDKSLATFDSSLLEREVLWVESPV DSE  
QRGENDLIKIQIIRPKSTEKLPVVMTASPHYLGINDKANDLALHDMNVELEEKTSHEIHV  
EQKLPQKLSAKAKELPIVDKAPYRFTHGWTYSLNDYFLTRGFASIVVAGVGRSSDGFQT  
SGDYQQIYSMTAVIDWLNGRARAYTSRKKTHEIKASWANGKVAMTGKSYLGTMAYGAATT  
GVEGLELILAEAGISSWYNYRENGLVRSPGGFPGEDLDVLAALTYSRNLDGADFLKGNA  
EYEKRLAEMTAALDRKSGDYNQFVHWRNYLINTDKVKADVLI VHGLQDWNVTPEQAYNFW  
KALPEGHAKHAFLHRGAHIYMNSWQSIDFSETINAYFVAKLLDRDLNLDLPPVILQENSK  
DQVWMTMNDFGANTQIKLPLGKTAVSFAQFDNNYDDETFKKYSKDFNVFKKDLFENKANE  
AVIDLELPSMLTINGPVELELRKLNDRTKGFLSAQILDFGQKKRLEDKVRVKDFKVLDRG  
RNFMLDDLVELPLVESPYQLVTKGFTNLQNSLLTVSDLKADEWFTIKFELQPTIYHLEK  
ADKLRVILYSTDFEHTVRDNRKVTYEIDLSQSKLIPIESVKN

>Q93M42

MRYNQYSYTKASEEVMLELARLGFTIQTNSPKENLHHFLQKILFRYQDVNYVLSWVA  
DQKTDLLTFFQSDKQLTEEVFYTVLQVLFAPFVDFDDVTAFCKEIHFPITYGNILENL  
YQLLNTRTKLGNTLIDQLVSEGFIPESNDYHFFNGKSLATFSSHEAIREVVYVESRVDTD  
GDGKPDLVKVSII RPSYEQVPAVMTASPHYHGTNDKASDKALHNMNVDLSCKNPRITIV  
QESSIQTI EPQGQASLVEKAEKLGHIGSYTLNDYLLPRGFANLYVSGVGTKDSEGMMTS  
GDYQQIEAYKNVIDWLNRCRAFTDHTRQREIKATWSNGKVATTGISYLGTMNSGLATTG  
VDGLEVIAEAGISSWYNYRENGLVTSPGGYPGEDFESLTELTYSRNLLAGEYLRHNQA  
YQAYLDQQRKDLERETGDYNQFVHWRNYLIHADKVKAEVVFTHGSQDWNVKPLHVYNMFH  
ALPAHIKKHLFFHNGAHVYINNWSIDFRESMNALLSKKLLGHSSDFDLPPVIWQDNSQA  
QNWMSLDDFGNQEDYSHFHLGKGSQEIRNRYSDDEDYNRFKASYQVFKNELFEGKTQQITL  
DWTLEQDLFINGPAKLLRLKSSTNKGLISAQLLDYGPARKLTPIPSLLEPRVMDNGRYY  
MLDNLMELPFADTPHRVITKGFNLNQRNTRDLDLTVEEVVPNQWMELSFELQPTIYKLLKGD

QLRLVLVYTTDFEHTVRDKTDYHLSVDMEHSSLSLPHKKS

>O70361

MDPCGDPVAVPGGDCPQTRGPGLQGASGQEGPLQGTCDVSSSHSEHEDRNRMSEELIMVVQE  
MKKYFPAERHTKSTLDALNYALRCVHVSQANSDFQSLGPRGAHQADVTVYSLEDLTAL  
ASEHTSKNTDTFAAVFSFLSGLRVHISEQAALILNSKRGFLLKSVHFVDDLAPQDVRAFYA  
HTAPTQLPFWNNWTQRASQYECAPAKPFFCRICGGGDREKRHYSPFRILPYLVHVVHSSAQ  
PEPEPCCLTLVEKIHSQYEAAPRIPVDKRIFTTHTPGCVFLEVDERAVPLLGYLPQDLIG  
TSILTYLHPEDRPLMVAIHQKVLKYAGHPPFEHSPVRFCTQNGEYVILDSSWSSFVNPWS  
RKVSFIIGRHKVRTSPLNEDVFATRIKKAASNDKDIAELQEQIHKLLLQPVHASASSGYG  
SLGSSGSQEQHVSITSSSESSGHCPEEGQHEQMTLQQVYASVNIKNVGGQQLYIESMARS  
SVKPVAETCPEPQGGDEQKDFSSSQTLKNKSTTDGSGGNLQQEQPSSSYQQMNCIDSVI  
RYLTSYSLPALKRKCISCTNTSSSSEEAKPIPEVDSSQRDTEQLLDIRKQETTGPSTDIE  
GGAARTLSTAALSVASGISQCSCSSTSGHAPPLQSESVAVACKPWALRTKASHLAAGGFK  
HVGLTAAVLSAHTQKEEQNYVDRFREKILTSPTYGCYLQQESRNRAQYSCVQAGSTAKHSR  
CAGSERQKHKRKLLPAPVDTSSPGAHLCPHVTGLLPDEQHWGSPASPSPLGAGLAFPSAL  
VVPSQTPYLLPSFPLQDMASQGVGVSAAWAAAGCPPLSAGPQAVAAFPAYVDTLMTIF  
LHNAPLFPPLWPPSFPSPYSLGAAGSSELAPLVPAMAPNPEPTTSGHSQRRVEENWEAHSE  
ELPFISSRSSSPLQLNLLQEEPPAPSESADAVRRGAGPDAKHHCVTGPSSRSRHCTSGE  
LATATAHQESAAAAGSSASSIYFSSTDYASEVSENRRPQDRQRDEALPGAAEESIWRMI  
ERTPECVLMTYQVPERGREEVKQDLEKLSMEQQQPLFSPAQREELAKVRSWIHSHTAP  
QEGHLQSCVACEDRGSVGDTAEVLEQRPAEDTS

>P29495

MVKKVALLTAGGFAPCLSSAIAELIKRYTEVSPETTLIGYRYGYEGLLKGDSLEFSPAVR  
AHYDRLFSFGGSPIGNSRVKLTNVKDLVARGLVASGDDPLKVAADQLIADGVDVLHTIGG  
DDTNTTAADLAAYLAQHDIYPLTVVGLPKTIDNDIVPIRQSLGAWTAADGARFAANVIAE  
HNAAPRELI IHEIMGRNCGYLA AETSRRYVAWLDAQWLPEAGLDRRGWDIHALYVPEAT  
IDLDAEAERLRTVMDEVGSVNI FISEGAGVPDIVAQMQATGQEVPTDAFGHVQLDKINPG  
AWFAKQFAERIGAGKTMVQKSGYFSAKSNAQDLELIAATATMAVDAALAGTPGVVGQD  
EEAGDKLSVIDFKRIAGHKPFDITLDWYTQLLARIGQPAPIAAA

>O59413

MKVLFLTANEFEDVELIYPYHRLKEEGHEVYIASFERGTITGKHGYSVKVDLTFDKVNPE  
EFDALVLPGGRAPERVRLNEKAVSIARKMFSEGKPVASICHGPQILISAGVLRGRKGTSY  
PGIKDDMINAGVEWVDAEVVVDGNWVSSSRVPADLYAWMREFVKLLK

>P22437

MSRRSLSLWFPLLLLLLLLPPTPSVLLADPGVPSVNPCCYPCQNQGVCFVRFGLDNYQCD  
CTRGTGSGPNCTIPEIWTWLRNSLRPSPSFTHFLLTHGYWLWVFNATFIREVLMRLVLT  
VRSNLI P SPPTYNSAHDYISWESFSNVSYTRILPSVPKDCPTPMGTGKQKQLPDVQLLA  
QQLLLRREFIPAPQGTNILFAFFAQHFTHQFFKTSKMGPGFTKALGHGVDLGHYIGDNL  
ERQYHLRFLFKDGKLYQVLDGEVYPPSVEQASVLMRYPPGVPPERQMAVGQEVFGLLPGL  
MLFSTIWLREHNRVCDLLKEEHPTWDEQLFQ'TTRLILIGETIKIVIEEYVQHLSGYFLQ  
LKFDPELLFRAQFQYRNRIAMEFNHLYHWHPLMPNSFQVGSQEQYSYEQFLFNTSMLVDYG  
VEALVDAFSRQRAGRIGGGRNFYHVLHVAVDVIKESREMRLQPFNEYRKRFGKPYTSE  
QELTGEKEMAAELEELYGDIDALEFYPLGLLLEKCPNSIFGESMIEMGAPFSLKGLLGNP  
ICSPEYWKPSTFGGVDGFNLVNTASLKKLVCLNTKTCYVVSFRVDPDYPGDDGSVLVRRST  
EL

>Q05091

MELKFSTFLSLTLLFSSVLPALSDLCNPDDKKVLLQIKKAFGDPYVLASWKSDTDCCDW  
YCVTCDSTTNRINSLTIFAGQVSGQIPALVGDLPYLETLEFHKQPNLTGPIQPAIAKLKG  
LKSLRLSWTNLSGSVPDFLSQLKNLTFLDLSFMNLTGAIPSSLSLSELPNLGALRLDRNKLT  
GHIPISFGQFIGNVPDLYLSHNQLSGNIPTSFQMDFTSIDLSRNKLEGDASVIFGLNKT  
TQIVDLSRNLLFENLSKVEFPTSLTSLDINHNIYGSIPVEFTQLNFQFLNVSYNRLCGQ  
IPVGGKLQSFDEYSYFHNRLCGAPLPSCK

>Q8ZVV0

MSQLLQDYLNWENYILRRVDFPTSIVVEGEVVRIEAMPRLYISGMGSGVVADLIRDFSL  
TWNWEVEVIAVKDYFLKARDGLLIAVSYSGNTIETLYTVEYAKRRRIPAVAITTGRLAQ  
MGVPTVIVPKASAPRAALPQLLTAALHVVAKVYVIDVKEGLEPPNEALIHKLVEEFQK  
RPTIIAAESMRGVAYRVKNEFNENAKIEPSVEILPEAHHNWIEGSERAVVALTSPHIPKE  
HQERVKATVEIVGGSIVAVEMHPKGVLSFLRDVGIASVKLAEIRGVNPLATPRIDALKRR  
LQ

>Q9HLQ2

MIRLAAIDVDGTLTDRDLISTKAIESIRSAEKKGLTVSLLSGNVIPVVYALKIFLGINQ  
PVFGENGGIMFDNDGSIKKFFSNEGNTNKFLLEMSKRTSMRSILTNRWREASTGFDIDPED  
VDYVRKEAESRGFVIFYSYGSWHLMNREGDKAFVAVNKLKEMYSLEYDEILVIGDSNNDMP  
MFQLPVRKACPANATDNIKAVSDFVSDYSYGEIIGQIFKHFELM

>P21809

MWPLWPLAALLALSQALPFEQKAFWDFTLDDGLPMLNDEEASGAETTSGIPDLDSLPTTY  
SAMCPFGCHCHLRVVCSDLGLKAVPKEISPDTLLDLQNNDISLRLKDDFKGLQHLAL  
VLVNNKISKIHEKAFSPLRKLQKLYISKNHLEIPPNLPSLVELRIHDNRIRKVPKGVF  
SGLRNMNCIEMGGNPLENSGFEPGAFDGLKLNLYLRISEAKLTGIPKDLPELNLHLDHN  
KIQAIELEDLLRYSKLYRLGLGHNQIRMIENGSLFLPTLRELHLDNNKLSRVPAGLPDL  
KLLQVVYLHTNNTKVGVNDFCPVGFVVKRAYNGISLFFNNPVPYWEVQPATFRCVTDRL  
AIQFGNYKK

>P15245

MTKYSESYCDVLIYGAGPAGLMAARVLSYVVRQKPDVKVRIIDKRSTKVYNGQADGLQCR  
TLESKLNGLADKILSEANDMSTIALYNPDENGHIRRTDRIPDTLPGISRYHQVVLHQGR  
IERHILDSIAEISDTRIKVERPLIPEKMEIDSSKAEDPEAYPVTMLTRYMSDHESTPLQF  
GHKTENSLFHSNLQTQEEEDANYRLPEGKEAGEIETVHCKYVIGCDGGHSWVRRTLGFEM  
IGEQTDIYIWGVLDAVPASNFPDIRSPCAIHSAESGSIIMIPRENNLVRFYVQLQARAEG  
GRVDRTKFTPEVVIANAKKIFHPYTFDVQQLDWFTAYHIGQRVTEKFSKDERVF IAGDAC  
HTHSPKAGQGMNTSMMDTYNLGWKGLVLTGRAKRDILKTYEEERHAFQAALIDFDHQFS  
RLFSGRPAKDVADEMGVSMDFVKEAFVKNEFASGTAINYDENLVTDKSSKQELAKNCV  
VGTRFKSQPVVRHSEGLWMHFGDRLVTDGRFRIIVFAGKATDATQMSRIKKFSAYLDSN  
SVISLYTPKVS DRNSRIDVITIHSCRDDIEMHDFPAPALHPKWQYDFIYADCDSWHHPH  
PKSYQAWGVDETKGAVVVVRPDGYTSLVTDLEGTAEIDRYFSGILVEPKEKSGAQTEADW  
TKSTA

>P16331

MAAVVLENGVLSRKLSDFGQETSIIEDNSNQNGAVSLIFSLKEEVGALAKVLRRLFEEENEI  
NLTHIESRPSRLNKDEYEFFTYLDKRSKPVLSI IKSLRNDIGATVHELSDKEKNTVPW  
FPRTIQELDRFANQILSYGAELDADHPGFKDPVYRARRKQFADIAYNRHHGQPIPRVEYT  
EEERKTWGTVFRTLKALYKTHACYEHNHIFPLLEKYCGFREDNIPQLEDVVSQFLQCTCTGF

RLRPVAGLLSSRDFLGGLAFRVFHCTQYIRHGSKPMYTPEPDI CHELLGHVPLFSDRSFA  
QFSQEIGLASLGAPDEYIEKLATIIYWFTVEFGLCKEGDSIKAYGAGLLSSFGELQYCLSD  
KPKLLPLELEKTACQEYTVTEFRPLYVAESFNDAKEKVRTFAATIPRPFVSVRYDPYTQR  
VEVL DNTQQLKNLADSINSEVGILCHALQKIKS

>Q64028

METESEQNSSSTNGSSSSGASSRPQIAQMSLYERQAVQALQALQRQPNAAQYFHQFMLQQ  
QLSNAQLHSLAAVQQATIAASRQASSPNSSTAQQQTATTQASMNLATTSAQQLISRSQSV  
SSPSATTLTQSVLLGNNTTSPPLNQSQAQMYLRPQLGNLLQVNR TLGRNVPLASQLILMPN  
GAVAAVQQEVPPAQSPGVHADADQVQNLAVRNQQASAQGPQMPGSTQKAI PPGASPVSGL  
SQTSSQALAVAQASSGASQSLNLSQAGGGSGNSLPGSMGPGGGGQAPGGLGQLPSSGLT  
GGSCPRKGTGVVQPLPAAQTVTVS QGSQTEAESAAAKKAEADGSGQQSVGMNLTRTATPA  
PSQTLISSATYTIQPHSLIQQQQQIHLQKQVVIQQQIAIHHQQQFQHRQSLLHTATH  
LQLAQQQQQQQQQQQQQQQQQQQQQGTTLTAPQPPQVPPPTQQVPPSQQQAQTLVV  
QPMLQSSPLTLPEPTSKPPIPIQSKPPVAPIKPPQLGAAKMSATQQPPPHIPVQVVGTR  
QPGSAQAQALGLAQLAAAVPTPRGITGAVQPGQAHLASSPPSSQAAPGALQECPPALAAG  
MTLAPVQGTAHVVKGGPTASSPVVAQVPAAFYMQSVHLPGKAQTLAVKRKAESEERDDL  
SALASVLPKASPAAESPKVIEEKNSLGEKAEPVASLNANPPNSDLVALAPTSAPPPTL  
ALVSRQMGDSKPPQAIVKPQILTHIEGFVIOEGAEPFPVGC SQFLKETEKPLQAGLPTG  
L NESQPSGPLGGDPSVELEKKANLLKCEYCGKYAPAEQFRGSKRFCSMTCAKRYNVSCS  
HQFRLKRKKMKEFQEASARVRRRGPRRSSDIARAKIQGKRHRGQEDSSRGSNDSSYDE  
ALSPTSPGPLSVRAGHGERDLGNTITTPSTPELQGINPVFLSSNPSQWSVEEVYEFIASL  
QGCQEI AEEFRSQEIDGQALLLLKEEHLMSAMNIKLGPAKICAKINVLKET

>Q58054

MNKAVIYTL PKGTYSEKATKKFLDYIDGDYKIDYCNSIYDVFERVDNNGLG VVP IENSI E  
GSVSLTQDLLLQFKDIKILGELALDIHNNLIGYDKNKIKTVISHPQALAQCRNYIKKHGW  
DVKAVESTAKAVKIVAESKDETLGAI GSKESA EHYNLKILDENIEDYKNNKTRF ILIGKK  
VKFKYHPKNYKVSIVFELKEDKPGALYHILKEFAERNINLTRIESRPSKKRLGTYIFYID  
FENNEKLEEEILKSLERHTTFINLLGKYPVFD

>Q03298

MQTMKTKVAIIGSGPAGLLLLGQLLYKAGIEHVIVEQRSADYVASRIRAGILEQVSVLDLLE  
QAGVDQNLKEKGLPHSGIEILTNGQKFRVDLSALTQGKQVTVYGQTEVTKDLMQAREQAG  
LCSFYESNDVQIHDFYNAPKVTFE SNGTHYQIECDFIAGCDGYHGVCRASVPQDKIKTFE  
KVYPFGWLGVLDVPPVADELIYVQSERGFALCSMRSETRSRYYIQVPLTDHVENWSDDQ  
FWEELKNRLDPESCEKLVTPSIEKSIAPLRSFVTEPMRFGKLF LAGDAAHIVPPTGAKG  
LNLAASDIAYLSSALIEFYTQGSEQGIDQYSEKCLQRVWKAERFSWWMTHLLHRFETESE  
FDHKIKQAELSYILGSTAGQTTLAENYVGLPYEIKSLDYLKHAS

>P42404

MKTTEYVAEILNELHNSAAYISNEEADQLADHILSSHQIFTAGAGRSGLMAKSFAMRLMH  
MGFNAHIVGEILTPPLAEGDLVIGSGSGETKSLIHTAAKAKSLHGIVAALTINPESSIG  
KQADLIIRMPGSPKDQSNQSYKTIQPMGSLFEQTL LLLFYDAVILKLMEKKGLDSETMFTH  
HANLE

>Q9S0X3

MNKYQELVVSKLTN VINNTAEGYDDKILSLVDAAGRTFIGGAGRSLLVSRFFAMRLVHAG  
YQVSMVGEVVTPSIQAGDLFIVISGSGSTETLMPLVKKAKSQGAKIIVISMKAQSPMAEL  
ADLVVPVGGNDANAFDKTHGMPMGTIFELSTLWFLEATIAKLVDQKGLTEEGMRAIHANL

E

>Q58644

MSKLEELDIVSNNILILKKFYTNDEWKNKLDSLIDRIKAKKIFIFGVGRSGYIGRCFAM  
RLMHLGFKSYFVGETTTTPSYEKDDLILISGSGRTESVLTVAKKAKNINNNIIAIVCECG  
NVVEFADLTIPLEVKKSKYLPMTTFFETALIFLIDLVAEIMKRLNLDESEIKRHCNLL

>Q9I434

MSTAERAPILLTPGPLTTSYRTRRAMMVDWGSWDSDFNELTASVCQRLLKIVGGEGSHTC  
VPLQSGSFTFAVEAAIGTLVPRDGKVLVLINGAYGKRLAKICEVLQRPFSTLETEENVPTT  
AADVERLLAADPAISHVALIHCETSTGILNPLEAIAKVVERHGKRLIVDAMSSFGAIGID  
ARKVPPDALIAASGKCLEGVPGMGFVFARSAALEASAGNCHSLAMDLDQDQHAYMRKTGQW  
RFTPPHTHVVAALHEALSQYEEEGGLPARQRRYASNCETLLGEMARLGFRSFLPAEQAPI  
IVTFHAPRDPYRFADFYQVRREKGFILYPGKLTQVETFRVGCIGHVDAAEMRQAVAAIG  
EALRELEVLEI

>P96060

MTSRNYLLLTTPGPLTTSRTVKEAMLFDSCTWDDDYNIQVVEQIRQQLTALATASEGYTSV  
LLQSGSYAVEAVLGSALGPQDKVLIVSNGAYGARMVEMAGLMGIAHHAYDCGEVARPDV  
QAIDAILNADPTISHIAMVHSETTTGMLNPIDEVGALAHRYGKTYIVDAMSSFGGIPMDI  
AALHIDYLIISSANKCIQGVPGFAFVIAREQKLAACKGHSRSLSLDLYAQWRCMEDNHGKW  
RFTSPTHTVLAFAQALKELAKEGGVAARHQRYQQNQRSLVAGMRALGFNTLLDDELHSP I  
ITAFYSPEDPQYRFSEFYRRLKEQGFVIYPGKVSQSDCFRIGNIGEVYAADITALLTAIR  
TAMYWTK

>P07270

MGRTTSEGIHGFVDDLEPKSSILDKVGDFITVNTKRHDGREDFNEQNDLNSQENHNSSE  
NGNENENEQDSLALDDLDRAFELVEGMDMDWMMP SHAHHPATTATIKPRLLYSPLIHTQ  
SAVPVTISP NLVATATSTTSANKVTKNKSNSSPYLNKRRGKPGPDSATSLFELPDSVIPT  
PKPKPKPKQYPKVLPSNSTRRVSPVTAKTSSSAEGVVVASESPVIAPHGSSHSRSLSKR  
RSSGALVDDDKRESHKHAEQARRNRLAVALHELASLIPAEWKQQNVSAAPSKATTVEAAC  
RYIRHLQQNVST

>P28581

MKKNI IAGCLFSLFSLALAAIPAGNDATTKPDLYLKNQQAIDSLKLLPPPPEVGSIQF  
LNDQAMYEKGRMLRNTERGKQAQADADLAAGGVATAFSGAFGYPI TEKDSPELYKLLTNM  
IEDAGDLATRSAKEHYMRIRPFAFYGTETCNTKDQKKLSTNGSYPSGHTSIGWATALVLA  
EVNPNQDAAILERGYQLGQSRVICGYHWQSDVDAARIVGSAAVATLHSDPAFQAQLAKAK  
QEFAQKSQK

>Q01605

MKKSTLALVVMGITASASVQAAEVYNKNGNKL DLYGKVKAMHYMTDYDSKDGDSYIRLG  
FKGETQINDELTYGRWEAEFAGNKAESDSNQKTRLAFAGSKLKNLGSFDYGRNLGALY  
DVEAWTDMFPEFGGSSAQTDNFMTKRASGLATYRNTDFFGVVDGLDLTLQYQGNQDRD  
VKKQNGDGFGTSVTYDFGGSDFAVSGAYTNSDRTNQQNLQTRGTGDKAEAWATGLKYDAN  
DIYIATFYSETRNMTPI SGGFANKTQNF EAVVQYQFDFGLRPSLGYVLSKGDIEGVGNE  
DLVNYIDVGATYYFNKNMSAFVDYKINQLSDNKLGINNDDIVAVGMVYQF

>O34627

MASFQSFQIPGQLEVIKKALDHVRVGVVITDPALEDNP IYVYNQGFVQMTGYETEEILGK

NCRFLQGKHTDPAEVDNIRTALQNKEPVTVQIQNYKKDGTMFWNELNIDPMEIEDKTYFV  
GIQNDITKQKEYEKLLLEDSTEITALSTPIVPIRNGISALPLVGNLTERFNSIVCTLTN  
ILSTSKDDYLIIDL SGLAQVNEQTADQIFKLSHLLKLTGT ELIITG IKPELAMKMNKLDA  
NFSSLKTYSNVKDAVKVLPIM

>P34114

MEEKRSTNSPGFDKPKLNRSITSATSHPPRSNSNPKLVAKHQQQLYEESKNKRNQEQQ  
NQQPQQQQKQTSNQSEDPATQLSSSLKFESDKEKEQALLWAFLASYLPEDKGS LQKEFVK  
HVEYTLAQTKSECTDFSSFOALS YCTRDR LIERWKDTKLFKQKNVKQVNYMSLEFLLGR  
SLQNSLSALGLVGKYS DALMDLGFKLEDLYDEERDAGLGNGLGRLAACFMDSLATCNFP  
GYGYGLRYKFGMFYQTLVDGEQVELPDYWLNYGSPWEIERLDVSYPINFYGVSEVEDEN  
GKKVMKWDQGEQMLAVAYDYP I PGFKTYNTVAIRLWSSKPSDEFNLDSFNRGDYLGAI EE  
KEKSENITNVLYPN DNTMQGKELRLKQQYLFVSATI QDIISQFKETGKPFSEFHNFHAIQ  
LNDTHPTLGIPELMRILIDEKKSWDEAWDITTKTF SYTNHTVLP EALEKWSVSMVENVL  
PRHIMI IYEINERFLKLV DQKWP GDM SKRRALS I IDESDGKFIRMAFLAIVGSHTINGVA  
YLHSELVKHDFVPLFYEIWPNKFQNK TNGVTPRRWIQQSNPQLAELITRSLNSDRWL VNL  
DIIKDLVHLADNSSFOKEWMEIKRNNKIRLAKYIEKRCDIQVNV DVLFDVQVKRFHEYKR  
QLLNVL SVINRYLDIKEGKKVAPRVVIFGGKAAPGYMAKLI IKLINSVADV VNNDPKVG  
DLLKVVFI PNYSVNAEIIIPASDISQHI STAGTEASGTSNMKFSMNGGLIIGTLDGANI  
EIRDAIGHENMYIFGARSEE VNKVKKI IHDGKFTPDTRWARVLTAIKEDTFGPHEQFQDI  
INSVSGGNDHYILSYDFGSYLDIQNSIDQDFKDRAKWAKKSIMASVCCGKFSSDRTIKEY  
AQQIWGIEEWKRP GPV PVSNEEARSLLVPPPSGSPNDINAISIERLSPLTFVKQTSASPL  
SVISGGDKTNNTLKPQTTKGFNIGGQPGNPTN

>Q53692

MTDMIEQSDDRIDPIDGVLADGVLADDVLAKEREQAPAPGELTPFAAPLTVPPVLRPASD  
EVTRETEIALRPTWVRLHPQLPPTLMWGYDQVPGPTIEVRRGQRVRIAWTNRIPKGSEY  
PVTSVEVPLGPPGTPAPNTEPGRGGVEPNKDVAALPAWSVTHLHGAQTGGGNDGWADNAV  
GFGDAQLSEYPNDHQATQWWYHDHAMNITRWNVMAGLYGTYLVRDDEEDALGLPSGDREI  
PLLIADRNLDTDEDGR LNRLLHKT VIVQQSNPETGKPVSI PFFGPTYTVNGRIWPYADV  
DDGWYRLRLVNASNARIYNLVLIDEDDRVPVGVVHQIGSDGGLLPRPVPVDFDDTLPVLS  
AAPAERFDLLVDFRALGRRRLRLVDKGPAGAGTDPDPLGGVRYPEVMEFRVRETCEEDSF  
ALPEVLSGSFRMSHDIPHGHRLIVLTPPGTKGSGGHP EIWEMAEVEDPADVQVPAEGVI  
QVTGADGR TKTYRRTAATFNDGLGFTIGEGTHEQWTF LNLSPILHPMHIHLADFQVLGRD  
AYDASGF DLALGGTRTPVRLDPDTPVPLAPNELGHKDV FQVPGPQGLRVMGKFDGAYGRF  
MYHCHLLEHEDMGMMRP FVVMPEALKF DHGGAHGGHGEGHTG

>P06738

MPPASTSTTNDMITEEPTSPHQIPRLTRRLTGFLPQEIKSIDTMIPLKSRALWNKHQVKK  
FNKAEDFQDRFIDHVEITLARSLYNCDMAAYEAASMSIRDNLVIDWNTQQKFTRDPK  
RVYYLSLEFLMGRALDNALINMKIEDPEDPAASKGKPREMIK GALDEGGFKLEDVLDQEP  
DAGLGNGLGRLAACFVDSMATEGIPAWGYGLRYEYGI FAQKI IDGYQVETPDYWLNSGN  
PWEIERNEVQIPVTFYGYVDRPEGKTTLSASQWIGGERVLAVAYDFPVPGFKTSNVNNL  
RLWQARPTTEFDFAKFNNGDYKNSVPQQRAESITAVLYPNDFNAQGKELRLKQQYFWCA  
ASLHDILRRFKKSKRPWTEFPDQVAIQLNDTHPTLAI VELQRVLVDLEKLDWHEAWDIVT  
KTFAYTNHTVMQEALEKWP RRLFGHLLPRHLEI IYDINWFFLQDVAKKFPKDVDLLSRIS  
IIEENSPERQIRMAFLAIVGSHKVNGVVELHSELIKTTIFKDFIKFYGPSKFVNV TNGIT  
PRRWLQANPSLAKL ISETLNDPTEEYLLDMAKLTQLEKYVEDKEFLKKNQVKLNNKIR  
LVDLIKKENDGVDIINREYLD DTLFDMQVKRIHEYKRQQLN VFGI IYRYLAMKNMLKNGA  
SIEEVAKKYPRKVSIFGGKSAPGYMAKLI IKLINC VADVNNDESIEHLLKVV FVADYN

VSKAEIIIPASDLSEHISTAGTEASGTSNMKFVMNGGLIIGTVDGANVEITREIGEDNVF  
LFGNLSERVEELRYNHQYHPQDLPSSLDVLSYIESGQFSPENPNEFKPLVDSIKYHGDY  
YLVSDDFESYLATHELVDQEFHNQRSEWLKKSVLSLANVGFFSSDRCEEYSDTIWNVEP  
VT

>P00490

MSQPIFNDKQFQEALSRQWQRYGLNSAAEMTPRQWWLAVSEALAEMLRAPFAKPVANQR  
HVNYISMFLIGRLTGNNLLNLGWYQDVQDSLKAYDINLTDLLEEEIDPALGNGGLGRLA  
ACFLDSMATVQGSATGYGLNYQYGLFRQSFVDGKQVEAPDDWHRSNYPWFRHNEALDVQV  
GIGGKVTKDGRWEPEFTITGQAWDLVVGVRNGVAQPLRLWQATHAHPFDLTKFNDGDFL  
RAEQQGINAEKLTKVLYPNDNHTAGKKLRLMQYFQCACSVADILRRHHLAGRKLHELAD  
YEVIQLNDTHPTIAIPELLRVLIDEHQMSWDDAWAITSKTFAYTNHTLMPEALERWDVKL  
VKGLLRHMQIINEINTRFKTLVEKTPWPGDEKVVAKLAVVHDKQVHMANLKVGGFAVNG  
VAALHSDLVVKDLFPEYHQLWPNKFHNVTNGITPRRWIKQCNPALAALLDKSLQKEWAND  
LDQLINLEKFADDKFRQYREIKQANKVRLAEFVKVRTGIEINPQAIFDIQIKRLHEYK  
RQHLNLLHILALYKEIRENPQADRVPRVFLFGAKAAPGYLAKNIIFAINKVADVINDP  
LVGDKLVVFLPDYCVSAAEKLIIPAADISEQISTAGKEASGTGNMKLALNGALTVGTLDG  
ANVEIAEKVGEENIFIFGHTVEQVKAILAKGYDPVKWRKKDKVLDVAVLKELESGKYSDDG  
KHAFDQMLHSIGKQGGDPYLVMAFVAAYVEAQKQVDVLYRDQEAWTRAAILNTARCGMFS  
SDRSIRDYQARIWQAKR

>P25848

MSATKKTYSSTSSAKSKHSVRVAQTTADAALAEAVYEMSGDSGDSFDYSKSVGQSAESVPA  
GAVTAYLQRMQREGLIQNFGCMVAVEEPNFCVIAAYSENASEFLDLIPQAVPSMGEMDVLG  
IGTDIRTLFTPSSSAALEKAAATQDISLLNPIVHCRRSGKPLYAIAHRIDIGIVIDFEA  
VKMIDVPSAAAGALQSHKLAARAITRLQALPGGDIELLCDTIVEEVRELTGYDRVMAFK  
FHEDEHGEVVAEIRRMDLEPYMGLHYPATDIPQASRFLMKNRVRLIADCYASPVKLIQD  
PDIRQPVS LAGSTLRAPHGCHAQYMGNMGSIASLVMVAIINDNEEYSRGAIQRGRKLWGL  
VVCQHTSPRTVPFPLRSVCEFLMQVFGMQLNLHVELAAQLREKHILRTQTLLCDMLLRDA  
PIGIVSQTPNIMDLVKCDGAALYGGKRVWLLGTTPTENQIKEIADWLLHHNDSTGLSTD  
SLADANYPGAHL LGDAVCGMAAAKITAKDFLFWFRSHTATEVKGWGGAKHDPDEKDDGRKM  
HPRSSFKAFLEVVNKRSPPWEDVEMDAIHSLQLILRGSFRDIADSDTKTMIHARLNDLKL  
QGVEERNALANEMSRVLETAAPILAVDSRGMINAWNAKIAQVTGLPVEEAMHCSLTKDL  
VLDESVVVVERLLSLALQGEQQVEIKLKTFTGTQTTERRAVILIVNACCSRDASDFVGV  
FFVGQDVTQRMFMDRFTRIQQGKETTQDPHPLMRPSFDGDEFGRTFKRNSALGGLKDH  
ATGSVERLDLYLRRAECEMVMETIPSPKFNKQCQYLAGKLVAVLQASLFLRISHHEH  
HEL GASIDMGRHVEIFKLLALAKEIESFIQGCKDEWIKAAMTLTVNSEYVSSMGFNLE  
LCKIAFCKSAAAGSLTLDQIEVICKDEAEVVKRNASIDVDTLFAKVIYDLTEKTLSSDQ  
NDLAIYLLQRLKRAKPI LPSFSSRPSWVNFYDDWSFSEKFFQWIQITGSLGSGSSATVEK  
AVWLGTPVAKKTFYGRNNEFDKREVEILAE LCHPNITSMFCSPLYRRKCSIIMELMDGDL  
LALMQRRDRNEDHDSPPFSILEVVDIILQTSEGMYLHEKGIHRDLKSMNILVKSVKV  
TKSEIGYVHVKVADFLSKTKDSSSTRYSNQTNWRGTNRWMAPEVINLGYESTEGEISFDG  
KVPKYPLKSDVYSFGMVCEVLTGDVPFPPEEKNNVCRMVLEGVPRDLPACHP IELKAL  
ITDCWNQDPLKRPSFAVICQKLKYLKYLMTGFSSYQDSYPSSTEEPS

>P36505

MSTPKKTYSSSTSSAKSKAHSVRVAQTTADAALQAVFEKSGDSGDSFDYSKSVSKSTAESL  
PSGAVTAYLQRMQRGGLTQSFQCMIAVEGTGFRVIAAYSENAPEILDLVPQAVPSVGEMDT  
LRIGTDVRTLFTASSVASLEKAAEAQEMSLNPIVNCRRSGKQLY AIAHRIDIGIVIDF  
EAVKTDHLSAAGALQSHKLAAKAITRLQALPGGNI GLLCDTVVEEVRELTGYDRVMAY

RFHEDEHGEVVAEIRRADLEPYLGLHYPGTDIPQASRFLFMKNKVR I IADCSAPPVKVIQ  
DPTLRQPVSLAGSTLRSPHGCHAQYMGNMGSIASLVMAVI INDNEEDSHGVSQRGRKLWG  
LVVCHHTSPRTVPFPLRSACGFLMQVFLGLQLNMEVESAAQLREKHILRTQTLLCDMLLRD  
APIGIVSQIPNIMDLVKCDGAALYYGKPFWLLGTTPTESQIKDIAEWLLEYHKDSTGLST  
DSLADANYPAAHLLGDVCGMAAAKITAKDFLFWFRSHTAKEIKWGGAKHDPGENHDGRK  
MHRSSFKAFLEVVKRRSLPWEDVEMDAIHSLQLILRGSFQDIADSDTKTMIHARLNDLK  
LHDMDELSVVANEMVRLIETATAPILAVDSNGMINGWNAKIAQVTGLPVSEAHGRSLVKD  
LVTDESVAVERLLYLALRGEVEEQNVEIKLKTFTGTQTEKGVVILIVDACSSIHVSENVVG  
VCFVQGQDVTGQKMFMDKFTRIQGDYKTIQONPHPLIPP IFGADEFGYCFEWNPAEGLTG  
WKKDEVVVGKLLVGEIFGMQMMCCRMKSQDAMTKFMIALNTAMDGQSTDKFTFSFFDREGK  
YVDVLLSTNKRTNADGVITGVFCFLQIASSELQQALKVQRATEKVAVAKLKELEYIVREI  
KNPLCGLTFTTRQLLEDTDLSDDQQQFLDTSAVCEQQQKSLNDMDLESIEDGYLELDTAE  
FEMGTVMNAVISQGMTT SREKGLQIFRETPREINTMRLLGDQIRLQQVLSDFLLNTVRF  
PSPEGWVKIKVVPTRKRLGGSVHVHLEFRVSHPGAGLPEELVLEMYDRGKGMTQEGGLGL  
NMCRKLVRLMNGDVHYVREAMQCYFVVNVELPMAQRDDASSQCRSLYSYLLA

>Q55168

MATTVQLSDQSLRQLETLAIHTAHLIQPHGLVVVLQEPDLTISQISANCTGILGRSPEDL  
LGRTLGEVFDSDQIDPIQSRLTAGQISSLNPSKLWARVMGDDFVIFDGVFHRNSDGLLVC  
ELEPAYTSDNLPFLGFYHMANAALNRLRQQANLRDFYDVIVEEVRRTGFDVMLYRFDE  
NNHGDVIAEDKRDDMEPYLGLHYPESDIPQPARRLF IHNP IRV I PDVYGVAVPLTPAVNP  
STNRAVDLTESILRSAYHCHLTYLKNMVGASLTISLIKDGHLWGLIACHHQT PKVIPFE  
LRKACEFFGRVVF SNISAQEDTETFDYRVQLAEHEAVLLDKMTTAADFVEGLTNHPDRLL  
GLTGSQGAACFGEKLIIVGETPDEKAVQYLLQWLENREVQDVFF'TSSLSQIYPDAVNFK  
SVASGLLAIP IARHNFLWFRPEVLQTVNWGGDPNHAYEATQEDGKIELHPRQSFDLWKE  
IVRLQSLPWQSVIEIQSALALKKAI VNLILRQAEELAQLARNLERSNADLKKFAY IASHDL  
QEPLNQVSNYVQLLEMRYSEALDEDAKDFIDFAVTGVSLMQTLIDDILTYAKVDTQYAQL  
TFTDVQEVVDKALANLQRIEESGAEIEVGSMPAVMADQIQLMQVFQNL IANGIKFAGDK  
SPKIKI WDRQEDAWVFAVDNGIGIDPQFFERIFVIFQRLHTRDEYKGTGMGLAICKKI  
IEGHQGIWLESNPGEGSTFYFSPIGN

>P19862

MSSSRPAHSSSSSRTRQSSRARILAQTTLDAELNAEYEEESGDSFDYSKLVQAQRSTPPE  
QQGRSGKVIAYLQHIQRGKLIQPFGLLALDEKSFRVIAFSENAPEMLT'TVSHAVPNVDD  
PPKLGIGTNRSLFTDPGATALQKALGFADVSLNLPILVQCKTSGKPFYAI VHRATGCLV  
VDFEPVKPTEFPATAAGALQSYKLAAKAISKIQSLP GGSMEALCNTVVKEVFDLTGYDRV  
MAYKFHEDEHGEVFAEITKPGIEPYIGLHYPATDIPQAARFLFMKNKVRMICDCRARSVK  
IIEDEALSIDISLCGSTLRAPHSCHLKYMENMNSIASLVMAVVVNENEEDDEPEPEQPPQ  
QQKKRLWGLIVCHHESPRYVFPFLRYACEFLAQVFAVHVNKEFELEKQIREKNI LRMQT  
MLSDMLFKESSPLSIVSGSPNIMDLVKCDGAALLYGDKVWRLQTAPTESQIRDI AFWLSE  
VHGDSTGLSTDSLQDAGYPGAASLGDMICGMAVAKITSKDILFWFRSHTAAEIKWGGAKH  
DPSDKDDNRRMHPRLSFKAFLEVVKTKSLPWSYEMDAIHSLQLILRGT LNDASKPAQAS  
GLDNQIGDLKLDGLAELQAVTSEMVRMETATVPILAVDGNGLVNGWNQKVAELSGLRVD  
EAI GRHILTLVEDSSVSLVQRMLYLALQGREEKEVRFELK'THGSKRDDGPVILVFNACAS  
RDLHDHVGVCFVAQDMTVHKLVMDFTRVEGDYKAI IHNP NPLIPP IFGADQFGWCSEW  
NAAMTKLTGWHRDEVVDKMLLGEVFNSSNASCLLKS KDAFVRLCIVINSALAGEEAEKAS  
FGFFDRNEKYVECLLSVNRKVNADGVVTGVFCF IHVPSDDLQHALHVQQASEQTAQRKLLK  
AFSYMRHAINKPLSGMLYSRETLKSTGLNEEQMRQVRVGDNCHRQLNKILADLDQDNITD  
KSSCLDLDMAEFVLQDVVVS AVS QVLI GCQAKGIRVACNLPERSMKQKVYGDGIRLQQIV  
SDFL FVSVK FSPAGGSVDISSKLT KNSIGENLHLIDFELRIKHRGAGVPAEILSQMYEED



NKEQSEEGFSLAVSRNLLRLMNGDIRHLREAGMSTFILTAELAAAPSAVGR

>P14713

MVSGVGGSGGGRRGGGEGEEPPSSSHTPNRRGGGEQAQSSGTKSLRPRSNTESMSKAIQQ  
YTVDARLHAVFEQSGESGKSFYDYSQSLKTTTYGSSVPEQQITAYLSRIQRGGYIQPFGCM  
IAVDESSFRIGYSENAREMLGIMPQSVPTLEKPEILAMGTDVRSFLTSSSSILLERAFV  
AREITLLNPVWIHSKNTGKPFYAILHRIDVGVVIDLEPARTEDPALS IAGAVQSQKLAVR  
AISQLQALPGGDIKLLCDTVVESVRDLTG YDRVMVYKFHEDEHGEVVAESKRDDLEPYIG  
LHYPATDIPQASRFLFKQNRVRMIVDCNATPVLVQDDRLTQSMCLV GSTLRAPHGCHSQ  
YMANMGSIASLAMAVIINGNEDDGSNVASGRSSMRLWGLV VCHHTSSRCIPFPLRYACEF  
LMQAFGLQLNMELQLALQMSEKRVLRQTLLCDMLLRDSPAGIVTQSPS IMDLVKCDGAA  
FLYHGKYYPLGVAPSEVQIKDVVEWLLANHADSTGLSTDSLGDAGYPGAAALGDAVCGMA  
VAYITKRDFLFWFRSHTAKEIKWGGAKHHPEDKDDGQRMHPRSSQAFLEVVKSRSQPWE  
TAEMDAIHSLQLILRDSFKESSEAMNSKVVDGVVQPCRDMAGEQGIDELGAVAREMVRLI  
ETATVPIFAVDAGGCINGWNAKIAELTGLSVEEAMGKSLVSDLIYKENEATVNKLLSRAL  
RGDEEKNVEVKLKTFSPELQGKAVFVVVNACSSKDYLNINIVGVC FVGQDVTSQKIVMDKF  
INIQQDYKAIVHSPNLIPIFAADENTCCLEWNMAMEKLTGWSRSEVIGKMI VGEVFGS  
CCMLKGPDALTKFMIVLHNAIGGQDQDKFPFPFFDRNGKFVQALLTANKRVSLEGKVIGA  
FCFLQIPSPELQOALAVQRRQDTECFTKAKELAYICQVIKNPLSGMRFANSLLEATDLNE  
DQKQLLETSVSCEKQISRIVGMDLESIEDGSFVLKREEFFLGSVINAIVSQAMFLLRDR  
GLQLIRDIPEEIKSIEVFGDQIRIQQLLAEFLLSIIRYAPSQEWVEIHLSQLSKQMADGF  
AAIRTEFRMACPGEGLPPELVDRDMFHSSRWTSPEGLGLSVCRKILKLMNGEVQY IRESER  
SYFLIILELPPVPRKRPLSTASGSGDMMLMMPY

>P14714

MSSNTSRSCSTRSRQNSRVSSQVLVDAKLHGNFEESERLFDYSASINLNMPPSSSCEIPSS  
AVSTYLQKIQRGMLIQPFGLIVVDEKNLKVIAFSENTQEMLGLIPH TVPSMEQREALTI  
GTDVKSFLSPGCSALEKAVDFGEISILNPITLHCRSSSKPFYAILHRIEEGLVIDLEPV  
SPDEVPVTAAGALRSYKLAAKSISRLQALPSGNMLLLCDALVKEVSELTGYDRVMVYKFH  
EDGHGEVIAECCREDEMEPYLGLHYSATDIPQASRFLFMRNKVRMICDCSAVPKVVQDKS  
LSQPI SLSGSTLRAPHGCHAQYMSNMGSVASLVMSVTINGSDSDEMNRDLQTGRHLWGLV  
VCHHASPRFVFPPLRYACEFLTQVFGVQINKEAESAVLLKEKRILQTQSVLCDMLFRNAP  
IGIVTQSPNIMDLVKCDGAALYRDNLWSLGVTP TETQIRDLIDWLKSHGGNTGFTTES  
LMESGYPDASVLGESICMAAVYISEKDFLFWFRSSTAKQIKWGGARHDPNDRDGKRMHP  
RSSFKAFMEIVRWKSVPWDDMEMDAINSLQLIKGSLQEEHSTVVDVPLVDNRVQK VDE  
LCVIVNEMVRLIDTAAVPIFAVDASGVINGWNSKAAEVTGLAVEQAIGKPVSDLVEDDSV  
ETVKNMLALALEGSEERGAEIRIRAFGPKRKSSPVELVVNTCCSRDMTNNVLGVCFIGQD  
VTGQKTLTENYSRVKGDYARIMWSPSTLIPIFITNENGVCSEWNNAMQKLSGIKREEVV  
NKILLGEVFTTDDYGCCLKDHDTLTKLRIGFNAVISGQKNI EKLLFGFYHRDGSFIEALL  
SANKRTDIEGKVTGVL CFLQVPSELQYALQVQQISEHAIAACALNKLAYLRHEVKDPEKA  
ISFLQDLLHSSGLSEDQKRLLRTSVLCREQLAKVISDSIEGIEEGYVELDCSEFGLQES  
LEAVVKQVMELSIERKVQISCDYPQEVSSMRLYGDNLRLQQILSETLLSSIRFTPALRGL  
CVSFKVIARIEAIGKRMKRVLEFR IHPAPGLPEDLVREMFQPLRKGTSREGLGLHITQ  
KLVKLMERGTLRYLRESEMSAFVILTEFPLI

>P55004

MENYGKAVTFSSSATSNLNTGKAI AQYNADAKLMAEFEQSRESGKSFYDYSR SVIHAPQNV  
TEEEMTAYLSRIQRGGLIQPFGLIAIEEPSFKIVGFSENCFDLLGLKSGVEPPERMSLI  
GIDARTLFTLSSRASLAKAVASREISLLNP IWHVSKINQKPFYAVLHRIDVGIVIDLEPA  
NSADPALLLAGAVQSQKLAVRAISRLQSLPGGDIGTLCDTVVEDVQKLTGYDRVMVYKFH

DDSHGEVSEIRRSDLEPYLGLHYPATDIPQAARFLFKQNRVRMICDCNAQPVKVLQCEE  
LKQPLCLVNSTLRSPHGCHTKYMANMGSIASLVMVAVVINSSESMKLVGLVCHHTSPRYV  
PFPLRYACEFLMQAFSLQLYMEQLASQLAEKKILQTQTLLCDMLLRDAPFGIVTQTPSI  
MDLVRCDGAALYNGKCWLLGVTPPTETQVKDIAEWLLHNHGDSTGLSTDCLSDAGYPGAP  
LLGDAVSGMATARITSKDFLFWFRSHTAKEVKGWAKHHPEDKDDGGRMHPRSSFIAFLE  
VVKSRSLPWEDSEINAIHSLQLIMRDSLQIGIGENYMKSVSSPQQNDSGDVRFYELSSMAL  
ELVRLVETATVPIFGVDSSGLINGWNAKIAELTGLQANVAIGKYLIDDVTHEDSHETFKA  
LMCRALQGEEDRNVEVKLLKFGNHPTKEVVYLVVNACTSRDYKNDIIGVCFVGQDITPEK  
AVMDKVFRLQGDYEAI IQSLNPLIPPIFASDENACCSEWNAAMERLTGLVKCEVIGKRLP  
GEIFGGLCRLKGDALTKFMILLYQGISGHDTTEKLSFGFFDRKGNFIDVFITANKRTDER  
GNIIGCFQFLQTMVADHPQISARDIEDDRECLSTLKEFAYIQQMKNPNGIRFTHKLE  
GTVTSDHQKQFLETSEACEKQILSIIENMDSGGIVDGNRVELKTEEFVIGNVIDAVVSQV  
MIPLKEKNLQLLHDIPDQIKSLPIYGDQIKLQLVLSDFLLSIVRHAPSPDGWVEIRVSPG  
LKL IQDGNVFIHIQFRMTHPGQGLPSALIEDMVRGGTRWTTQEGVVLHLSQKLVRRMMNGH  
VHYVREQQKCYFLIDLDFKTQKPRSRESSMDTKAD

>Q51792

MHNYVIIDAFASVPLEGNPVAVFFDADDLPPAQMQRIAREMNLSESTFVLKPRNGGDALI  
RIFTVPNELPFAGHPLLGTAIALGAHTDNHRLYLETQMGTIAFELERQNGSVIAASMDQP  
IPTWTALGRDAELLKALGISDSTFPIEIIYHNGPRHVFGVGLPSIDALSALHPDHRALSNFH  
DMAINCFAAGARRRWRSRMFSPAYGVVEDAATGSAAGPLAIHLARHGQIEFGQPVEILQGV  
EIGRPSLMFAKAEGRAEQLTRVEVSGNGVTFGRGTIVL

>P78356

MSSNCTSTTAVAVAPLSASKTKTKKKHFVCQKVKLFRASEPILSVLMWGVNHTINELSNV  
PVPVMLMPDDFKAYSKIKVDNHLFNKENLPSRFKFKKEYCPMVFRNLRERFGIDDQDYQNS  
VTRSAPINSDSQGRCGTRFLTTYDRRFVIKTVSSEDVAEMHNILKKYHQFIVECHGNTLL  
PQFLGMYRLTVDGVETYMVTRNVFSHRLTVHRKYDLKGSTVAREASDKEKAKDLPTFKD  
NDFLNEGQKLHVGEESKKNFLEKLRDVEFLAQLKIMDYSLLVGIHDVDRAEQEEMEVEE  
RAEDEECENDGVGGNLLCSYGTTPDPSGNLLSFPRFFGPGFDPDSDVYAMKSHESPCK  
EVYFMAIIDILTPYDTKKKAAHAAKTVKHGAGAEISTVNPEQYSKRFNEFMSNILT

>Q8W2F3

MEHQGWSFEENYSLSTNRRSIRPQDELVELLWRDQVVLSQSTHREQTQTQKQDHHEEAL  
RSSTFLEDQETVSWIQYPPDEDPFEPDDFSSHFFSTMDPLQRPTSETVKPKSSPEPPQVM  
VKPKACPDPPPQVMPKFRILTNSSSGIRETEMEQYSVTTVGP SHCGSNPSQNDLDVMS  
HDRSKNIEEKLNPNASSSSGGSSGCSFGKDIKEMASGRCIITDRKRKRINHTDESVSLS  
AIGNKSNQRSGSNRRSRAAEVHNLSERRRRDRINERMKALQELIPHCSKTDKASILDEAI  
DYLKSLQLQLQVMWMSGMAAAAASAPMMFPVQVQVQFIRQIQSPVQLPRFPVMDQSAIQ  
NNPGLVCQNPVQNQIISDRFARYIGGFPHMQAATQMQPMEMLRFSSPAGQQSQQPSSVPT  
KTTDGSRLDH

>P14923

MEVMNLMEQPIKVTWQQTYTYDSGIHSGANTCVPSVSSKGIMEEDEACGRQYTLKKT  
YTQGVPPSQGDLEYQMSTTARAKRVREAMCPGVSSEGQLALLATQVEGQATNLQRLAEP  
QLLKSIVHLINYQDDAELVTRALPELTKLLNDEDPVVVTKAAMIVNQLSKKEASRRALM  
GSPQLVAAVVRTMQNTSDLDTARCTTILHNLSSHREGLLAIKSGGIPALVRMLSSPVE  
SVLFYAITTLHNLQYQEGAKMACAGRRAQKMVPLLKNPKFLAITTDCLQLLAYGNQE  
SKLII LANGGPQALVQIMRNYSYEKLLWTTSRVLKVLVSVCP SNKPAIVEAGGMQALGKHL  
TSNSPRLVQNCLWTLRNLSDVATKQEGLESVLKILVNQLSVDDVNVLTCATGTLNLTCN

NSKNKTLVTQNSGVEALIHAILRAGDKDDITEPAVCALRHLTSRHPEAEMAQNSVRLNYG  
IPAIVKLLNQPNQWPLVKATIGLIRNLALCPANHAPLQEA AVIPRLVQLLVKAHQDAQRH  
VAAGTQQPYTDGVRMEEIVEGCTGALHILARDPMNRMEIFRLNTIPLFVQLLYSSVENIQ  
RVAAGVLCELAQDKEAADAIDAEGASAPLMELLHSRNEGATATYAAAVLFRISEDKNPDYR  
KRVSVELTNSLFLKHDPAAWEAAQSMIPINEPYGDDMDATYRPMYSSDVPLDPLEMHMDMD  
GDYPIDTYS DGLRPPYPTADHMLA

>Q92G53

MKRKNNKFIEISIAFILGIALGLYGQNPDYFTNLI SQSLALSALQIKHYNISELSRSKV  
STCFTPPAGCTKFIANQIDKAEESIYMQAYGMSDALIT TALINAQARGVKVRILLDRSNL  
KQKFSKHLHELQRAKIDVDIDKVPGLAHNKV I I IDKKKVITGSFNFTAAADKRNAENV I I I  
EDQELAESYLQNWLN RKASN

>P30034

QEWSLPGTRVPPPADPEGGDANLRCVCVKTI SGVSPKHISSLEVIGAGPHCPSPQLIATL  
KKGHKICLDPQNLLYKKI IKKLLKSQLLTA

>O93233

MKSSVPSLLIACLVM SLNSY TQQVLYCPPTPAPENVTEFVCNSPSLHEFPTGFPARAKMI  
SVEFTQVSSLGVEALQGLPNLQELHLSNRLKTLPSGLFRNLPQLHTLDLSTNHLEDLPP  
EIFTNASSLILLPLSENQLAELHPSWFQTLGELRILGLDHNQVKEIPISCFDKLKKLTSL  
DL SFNLLRRLAPEMFSGLDNLEKLI LESNP IQCIVGRTFHWHPKLTVLSLKNSSLTNIMG  
FFQPLEQLELLDLSDNELTTMEPPVYKTSANLSLDL SGNPWACDCRDLNLLTWNEHNIH  
LYSKEEIVCASPKHFKGECATSLHKSQICPC

>P24802

MVPPAVLLPWVVLPLLGVQGGSGSKQEENLLVLT VATKQTEGFRFRFRSAQFFNYKIQVL  
GLDEEWKGGDDKKPAGGGQKVRLLKSALKQHADKEDLVILFIESYDVL FASGPTELLKKF  
KQAKSKVVFSAENYIYPDRKLEAKYPPVRDGRFLGSGGF IGYAPNLKKLVEEWKGD  
SDQLFYTKIFLDPEKRENINISLDHRSRIFQNLNGALDEVVLKFENARVRARNLLYDTLP  
VI IHGNGPTKLQLNYLGNYPQIWFETGCTVCDEGLRSLTG IKDEALPMILIGIFIEQP  
TPFLSQFFLRRLRNHYPKQRIQIF IHNHEEHSMQVDSFVKEHSKEYLAMKVI GPDDEVE  
NAEARNLGMDL CRKDPDCDYFSLDAEVVLKNTETLRILIEQNKSVIAPLVS RHEKLWSN  
FWGALSPDGY YARSEDYVDIVQRRRVGLWNVPISSVY MVKGVLRSELDEGDLFHGGKL  
DADMAFCHNVRNQGVFMYLTNRHQFGHILSLENYQTTHLHNDLWQIFSNPEDWREKYIHE  
NYTAALKGKLVEMPCPDVYWFPIFTDTACDELVEEMEYHGWSTGDNTDSRIQGGYENVP  
TIDIHMNQIGFEREWYKFLLDYIAPITEKLYPGYYTKTQFELAFVVRYPDEQPSLMPHH  
DASTFTINIALNRV GIDYEGGCRFLRYNCSIRAPRKGWTLMHPGRLTHYHEGLPTTKGT  
RYIAVSFIDP

>O60568

MTSSGPGPRFLLLLPLLLPPAASASDRPRGRDPVNPEKLLVITVATAETEGYLRFLRS AE  
FFNYTVRTLGLGEEWRGGDVARTVGGGQKVRWLKKEMEKYADREDMIIMFVDSYDVILAG  
SPTTELLKKFVQSGSRLLSAESFCWPEWGLAEQYPEVGTGKRFLNSGGF IG FATTIHQIV  
RQWKYKDDDDQLFYTRLYLDPGLREKLSLNL DHKSRIFQNLNGALDEVVLKFDNRNVR I  
RNVA YDTLP I VVHGNGPTKLQLNYLGNYPNGWTP EGGCGFCNQDRRTLPGGQPPRVFL  
AVFVEQPTPFLPRFLQRLLLLDYPPDRVTLFLHNNEVFHEPHIADSWPQLQDHFSAVKLV  
GP EEALSPGEARDMAMDLCRQDPECEFYFSLDADAVLTNLQTLRILIEENRKVIAPMLSR  
HGKLSNFWGALSPDEYYARSEDYVELVQRKRVGWNVPI SQAYVIRGDTLRMELPQRD  
VFSGSDTPDMAFCKSFRDKGIFLHLSNQHEFGRL LATSRYDTEHLHPDLWQIFDNPVDW

KEQYIHENYSRALEGE GIVEQPCPDVYWFPLLSEQMCDLVAEMEHYGQWSGGRHEDSRL  
AGGYENVP TVDIHMKQVGYEDQWLQLLR TYVGPMTESLFPGYHTKARAVMNFVVRYPDE  
QP SLRPHHDSSTFTLNVALNHKGLDYEGGCRFLRYDCVLISSPRKGWALLHPGRLTHYHE  
GLPTTWGTRYIMVSFVDP

>Q9WV78

MGLSMDRSPYSRTGDRDRGCWYYLRYFFL FVSLIQFLIILGLVLFMIYGNVHATTESSLR  
ATEIRADNLYSQVVGLSAAQANLSKQLNISTLVKDTVMQQLLTTRREVERINASFRQCQG  
DLITYINYNR FIAAILSEKQCQEQLKEGKNTCEALLFKLGEKVKTLEMEVVKEKAVCSK  
DKDSL LAGKRQAEMQQEACGKAREQQKQDQVTEEQLRKVQSLCLPLDQEKFQADV LNVW  
RDSL VYRSLDNIGYHYSMLPEFSSLRRTCESLPGIMTTKVEELARGLRAGIERVTRENGE  
LRRQKLELERAIQGEREARTRAGTEAQARETQLRTECARQTQLALEEKAALRTQRDDLER  
QLEARKRELEQLRTEVDVRI SALDTCVKAKSLPAIQPRLPGPPP NPPP IDPASLEEFKKR  
ILESQR PPLVNP AVPPSG

>P22180

MAEKPEVLDAVLKETVDLENIP IEEVFENLRCTREGLTATAAQERLSIFGYNKLEEKES  
KFLKFLGFMWNPLSWVMEAAA IMAIALANGGGKPPDWQDFVGIITLLI INSTISFIEENN  
AGNAAAALMARLAPKAKVLRD GKWDEEDASVLVPGDIISIKLGDIPADARLLEGDPLKI  
DQSALTGESLPVTKGPGDGVYSGSTCKQGEIEAVVIATGVHTFFGKAAHLVDSTNQVGHF  
QKVLTAIGNFCICSI AVGMIIEIIVMYP IQHRKYRPGIDNLLVLLIGGIP IAMP TVLSVT  
MAIGSHRLAQOGAITKRMTAIEEMAGMDVLCSDKTGTLTLNKLTVDKALIEVFAKGIDAD  
TVVLMAARASRIENQDAIDTAIVGMLADPK EARAGIREIHF LFPNPTDKRTALTYLDGEG  
KMRVSKGAPEQIILNLAHNKSDIERRVHTVIDKFAERGLRSLGVAYQEVPEGRKESAGGP  
WQFIALLPLFDPPRHDSAETIRRALNLGVNVKMITGDQLAIGKETGRRLGMGTNMYPSSA  
LLGQTKDESIAALPIDELIEKADGFAGV FPEHKYEVKRLQARKHICGMTGDGVNDAPAL  
KKADIGIAVDDATDAARSASDIVL TEPGLSVIISAVLTSRAIFQRMKNYTIYAVSITIRI  
VLGFMLLALIWKFDFFPMVLI IAILNDGTIMTISKDRVKPSPLPDSWKLAEIFTTGVVL  
GGYLAMMTVIFFWAAYKTNFFPRIFGVSTLEKTATDDFRKLASAIYLQVSTISQALIFVT  
RSRSWSFVERPGLLLVFAFFVAQLVATLIAVYANWSFAAIEGIGWGWAGVIWLYNIVTYI  
PLDLIKFLIRYALSGKAWDLVLEQRIAFTRKKDFGKELRELQWAHAQRTLHGLQVPDPKI  
FSETTNFNELNQLAEEAKRRAE IARLRELHTLKGHVESVVKLKGLDIETIQQSYTV

>P07283

MSIAEFAYKEK PETLVLFVDV DGTLPARLTVSEEV RKT LAKLRNKCCIGFVGGSDLSKQL  
EQLGPNVLDEFDYSFSENGLTAYRLGKELASQSF INWLGEEKYNKLAVFILRYLSEIDL P  
KRRGTFLFRNGMINVSP IGRNASTEERNEFER YDKEHQIRAKFVEALKKEFPDYGLTFS  
IGGQISFDVFPAGWDKTYCLQHVEKDG FKEIHFFGDKTMVGGNDYEIFVDERTIGH SVQS  
PDDTVKILTELFNL

>Q9SE93

MHSAANAKQQKH FVLVHGGCLGAWI WYK LKPLLESAGHKVTAVDLSAAGINPRRLDEIHT  
FRDYSEPLMEVMASIPPDEKVVLLGHSFGGMSLGLAMETYPEKISVAVFMSAMMPDPNHS  
LTYPFKEYNEKCPADMMLDSQFSTYGNPENPGMSMILGPFQFMALKMFQNC SVEDELELAKM  
LTRPGSLFFQDLAKAKKFSTERYGSVKRAYIFCNEDKSFPVEFQKWFVESVGADKVKEIK  
EADHMGMLSQPREVCKCLLDISDS

>Q94IN5

MKQSVRPIISNVL RKEVALYSTIIGQDKGKEPTGR TYTSGPKPASHIEVPHHVTVPATDR  
TPNPDAQFFQSV DGSQATSHVAYALS DTAFIYPI TPSSVMGELADVWMAQGRKNAFGQVV

DVREMQSEAGAAGALHGALAAGAIATTTFTASQGLLLMIPNMYK IAGELMPSVIHVAAREL  
AGHALSIFGGHADVMVRQTGWAMLCSHTVQQSHDMALISHVATLKSSIPFVHFFDGFRT  
SHEVNKIKMLPYAELKKLVPPTMEQHWARSLNPMHPTIRGTNQSADIYFQNME SANQYY  
TDLAEVVQETMDEVAPYIGRHYKIFEYVVGAPDAEEVTVLMGSGATTVNEAVDLLVKRGKK  
VGAVLVHLYRPWSTKAFEKVLPKTVKRIAALDRCKEVTALGEPLYLDVSATLNLFPERQN  
VKVIGGRYGLGSKDFIPEHALAIYANLASENPIQRFTVGTITDDVTGTSVPFVNERVDTLP  
EGTRQCVFWGIGSDGTVGANRS AVR IIGDNSDLMVQAYFQF DAFKSGGVTSSHLRFGPKP  
ITAQYLVTNADYIACHFQEQYVKRFMDLDAIREGGTFVLNSRWTTEDMEKEIPADFRNVA  
QKKVRFYNVDARKICDSFGLGKRINMLMQACFFKLSGVLPLAEAQRLLNESIVHEYGKKG  
GKVVEMNQAVVNAVFAAGLDLPQEVQVPAAWANAVDTSTRTPGTGIEFVDKIMRPLMDFKGDQ  
LPVSVMTPGGTFFVGTQYAKRAIAAFIPQWIPANCTQCNYCSYVCPHATIRPFVLTQDE  
VQLAPESFVTRKAKGDYQGMNFRIQVAPEDCTGCQVCVETCPDDALEMTDAFTATPVQRT  
NWEFAIKVPNRGTMTDRYSLKGSQFQQPLLEFSGACEGGETPYVKLLTQLFGERTVIAN  
ATGCSSIWGGTAGLAPYTTNAKQGPAWGNLSLFEDNAEFGFGIAVANAQKRSRVRDCILQ  
AVEKKVADEGLTTLAQLWLDWNTGDKTLKYQDQIIAGLAQQRSKDPLEQIYGMKMLP  
NISQWIIGGDGWANDIGFGGLDHLVSLASGQNLNVLVLDTEMYSNTGGQASKSTHMASVAKF  
ALGGKRTNKKNLTEMAMSYGNVYVATVSHGNMAQCVKAFVEAESYDGP SLIVGYAPCIEH  
GLRAGMARMVQESEAAIATGYWPLYRFDPRLATEGKNPFQLDSKR IKGNLQEYLDRQNR  
VNLKKNPKGADLLKSQADNITARFNRYRRMLEGPNTKAAAPSGNHVTILYGETGNSE  
GLAKELATDFERREYSVAVQALDDIDVADLENMGFVVIAVSTCGQGQFPRNSQLFWRELQ  
RDKPEGWLKNLKYTVFGLGDSTYYFYCHTAKQIDARLAALGAQRVVP IGFDDGDEDMFH  
TGFNNWIPSVWNEKTKTPEEALFTPSIAVQLTPNATPQDFHF AKSTPVL SITGAERITP  
ADHTRNFVTIRWKTDL SYQVGD SLGVFPENTRSVVEEFLQYYGLNPKDVIT IENKGSREL  
PHCMAVGDLFTKVL DILGKPNRNFYKTL SYFAVDKAEKERLLKIAEMGPEYSN I LSEMYH  
YADIFHMFPSARPTLQYLIEMIPNIKPRYSSISSAPIHTPGEVHSLVLIDTWITLSGKHR  
TGLTCTMLEHLQAGQVVDGCIHPTAMEFPDHEKPVVMCAMSGLAPFVAF LRERSTLRKQ  
GKKTGNMALLYFGNRYEKTEFLMKEELKGHINDGLLTLRCAF SRDDPKKKVYVQDLIKMDE  
KMMYDYL VVQKGS MYCCGSR SF IKPVQESLKHCFMKAGGLTAEQAENEVIDMFTTGRYNI  
EAW

>P05055

MLNPIVRKFQYQHTVTLETGMMARQATAAVMVSMDDTAVFVTVVGGQKAKPGQDFPPLT  
VNYQERTYAAGRIPGSFFRREGRPSEGETLIARLIDRPIRPLFPEGFVNEVQVIATVVS  
NPQVNPDI VAMIGASAALSLSGIPFNGPIGAARVGYINDQYVLNPTQDELKESKLDLVA  
GTEAAVLMVESEAQLLSEDQMLGAVVFGHEQQQVVIQNI NELVKEAGKPRWDWQPEPVNE  
ALNARVAALAEARLSDAYRITDKQERYAQVDVIKSETIATLLAEDETLDENELGEILHAI  
EKNVVR SRVLAGEPRIDGREKDMIRGLDVRTGVLPRTHGSALFTRGETQALVTATLGTAR  
DAQVLDELMGERTDTFLFHYNFPY SVGETGMVGS PKRREIGHGRLAKRGVLAVMPDMDK  
FPYTVRVVSEITESNGSSMASVCGASLALMDAGVPIKAAVAGIAMGLVKEGDNVVLSD  
ILGDEDHLGDMDFK VAGSRDGISALQMDIKIEGITKEIMQVALNQA KGARLHILGVMEQA  
INAPRGDI SEFAPRIHTIKINPDKIKDVIGKGGSVIRALTEETGTTIEIEDDGTVKIAAT  
DGEKAKHAIRRIEIEITAEIEVGRVYTGKVTRIVDFGAFVAIGGGKEGLVHISQIADKRVE  
KVTDYLMQMQEVPVKVLEVDROGRIRLSIKEATEQSQPAAAPEAPAAEQGE

>P08617

MNMSRQGI FQTVGSGLDHILSLADIEEEQMIQSVDRTAVTGASYFTSVDQSSVHTAEVGS  
HQVEPLRTSVDKPGSKKTQGEKFFLIHSADWLTTHALFHEVAKLDVVKLLYNEQFAVQGL  
LRYHTYARFGIEIQVQINPTPFQGG LICAMVPGDQSYGSIASLTVYPHGLLNCNINN  
RIKVPFIYTRGAYHFKDPQYPVWELTIRVWSELNIGTGT SAYTSLNVLARFTDLELHGLT  
PLSTQMMRNEFRVSTTENVVNLSNYEDARAKMSFALDQEDWKS DPSQGGGIKITHFTTWT

SIPTLAAQFPFNASDSVGGQIKVIPVDPYFFQMTNTNPDQKCITALASICQMFCFWRGDL  
VFDFQVFPPTYKHSRLLFCFVPGNELIDVSGITLKQATTAPCAVMDITGVQSTLRFVRVPV  
ISDTPYRVNRYTKSAHQKGEYTAIGKLIIVCYNRLTSPSNVASHVRVNVYLSAINLECF  
PLYHAMDVTTQVGDDSGGFSTTVSTEQNVDPDQVGIITTMKDLKGGANRGKMDVSGVQAPV  
GAITTIEDPVLAKKVPETFPPELKPGESRHTSDHMSIYKFMGRSHFLCTFTFNSNNKEYTF  
PITLSSTSNPPHGLPSTLRWFFNLFQLYRGPLDLTIIITGATDVGMAWFTPVGLAVDTP  
WVEKESALSIDYKTALGAVRFNTRRTGNIQIRLPWYSYLYAVSGALDGLGDKTDSTFGLV  
SIQIANYNHSDEYLSFSCYLSVTEQSEFYFPRAPLNSNAMLSTESMSRIAAGDLESSVD  
DPRSEEDKRFESHIECRKPYKELRLEVGKQRLKYAQEELSNEVLPPPRKMKGLFSQAKIS  
LFYTEEHEIMKFSWRGVTADTRALRRFGFSLAAGRSVWTFLEMDAGVLTGRLIRLNDEKWT  
EMKDDKIVSLIEKFTSNKYWSKVNFPHGMLDLEEIAANSKDFPNMSETDLCFLLHWNPK  
KINLADRMLGLSGVQEIKEQGVGLIAECRTFLDSIAGTLKSMFGFHHSVTVEIINTVLC  
FVKSGILLYVIQQLNQDEHSHIIGLLRVMNYADIGCSVISCGKVF SKMLETVFNWQMDSR  
MMELRTQSF SNWLRDICSGITIFKNFKDAIYWLYTKLKDFYEVNYGKKKDI LNILKDNQQ  
KIEKAIIEEAEFCILQIQDVEKFEQYQKGVDLIQKLRVHSMQAQVDPNLMVHLSPLRDCI  
ARVHQKLNKLSINQAMVTRCEPVVYLYGKRGGGKSLTSIALATKICKHYGVEPEKNIY  
TKPVASDYWDGYSGQLVCIIDDIGQNTTDEDWSDFCQLVSGCPMRLNMALEEKGRHFSS  
PFI IATSNWSNPSPKTVYVKEAIDRRLHFVKVEVKPASFFKNPHNDMLNVNLAKTNDAIKD  
MSCVDLIMDGHNVSLMDLLSSLVMTVEIRKQNMTEFMELWSQGISDDDNDSSAVAEFFQSF  
PSGEPNSKLSGFFQSVTNHKWVAVGAAVGILGVLVGGWFVYKHF SRKEEEP I PAEGVYH  
GVTKPKQVIKLDADPVESQSTLEIAGLVRKNLVQFVGGEKNGCVRWVMNALGVKDDWLLV  
PSHAYKFEKDYEMMEFYFNRRGGTYYSISAGNVVIQSLDVGFQDVVLMKVPTIPKFRDITQ  
HFIKKGDVPRALNRLATLVTTVNGTPMLISEGPKMEEKATYVHKKNDGTTVDLTVDQAW  
RGKGEGLPGMCGGALVSSNQSIQNAILGIHVAGGNSILVAKLVTQEMFQNIIDKIESQRI  
MKVEFTQCSMNVSKTFRKSPIYHHIDKTMINFPAAAMPFSKAEIDPMAVMLSKYSLPIV  
EPEPEYKEASIFYQNKIVGKTQLVDDFLDLDMAITGAPGIDA INMDSSPGFPYVQEKLT  
RDLIWLDENGLLLVGHPRLAQRILFNTVMMENCSDLDVVF'TTCPKDELRLPLEKVLESKTR  
AIDACPLDYSILCRMYGPAISYFHLNPGFHTGVAIGIDPDRQWDELFKTMIRFGDVGLD  
LDFSFAFDASLSPFMIREAGRIMSELSGTPSHFGTALINTI IYSKHLLYNCCYHVCGSMP  
GSPCTALLNSIINNVLNYVFSKIFGKSPVFFCQALKILCYGDDVLIVFSRDVQIDNLDL  
IGQKIVDEFKKGMTATSADKNVPQLKPVSELTFKRSFNLVEDRIRPAISEKT IWSLIA  
WQRSNAEFEQNLNAQWFAFMHGYEFYQKFYYFVQSCLEKEMIEYRLKSYDWWRMRFYDQ  
CFICDLS

>P87060

MNEKKKDSLSVLDSNEFFGETTMVSPSIDVSSSPRPNVERFSPCSTKKDLLEGNNIMTRI  
PEELSRVSLQFDSKGSQQSMIFTNRCLSDKENLENLQNL LYLHCDLNRPHLSCELPSEH  
REKCLKRRNSSLSSNLHANKRFLFNSQSDGNKKNETFPSTNYSNVFYPNNCDSKEVASET  
TFSLDAPNNSVNYSYFSPNLLGNDKTRQSFPPHSSSSSHNSLHEPVIYDFSENPSIHP  
SNHLSSQKNAVLKLAQLISSFEKLPESVRQYLLFHL LSRGKHAVQNIHKILLPIFQKNF  
LTGFPAEITNLVLTHLDAPSLCAVSQVSHHWYKLVSSNEELWKSFLKDGFFWDSIDSKI  
RTMCLEQSLSACAIMKRVIYFRHFNLRERWLHAPKIKRCSFPIHGVRLLITKLQFDDDKII  
VSTCSPRINIYDTKTGVLIRSL EEHGDVWTFEYVGDTLVTGSTDRTVRVWDLRTGECKQ  
VFIGHTSTIRCIKIVQGNQSTTDDVEKENRPASNDANSMPPIISSSRDCTIRLWVSLP  
CLDDPPFVNVNENPDQNDFTSATTNPFYIRTLRGHTDSVREVAACLDLIVSASYDGTLR  
VWKASTGVCLHVLRGHVGRVYSVTINPSRQOCISAGTDAKIRIWNLESSELLQTLHGHSN  
LVSQVTFNQNILVSASAPPDTSLRVWDLNTGSCRDILKCP LGHIF FQHDESKVVS GSHST  
LQLWDIRSGKLVRLDLDLDI IWQVAYNENVCVAAVLRNRRFWIEVLEFGSTKSS

>Q9LUV2

MEEAKGPVKHVLASFKDGV SPEKIEELIKGYANLVNLI EPMKAFHWGKDVS IENLHQGY  
THIFESTFESKEAVA EYIAHPAHVEFATIFLGLSLDKVLVIDYKPTSVSL

>P05695

MIRRHSCCKGVGSSVAWSLLGLAIS AQSLAGTVTTDGADIVIKTKGGLEVATTDKEFSFKL  
GGRLQADYGRFDGYTNNGTADAAYFRRAYLEFGGTAYRDWKYQIN YDL SRNVGND SAG  
YFDEASVTTYTGFPVNLKFRFYTDFGLEKATSSKWVTALERNLTYDIADWVNDNVGTGI  
QASSVVGMAFLSGSVFSENNDTDGDSVKRYNLRGVFAPLHEPGNVVHLGLQYAYRDLE  
DSAVDTRIRPRMGMRGVSTNGGNDAGSNGNRGLFGGSSAVEGLWKDDSVWGLEGAWALGA  
FSAQAEYLRRTVKAERDREDLKASGYAQLAYTLTGEPRLYKLDGAKFDTIKPENKEIGA  
WELFYRYDSIKVEDDNI VVDSATREVGDAKGKTHTLGVN WYANEAVKVSANYVKAKTDKI  
SNANGDDSGDGLVMRLQYVF

>P07003

MKQTVAAAYIAKTLESAGVKRIWGVGTGDSLNGLSDSLNRMGTEI EWMSTRHEEVA AFAAGAE  
AQLSGELAVCAGSCGPNLHLINGLFDCHRNHVPVLAIAAHIP SSEIGSGYFQETHPQEL  
FRECSHYCELVSSEQIPQVLAIAMRKAVLN RGVSVVVLPGDVALKPAPEGATMHWHYHAP  
QPVVTP EEEEELRKLAQLLRYSSNIALMCGSGCAGAHKELVEFAGKIKAPIVHALRGKEHV  
EYDNPYDVGMTGLIGFSSGFHTMMNADTLVLLGTQFPYRAFYP TDAKIQIDINPASIGA  
HSKVDMALVGDIKSTLRALLPLVEEKADRKFLDKALEDYRDARKGLDDLAKPSEKAIHPQ  
YLAQQISHFAADDAIFTCDVGTPTVWAARYLKMNGKRRL LGSFNHGS MANAMPQALGAQA  
TEPERQVVAMCGDGGF SMLMGDFLSVVQMKLPVKIVVFNNSVLGFVAMEMKAGGYLTDGT  
ELHDTNFARIAEACGITGIRVEKASEVDEALQRAF SIDGPVLVDVVVAKEELAIPPQIKL  
EQAKGFSLYMLRAIISGRGDEVIELAKTNWLR

>P37063

MVMKQTKQTNILAGAAVIK VLEAWGVDHLYGIPGGSINSIMDALSAERDR IHYIQVRHEE  
VGAMAAAADAKLTGKIGVCFGSAGPGGTHLMNGLYDAREDHVPV LALIGQFGTTGMNMDT  
FQEMNENPIYADVADYNVTAVNAATLPHVIDEAIRRAYAHQGVAVVQIPVDLPWQQIPAE  
DWYASANSYQTPLLPEPDVQAVTRLTQTL LAAERPLIYYGIGARKAGKELEQLSKTLKIP  
LMSTYPAKGIVADRYPAYLGSANRVAQK PANEALAQADVVL FVGNNYPFAEVSKAFKNTR  
YFLQIDIDPAKLGKRHKTDIAVLADAQKTLAAILAQV SERESTPWWQANLANVKNWRAYL  
ASLEDKQEGPLQAYQVLRVANKIAEPDAIYSIDVGDINLNANRHLKLTPSNRHITSNLFA  
TMGVGIPGAI AAKLNYPERQVFNLAGDGGASMTMQDLATQVQYHLPVIN VVF'TNCQYGF I  
KDEQEDTNQNDFIGVEFNDIDFSKIADGVHMQA FRVNKIEQLPDVFEQAKAIAQHEPVL I  
DAVITGDRPLPAEKLRLDSATSSAADIEAFKQRYEAQDLQPLSTYLKQFGLDDLQHQIGQ  
GGF

>P37487

MEKILIFGHQNPDTDTICSAIAYADLKNKLG FNAEPVRLGQVNGETQYALDYFKQESPRL  
VETAANEVNGVILVDHNERQOSIKDIEEVQVLEVIDHHR IANFETAEP LYRAEPVGCTA  
TILNKMYKENNVKIEKEIAGLMLS AII SDSLLFKSPTCTDQDVAAAKELAEIAGVDAEEY  
GLNMLKAGADLSKKTVEELISLDAKEFTLGSKKVEIAQVNTVDIEDVKKRQAELEAVISK  
VVAEKNLDFLLVITDILENDSLALAI GNEAAKVEKAFNV'TLENNTALLKGVVSRKKQVV  
PVLTDAMAE

>P95765

MSKILVFGHQNPDSDAIGSSYAFAYLAREAYGLDTEAVALGEPNEETA FVLDYFGVAAPR  
VITSAKAEGAEQVILTDHNEFQQSVADIAEVEVYGVVDHHRVANFETANPLYMRLEPVGS  
ASSIVYRMFKEHSVAVSKEIAGLMLSGLISDTLLLLKSP TTHPTDKAIAPELAELAGVNLE

EYGLAMLKAGTNLASKSAEELIDIDAKTFELNGMNVVAQVNTVDIAEVLERQAEIEAAI  
EKAIADNGYSDFVLMITDIINSNSEILAIGSNMDKVEAAFNFVLENNHAFLAGAVSRKKQ  
VVPQLTESFNA

>P15309

MRAAPLLLARAASLSLGFLLFFWLDRSVLAKELKFVTLVFRHGDRSPIDTFPTDPIKE  
SSWPQGFQGLTQLGMEQHYELGEYIRKRYRKFLNESYKHEQVYIRSTVDVDRTLMSAMTNL  
AALFPPEGVSIWNPILLWQPIPVHTVPLSEDLQLLYLPPFRNCPRFQELESETLKSEEFQKR  
LHPYKDFIATLGKLSGLHGQDLFGIWSKVYDPLYCESVHNFTLPSWATEDTMTKLRELS  
LSLLSLYGIHKQKEKSRLQGGVLVNEILNHMKRATQIPSYKKLIMYSAHDTTVSGLQMAL  
DVYNGLLPPYASCHLTELTYFEKGEYFVEMYRNETQHEPYPLMLPGCSPSCPLERFAELV  
GPVIPQDWSTECMTTNSHQGTEDSTD

>P22983

MAKWVYKFEEGNASMRNLLGGKGCNLAEMTILGMPIPQGFVTVTTEACTEYNSGKQITQE  
IQDQIFEAITWLEELNGKKFGDTEDEPLLVSVRSGARASMPGMMDTILNLGLNDVAVEGFA  
KKTGNPRFAYDSYRRFIQMYSDVMEVVPKSHFEKIIDAMKEEKGVHFD'TDLTADDLKELA  
EKFKAVYKEAMNGEEFPQEPKQDLMGAVKAVFRSWDNPRAIIVYRRMNDIPGDWGTAVNVQ  
TMVFGNKGETSGTGVAFTRNPTSTGEKGIYGEYLINAQGEDVVAGVTRTPQITQLENDMPD  
CYKQFMDLAMKLEKHFRDMQDMEFTIEEGKLYFLQTRNGKRTAPAALQIACDLVDEGMIT  
EEEAVVRIEAKSLDQLLHPTFNPAALKAGEVIGSALPASPGAAAAGKVYFTADEAKAAHEK  
GERVILVRLETSPEDI EGMHAAEGILTVRGGMTSHAAVVARGMGTCCVSGCGEIKINEEA  
KTFELGGHTFAEGDYISLDGSTGKIYKGDIE TQEASVSGSFERIMVWADKFRTLKVRTNA  
DTPEDTLNAVKLGAEIGLCRTEHMF FEADRIMKIRKMILSDSVEAREEALNELIPFQKG  
DFKAMYKALEGRPMTVRYLDPLHEFVPHTEEEEQAELAKNMGLTLAEVKAKVDELHEFNP  
MMGHRGCR LAVTYPEIAKMQTRAVMEAAIEVKEETGIDIVPEIMIPLVGEKKELKFVKDV  
VVEVAEQVKKEKGSMDQYHIGTMIEIPRAALTADAI AEEAEFFSFGTNDLTQMTFGFSRD  
DAGKFLDSYKAKIYESDPFARLDQTVGVQQLVEMAVKKGRQTRPGLKCGICGEHGGDPSS  
VEFCHKVGLNYVSCSPFRVPIARLAAAQAALNNK

>P11155

MAASVSRAICVQKPGSKCTRDREATS FARRSVAAPRPPHAKARRRHPLRLRRGTGPHCSP  
LRRAVDAAPIQTTKKRVFHFHGKKGSEGNKTMKELLGGKGANLAEMASIGLSVPPGFVST  
EACQQYQDAGCALPAGLWAEIVDGLQWVEEYMGATLGDPQRPLLLSVRSGAAVSMPGMMD  
TVLNLGLNDEVAAGLAASKGERFAYDSFRRFLDMFGNVMDIPRSLFEEKLEHMKEKGL  
KNDTDLTASDLKELVGQYKEVYLSAKGEPFSDPKKQLELAVLAVFNSWESPRAKKYSI  
NQITGLRGTAVNVQCMVFGNMGNTSGTGVLFTRNPNTEGKKLYGEFLVNAQGEDVVAGIR  
TPEDLDAMKNLMPQAYDELVENCNILESHYKEMQDIEFTVQENRLWMLQCRTGKRTGKSA  
VKIAVDMVNEGLVEPRSAIKMVEPGHLDQLLHPQFENPSAYKDQVIATGLPASPGAAVQ  
VVFTAEDA EAWHSQGKAAILVRAETSPEDVGGMHAAVGILTERGGMTSHAAVVARWWGKC  
CVSGCSGIRVND AEKLVITIGSHVLRREGEWLSLNGSTGEVILGKQPLSPPALSGDLGTFMA  
WVDDVRKLVLANADTPDDALTARNNGAQGIGLCRTEHMF FASDERIKAVRQMIMAPTE  
LRQQALDRLLTYQRSDFEGIFRAMDGLPVTIRLLDHPSYEFLEPNIEDIVSELCAETGA  
NQEDALARIEKLSSEVNPM LGFRGCR LGISYPELTEMQARAIF EAAIAMTNQGVQVFPEIM  
VPLVGTPELGHQVTLIRQVAEKVFANVGKTI GYKVGTMIEIPRAALVADEIAEQAEFFS  
FGTNDLTQMTFGYSRDDVGKFI PVHLAQGILQHDPFEVLDQRGVGELVKFATERGRKARP  
NLKVGICGEHGGEPSSVAFFAKAGLDFVSCSPFRVPIARLAAAQVLV

>P0ADY1

MMSLRTAANSLVLKIIIFGIIIVSFILTVGVSGLIGGGNNYAAKVNDQEISRQGFENAFN



SERNRMQQQLGDQYSELAANEGYMKTLRQQVLNRLIDEALLDQYARELKLGISDEQVKQA  
IFATPAFQVDGKFDNSRYNGILNQMGMTADQYAQALRNQLTTQQLINGVAGTDFMLKGET  
DELAALVAQQRVVREATIDVNALAAKQPVTEQEIASYYEQNKNNFMTPEQFRVSYIKLDA  
ATMQQPVSADAIQSYYDQHODQFTQPQRTRYSI IQTKTEDEAKAVLDELNKGDFAAALAK  
EKSADII SARNGGDMGWLE DATIPDELKNAGLKEKGLSGVIKSSVGF LIVRLDDIQPAK  
VKSLDEVRDDIAAKVKHEKALDAYYALQQKVS DAASNDTESLAGAEQAAGVKATQTGWFS  
KDNLPEELNFKPVADAI FNGGLVGENGAPGINSDI ITVDGDRAFVLR ISEHKPEAVKPLA  
DVQE QVKALVQHNAEQQAKVDAEKL LVDLKAGKGAEAMQAAGLKFGE PKT LSRSGRDP I  
SQA AFALPLPAKDKPSYGMATDMQGNVLLALDEVKQGSMPEDQKKAMVQGITQNNAIQIV  
FEALMSNLRKEAKIKIGDALEQQ

>P61012

MDKVQYLTRSAIRRASTIEMPQQARQNLQNLFINFCLILICLLLICIVMLL

>Q04119

MVVVGKSEVRNVSMSRPKKKSLIAAILSTCVLFFLVFIIGAKFQYVSVFSKFLDDRGDNES  
LQLLNDIEFTRLGLTPREPVIIKDVKTGKERKHLHGRFLHITDIHPDPYYVEGSSIDAVCH  
TGKPSKKKDVAPKFGKAMSGCDSPVILMEETLRWIKENLRDKIDFVIWTGDNIRHDNRK  
HPRTEAQIFDMNNIVADKMTELFSAGNEEDPRDFDVSVIPSLGNNDVFPNMFALGPTLQ  
TREYYRIWKNFVPQQQORTFDRSASFLEVIPGKLAVLSINTLYLFKANPLVDNCNSKKE  
PGYQLLLWFGYVLEELRSRGMK VWLSGHVPP IAKNFDQSCYDKFTLWTHEYRDI IIGGLY  
GHMNIDHF IPTDGKKARKSLLKAMEQSTRVQQGEDSNEEDEETE LNRI LDHAMA AKEVFL  
MGAKPSNKEAYMNTVRD TYRKYVWNKLERVDEKNVENEK KKKK KKKKKKPI TRKELIE  
RYSIVNIGGSVIPTFNPSFRIWEYNI TDIVNDSNF AVSEYKPWDEFFESLNKIMEDS LLE  
DEMDS SNI EVGINREKMG EKKNKKKKKNDK TMPI EMPDKYELGPAYVPQLFTPTRFVQFY  
ADLEKINQELHNSFVESKDI FRYEIEYTSDEKPYSMDSLTVGSYLDLAGRLYENKPAWEK  
YVEWSFASSGYKDD

>P0A5S6

MTAHRSVLLLVHTGRDEATETARRVEKVLGDNKIALRVLSAEAVDRGSLHLAPDDMRAMG  
VEIEVVDADQHAADGCELVLVLGGDGTFLRAAE LARNASIPVLGVNLGRIGFLAEAEAEA  
IDAVLEHVVAQDYRVEDRLTL DVVVRQGRIVNRGWALNEVSLEKGPRLGVLGVVVEIDG  
RPVSAFGCDGVLVSTPTGSTAYAFSAGGPVLPDLEAILVVPNNAHALFGRPMVTSPEAT  
IAIEIEADGHDALVFC DGRREMLIPAGSRLEVTRCVTSVKWARLDSAPFTDRLVRKFRLP  
VTGWRGK

>P32397

MSDGKKHVVIIGGGITGLAAAFYMEKEIKEKNLPLELTLVEASPRVGGKIQTVKKDGYYII  
ERGPDSFLERKKSAPQLVKDLGLEHLLVN NATGQSYVLVNR TLHPMPKGAVMGIPTKIAP  
FVSTGLFSLSGKARAAMDFILPASKTKDDQSLGEGFFRRRVGDEVVENLIEPLLSGIYAGD  
IDKLSLMSTFPQFYQTEQKHRSLILGMKKTRPQSGGQLTAKKQGQFQTLSTGLQTLVEE  
IEKQLKLTKVYKGTKVTKLSHSGSCYSLELDNGVTLDADSVIVTAPHKAAAGMLSELPAI  
SHLKNMHSTSVANVALGFPEGSVQMEHEGTGFVISRNSDFAITACTWTNKKWPHAAPEGK  
TLLRAYVGKAGDESIVDLSDNDI INIVLEDLKKVMN INGEPEMTCVTRWHESMPQYHVGH  
KQRIKELREALASAYPGVYMTGASFEGVGIPDCIDQGKAAVSDALTYLFS

>P50336

MGRTVVVLGGGISGLAASYHLSRAPCPPKVVLVESSERLGGWIRSVRGPNGAIFELGPRG  
IRPAGALGARTLLL VSELGLDSEVLPVRGDHPAAQNRFLYVGGALHALPTGLRGLLRPSP  
PFSKPLFWAGLRELTKPRGKEPDETVHSFAQRR LGPEVASLAMDSL CRGVFAGNSRELSI

RSCFP SLFQAEQTHRSILLGLLLGAGRTPQPSALIRQALAEERWSQWSLRGGLEMLPQAL  
ETHLTSRGVSVLRGQPVCGLSLQAEGRWKVSLRDSSEADHVISAIPASVLSSELLPAEAA  
PLARALSAITAVSVAVVNLQYQGAHLPVQGFGLVPSSEDPGVLGIVYDSVAFPEQDGSP  
PGLRVTVMLGGSWLQTLLEASGCVLSQELFQQRAQEAAAATQLGLKEMPSHCLVHLHKNCIP  
QYTLGHWQKLESARQFLTALHRLPLTLGASVYEGVAVNDCIESGRQAAVSVLGTEPNS

>P56601

MHHMPRTTGMNVAVVGGGISGLAVAHHLRSRGTDAVLLLESSARLGGAVGTHALAGYLVEQ  
GPNSFLDREPATRALAAALNLEGRIRAADPAAKRRYVYTRGRLRSVPASPPAFSLASDILP  
LGARLRVAGELFSRRRAPEGVDESAAAFGRRHLGHRATQVLLDAVQTGIYAGDVEQLSVAA  
TFPMLVKMEREHRSLILGAIRAQKAQRQAALPAGTAPKLSGALSTFDGGLQVLIIDALAAS  
LGDAAHVGARVEGLAREDDGWRLLIEEHGRRRAELSAQVVLAAPAHATAKLLRPLDDALA  
ALVAGIAYAPIAVVHLGFDAGTLPAPDGFGLVPAEEQRRMLGAIHASTTFPFRAEGGRV  
LYSCMVGGARQPGLVEQDEDALAAALAREELKALAGVTARPSFTRVFRWPLGIPQYNLGH  
ERVAIDAALQRLPGLHLIGNAYKGVGLNDCIRNAALADALVAGNTSHAP

>P07272

MKQKKFNSKSNRTDLSKRGDSPNIGISKSRTACKRCRLKIKCDQEFPSCKRCAKLEVP  
CVSLDPATGKDVPRSYVFFLEDRLAVMMRVLKEYGVDPTKIRGNIPATSDDEPFDLKKYS  
SVSSLGEEGILPHNGLLADYLVQKGNMMASSAITSKSMASPTINVQRKEFLVNSKKQDG  
SALLPETGSPMTSDARAEELRRCNKEISALGTMRESSFNSFLGDSSGISFAKLVFTATNF  
RQDSGDDVLDDEDIKQREQKYNGYAEAEENPHFDPLELPPRHAAEVMISRFFVDTNSQLPL  
LHRELFLLKKYFEPYIGPWNPNIALASDQTGINSAFEIPITSAFSAHTEPKRENVTEKIDV  
CSSVDVPWYDTWETSQKVNMRPIVELPTKFHIPYFFLNIIFAIGHATQVLKSDITTVATY  
KRRATKYIASLFSSSDRLEALAGTLLMVIYSIMRPNVPGVWYTMGSVLRRLTVDLGLHSEK  
INKNYDAFTREIRRRLFWCVYSLDRQICSYFGRPFGIPEESITTRYPSLLDSSFITLTNR  
EIDDYSDLPSNPSSKVIAMLYKIRRIQASIVRILYAPGAELPRRFMDLESWRIETYNE  
LERWFQVDVPKNFEMMNCKFNISWFDLNYHYSKSIYGLSPKFPPLNDTAFKIVLDSTKG  
TIDVFYNLCVNKKIGYTWAVVHNMFMGTMYLYVNFYSKNNINDCQEKVSEYTEKVLIVL  
KNLIGFCESAKTCYTSYKILSSVVIKLFKFMQINDAKGIFSDSNPLTSQANRMSYDKKTN  
VLGFDDGTFDNKVFNRNTNFEEKAPFDIPLDEFFTELEKHSNVSQFNTLDVSEGNQVINES  
ASTNTSSALNCQSYTNNQDIMDILFQVTSGSVWDEFFVRSNGNGEGESSYDISKGNSES  
GGIF

>P23538

MSNNGSSPLVLWYNQLGMNDVDRVGGKNASLGEMITNLSGMGVSVPNGFATTADAFNQFL  
DQSGVNQRIYELLDKTDIDDVTQLAKAGAQIRQWIIDTQPELENAIREAYAQLSADDE  
NASFAVRSSATAEDMPDASFAGQQTFLNVQGFDAVLVAVKHVFASLFDRAISYRVHQG  
YDHRGVALSAGVQRMVRSDLASSGVMFSDITESGFDQVVFITSAWGLGEMVVQAVNPDE  
FYVHKPTLAANRPAIVRRTMGSKKIRMVYAPTQEHGKQVKIEDVPEQQRDIFSLTNEEVQ  
ELAKQAVQIEKHYGRPMDIEWAKDGHTGKLFIVQARPETVRSRGQVMERYTLHSQGKIIA  
EGRAIGHRIGAGPVKVIHDISEMNRIEPGDVLVTDMDTPDWEPIMKKASAIVTNRGGRTC  
HAAIIARELGIPAVVCGDATERMKDGENVTVSCAEGDTGYVYAEELLEFSVKSSSVETMP  
DLPLKVMNVGNPDRAFDFACLPNEGVLARLEFIINRMIGVHPRALLEFDDQEPQLQNE  
IREMMKGFDSPREFYVGRLETEGIATLGAAFYPKRVIVRLSDFKSNEYANLVGGERYEPDE  
ENPMLGFRGAGRYVSDSFRDCFALECEAVKRVNRNDMGLTNVEIMIPFVRTVDQAKAVVEE  
LARQGLKRGENGLKIIMCEIPSNALLAEQFLEYFDGFSIGSNDMTQLALGLDRDSGVVS  
ELFDERNDAVKALLSMAIRAACKQKGYVVICGQGPSDHEDFAAWLMEEGIDSLSLNPDTV  
VQTWLSLAELKK

>P42850

MAYRFIKWFEELSKNDVPLVGGKGANLGEMTNAGIPVPPGFCVTAEEYKYFVENVKVSKE  
DVKRILGEKVNKGTISEVLAQAPDEPRPLQDWIMDIISKTDVDDSKMLQENTEAIRTLIK  
SLDMPSEIAEEIKQAYKELSQRFGQEEVYVAVRSSATAEDLPEASFAGQQETYLDVLGAD  
DVIDKVKRCWASLWTARATFYRAKQGFHDHKSVMYLSAVVQKMNSEKSGVMFTANPVTNNR  
NEIMINASWGLGEAVVSGAVTPDEYIVEKGTWKIKEKVIKKEVMVIRNPETGRGTVMVK  
VAEYLGPEWVEKQVLTDEQIIIEVAKMGQKIEDHYGWPQDIEWAYDKDDGKLYIVQSRPIT  
TLKEEATAEEAEVEEAEVILKGLGASPGIGAGRUVVIFDASEIDKVKEGDILVTMTNP  
DMVPAMKRAAAIVTDEGGRTSHAAIVSRELGIPC VVGTKEATKKLKTGMVTVVDGTRGLV  
YKGI V KSLVKKKEEAKAEGGQVVVAGAPLVGTMTKVNVSMP EVAERAAATGADGVGLLR  
AEHMILSIGQHPKFKIKEGKEEELVEKLAEGIEKVAAAFYPRPVWYRTL DAPTNEFREMP  
GGEDEPEERNPMLGWRGIRRLDQPELLRAEFKAIKKVVEKGYNNIGVMLPLVSHPEQIR  
EAKRIAREVGLPHKDVAVGVMIEVPAAAIIIEDLIKEGIDFVSFGTNDLTQYTLAIDRD  
NERVAKLYDETHPAVLKLIKHVIVCKRYGVETSICGQAGSDPKMARILVRLGIDSISAN  
PDAVQLIRQVVAQEERKLMLEAARKQLFEEEEEEEELF

>P27505

MLITDTLSPQAFEEALRAKGAFYHIHHPYHIAMHNGDATRKQIQGWVANRFYYQTTIPLK  
DAAIMANCPDAQTRRKWVQRILDHDGSHGEDGGIEAWLRLGEAVGLSRDDLLSERHVLPG  
VRFAVDAYLNFARRACWQEAACSSLTFLFAPQIHQSRLDSWPQHYPWIKKEGYFYFRSRL  
SQANRDVEHGLALAKAYCDSA EKQNRMLEILQFKLDILWSMLDAMTMAYALQRPPYHTVT  
DKAAWHTTRLV

>Q4DA80

MRKSVCPKQKFFFSAFPFFFFFCVFPPLISRTGQEKLLFDQKYKIIKGEKKEKKKNQRANR  
REHQQKREIMRFKKSFTCIDMHTEGEAARIVTSGLPHIPGSNMAEKKAYLQENMDYLRRG  
IMLEPRGHDDMFGAFLFDP IEEGADLGMVFM DTGGYLNMC GHNSIAAVTAAVETGIVSVP  
AKATNVPVVLDTPAGLVRGTAHLQSGTESEVSNASIINVPSFLYQQDVVVVLPKPYGEVR  
VDIAFGGNFFAIVPAEQLGIDISVQNL SRLQEAGELLRTEINRSVKVQHPQLPHINTVDC  
VEIYGPPTNPEANYKNVVI FGNRQADRSPCGTGTSAKMATLYAKGQLRIGETFFVYESILG  
SLFQGRVLGEERIPGVKVPVTKDAEEGMLVVTAETGKAFIMGFNTMLFDPTDPFKNGFT  
LKQ

>Q9LJL3

MLRTVSLASRSSSSLFFRFFRQFPRSYMSLTSSSTAALRVPSRNLRRISSPSVAGRLLLL  
RRGLRIPSAAVRSVNGQFSRLSVRAVATQPAPLYPDVGQDEAEKLGFEKVSEEFISECKS  
KAILFKHKKTGCEVMSVSNEDENKVFVGFRTPPKDDSTGIPHILEHSVLCGRKYPVKEP  
FVELLKGSLHTFLNAFTYPRDTCYPVASTNTKDFYNLVDVYLDVAVFFPKCVDDAHTFQQE  
GWHYELNDPSEDISYKGVVFNEMKGVYSQPDNILGRI AQALSPENTYGVDSGGDPKDIP  
NLTFEEFKEFHRQYYHPSNARIWFYGD DDPVHRLRVLSEYLD MFEASPSPNSSKIKFQKL  
FSEPVR LVEKYPAGRDGDLKKKHMLCVNWLLSEKPLDLQTLALGFLDHLMLGTPASPLR  
KILLESGLGEALVSSGLSDELLQPQFGIGLKG VSEENVQKVEELIMDTLKKLAE EGF DND  
AVEASMNTIEFSLRENNTGSFPRGLSLMLQSISKWIYDMDPFEPLKYTEPLKALKTRIAE  
EGSKAVFSPLIEKLILNNSHRVTIEMQPDPEKATQEEVEEKNILEKVKAAMTEEDLAELA  
RATEELK LKQETPDPEALRCVPSLNLGDIPKEPTYVPTEVGDINGVKVLRHDLFTNDII  
YTEVVF DIGSLKHELLPLVPLFCQSLLEMGT KD LTFVQLNQLIGRKTGGISVYPLTSSVR  
GKDEPCSKIIVRGKSMAGRADDLFLNLMNCLLQEVQFTDQQRFKQFVSQSRARMENRLRGS  
GHGIAAARMDAMLNIAGWMSEQMGLSYLEFLHTLEKKVDEDWEGISSSLEEIRRSLLAR  
NGCIVNMTADGKSLTNVEKSVAKFLDLLPENPSGGLVTDGRLPLRNEAIVIPTQVNYVG  
KAGNIYSTGYELDGSAYVISKHISNTWLWDRVRVSGGAYGGFCDFDSSHSGVFSYLSYRDP

NLLKTLDIYDGTGDFLRGLDVDQETLTKAII GTIGDVDSYQLPDAKGYSSLLRHLLGVTD  
EERQRKREEILTTSLKDFKDFQAIDVVRDKGVAVAVASAEDIDAANNERSNFFEVKKAL

>Q9JM99

MGWKILPVCLSLLLPVVLIQQVSSQDLSSCAGRCGEGYSRDATCNCQDYNQCQHYMECCPDF  
KRVCSPELSCKGRFCFESFARGREDCDSQCKQYKCCADYDSFCEEVHNSTSPSSKTAPT  
PAGASDTIKSTTKRSPKSPTRTIKVVSEELTEEHSSENQESSSSSSSSSSSTIRKIKS  
SKNSANRELQKNPNVKDNKKNTPKKNPNPEPPAVDEAGSGLDNGEFKLTPPPDPPTTPH  
SKVATSPKTTAAKPVTPKPSLAPNSETSKEASLASNKETTVEKETTATNKQSSASKKKT  
TSVKETRSAEKTSDKDVEPTSTTPKNSAPTTPKPKVTTTKEKSKFLPLPQEPPEPTTAKEPP  
PTTKKPEPTTRKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKE  
PGPTTPKEPEPTTTKEPEPTTTKEPESTTRKEPEPTTPKEPEPTTPKEPEPTTLKEPEPT  
TPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKEPEPTTPKE  
PEPTTPKKPEPTTPKEPVPTTPKEPEPTTPKEPEPTTPKEPEPTTRKEPEPTTPKEPEPT  
TPKEPEPTTPKKPEPTTSPKTTTLKATTLAPKVTAPAEI QNKPEETTPASEDSDSKT  
TLKPQKPTKAPKPTKKPTKAPKPTSTKKPKTPKTRKPTTPSPLKTTSATPELNTTPLE  
VMLPTTTIPKQTPNPETAEVNPDHEDADGGEKPLIPGPPVLFPTAIPGTDLLAGRLNQ  
GININPMLSDETNLKNGKPDGLTTLRNGTLVAFRGHYFWMLNPFRRPPRRRITVWGI  
PSPIDTVFTRCNCEGKTFFFKDSQYWRFTNDVVDPGYPKQIVKGFGLTGKIVAALSIAK  
YKDRPESVYFFKRGNNIQOYTYKQEPMKKCTGRRPAINYSVYGEAAQVRRRRFERAVGPF  
QTHFRIHYSVPMRVSQDKGFLHNEVKVSTMWRGFVNVVTSAITLPNIRKPDGYDYAF  
SKDQYYNIDVPTRTARAITTRSGQTLKWIYNCP

>P10277

MKMNVATATVSHALGHWPRIILPALGIQVLKNRHQPCPVCGGSDRFRFDDREGRGTWYCNQC  
GAGDGLKLVEKVFVSPSDAAAKVAAVTGSLPPADPAVTTAAVDETDAAARKNAAAALQTL  
MAKTRTGTGNAYLTRKGFPGRECRMLTGTHRAGGVSWRAGDLVVPLYDDSGELVNLQLIS  
ADGRKRTLKGGQVRGTCHTLEGQNQAGKRLWIAEGYATALTVHHLTGETVMVALSSVNL  
SLASLARQKHPACQIVLAADRDLSGDQKKAADACEGVVALPPVFGDWNDAFTQYGG  
EATRKAIDAIRPPAESPFDTMSEAEFSAMSTSEKAMRIYEHYGEALAVDANGQLLSRYE  
NGVWKVLPQDFARDVAGLFQRLRAPFSSGKVASVVDTLKLIIPQQEAPSRRLIGFRNGV  
LDTQNGTFHHPSPSHWMRTLCDVDFTPVDGETLETHAPAFWRWLDRAAGGRAEKRDVIL  
AALFMVLANRYDQWLFLEVTGPGGSGKSIMAEIATLLAGEDNATSATIEETLESPPRERAA  
TGFSLIRLPDQEKWSGDAGLKAITGGDAVSVDPKYRDAYSSTHIPAVILAVNNNPMRFTD  
RSGGVSRRRVIIHFPEQIAPQERDPQLKDKITRELAVIVRHLMQKFSDPMLARSLLQSQQ  
NSDEALNIKRDADPTDFDIGYLETLPQTSGMYMGNASIIPRNYRKYLYHAYLAYMEANGY  
RNVLSLKMFGGLPVMLEKEYGLNYEKRHTKQGIQTNLTLKEESYGDWLPKCDDPTTA

>P03692

MDNSHSDSVFLYHIPCDNCGSSDGNLSLSDGHTFCYVCEKWTAGNEDTKERASKRKPSPG  
GKPMTYNVWNFGESNGRYSALTARGISKETCQKAGYWIAKVDGVMYQVADYRDQNGNIVS  
QKVRDKDKNFKTTGSHKSDALFGKHLWNGGKKIVVTEGEIDMLTVMELQDCKYPPVSLGH  
GASAAKKTCAANYEYFDQFEQIILMFDMEAGRKAVEEAAQVLPAGKVRVAVLPCKDANE  
CHLNHGDREIMEQVWNAGPWIIPDGVVSSLSLRERIREHLSSEESVGLLFSGCTGINDKTL  
GARGGEVIMVTSGSGMGKSTFVRQQALQWGTAMGKKVGLAMLEESVEETAEDLIGLHNRV  
RLRQSDSLKREIIEENGKFDQWFDELFGNDTFHLYDSFAEAETDRLLAKLAYMRSGLGCDV  
IILDHISIVVSASGESDERKMIDNLMTKLKGFAKSTGVVLVVICHLKNPKGKAHEEGRP  
VSITDLRSGALRQLSDTIIALERNQQGDMPNLVLVRIKCRFTGDTGIAGYMEYNKETG  
WLEPSSYSGEEESHSESTDWSNDTDF

>O34507

MLIGKRISGRYQILRVIGGGGMANVYLAEDIILDREVAIKILRFDYANDNEFIRRFREA  
QSASSLDHPNIVSIYDLGEEDDIYYIVMEYVEGRTLKEYITANGPLHPKEALNIMEQIVS  
AIAHAHQNQIVHRDIKPHNILIDHMGNIKVTDGFIATALSSTTITHTNSVLGSHVHLSPE  
QARGGLATKKSDIYALGIVLFEFLTGRIPFDGESAVSIALKHLQAETPSAKRWNPSVPQS  
VENIILKATAKDPFHRYETAEDMEADIKTAFDADRLNEKRFTIQEDEEMTKAIP I IKDEE  
LAKAAGEKEAEVTTAQENKTKKNGKRKKWPVLLTICLVFITAGILAVTVFPSLFPKDV  
KIPDVSGMEYEKAAGLLEKEGLQVDSEVLEISDEKIEEGLMVKTDPKADTTVKEGATVTL  
YKSTGKAKTEIGDVTGQTVDQAKKALKDQGFNHVTVNEVNDEKNAGTVIDQNPSAGTELV  
PSEDQVKLTVSIGPEDITLRDLKTYSKAEASGYLEDNGLKLVKEEAYSDDVPEGQVVKQK  
PAAGTAVKPGNEVEVTFSLGPEKKPAKTVKEKVKIPYEPENEGDELQVQIAVDDADHSIS  
DTYEEFKIKEPTERTIELKIEPGQKGYQVMVNNKVVSYKTI EY PKDE

>P33411

MDL DLASILKGEISKKKKELANSKGVQPCTEKFQPHESANIDETPRQVEQESTDEENLS  
DNQSDDIRTTISKLENRPERIQEAIAQDKTISVIDPSQIGSTEGKPLLSMKCNLYIHEI  
LSRWKASLEAYHPELFLDTKKALFPLLLQLRRNQ LAPDLLISLATVLYHLQQPKEINLAV  
QSYMKLSIGNVAWPIGVTSVGIHARSAHSKIQQGRNAANIMIDERTRLWITSIKRLITFE  
EWYTSNHDSL A

>Q09882

MALLSEELSSILPNPDFDDEEEDYVERETSHADERQIGVKFHIPPYQQRKGWFPSSPEDF  
GDGGAFPEIHVAQYPLDMGRKRSAKSAGNTLALQVTSSGAVDYNAIARQGHEHGELVQAS  
FRDLIPLRARGVGEISLEKPSDEQKQEVANKTKLALQKILSKQIAQSQPKSAVVQQRDD  
PVYIRYTPSNQMGQALSQRRIKMTAEQDPMEPKFRHKKVPRGPPSPPPVLHSPPRK  
VSAQEQQDWQIPPSISNWKNPKGYTIPLDKRLAADGRGLNDVEINDGFAKFSEALYTVR  
QAREEVRYRAIMRQKMAEKEKQEKQRLFMLAQKAREDRMGRNAASSGPHAKPRSTSVS  
SEERSRSRAGSFSSHSESENEDEDSEAFRRRQELRRERRRQAEKDLRLSRMGAEKRAKLA  
EKDRPRDVAERVALGLSKPSMSSDTMIDSRLFNQASGLGSGFQDEDSYNVYDKPWRAAPS  
STLYRPGATLSRQVDASAELERITSESRYDVLGNAHKKFKGSDEVVESRAGPVTFEKDIA  
DPFGVDTFLNNVSSKKT

>P23942

MALLKVKFDQKKRVKLAQGLWLMNWF SVLAGI I I FSLGLFLKIELRKRSDVMNNSESHFV  
PNSLIGMVLSCVFNSLAGKICYDALDPAKYARWKPWLKPYLAICVLFNIILFLVALCCF  
LLRGSLENTLQGLKNGMKYYRDTDTPGRCFMKKTIDMLQIEFKCCGNNGFRDWF EIQWI  
SNRYLDFSSKEVKDRIKSNVDGRYLVDGVVFPSCCNPSSPRPCIQYQITNNSAHYSYDHQT  
EELNLWVRGCRAALLSYSSLMNSMGVVTLIWLFEVTITIGLRYLQTSLDGVSNP EESE  
SESEGWLLEKSVPETWKAFLESVKKLGKGNQVEAEGAGAGQAPEAG

>P52321

MCVSRRRNSGRPILRVRAPHLLRAPHRRSKLKHRRISRKRATLAGSAVVALVAAGFTFQ  
TANASDDVPAFGAKTLSADAAGKLATTLDRDLGADAAGSYDATAKTLVNVVDEAGAEQ  
VRQAGGKARIVENSLAELKSARGTLTEKATIPGTSWAVDPVSNKVLVTADSTVDGAAWKK  
LSAVVEGLGGKAELNRTAGEFTPLIAGGD AIWGSGRCSLGFNVVKGGEPYFLTAGHCTE  
SVTWSWSDTQGGSEIGANEGSSFPENDYGLVKYTSDTAHPSEVNLYDGSTQAITQAGDATV  
GQAVTRSGSTTQVHDGEVTDALDATVNYGNGDIVNGLIQTTVCAEPGDSGGALFAGDTALG  
LTSGSGDCSSGGTTFFQPVPEALAAAYGAEIG

>P44758

MSSMEGKKVPQVTFRTRQGDKWVDVTTSELFDNKTVIVFSLPGAFTPTCSSSHLPRYNEL  
APVFKKYGVDDILVVSVNDTFVMNAWKEDEKSENI SFIPDGNGETEGMGLVKGEDLGF  
GKRSWRYSMLVKNGVVEKMFIEPNEPGDPFKVSDADTMLKYLAHQVQESISIFTKPGC  
PFCAKAKQLLHDKGLSFEEIILGHDATIVSVRAVSGRTTVPQVFIGGKHIGGSDDLEKYF  
A

>P81701

QTCSTSDDADDPNPNRDEAFASRVAAAKRELEGTGTVQCINNGETDLAAKFHKSLPH  
DDLQVVDADAFAALEDICILNGDLSICEDVFPVGNSEGDVPGRLVNPTAAFAIDISGPAFSA  
TTIPPVPTLPSPELAAQLAEVYWMALARDVPPFMQYGTDDITVTAAANLAGMEGFPNLDAV  
SIGSDGTVDPLSQLFRATFVGVETGPFISQLLVNSFTIDSITVEPKQETFAPDVNYMVDF  
DEWLNIQNGGPPAGPELDDDELRFVRNARDLARVFTDNINTEAYRGALILLGLDAFNRA  
GVNGPFIIDIRQAGFVNFVGI SHYFRLIGAAELAQRSSWYQKWQVHRFARPEALGGTLHLT  
IKGELNADFDLSLENAELLKRVAAINAAQNPNNEVTYLLPQAIQEGSPHPSYPSGHAT  
QNGAFATVLKALIGLDRGGDCYPDPVYDGLKIDFRGSCITFEFEINKLAVNVAFGR  
QMLGIHYRFDGIQGLLGETITVRTLHQELMTFAEESTFEFRLFTGEVIKLFQDGTFTID  
GFKCPLVYTGVENCVS

>P07988

MAESHLQWLLLLLPTLCGPGTAAWTTSSLACAQGPFWCQSLEQALQCRAFGHCLQEYVW  
GHVGADDLCQECEDIVHILNKMAKEAIFQDTMRKFLEQECNVLPKLLMPQCNQVLDYF  
PLVIDYFQNTDSNGICMHLGLCKSRQPEPEQEPGMSDPLPKPLRDPPLDPLDKLVLPV  
LPGALQARPGPHTQDLSEQQFPIPLPYCWLCRALIKRIQAMIPK GALAVAVAQVCRVPL  
VAGGICQCLAERYSVILLDTLLGRMLPQLVCRVLVLRCSMDDSAGPRSPTEGWLPRDSECH  
LCMSVTTQAGNSSEQAIPQAMLQACVGSWLDREKCKQFVEQHTPQLLTLVPRGWAHTTC  
QALGVCGTMSSPLQCIHSPDL

>P08839

MISGILASPGIAFGKALLKEDIVIDRKKISADQVDQEVERFLS GRAKASAQLETIKTK  
AGETFGEEKEAIFEGHIMLLEDEELEQEIIALIKDKHMTADAAAHEVIEGQASALEELDD  
EYLKERAADV RDIGKRLLRNIGLKIIDL SAIQDEVILVAADLTPSETAQLNLKVLGFI  
TDAGGRTSHTSIMARSLELPAIVGTG SVTSQVKNDDYLILD AVNNQVYVNP TNEVIDKMR  
AVQEQVASEKAELAKLDLPAITLDGHQVEVCANIGTVRDVEGAERNGAEGVGLYRTEFL  
FMDRDALPTEEEQFAAYKAVAEACGSQAVIVRTMDIGGDKELPYMNF PKEENPFLGWRAI  
RIAMDRREILRDQLRAILRASAFGKLRIMFPMIISVEEV RALRKEIEIYKQELRDEGKAF  
DESIEIGVMVETPAAATIARHLAKEVDFFSIGTNDLTQYTLAVDRGNDMISHLYQPMSPS  
VLNLIKQVIDASHAEGKWTGMC GELAGDERATLLLLGMGLDEF SMSAISIPRIKKIIRNT  
NFEDAKVLAEQALAQPTTDELMTLVNKFIEEKTIC

>P30299

MTEMLKGIAASDGVAVAKAYLLVQPDLSFETVTVEDTSAEEARLDAALAASQDELSVIRE  
KAVESLGEAAAVF DAHLMVLADPEMTGQIKETIRAKQVNAEAAALTEVTD MFIAIFEGME  
DNPYMQERAADIRDVTKRVLANLLGKLPNPATINEESIVVAHDLTPSDTAQLNKKYVKA  
FVTNIGGRTSHSAIMARTLEIAAVLGTNNITELVKDGDILAVSGITGEVVINPTEEQIAE  
FKAAGEAYAKQKAEWALLKDAQTVTADGKHFE LAANIGTPKDVEGVNDNGAEAVGLYRTE  
FLYMDSQDFPTEDDQYEAYKAVLEGMNGKPVVVRTMDIGGDKELPYFDLPKEMNPFLGYR  
ALRISISSETGNQMFRTQLRALLRASVHGKLRIMFPMVALLTEFR TAKGILEEEKAKLVAE  
GVAVADDIEVGIMIEIPAAAMLADQFAKEVDFFSIGTNDLIQYTM AADMNEQVS YLYQP  
YNPSILRLINNVIKAAHAEGKWAGMCGEMAGDQTA VPLLVGMGLDEF SMSATSVLRTRSL  
MKKLD TAKMEEYANRALTECSTMEEVLELSKEYVNV D

>P38503

MVTFLEKISERAKKLNKTIALPETEDIRTLQAAAKILERGIADIVLVGNEADIKALAGDL  
DLSKAKIVDPKTYEKKDEYINAFYELRKHKGITLENAAEIMSDYVYFAVMMAKLGEVDGV  
VSGAAHSSSDTLRPAVQIVKTAKGAALASAFFIISVPDCEYGS DGTFLFADSGMVEMPSV  
EDVANIAVISAKTFELLVQDVPKVAMLSYSTKGS AKSKL TEATIASTKLAQELAPDIAID  
GELQVDAAI VPKVAASKAPGSPVAGKANVFI FPD LNCGNIAYKIAQRLAKAEAYGPITQG  
LAKPINDLSRGCSEDEDIVGAVAITCVQAAAQDK

>Q9X0L4

MFLEKLVEMARGKGGKLLAVAAAANDDHVIEAVYRAWRERVCEPVLFGPEEEITRIIEELVP  
EWKNPQIIDCPPEEAGRLAVEAVSKGECDFLMKGGIKTGDLMKIYLDERYGLRTGKTMAM  
VSVMEIPDFPRPLIISDPGMLISPTLEQKVD MIEHCVRVANVMGLETPKVAVVGAIEVVN  
PKMPITMEAAILSKMNQRGQIKGCIVDGP FALDNV VSEEA A K K K G I Q S P V A G K A D I L I L P  
DIEAANILYKALVFLAKAKSASTILGGKVPVVLTSRADSEETKFYSIALSAVFA

>O14684

MPAHS LVMSSPALPAFLLCSTLLVIKMYVVAIITGQVRLRKKAFANPEDALRHGGPQYCR  
SDPDVERCLRHRNDMETIYPFLFLGFVYSFLGPNPFVAVMHFLVFLVGRVAHTVAYLGK  
LRAPIRSVTYTLAQLPCASMALQILWEAARHL

>Q980V1

MIKMVIVVRS DIKMGK G I A A Q V A H A A V T L V V S I I N S N N L R W K E W L N E W L H Q Q P K I I V K  
VNSLDEIISRAKKAETMNL PFSI I E D A G K T Q L E P G T I T C L G I G P A P E N L V D S I T G D L K L L

>P11502

MMATKEEISMVGFALVAYAGDARTAAVHALDAAEAGDFDKANELVEKAQQDINEAHNQQT  
QLLSQEAGGAEMDVTFIMVHGQDTLMTTMLLIDETRYMIRMFKR I KELENKQ

>P23532

MNREEMTLGFEIVAYAGDARSKLLEALKAAENGDFAKADSLVVEAGSCIAEAHSSQTGM  
LAREASGEELPYSVTMMHGQDHLMTTILLKDVIIHHLIELYKRGAK

>P00550

MSSDIKIKVQSFGRFLSNMVM PNIGAFIAWGIITALFIPTGWL PNETLAKLVGPMITYLL  
PLLIGYTGGKLVGGERRGGVVAITTMGVIVGADMPMFLGSMIAGPLGGWC I K H F D R W V D G  
KIKSGFEMLVNNFSAGIIGMILAILAFLGIGPIVEALSKMLAAGVNFVVDMLPLASIF  
VEPAKILFLNNAINHGIFSP L G I Q Q S H E L G K S I F F L I E A N P G P M G V L L A Y M F F G R G S A K  
QSAGGAAI IHFLGGIHEIYFPYVLMNPRILAVILGGMTGVFTLTILGGGLVSPASPGSI  
LAVLAMTPKGAYFANIAGVCAAMAVSFVVSAILLKT SKVKEEDDIEAATRRMQDMKAESK  
GASPLSAGDVTNDLSHVRKII VACDAGMGSSAMGAGVLRKKIQDAGLSQISVTNSA INNL  
PPDVDLVI THRD LTERAMRQVPQAQHISL TNFLDSGLYTS LTERLVAAQRHTANEKVKD  
SLKDSFDDSSANLFLKGAENIFLGRKAATKEEAIRFAGEQLVKGGYVEPEYVQAMLDREK  
LTPTYLGESIAVPHGTVEAKDRVLKTGVVFCQYPEGVRFGEEDDIARLVIGIAARNNEH  
IQVITSLTNALDDES VIERLAHTTSVDEVLELLAGRK

>P27547

MENL TNISIELNQFNTKEEAIRFCGEKLV EAGC VEPAY IEAMI ERDQLLSVYMGNFIAI  
PHGTEEAKKLVKKS G I C V V Q V P E G V N F G T E E D E K I A T V L F G I A G V G E E H L Q L V Q Q I A L Y C  
SDMDNVVQLADALSKEEITENLAIA

>P17876

MTELFNSNENIFLNQSFEDQNEAIEKAGQALVDAGAVTEDYIQAMKDREAVVSTFMGNGLA  
IPHGTEAKSAVLQSGLLTLLQIPEGVQWGDVAKVVVGIAGKDGEHLDDLKIAITFSEE  
ENVDRIVNTKSPEEIKAVFEEADV

>P28008

MDTMSNSQQNKIGRKVQAFGSFLSSMIMPNI GAFIAWGFIAAIFIDNGWFPNKDLAQLA  
GPMITYLIPLLIAFSGRLIHDLRGGIIAATATMGVIVALPDT PMLLGAMIMGPLVGWLM  
KKTDEFVQPRTPQGFEMLFNNFSAGILGFIMTIFGFVFLAPIMKFIMHILSVGVEALVHA  
HLLPLVSILVEPAKIVFLNNAINHGVFTPLGADQAAHAGQSILYTIENP GPGIGVLIAY  
MIFGKGTAKATSYGAGIIQFFGGIHEIYFPYVLMRPLL FVSVILGGMTGVATYSLDDFGF  
KTPASPGSIIVYAINAPKGEFLHMLTGVVLAALVSFVVSALILKFTKDPKQDLAEATAQM  
EATKGGKSSVASKLSAKDDNKAADNKTAETTTATAASNKAEDKDSDELDDYNTEDVDAH  
NYNNDVHVI FACDAGMGSSAMGASMLRNKFKNAGLENIQVTNTAINQLPKNAQLVITQKK  
LTDRAIKQSPDAIHISVENFLNSPRYEELINNLKEDQD

>P69791

MMDLDNIPDTQTEAEEL EEVVMGLI INSGQARSLAYAALKQAKQGDFAAAKAMMDQSRMA  
LNEAHLVQTKLIEGDAGEGKMKVSLVLVHAQDHLMTSMLARELITELIELHEKLLKA

>Q57615

MLDRIDLKILRILNGNARKSFREIGRELIGSEGTVRNRVKRLTEKGIITGFHASINPKNL  
GFEVVAILGLYIKPSKVEETLNKELDEIVELYQTTGEYDAVCIAILKDIESLGKFLAE  
KIYPLVNVNGCKVTLVLRTFKDGSKMPI

>Q58133

MDEKDLKIIIEILMRDGRKSYTDIARELGTSSESSIRKRVKKLEEEGVIKGYTAIIDPSKIG  
YNVVALTGFDTEPKDFLNVAKELCKFPEVKKVFTSTGDHMIMTEIWAKDGKEFSDLI FNK  
IGKIEGIKKICPAIILEQMK

>O69054

MLPKLVITHRVHDEILQLLAPHCELMTNQTDSTLTREEILRRCRDAQAMMAFMPDRVDAD  
FLQACPELRVVGKALGFDFNDVDACTARGVWLTFFVPDLLTVPTAELAIGLAVGLGRHLR  
AADA FVRSGEFQGWQPQFYGTGLDNATVGILGMGAIGLAMADRLQGWGATLQYHEAKALD  
TQTEQRLGLRQVACSELFASSDFILLALPLNADTQHLVNAELLALVRPGALLVNPCRGSV  
VDEAAVLAALERGQLGGYAADVFEEMEDWARADRPRLLIDPALLAHPNTLFTPHIGSAVRAV  
RLEIERCAAQNI IQVLAGARP INAANRLPKAEPAAC

>P07811

MLRYTCHALFLGSLVLLSGCDNSSSSSTSGSPGSPGNP GNP GTPGTPDPQDVVRLPDVA  
VPGEAVQASARQAVIHLVDIAGITSSTPADYATKNLYLWNNETCDALSAPVADWNDVSTT  
PTGSDKYGPYWVIPLTKESGSINVI VRDGTNKLIDSGRVSFSDFTDRTVSVIAGNSAVYD  
SRADAFRAAFGVALADAHWVDKTTLLWPGGENKPIVRLYYSHSSKVAADSNGEFSDKYVK  
LTPTTVNQQVSMRFPHLASYPAFKLPDDVNVD ELLQGGDGGIAESDGI LSLSHPGADRRR  
AGRYLCRRAEALSYGAQLTDSGVTFRVWAPTAQQVELVIYSADKKV IASHPMTRDSASGA  
WSWQGGSDLKGA FYRYAMTVYHPQSRKVEQYEVTDPYAHSLSTNSEYSQVVDLND SALKP  
EGWDGLTMPHAQKTKADLAKMTIHESHIRDL SAWDQTVPAELRGKYLALTAQESNMVQHL  
KQLSASGVTHIELLPVFDLATVNEFSDKVADIQQPFSRLCEVNSAVKSSEFAGYCDSGST  
VEEVL TQLKQND SKDNPQVQALNTLVAQTDSYNWGYDPFH YTVPEGSYATDPEGTARIKE



FRTMIQAIKQDLGMNVIMDVVYNHTNAAGPTDRTSVLDKIVPWYYQRLNETTGSVESATC  
CSDSAPEHRMFAKLIADSLAVWTTDYKIDGFRFDLMGYHPKAQILSAWERIKALNPDIYF  
FGEGWDSNQSDRFEIASQINLKGTGIGTFSDRLRDAVRGGGPFDSGDALRQNQGVGSGAG  
VLPNELTTLSDDQARHLADLTRLGMAGNLADFVLDKDGAVKRGSEIDYNGAPGGYAADP  
TEVVNYVSKHDNQTLWDMISYKAAQEADLDTRVRMQAVSLATVMLGQGIAFDQQGSELLR  
SKSFTRDSYDSGDWFNRVDYSLQDNMNVGMPRSSDDGSNYDI IARVKDAVATPGETELK  
QMTAFYQELTALRKSSPLFTLGDGATVMKRVDFRNTGADQQTGLLVMTIDGDMQAGRQSG  
QPCRRHRGGDQRRAGKPDAAGLRRHIAPAERYASAGGGRPVAGERVQVAADGSVTLPAWSV  
AVLELPQASRRALACR

>P81989

TTTTTPPSTPPLDDPATDPFLVARAAADHIAQATGVEGHDMALVLGSGWGGAAELLGEVVA  
EVPTHEIPGFSAPAVAGHLSVTRSIRVERADGSRHALVLSRTHLYEGKGVRAVHGVV  
TAAATGAETLILTNCGGLNQEWGAGTPVLLSDHINLTARSPLEGPTFVDLTDVYSPRLR  
ELAHRVDPTLPEGVYAQFPGPHYETPAEVRMAGILGADLVGMSTTLEAIAARHCGLEVLG  
VSLVTNLAAGISPTPLSHAEVIEAGQAAGPRISALLADIKR

>P0A538

MADPRPDPDELARAAQVIADRTGIGEHDVAVVLGSGWLPVAALGSPTTVLPQAEPLPGF  
VPPTAAGHAGELLVSPIGAHRVVLVAGRIHAYEGHDLRYVHPVRAARAAGAQIMVLTNA  
AGGLRADLQVGPVLI SDHLNLTARSPLVGGEFVDLTDAYSPRLRELARQSDPQLAEGVY  
AGLPGPHYETPAEIRMLQTLGADLVGMSTVHETIAARAAGAEVLGVSLVTNLAAGITGEP  
LSHAEVLAAGAASATRMGALLADVIARF

>P00497

MLAEIKGLNEECGVFGIWGHEEAPQITYYGLHSLQHRGQEGAGIVATDGEKLTAKHGQGL  
ITEVFQNGELSKVKGKGAIGHVRYATAGGGGYENVQPLLFRSQNNGSLALAHNGNLVNAT  
QLKQQLENQGSIFQTSSDTEVLAHLIKRSGHFTLKDQIKNSLSMLKGAYAFIMTETEMI  
VALDPNGLRPLSIGMMGDAYVVASETCAFDVVGATYLRVVEPGEMLIINDEGMKSERFSM  
NINRSICSMEIYIFSRPDSNIDGINVHSARKNLGKMLAQESAVEADVVTGVPDSSISAAI  
GYAEATGIPYELGLIKNRYVGRTFIQPSQALREQGVRMKLSAVRGVVEGKRVMVDDSI  
RGTTSRRIVTMLREAGATEVHVKISSPPIAHPCFYGIDTSTHEELIASSHSVGEIRQEIG  
ADTSLFSLVEGLLKGIGRKYDDSNCGQLACFTGKYPTEIYQDVTLPVPHVKEAVLTK

>P0AG16

MCGIVGIAGVMPVNQSIYDALTVLQHRGQDAAGIITIDANNCFRRLRKANGLVSDVF  
MQRQLQGNMGIHVRYPTAGSSSASEAQPFYVNSPYGITLAHNGNLNAHELKRLKLFEEKR  
RHINTTSDSEILLNIFASELDNFRHYPLEADNIFAAIAATNRLIRGAYACVAMIIGHGMV  
AFRDPNGIRPLVLGKRDIDENRTEYMVASESVALDTLGFDLFRDVPGEAIYITEEGQLF  
TRQCADNPVSNPCLFEYVYFARPDSFIDKISVYSARVMGTLGKGIAREWEDLDIDVVI  
PIPETSCDIALEIARILGKPYRQGFVKNRYVGRTFIMPGQQLRRKSVRRKLNANRAEFRD  
KNVLLVDDSIVRGTTSEQUIEMAREAGAKKVYLASAAPeirfPNVYGIDMPSATELIAHG  
REVDEIRQIIGADGLIFQDLNDLIDAVRAENPDIQQFECSVFNQVYVTKDQYLDLFLD  
TLRNDDAKAVQRQNEVENLEMHNEG

>Q06203

MELEELGIREECGVFGCIASGEWPTQLDVPHVITLGLVGLQHRGQESAGIVTSDGSSVPT  
FKSHKGMGLVNHVFTEDNLKLYVSNLGIHGHTRYATTGKCELENCQPFVETLHGKIAVA  
HNGELVNAARLRKLLRHGIGLSTSSDSEMITQLLAYTPPQEQQDTPDWVARIKNLMKEA  
PTAYSLIMHRDVIYAVRDPYGNRPLCIGRLIPVSDINDKEKKTSETEGWVVSSESCSFL

SIGARYYREVLPG EIVEISRHNVTLDIISRSEGNPVAFCIFEYVYFARPDSMFEDQMVY  
TVRYRCGQQLAIEAPVDADLVSTVPESATPAALAYAGKCGLPYVEVLCKNRYVGRTFIQP  
NMRLRQLGVAKKFGVLSDNFKGKRIVLVDDSIVRGNTISP I IKLLKESGAKEVHIRVASP  
PIKYPCFMGINIPTKEELIANKPEFDHLAEYLGANSVVYLSVEGLVSSVQEGIKFKKQKE  
KKHDIMIQENGNLECFEKS GHCTACLTGKYPVELEW

>P0AG18

MSSRNNPARVAIVMGSKSDWATMQFAAEIFEILNVP HHVEV VSAHRTPDKLFSFAESAE  
NGYQV I IAGAGGAAHLPGMIAAKTLVPVLGVPVQSAALSGVDSLYSIVQMPRGIPVGT  
LAI GKAGAANAALLAAQILATHDKELHQRLNDWRKAQTDEVLENPDPRGAA

>Q9WYS7

MPRVGIIMGSDSDLPVMKQAAEILEEFGIDYEITIVSAHRTPDRMF EYAKNAEERGIEVI  
IAGAGGAAHLPGMVASITHLPVIGVPVKSTLNLGDSLFSIVQMPGGVPVATVA INNAKN  
AGILAASILGIKYPEIARKVKEYKERMKREVLEKAQRLEQIGYKEYLNQKE

>Q21774

MASEDKFESVLSTRYCKNSPLVSI LSETNKATLWRQLWIWLAEAEKELGLKQVTQDAIDE  
MKSNRDVFDFWPFIRSEERKLKHDVMAHNHAFGKLCPTAAGI IHLGATSCFVQDNADLIAY  
RDSIDHILKRFATVIDRLAAFS LKNKEVVTVGRTHYQTASLVTVGKRGVLWAQELLMAFQ  
SLSEFRDKMRFRGIK GATGTQDSFLT LFAGDESKVEALDELVTKKANFSNRFLITGQ TYS  
RQQDSQLVFSLSLLGAAAKK VCTDIRVLQAFGELLEPF EKDI GSSAMPYKKNPMKSERC  
CALSRKLINAPQEAL TILADQGLERTLDD SAGRRMLIPDVLLTAEALLTTLQNI FEGLSV  
QTDNVKKI VEDEIAFLGLEKAMMMLTEEGVDRQQAHAVIRKTALEAKQLQATQKVDIRQT  
MADPFFDSVRDRVVGLVNNPINF TGRCVSQTESFIAKELKPTIDKYLDKSAGNVQLDV

>P31335

MAARQQLALLSVSEKAGLVEFARSLNALGLGLIASGGTATALRDAGLPVRDVSDLTGFPE  
MLGGRVKT LHPAVHAGILARNIPEDNADMNKQDFSLVRVV CNLYPFVKTVSSPGVTVPE  
AVEKIDIGGVALLRAAAKNHARVTVVC DPADYSSVAKEMAASKDKDTSVETRRHLALKAF  
THTAQYDAAISDYFRKEYSKGVSQ LPLRYGMNPHQSPAQLYTTRPKLPLTVVNGSPGF IN  
LCDALNAWQLVKELKQALGIPAAASF KHVSPAGAAVG IPLSEEEAQVCMVHDLHKTLTPL  
ASAYARSRGADRMS SFGDFIALSDICDVPTAKIISREVSDGVVAPGYEEEEALKILSKKKN  
GGYCVLQMDPNYEPDDNEIR TLYGLQLMQKRNNAVIDRSLFKNIVTKNK'TLPESA VRDLI  
VASIAVKYTQNSV CYAKDGQVIGIGAGQQSR IHCTRLAGDKANSWWLRHHPRVLSMKFK  
AGVKRAEVSNAIDQYVTGTIGEDEDLVKQAMFEEVPAQLTEAEKKQWIAKLTAVSLSSD  
AFFPFRDNVDRAKRIGVQFIVAPSGSAADEVVIEACNELGITLIHTNLRLRFHH

>P28650

MSGTRASNDRPPGTGGV KRGRLLQQEAAAATGSRVTVVLGAQWGDEGKGKVV DLLATDADIV  
SRCQGGNAGHTVVVDGKEYDFHLLPSGIINTKAVSFIGNGVVIHLPGLFEEAEKNEKKG  
LKDWEKRLIISDRAHLVDFHFQAVDGLQEVQRQAQEGKNIGT'TKKGIGPTYSSKAARTGL  
RICDLLSDFDEFSARFKNLAHQHQS MFP'TLEIDVEGQLKRLKGFAERIRPMVRDGVYFMY  
EALHGPPKKVLVEGANAALLDIDFGTYPFV TSSNCTVGGVCTGLGIPPQNI GDVYGVVKA  
YTTRVIGIGAFPTEQINEIGDLLQNRGHEWGT TGRKRRCGWLDLMILRYAHMVNGFTALA  
LTKLDILDVLS EIKVGISYKLNKRIPYFPANQEILQKVEVEYETLPGWKADTTGARKWE  
DLPPQAQSYVRFVENHMGVAVKVVGVGKSRESMIQLF

>Q96529

MSLSSLTLDSNPRFAVG GPYHRRYPPLHHPRSFVSCSAKRPAVSASLSVAADSAATESLG

RIGSLSQVSGVLGCQWGDEGKGLVDILAQHFDIVARCQGGANAGHTIYNSEGKKFALHL  
VPSGILNEDTTTCVIGNGVVHPLPLFKEIDGLESNGVSCCKGRILVSDRAHLLFDFHQEVD  
GLRESELAKSFIGTTKRGIGPAYSSKIVIRNGIRVGDRLRHMDTLPQKLDLLSDDAARFQG  
FKYTPPEMLREEVEAYKRYADRLEPYITDTVHFINDSISQKKKVLVEGGQATMLDIDFGTY  
PFVTSSSPSAGGICTGLGIAPSVVVDLIGVVKAYTTRVGSPPFPTEENLGTGGDLLRLAGQ  
EFGTTTGRPRRCGWLDIVALKFSCQINGFASLNLTKLDVLSDLNEIQLGVAYKRSRGTPV  
KSFPGDLRLLLEELHVEYEVLPGWKSDISSVRNYSDLPKAAQQYVERIEELVGVP IHYIGI  
GPRDALIYK

>P0A7D4

MGNVNVVLTGTQWGDEGKGI VDLLTERAKYVVRVYQGGHNAGHTLVINGEKTVLHLIPSGI  
LRENVTSIIIGNGVVLSPALMKEMKELEDRGIPVRRERLLLSEACPLILDYHVALDNAREK  
ARGAKAIGTTGRGIGPAYEDKVARRGLRVGDRLFDKETFAEKLKEVMEYHNFQLVNYKAE  
AVDYQKVLDDTMAVADILTSMVVDVSDLLDQARQRGDFVMFEGAQGTLLDIDHGTYPYVT  
SSNTTAGGVATGSGLGPYVDYVVLGILKAYSTRVGAGPFPTELFDETGFEFLCKQNEFGA  
TTGRRRTGWLDTVAVRRAVQLNSLSGFCLTKLDVLDGLKEVKLCVAYRMPDGREVTTP  
LAADDWKGVEPIYETMPGWSESTFGVKDRSGLPQAALNYIKRIEELTGVP IDIISTGPDR  
TETMILRDPFDA

>P09029

MKQVCVLGNGQLGRMLRQAGEPLGIAVWPVGLDAEPAAVPFQQSVITAEIERWPETALTR  
ELARHPAFVNRDVFP I IADRLTQKQLFDKHLPTAPWQLLAERSEWPAVFDRLGELAIVK  
RRTGGYDGRGQWRLRANETEQLPAECYGECEIVEQGINFSGEVSLVGARGFDGSTVFYPLT  
HNLHQDGILRTSVAFPQANAQQQAQAEEMLSAIMQELGYVGMAMECFVTPQGLLINELA  
PRVHNSGHWTQNGASISQFELHLRAITDPLPQPVVNPNPSVMINLIGSDVNYDWLKLPLV  
HLHWYDKEVRPGRKVGHLNLTSDTSRLTATLEALIPLLPPEYASGVIWAQSKFG

>P37551

MKFRRSRGLVDLTNYLLTHPHELIPLTFFSERYESAKSSISEDLTIIKQTFEQQIGTLL  
TVPGAAGGVKYYIPKMKQAEAEFFVQTLGQSLANPERILPGGYVYLTDLGKPSVLSKVGK  
LFASVFAEREIDVVMVATKGIPLAYAAAASYLNVPVIVRKNKVTEGSTVSYNYVSGSS  
NRIQTMSLAKRSMKTGSNVL I IDDFMKAGGTINGMINLLDEFNANVAGIGVLVEAEGVDE  
RLVDEYMSLLTLSTINMKEKSIEIQNGNFLRFFKDNLLKNGETES

>P0ACP7

MATIKDVAKRANVSTTTVSHVINKTRFVAEETRNAVWAAIKELHYSPPSAVARSLKVNHTK  
SIGLLATSSEAAFYAEIIEAVEKNCFKQGYTLILGNAWNLEKQRAYLSMMAQKRVDGLL  
VMCSEYPEPLLAMLEEYRHIPMVMDWGEAKADFTDAVIDNAFEGGYMAGRYLIERGHRE  
IGVIPGPLERNTGAGRLAGFMKAMEEAMIKVPESWIVQGDFFEPESGYRAMQQILSQPHRP  
TAVFCGGDIMAMGALCAADEMGLRVPQDVSLIGYDNVRNARYFTPALTTIHQPKDSLGET  
AFNMLLDRIVKNKREEPQSIIEVHPRLIERRSVADGPFPRDYRR

>P33221

MTLLGTALRPAATRVMLLGSGELGKEVAIECQRLGVEVIAVDYADAPAMHVAHRSHVIN  
MLDGDALRRVVELEKPHYIVPEIEAIATDMLIQLEEEGLNVVPCARATKLTMNREGIRRL  
AAEELQLPTSTYRFADSESLFREAVADIGYPCIVKPVMSSSGKGQTFIRSAEQLAQAWKY  
AQQGGRAGAGRVIVEGVVDFEITLLTVSAVDGVHFCAPVGHREQEDGDYRESWQPQQMS  
PLALERAQEIARKVVLALGGYGLFGVELFVCGDEVIFSEVSPRPHDTGMVTLISQDLSEF  
ALHVRAFLGLPVGGIRQYGAASAVILPQLTSQNVTFDNVQNAVGADLQIRLFGKPEIDG  
SRRLGVALATAESVVD AIERAKHAAGQVKVQG

>P37051

MHSLQRKVLRTICPDQKGLIARITNICYKHELNIQVQNEFVDHRTGRFFMRTELEGIFND  
STLLADLDSALPEGSVRELNPAGRRRIVILVTKEAHCLGDLLMKANYGGLDVEIAAVIGN  
HDTLRSLVERFDIPFELVSHEGLTRNEHDQKMADAIDAYQPDYVVLAKYMRVLTPEFVAR  
FPNKIINIHSFLPAFIGARPYHQAYERGVKIIGATAHYVNDNLDEGPIIMQDVIHVDHT  
YTAEDMMRAGRDRVEKNVLSRALYKVLQQRVVFYGNRTIIL

>P25502

MVTDQGSRHSIQSKQPAYVKNQPKRQRSSVACLSCRKRHIKCPGGNPCQKCVTSNAIC  
EYLEPSKKIVVSTKYLQQLQKDLNDKTEENRNLKALLLERPVSVRGKDNSDDDERHINNA  
PSSDTLEVSSAPAAPIFDLMSNSNTASDNDNDNDDNSNRITNNSYDHSLEKYYKKAISIF  
KQPANANGENGANGHEDDEDEEISTNFAQRSGRLIESHNGFHYFVGSSSMTLFGLE  
IQSLVTKYISVKNFRPLPINTKNKILNSNLNPAISSFINSNYLFSSYNFLNPISTIVNL  
NSINDNLSPLMFKIILKSDTDGSSGQEEVIQFQLPSYNYTKLLIDCFINYNDGCFYFFNE  
GLVKCGINKLYLENKWLYDNTKKALDNENDPILQAVWFCKILLILAVGEMYLGSINNEM  
LKNYSNQPKLPGSKFFQMGSKIFNCLFSSERLENVTKKGGIEVLLLYAFFLQVADYTLAS  
YFYFGQALRTCLILGLHVDSQSDTLSTRYEIEHHRRLWTVYMFERMLSSKAGLPLSFTDY  
TISTALPADIDDEETIEEKNSHYVFRKAELISNCVTIVKINAQILSKLYQRQPETNIIITL  
KVVIKQLLEWRNNLSDSLQVDFTQKDEDFKISRLSTNMFTEYFQGINLAVRPLLHFHFAI  
QLKRFKTSNTFVNLQNYSATISSLLTCSLHASVNTIRSLWSLLQNSMLAMFSYMDREYLF  
TSSCTLLLNFNTAFGIHEQTLYHLDSLEIFTQMRNLGNIPAGLRRRAQLLTLMANLDFHGI  
MNDLITKYNDILKFDSMNCENDNIVEDSNEPKRETEKCKPHKDGDRIDPSIIDCDKSNTN  
TNMIKNESISNIVSILPEGAKPTLTDYSNGMNDVNDINVNNSEPSTFFDIITASLENSYQ  
TTLTEKGSQVMEKNMDQLDSVHNLNDDDLQQLLEDLGNIDHSDEKLWKEITDQAMWLGN  
MDPTAAAGSEIDFTDYLG

>P09546

MGTTTMGVKLDDATRERIKSAATRDRTPHWLIKQAIIFSYLEQLENSDTLPELPALLSGA  
ANESDEAPTPAEHPQPFDFAEQILPQSVSRAAITAAYRRPETEAVSMLLEQARLPQPV  
AEQAHLKAYQLADKLRNQKNASGRAGMVQGLLQEFSLSSQEGVALMCLAEALLRIPDKAT  
RDALIRDKISNGNWQSHIGRSPSLFVNAATWGLLFTGKLVSTHNEASLSRSLNRIIGKSG  
EPLIRKGVDMAMRLMGEQFVTGETIAEALANARKLEEKGFYSYDMLGEAALTAADAQAY  
MVSYYQAIHAIGKASNGRGIYEGPGISIKLSALHPRYSRAQYDRVMEELYPRKSLTLLA  
RQYDIGINIDAEESDRLEISLDLLEKLCFEPPELAGWNGIGFVIQAYQKRCPLVIDYLIDL  
ATRSRRRLMIRLVKGAYWDEIKRAQMDGLEGYPVYTRKVYTDVSYLACAKKLLAVPNLI  
YPQFATHNAHTLAAIYQLAGQNYYPGQYEFQCLHGMGEPLYEQVTGKVADGKLNRCRIY  
APVGTHTLLAYLVRRLENGANTSFVNRIADTSLPLDELVADPVTAVEKLAQQEGQTGL  
PHPKIPLPRDLYGHGRDNSAGLDLANEHRLASLSSALLNSALQKWQALPMLQPVAAAGEM  
SPVINPAEPKDIVGYVREATPREVEQALESAVNNAPIWFATPPAERAAILHRAAVLMESQ  
MQQLIGILVREAGKTFNSAIAEVREAVDFLHYYAGQVRDDFANETHRPLGPVVCISPWNF  
PLAIFTGQIAAALAAGNSVLAKPAEQTPLIAAQGIAILLEAGVPPGVVQLLPGRGETVGA  
QLTGDDRVRGVMFTGSTEVATLLQRNIASRLDAQGRPIPLIAETGGMNAMIVDSSALTEQ  
VVVDVLASAFDSAGQRCALRVLCLODEIADHTLKMRLGAMAECRMGNPGRLLTTDIGPVI  
DSEAKANIERHIQTMRSKGRPVFQAVRENSEDAREWQSGTFVAPTLELDDFAELQKEVF  
GPVLHVVRYNRNQLPELIEQINASGYGLTLGVHTRIDEETIAQVTGSAHVGNLYVNRNMVG  
AVVGVPFGEGLSGTGPKAGGPLYLYRLLANRPESALAVTLARQDAKYPVDAQLKAALT  
QPLNALREWAANRPQLALCTQYGELAQAGTQRLLPGPTGERNTWTLPRERVLCIADDE  
QDALTLQAAVLAVGSQVLWPDDALHRQLVKALPSAVSERIQLAKAENITAQPFDAVIFHG  
DSDQLRALCEAQAARDGTIVSVQGFARGESNILLERLYIERSLSVNTAAAGGNASLMTIG

>P07117

MAISTPMLVTFVCVYIFGMILIGFIAWRSTKNFDDYILGGRSLGPFVTALSAGASDMSGWL  
LMGLPGAVFLSGISESWIAIGLTLGAWINWKLIVAGRLRVHTEYNNALTLDPDYFTGRFED  
KSRILRIISALVILLFFTIYCASGIVAGARLFESTFGMSYETALWAGAAATILYTFIGGF  
LAVSWTDTVQASLMIFALILTPVIVIIISVGGFGDSLEVIKQKSIENVDMLKGLNFVAIIS  
LMGWGLGYFGQPHILARFMAADSHHSIVHARRISMTWMILCLAGAVAVGFFGIAYFNDHP  
ALAGAVNQNAERVFIELAQILFNPWIAGILLSAILAAMVSTLSCQLLVCSSAITEDLYKA  
FLRKHASQKELVWVGRVMVLVVALVAIALAANPENRVLGLVSYAWAGFGAAFGPVVLFSV  
MWSRMTRNGALAGMIIGALTIVIVWKQFGWLGLYEIIPGFIFGSIIGIVVFSLLGKAPSAAM  
QKRFAEADAHYHSAPPSRLQES

>Q9NQS3

MARTLRPSPLCPGGGKAQLSSASLLGAGLLLOPPTPPPLLLLLFPLLLFSRLCGALAGPI  
IVEPHVTAVWGKNVSLKCLIEVNETITQISWEKIHGKSSQTVAVHHPQYGFVSQGEYQGR  
VLFKNYSLNDATITLHNIGFSDSGKYICKAVTFPLGNAQSSTTVTVLVEPTVSLIKGPD  
LIDGGNETVAAICIAATGKPVAHIDWEGDLGEMESTTTSFNETATIISQYKLFPTRFAR  
GRRITCVVKHPALEKDIRYSFILDIQYAPEVSVTGYDGNWFVGRKGVNLKCNADANPPPF  
KSVWSRLDGQWPDGLLASDNTLHFVHPLTFNYSGVYICKVTNSLGQRSDQKVIYISDPPT  
TTTLQPTIQWHPSTADIEDLATEPKKLPFPLSTLTIKDDTIATIISVVGALFIVLVS  
VLAGIFCYRRRTFRGDYFAKNYIPPSDMQKESQIDVLQQDELDSPDSVKKENKNPVNN  
LIRKDYLEEPEKTQWNVENLNRFERPMDYEDLKMGMKFVSDHYDENEDDLVSHVDGS  
VISRREWYV

>Q9VZZ4

MRFMLMLQLLGLLLLLLAGGVQSVYCPAGCTCLERTVRCIRAKLSAVPKLPQDTQTLDLR  
FNHIEELPANAFSGLAQLTTLFLNDNELAYLQD GALNGLTALRFVYLNNNRLSRLPATIF  
QRMPRLAEIFLENNDIWQLPAGLFDNLPRLNRLIMYNNKLTQLPVDGFNRLNNLKRLRLD  
GNAIDCNCGVYSLWRRWHLDVQRQLVSI SLTCAAPQMLQNGFSSLGEHHFKCAKPQFLV  
APQDAQVAAGEQVELSCEVTGLPRPQITWMHNTQELGLEEQAAEILPSGSLLRISADTS  
DMGIYQCIARNEMGALRSQPVRLLVNGGNHPLDSPIDARSNQWADAGTPMHGATPLPSP  
LPSPPHFTHQPHDQIVALHSGHVLDDCAASGWPQPDIQWFVNGRQLLQSTPSLQLQANG  
SLIILLQPNQLSAGTYRCEARNLSGVSQATARIELKELPEILTAPQSQTIKLGKAFVLECD  
ADGNPLPTIDWQLNGVPLPGNTPDQL ENENTE LVVGAARQEHAGVYRCTAHNENGETSV  
EATIKVERSQSPPQLAIEPSNLVAITGTTIELPCQADQPEDGLQISWRHDGRLIDPNVQL  
AEKYQISGAGSLFVKNVTIPDGGRYECQLKNQFGRASASALVTIRNNVDLAPGDRYVRIA  
FAEAAKEIDLAINNTLDMLFSNRSDKAPPNYGELLRVFRFPTGEARQLARAAEIEYERTLV  
NIRKHVQEGDNLTMKSEYEFRDLLSREHLHLVAELSGMEHREMPNCTDMCFHSRYSI  
DGTENNQLQHTWASLTAFRRLLAPPYIENGFSMPVGTGMLYSGHAKPSARLVSTSLVA  
TKEITPDARITHVMQWQFLDHDLDHAIPSVSSESWDGDIDCKKSCEMAPPCYPIEVPPN  
DPRVRNRRCIDVVRSSAICGSGMTSLFFDSVQHREQINQLTSYIDASQVYGYSTAFQEL  
RNLTSQEGLLRVGVHFPKQDMLPFAAPQDGMDCRRNLDENTMSCFVSGDIRVNEQVGLL  
AMHTIWMREHNRIASKLKQINSHWDGDTLYQEARKIVGAQMQHITFKQWLPLIIGESGME  
MMGEYQGYNPQLNPSIANEFATAALRFGHTIINPILHRLNETFQPIPQGHLLHKAFFAP  
WRLAYEGGVDPMLRGFLAVPAKLTQDNLNTELTTEKLFQTAHAVALDLAAINIQRGRDH  
GMPGYNVYRKL CNLTVAQDFEDLAGEISSAEIRQKMKELYGHPDNVDVWLGGLIEDQVEG  
GKVGPLFQCLLVEQFRRLRDGDRLYYENPGVFSPEQLTQIKQANFGRVLCVGDNDQVTD  
ENVFILAKHQGGYKCCEDIIGINLYLWQECGRCSPPAIFDSYIPQTYTKRSNRQKRD LG  
KENDEVATAESYDSPLESLYDVNEERVSGLEELIGSFQKELKHLKHLKRLKLEDCNSADS  
EPVAQVVQLAAAPPQLVSKPKRSHCVDDKGTTRLNNEVWSPDVCTKCNCFHGQVNCRLER

CGEVSCPPGVDPLTPPEACCPHCPMVK

>P32327

MSSSSKLAGLRDNFSLGKKNKILVANRGEIPIRIFRSAHELMSRTIAIYSHEDRLSMHR  
LKADEAYVIGEEGQYTPVGAYLAMDEIIEIAKHKHVDFIHPGYGFLSENSEFADKVVKAG  
ITWIGPPAEVIDSVGDKVSARHLAARANVPTVPGTPGP IETVQEALDFVNEYGYPI IKA  
AFGGGGRGMRVVREGDDVADAFQRATSEARTAFNGTCTFVERFLDKPKHIEVQLLADNHG  
NVVHLFERDCSVQRRHQKVVEVAPAKTLPREVRDAILTDAVKLAKVCGYRNAGTAEFLVD  
NQNRHYFIEINPRIQVEHTITEEITGIDIVSAQIQIAAGATLTQLGLLQDKITTRGFSIQ  
CRITTEDPSKNFQPDGTGRLEVYRSAGNGVRLDGGNAYAGATISPHYDSMLVKCSCSGST  
YEIVRRKMIRALIEFRIRGVKTNIPFLLTLLTNPVFI EGTWYTTFIDDTPQLFQMVSSQN  
RAQKLLHYLADLAVNGSSIKGQIGLPKLSNPSVPHLHDAQGNVINVTKSAPPSGWRQVL  
LEKGPSEFAKQVRQFNGLTLLMDTTWRDAHQSLLATRVRTHDLATIAPTTAHALAGAFAL  
CWGGATFDVAMRFLHEDPWERLRKLRSLVNPFPQMLLRGANGVAYSSLPDNAIDHFVKQ  
AKDNGVDIFRVFDALNDLEQLKVGAVNAKAGGVVEATVCYSGDMLQPGKYNLDYYLEV  
VEKIVQMGTHILGIKDMAGTMKPAKLLIGSLRTRYPDLP IHVHSHDSAGTAVASMTAC  
ALAGADVVDVAINSMSGLTSQPSINALLASLEGNIDTG INVEHVRELDAYWAEMRLLYSC  
FEADLKGPDPVEVYQHEIPGGQLTNLLFQAQQLGLGEQWAETKRAYREANYLLGDIVKVTP  
TSKVVGDLAQFMVSNKLTSSDIRRLANSLDFPDSVMDFFEGGLIGQPYGGFPEPLRSDVLR  
NKRRKLTCPGLELEPFDEKIREDLQNRFGDIDECDVASYNMYPRVYEDFQKIRETYGD  
LSVLPTKNFLAPAEPDEEIEVTIEQKTLI IKLQAVGDLNKKTGQREVYFELNGELRKIR  
VADKSQNIQSVAKPKADVHDTHQIGAPMAGVIEVKVHKGSLVKKGESIAVLSAMKMEMV  
VSSPADGQVKDVF IKDGESVDASDLLLVLEEEETLPPSQKK

>P11498

MLKFRTVHGGRLRLGIRRTSTAPAASPNVRRLEYKPIKKVMVANRGEIAIRVFRACTEL  
IRTVAIYSEQDTGQMRQKADAYLIGRGLAPVQAYLHIPDI IKVAKENNVDAVHPGYGF  
LSERADFAQACQDAGVRF IGPSPVVRKMGDKVEARAIAIAAGVPVVPGTDAPI TSLHEA  
HEFSNTYGFPI IIFKAAAYGGGGRGMRVVHSEYEELEENYTRAYSEALAAFNGALFVEKFI  
KPRHIEVQILGDQYGNILHLYERDCSIQRRHQKVVEIAPAAHLDPQLRTRLTSDSVKLAK  
QVGYENAGTVEFLVDRHGKHYFIEVNSRLQVEHTVTEEITDVDLVHAQIHVAEGRSLPDL  
GLRQENIRINGCAIQCRVTTEDPARSFQPDGTGRIEVFRSGEGMIRLDNASAFQGAVIS  
HYDSSLVKVIAHGKDHPTAATKMSRALAEFRVRGVKTNIAFLQNVLNNQQFLAGTVDTQF  
IDENPELFQLRPAQNRAQKLLHYLGHVMVNGPTTPIPVKASPSPTDPVVPVAVPIGPPPAG  
FRDILLREGPEGFARAVRNHPGLLLMDTTFRDAHQSLLATRVRTHDLKKIAPYVAHNFSK  
LFSMENWGGATFDVAMRFLYECPWRRLOELRELIPNIPFQMLLRGANAVGYTNYPDNVV  
KFCEVAKENGMDFRVFDSLNYLPNMLLGMEAAGSAGGVVEAAISYTGVDADPSRTKYS  
QYYMGLAEELVRAGTHILCIKDMAGLLKPTACTMLVSSLRDRFPDLPLHIHHTDTSAGV  
AAMLACAQAGADVVDVAADSMGSMGTSQPSMGALVACTRGTPLDTEVPMERVFYSEYWEG  
ARGLYAAFDCATMKSNSDVYENEIPGGQYTNLHFQAHSMLGSKFKKAYVEANQM  
LGDLIKVTPSSKIVGDLAQFMVQNGLSRAEAEQAEEELSFPRSVVEFLQGYIGVPHGGFP  
EPFRSKVLKDLPRVEGRPGASLPPLDLQALEKELVDRHGEEVTPEDVLSAAMYPDVFAHF  
KDFATATFGPLDSLNTLRLFLQGPKIAEEFEVELERKTLHIKALAVSDLNRAGQRQVFFEL  
NGQLRSILVKDTQAMKEMHFHPKALKDVKGQIGAPMPGKVIDIKVVAGAKVAKGQPLCVL  
SAMKMETVVTSPMEGTVRKVHVTKDMTLEGGDLILEIE

>P09811

MAKPLTDQEKRRQISIRGIVGVENVAELKKGFNRHLHFTLVKDRNVATPRDYFALAHTV  
RDHLVGRWIRTQQHYDYKCPKRVYYLSLEFYMGRTLQNTMINLGLQACDEAIYQLGLDM  
EELEEEIEDAGLNGGLGRLAACFLDSMATLGLAAYGYGIRYEYGFIFNQKIREGWQVEEA

DDWLRHGPNWEKARPEFMLPVHFYGRVEHTQAGTKWVDTQVVLALPYDTPVPGYMNNTVN  
TMRLWSARAPNDFNLQDFNVGDYIQAVLDRNLAENISRVLYPNDNFFEGKELRLKQEYFV  
VAATLQDVIRRFKASKFGSKDGVGTVFDVAFDQVAIQLNDRHPALAIPELMRIFVDIEKL  
PWSKAWIEITKKTFAYTNTHTVLPALERWVVDLVEKLLPRHLQIIEINQKHLDRIVALFP  
KDIDRMRRMSLIEEEGGKRINMAHLICIVGCHAVNGVAKIHSDIVKTQVFKDFSELEPDKF  
QNKTNGITPRRWLLLCNPLGLADLIAEKIGEDYVKDLSQLTKLHSFVGDIDFLREIAKVKQ  
ENKLFKSQFLEKEYKVKINPSSMFDVHVKRIHEYKRQLLNCLHVITMYNRICKDPKFFV  
PRTVIEGGKAAPGYHMAKMIKLVTSVAEVVNDPMDVGSGLKVIIFLENYRVSLEAKVIPA  
TDLSEQISTAGTEASGTGNMKFMLNGALTIGTMDGANVEMAEAGEENLFI FGMRVDDVA  
ALDKKGYEAKKEYEALPELKLVIDQIDNGFFSPNQPDLFKDIINMLFYHDRFKVFADYEA  
YVKCQEKVSQLYMNQKAWNTMVLNRNIAASGKFSDDRTIREYAKDIWNMEPSDLKISLSKE  
SSNGVNANGK

>P20054

MDILNRKKGCLVLEDGTKLSGYSFGSERSVAGECVFSTGMVGYNESISDPSYTGQILVFS  
FPLIGNYGVPSFRERDPESGLAVNFESDKAHVQAIICSEYCEYSHWAAEKSLSEWLKES  
NIPGLYGIDTRALITKIREKGSLLKGVIIIGDFDESKLEFEDINLRNLVAEVSTKEIKEYK  
AAENKKTGEKRKNKKVIVLDCGKKNQIRCLLNKRGVDLKVVPWDYDVVANESINDYDGV  
FISNGPGDPSLCGKAIENIRKVLALPVAKAVFVCMGNQLLGLAAGAQTHKMAFGNRGLN  
QPCVDQISGRCHITSQNHGFVIDSNSLPAGSGWKTYFINANDASNEGIYHESKPWFVSVQF  
HPEAMAGPTDTEYLFDFNVFVDCGEQQHKSPMNKSKIIDCPKGINKVLILGSGGLSIGQA  
GEFDYSGSQAIALKEEGIKTILINPNIAIVTQTSPLGADKVFYFLPVNASSVQKVIENENP  
DGILVTFGGQTALNCGIELYKSGILEKYNCKVLGTPIETIATEDRGIFAEKLSEINERI  
APSMACNSLEESLIEAEKIGYPVIVRAAYCLGGLGSGFADNKEQLTALVTEAMATSSQVL  
VEKSLKGWKEIEYEVLRDSDKNCITVCNMENFDPLGIHTGESIVVAPSQTLSDREYQMLR  
ETAIKTVRHLGVIGECNIQYSLNPYSEYCIIEVNARLSRSSALASKATGYPLAFISAKV  
ALGYDLAALRNTITKKTACFEPSLDYLVVKMPRWDLKKFTRVSNKISSMKSVGEVMSI  
GRKFEEAIQKAIRMVMDGAVEGFQAGVFPTSDEELEHPTNRIILVLASAFKDGYSIDRVH  
QLTKIDKWFLTKLKAIIDLENHLSTYKEPSQIPSEILKFSKQQGFSKQIARAVGTTELN  
VRDYRKKMGIIPCTKHIDTVAAEFPAQNNYLYMTYNGETNDVINEKSYITLGSYSYRIG  
SSVEFDWCAVSCIRTLRSLGLKSIMINFNPETVSTDYDECDYLYFEELSLERVLDIYER  
GPNSNHGVILSVGGQIPNNLAIPLSRCNVKVLGTHPDMIDSAENRYKFSRLLDTIGIDQP  
LWKELTSVSDTKDFCESVGFPLVRPSYVLSGAAMNVVHSSQDLETFLTEAAAVSRDHPV  
VISKFIQEAKEIEIDAVADNGRIVLFAISEHVENAGVHSGDATIVCPAQDLDDATILKVE  
ETARKIAEALNVSGPFNIQFIAKNEIKVIECNLRCSRSFPFVSKTLNINFIELATKIII  
KHQYDLVVNPINYVGVKVPQFSFIRLKGADPVLGVEMASTGEVACFGNTREEAYVKGLI  
STGFKAPEKNVLLSIGSFKEKHEFLPSAHKLIKLYTLFGTQGTADFYSENGVPVTQLNW  
DEEDLGENVIQKMTENTIHLFINLPSKNKYRRPSSFMSRGSYSLRRVAIDFQVPLITNIK  
CAKLFVDSLSYMGKPMPIENVDRWTSNKIIRLPGLVDVHVHLREPGATHKEDWDSGTATA  
LAGGFTMVGAMPNTNPAIMDDASFELCKSLAASKARCDYGIFIGATFTNTTTAGKFASDA  
MGMKMYLEETFAPLPLKDDINVWRDHIMNWPGTTPICVHADGRNLAAIILLLGWMYDKHMH  
VCHVSHKEEIDIIRDAKKRGMKLSCEVSPHHLTLCDKDIPIRIGAGQSEVRPKLGTEEDLN  
ALWDNIDYIDMIATDHAPHTWEEKCSAKPPPGFPLETSLPLMLTAVHNGRITIEDLVK  
MHTNPIRIFNLPEQPPTYIEVDMEQEWTPPKPLYSRCGWTFPEGLQVRGKVVVLRGQ  
IAFIDGKIIAQKGFGLNLSKEYQVEKERLLNTTKPIYDKIPTVQSTKNQTTNITSPSLI  
SDSPNKAINKIKSTSTSTTPNTQEQSTQHLPLVGSNLAASAVLNKKEDTLQTAFNISDNSL  
AGKHIFSVKQFNKQLHALFGIAHEMRILVKRSGSDLLKGVLATLIFYEPSTRTQCSFT  
AAMQRLGGSVVTVDNVSSSVAKGESIADTIQTLESYCDVCMRHPAVGSVESAIQVAKP  
IINAGDGVGEHPTQALLDVFTIREELGTVNGLTITVVGDLKHGRVHSLVRLLANVQVKI  
NYVSPSSLSMPTEIIEKELNEKGIQKEYTNIIESILPTTNVLYVTRVQKERFQSIIEYEK

KDSFIIITPHTLTKASDNMIVMHPLPRINEISPEVDSDPRAAYFRQMENGLYVVRMSLLLALV  
FGAGV

>Q91437

MATLFLDDGSSFKGRLFGASSTVSGEVVFQTMVGYPEALTDPSYLSQILVLTYPPLIGNY  
GIPKDEEDEHGLSKWFESAKIHAAALVIGENSQNP SHWSSVRS LDQRLKEHGIPALEGID  
TRSLTKKIREKGTLLGKLVIDGTDENSLPYDDPNKRHLVKEVSIKEPKVYHPSGNVKIMA  
VDCGMKYNQIRSLCKRGA AVTVVPWDYLFDSNEFDGLFISNGPGDPEYCQQTINNVKKA I  
SEEKPKPLFGICLGHQILSLAIGAKTYKMKYGNRGNHQP CIHEGTQRCFYTSQNHGFAVE  
PCSLPRDWSVLFTNANDQSNEGIIHNSKPLFSVQFHPEHKAGPTDLVDLFDIFLECARDV  
KLGVNLDKTVKGRVISHYSFKNGTENSKTTPPGRIQPHKVLILGSGGLSIGQAGEFDYSGS  
QAIKALKEENVQSVLINPNIA TVQTSKGLADKVYFLPITPEYVTQVIMNERPDGILLTFG  
GQTALNCGVELQKRGVLEKYHVRVLGTPVSSIEMTEDRKFVVEKMAEINEYVVPSEAAFT  
LEQAQGA AERLGYPVLVRAAFALGGLGSGFAQNKEELVTLVTQAF AHTSQILVDKSLKGW  
KEIEYEVVRDAYDNCITVCNMENVDPLGIHTGESIVVAPSQTLNDKEYNLLRRTAIK VIR  
HLGVVGE CNIQYALSPESQYFII EVNARLSRSSALASKATGYPLAYVAAKLALGIPLPV  
LRNSVTNSTTANYEPSLDYCVVKVPRWDL SKFLRLSTKIGSSMKSVGEVMAIGRNFE EAF  
QKALRMVDENCVGF DHTLKPASDEELETPTDKRIFVLA AALRAGYEIDRLYELTKIDKWF  
LHKMKNIVEYSLKLS ELYMKDEVPRHDLKVKRLGFS DKQIAMAIQSTELAVRRLRQEWK  
ILPVVKQIDTVA AEWPAQTNYLYLTYN GEGHDLDFTKPHVMVIGSGVYRIGSSVEFDWCA  
VRCIQQLRKMGYKTRMVNYPETVSTDYDMCDRLYFDEISFEVVMDIYELENPEGIILSM  
GGQLPNNIAMDLHRQOCRI LGTSPESIDTAENRFKFSRMLDTIGISQPRWKELSDTESK  
QFCTKVGYPC LIRPSYVLSGVAMNVA YSDNDLEKFLSSAVAVSKEHPVVISKF IQEAKEI  
DVDAVACDGVVIAVAI SEHVENAGVHSGDATLVTPPQDLNQTTERIKAI VHAIGQELQA  
TGPFNLQLIAKDDQLKVI ECNVRVRSRFPFVSKTLGVDMIALATKVIMGEEVEPVGLMTG  
TGVVGVKVPQFSF SRLAGADVVLGVEMTSTGEVACFGENRYEAYLKAMLSTGFKIPKKN I  
LLSIGSYKNKSELLSTVQSLEQLGYNLYASLGTADFYTEHG VKIKAVDWPFEDTDNGCPL  
KERHRNIMDYLEENHFDLVINLSMRNSGGRRLSSFVTKGYRTRRLAVDYSVPLIIDIKCT  
KLFVEALRLVGDTPPVKTHIDSMS SHKLI RLPGLIDVHVHLREPGGTHKEDFASGTAAAL  
AGGVTMVCAMPNTNPAITDQTSFALVQKLATAGARCDFALFLGASSDNADVLPLISNSAA  
GLKMYLNDTFSTLKMDNVS LWMEHF EKWPKHLPIVVHAERQTVAA ILMVAQLYQRPVHIC  
HVARKEEIQIIRA AKQKGVQVTCEVAPHHLFLNEEDLESIGHGKGQVRPMLSTKEDVNAL  
WENLDVIDCFATDHAPHSVEEKNSD SPPPGYPGLE TMLP LLLTAVSEGRLTIDDLVKRLY  
ENPRKIFSLPVQENTYVEVDLEQEWIIPSYMQFTKSKWTPFEGKKVKGRVRRVVL RGEVA  
YIDGQVLVPPGYQD VRAWPLGVPLPPPPTTVKTP EHSKPTQTE TVRTRTASPRRLASSG  
PAVDARFHLPPRIHRCSDPGLPNAEGEYKEKPVKKFIEQD TVSQDGYIYPPPVSRLLSPQ  
NLAAQAVPHPYSLLLHPFV GQHILSVKRFTKDQLSHL FNVAHNLRLTVQKDRSLDILK GK  
VMASMFYEVSTR TSSSFRAAMHRLGGSVIHFSEATSSVQKGESLLDSVQTMSCYVDVVVL  
RHPEPGAVELAAKHSRKP IINAGDGVGEHPTQALLDIFTIREELGTVNGMTITMVGDLKH  
GRTVHSLAYLLTLYRVNLRYVT PRNLRMPPNIIRFLASRGIKQEEFDSLEEALPDTDVLY  
MTRIQKERFASEEEYEACFGQFILT PHIMTKGKKKMVMHPLPRVNEVSVEVDSDPRAAY  
FRQAENGMVYRMALLATV LKGF

>P41008

MTHLFALSELPLDEIHRLLDEAERFRSGR IWRPAAPMYVANLFFEPSTRTKCSFEMAERK  
LGLHVIPFDPERSVQKGETLYD TVRTLEAIGVDAVVIRHHEDAYFEALRHAVGIP IINA  
GDGCGHHPTQSLLDLLTIRQEFGAFTGLTVAIIGDIRHSRVAR SNAEVLTRLGANVLFSG  
PEEWKDETNPYGT YVEVDEAIARADVMLLR IQHERHAETMGLTK EYHARYGLTLERAR  
RMKSGAII LHPAPVNRGVEIAS ELVEAKASRIFKQ MENVYV RMAVLKRAMEGRMEHGRM  
AEKWHVVQ



>P05020

MTAPSQVLKIRRPDDWHLHLRDGMLKTVPYPTSEIYGRAIVMPNLAPPVTTVEAAVAYR  
QRILDAVPAGHDFTPLMTCYLTDSLDPNELERGFNEGVFTAACKLYPANATTNSSHGVTSI  
DAIMPVLERMEKIGMPLLVHGEVTHADIDIFDREARFIESVMEPLRQRLTALKVVFHEHIT  
TKDAADYVRDGNERLAATITPQHLMFNRNHMLVGGVVRPHLYCLPILKRNIHQALRELVA  
SGFNRVFLGTDSAPHARHRKESSCGCAGCFNAPTALGSYATVFEEMNALQHFEAFCSVNG  
PQFYGLPVNDTFIELVREEQQVAESIALTDDTLVPFLAGETVRWSVKQ

>Q53ZE5

MLNNTTFANAKFANPFMNASGVHCMTIEDLEELKASQAGAYITKSSTLEKREGNPLPRYVD  
LELGSINSMGLPNLGFDDYLDYVLKNQKENAQEGPIFFSIAGMSAAENIAMLKKIQESDF  
SGITELNLSCPNVPKPKQLAYDFEATEKLLKEVFTFFTKPLGVKLPPYFDLVHFDIMAEI  
LNQFPLTYVNSVNSIGNGLFIDPEAESVVIKPKDGGIGGAYIKPTALANVRAFYTRLK  
PEIQIIGTGGIETGQDAFEHLLCGATMLQIGTALHKEGPAIFDRIIKELEEIMNQKGYQS  
IADFHGKLSL

>P25971

MKNLPIIALDFASAEETLAFLAPFQQEPLFVKVGMELFYQEGPSIVKQLKERNCELF  
LKLHDIPTTVNKAMKRLASLGVDLVNVHAAGGKMMQAALGLEEGTPAGKKRPSLIAVT  
QLTSTSEQIMKDELLIEKSLIDTVVHYSKQAEESGLDGVVCSVHEAKAIYQAVSPSFLTV  
TPGIRMSEDAANDQVRVATPAIAREKGS SAI VVGRSITKAEDPVKAYKAVRLEWEGIKS

>P08244

MTLTASSSSRAVTNSPVVALDYHNRDDALAFVDKIDPRDCRLKVGKEMFTLFGPQFVRE  
LQQRGFDFIFLDLKFHDIPNTAAHAAAAADLGWVMNVHASGGARMMTAAREALVPFGKD  
APLLIAVTVLTSMEASDLVDLGMTLSPADYAERLAALTQKCGLDGVVCSAQEAVRFKQVF  
GQEFKLVTPGIRPQGSEAGDQRRIMTPEQALSAGVDMVIGRPVTQSVDPAQTLKAINAS  
LQRSA

>O26232

MRSRRVDVMDVMNRLILAMDLMNRDDALRVVTGEVREYIDTVKIGYPLVLSGMDIIAEFR  
KRFGCRIIADFKVADIPETNEKICRATFKAGADAIIVHGFRGADSVRACLNVAEEMGREV  
FLLTEM SHPGAEMFIQGADEIARMGVDLGVKNYVGPSTRPERLSRLREIIGQDSFLISP  
GVGAQGGDPGETLRFADAIIVGRSIIYLDNPA AAAAGIIIESIKDLLNP

>Q59654

MSACQSPIIVALDFPTREAAALALADQLDPKLCRVKVGKELFTSCAAGIVETLRGKGFV  
LDLKFHDIPNTTAMAVKAAAEMGVWVMNVHCSGGLRMMACRETFLEAFSGPRPLLI  
LTSMEREDLAGIGLDIEPQEQVLRLAALAQAQKAGMDGLVCSAQEAPALKAHPGLQ  
LVTGPIRIRPAGSAQDDQRRILTPRQALDAGSDYLVIGRPI SQAADPAKALAAI  
VAELG

>O58462

MIVLALDVYEGERAIIAKSVKDYISMIKVNWPLILGSGVDIIRRLKEETGVEIIADLKL  
ADIPNTNRLIARKVFGAGADYVIVHTFVGRDSVMAVKELGEIIMVEMSHPGA  
LEFINPLTDRFIEVANEIEPFVGIAPGTRPERIGYIRDRLKEGIIKILAPGIGA  
QGGKAKDAVKAGADYIIVGRAIYNAPNPREAAKAIYDEIRGV

>Q9WYG7

MTPVLSLDMEDPIRFIDENG SF EVVKVGHNLAIHGKKIFDELAKRNLKII  
LDLKFCDIPS

TVERSIKSWDHPAIIIGFTVHSCAGYESVERALSATDKHVFFVVVKLTSMEGSLEDYMDRIE  
KLNKLGCDVFLPGPWAKALREKIKGKILVPGIRMEVKADDQKDVVTLLEEMKGIANFAVLG  
REIYLSENPREKIKRIKEMRL

>P0A7E5

MTTNYIFVTVGGVSSLGKGIAAASLAAIILEARGLNVTIMKLDPYINVDPGTMSPIQHGEV  
FVTEDGAETDLDLGHYERFIRTKMSRRNNTTGRISDVLKERRGDYLGATVQVIPHIT  
NAIKERVLEGGEGHDVVLVEIGGTVGDIESLPFLAIRQMAVEIGREHTLFMHLTLVPYM  
AASGEVKTQHSVKELLSIGIQPDILICRSDRAVPANERAKIALFCNVPEKAVISLKD  
VDSIYKIPGLLKSQGLDDYICKRFSLNCPEANLSEWEQVIFEEANPVSEVTIGMVGKYIE  
LPDAYKSVIEALKHGGLKNRVSVNIKLIDSQDVETRGVEILKGLDAILVPGGFGYRGVEG  
MITTARFARENNIPYLGICLGMQVALIDYARHVNANSTEFVPDCKYPVVALITEWR  
DENGNEVRSEKSDLGGMRLGAQQCQLVDDSLVRQLYNAPTIVERHRHRYEVNMLLKQ  
IEDAGLRVAGRSGDDQLVEIIEVPNHPWFVACQFHPEFTSTPRDGHPLFAGFVKAASEFQ  
KRQAK

>O87761

MSTKYIFVTVGGGTSSMGKGIVAASLGRLLKNRGLKVTQKFDPYLNIDPGTMSPIQHGEV  
FVTDDGAETDLDLGHYERFIDINLNKYSNVTSKGVYSEILRKERKGEYLGATVQMPHVT  
NMLKEKIKRAATTTDADIITEVGGTVGDMESLPIEALRQMKAEVGDNVMIHTVPIIL  
HLRAAGELKTKIAQNATKTLREYGIQANMLVLRSEVPITTEMRDKIAMFCDVAPEAVIQS  
LDVEHLYQIPLNLQAQNMDQIVCDHLKLDAPKADMAEWSAMVDHVMNLKVKKIALVGKY  
VELPDAYISVTEALKHAGYASDAEVDINWVNANDVTDENVAELVGDAAGIIVPGGFGQRG  
TEGKIAAIKYARENDVPMLGICLGMQLTAVEFARNVGLLEGASHELDPEKYPVIDIMR  
DQVDVEDMGGTLRLGLYPAKLNKNGSRAKAAYNDAEVVQRRHRHRYEFNKKYREDFEKAGF  
VFSGVSPDNRLVEIVELSGKKFFVACQYHPELQSRPNRPEELYTEFIRVAVENS

>P0A7E9

MATNAKPVYKRILLKLSGEALQGTGFGIDASILDRMAQEIKELEVELGIQVGVVIGGGNL  
FRGAGLAKAGMNRVVDHMGMLATVMNGLAMRDALHRAVYNARLMSAIPLNGVCDSYSWA  
EAISSLRNRRVILSAGTGNPFFTTTDSAACLRGIEIEADVVLKATKVDGVFTADPAKDPT  
ATMYEQLYTYSEVLEKELKVMDLAAFTLARDHKLPIRVFNMNKPGALRRVVMGEKEGTLIT  
E

>P65932

MTQQIKYKRVLLKLSGESLMGSDPFGINHDTIVQTVGEIAEVVVMGVQVGVVGGGNIFR  
GVSAQAGSMDRATADYMGMMATVMNALALKDAFETLGIKARVQSALSMQQAETYPARPKA  
IQYLEEGKVVIFAAGTGNPFFTTTDAALRGAEMNCDVMLKATNVDGVYTADPKKDP  
RYETITTFDEALLKNLKVMDATAFALCRERKLNIVVFGIAKEGSLKRVITGEDEGTLVHC

>Q8U122

MRIVFDIGGSVLVPENPDIDFIKEIAYQLTKVSEDHEVAVVVGGGKLARKYIEVAEKFN  
SETFKDFIGIQITRANAMLLIAALREKAYPVVVEDFWAEWKAVQLKKIPVMGGTHPGHTT  
DAVAALLAEFLKADLLVITNVDGVYTADPKKDP  
TAKKIKKMKPEELLEIVGKGIKAGS  
SSVIDPLAAKIIARSGIKTIVIGKEDAKDLFRVIKGDHNGTTIEP

>Q97R83

MKMANPKYKRILIKLSGEALAGERGVGIDIQTVQTIKAEIQEVHSLGIEIALVIGGGNLW  
RGEPAAEAGMDRVQADYTGMLGTVMNALVMADSLQQVGVDTRVQTAIAMQQVAEPYVRGR  
ALRHLEKGRIVIFGAGIGSPYFSTDTTAALRAAEIEADAILMAKNGVDGVYNADPKKDKT

AVKFEELTHRDVINKGLRIMDSTASTLSMDNDIDLVVFNMQPGNIKRVVFGENIGTTVS  
NNIEEKE

>Q97ZE2

MMNIILKISGKFFDEDNVDNLIIVLRQSIKELADNGFRVGIIVTGGGSTARRYIKLAREIGI  
GEAYLDLLGIWASRLNAYLVMSLQDLAYMHVPQSLEEFIQDWSHGKVVVTGGFQPGQST  
AAVAALVAEASSSKTLVVATNVVDGVYEKDPRIYADVKLIPHLTTQDLRRILEGSQSVQAG  
TYELLDPLAIKIVERSKIRVIVMNYRKLNRIDILKGEEVSSIIIEPV

>Q9PPX6

MRKQRIVIKISGACLKQNDSSIIDFIKINDLAEQIEKISKKYIVSIVLGGGNIWRGSIK  
ELDMDRNLADNMGMMATIINGLALENALNHLNVNTIVLSAIKCDKLVHESSANNIKKAI  
KEQVMIFVAGTGFPYFTTDSCAAIRAAETESSIILMGKNGVDGVYDSDPKINPNAQFYE  
ITFNMALTONLKVMDATALALCQENINLLVFNIDKPNIVDVLEKKNKYTIVSK

>P0A0N4

MNLKDKILGVAKELFIKNGYNATTTGEIVKLSESSKGNLYYHFKTENLFLEILNIEESK  
WQEQWKKEQIKCKTNREKFYLYNELSLTTEYYYPLQNAIIIEFYTEYYKTNSINEKMNKLE  
NKYIDAYHVIKKEGNLNGEWCINDVNAVSKIAANAVNGIVTF'THEQNINERIKLMNKF  
SQUIFLNGLSK

>P37299

MAYTSHLSSKTGLHFGRLSLRSLTAYAPNMLMLWGGASMLGLFVFTGWPKFQDTLYKKIP  
LLGPTLEDHTPPEDKPN

>P07257

MLSAARLQFAQGSVRRRLTVSARDAPTKISTLAVKVHGGSRYATKDGVAHLLNRFNFQNTN  
TRSALKLVRESELLGGTFKSTLDREYITLKATFLKDDLPHYVNALADVLYKTAFKPHELT  
ESVLPAARYDYAVAEQCPVKSAEDQLYAITFRKGLGNPLLYDGVVERVSLQDIKDFADKVY  
TKENLEVSGENVVEADLKRFDVDESLLSTLPAGKSLVSKSEPKFFLGEENRVRFIGDSVAA  
IGIPVNKASLAQYEVLANYLTSALSLSGLISSAKLDKFTDGGFLTLFVRDQDSAVVSSN  
IKKIVADLKKGKDLSPAINYTKLKNVQNESVSSPIELNFDVAVKDFKLGKFNIVAVGDVS  
NLPYLDEL

>P08525

MGPPSGKTYMGWGHMGGPKQKGITSYAVSPYAQKPLQGIHFHNAVFNFSFRFKSQFLYVL  
IPAGIYWYWWKNGNEYNEFLYSKAGREELERVNV

>P22289

MSFSSLYKTFFKRNAVFGTIFAGAFVFTVFDTAITSWYENHNKGLWKDVKARIAAGD  
GDDDE

>P42106

MKTLCTHSLPKEKMPYLLRSGEGERYLFGRQVATVMANGRSTGDLFEIVLLSGGKGDAFP  
LHVHKDTHEGILVLDGKLELTLDGERYLLISGDYANIPAGTPHSYRMQSHRTRLVSYTMK  
GNVAHLYSVIGNPYDHAHEPPYASEEVSNERFAEAAAIVATIVFLDEAKPACSAKLAEELTE  
LPDGAVPYVLESSEGEDRLLTGDLHRIVAAQKNTDQGFIVVSSEGPKGDRIVDHYHEYHT  
ETFYCLEGQMTMWTGQEIQLNPGDFLHVPANTVHSYRLDSHYTKMVGVLVPLGFEPPFR  
TLGDPYEGHIFPCKPQALRFDRILQNI EALDLKVMKP

>Q9QYS9

MVGEMETKEKPKPTPDYLMQLMNDKMLMSSLPNFCGIFNHLERLLDDEEISRVKDMYNDT  
LNGSTEKRSAELPDAVGPVIVQLQEKLIVPVKEYPDFNFVGRILGPRGLTAKQLEAETGCK  
IMVRGKGSMDKKKKEEQNRGKPNWEHLNEDLHVLIITVEDAQNRAEIKLKRAVEEVKLLV  
PAAEGEDSLKKMQLMELAILNGTYRDANIKSPALAFSLAATAQAAPRIITGPAPVLPAA  
LRTPTPAGPTIMPLIRQIQTAVMPNGTPHPTAAIVPPGPEAGLIYTPYEYPYTLAPATSI  
LEYPIEPSGVLGAVATKVRRHDMRVHPYQRIVTADRAATGN

>P28304

MATRIEFHKHGGPEVLQAVEFTPADPAENEIQVENKAIGINFIDTYIRSGLYPPPSLPSG  
LGTEAAGIVSKVGSVKHIKAGDRVVYAQSALGAYSSVHNI IADKAAILPAAISFEQAAA  
SFLKGLTVYYLLRKTYEIKPDEQFLFHAAAGGVGLIACQWAKALGAKLIGTVGTAQKAQS  
ALKAGAWQVINYREEDLVERLKEITGGKKVRVVYDSVGRDWTWERSLDCLQRRGLMVSGN  
SSGAVTGVNLGILNQKGSlyVTRPSLQGYITTREELTEASNELFSLIASGVIKVDVAEQQ  
KYPLKDAQRAHEILES RATQGSLLIP

>P47199

MATGQKLMRAIRVFEFGPEVLKQLQSDVVVPVQSHQVLIKVHACGVNPVETYIRSGAYS  
RKPALPYTPGSDVAGIIESVGDKVSFAFKKGDVFCYSTVSGGYAEFALAADDTIYPLPET  
LNFQRGAALGIPYFTACRALFHSARARAGESVLVHGASGGVGLATCQIARAHGLKVLGTA  
GSEEGKLVLQNGAHEVFNHKEANYIDKIKMSVGDKDKGVDVIEMLANENLSNDLKLLS  
HGGRVVVVGCRGPIEINPRDTMAKETSIIIGVLSLSSSTKEEFQQFAGLLQAGIEKGWVKPV  
IGSEYPLEKAAQAHEDI IHGSGKTGKMILL

>Q8GXF0

MISFGRKSPAIEETSLATSVMEAWRLPLSPSIRGKLISAGYTCSSIASVSSDLARDA  
NITEEEAFEILKLANQSCCNGSRSLINGAKNAWMLHEEESLPRIT'TSCSDLN ILGGGI  
SCRDVTEIGGVPIGKTQIGIQLSVNVQIPRECGGLGGKAIYIDTEGSFMVERALQIAEA  
CVEDMEEYTGymHkhfQANQVQMKPEDILENIFYFRVCSYTEQIALVNHLEKFI SENKDV  
KVIVVDSITFHFQRDYDDLAQRTRVLSMALKFMKLAKKFS LAVVLLNQVTTKFSEGSFQ  
LALALGDSWSHSCNTRVILYWNGDERYAYIDKSPSLPSASASYTVTSRGLRNSSSSSKRV  
KMM

>P10862

MDHQITTASDFTTTSIPSLYQLDTLRCHICKDFLKVPVLTFCGHTFCSLCIRTHLNNQP  
NCPLCLFEFRESLLRSEFLVSEIIQSYTSLRSSLLDALRIPKPTVPENEEVPGPENSSW  
IELISESESDSVNAADDDLQIVATSERKLAKRSM TDILPLSSKPSKRNFAMFRSERIKKK  
SKPNEQMAQCPICQQFYPLKALEKTHLDECLTLQSLGKKPKISTTFPTESNPHNKSSSRF  
KVRTPEVDKSSCGETSHVDKYLNSMMSAEHQRLPKINF'TSMTQSQIKQKLSLGLSTNGT  
RQNMIKRYNHYEMLWNSNFCDSLEPVDEAELKRQLLSWDVSHNKTPQNSSNKGGISKLMI  
MKSNGKSSSYRKLLENFKNDKFNRKGMVMFRKDFARLIREAKMKIKTGSSDSSGSVGH  
NDGDGVEKVQSDQGTEDQQMEKDQDQTVINEDRVAGERNLPNEDSTDADLSRELMDLNEYS  
KDPPGNN

>P32849

MSHIEQEERKRFFNDLDTSETSLNFKSENKESFLFANSHNDDDDVVVSVDTEEGED  
RSIVPVRREIEEEGQNFITELLRIIPMPKDLVMELNEKFGSQEEGLSLALSHYFDHNS  
GTSISKIPSSPNQLNTLSDTNSSTLSPSSFHPKRRRIYGFNRQTRLEDKVTWKRFIGALQ  
VTGMATRPTVRPLKYGSQMKLKRSSSEEISATKVYDSRGRKKASMASLVRIFDIQYDREIG  
RVSEIDIAQILYPLSSHEISFEVTLIFCDNKRLSIGDSFILQLDCFLTSLIFEERNDGES

LMKRRRTEGGNKREKDNGNFGRTLTTETDEELESRSKRLALLKLFDKLRLKPIILDEQKALE  
KHKIELNSDPEIIDLDNDEICSNQVTEVHNNLRDQTQHEEETMNLNLQKTFYKAAQSSESL  
KSLPETEPSRDVFKLELRNYQKQGLTWMLRREQEFAKAASDGEASETGANMINPLWKQFK  
WPNDMSWAAQNLQODHVNVEDGIFFFYANLHSGEFSLAKPILKTMIKGGILSDEMGLGKTV  
AAYSLLVLSCPHSDSDVVDKCLFDIENTAVSDNLPSTWQDNKKPYASKTTLIVVPMSSLTQW  
SNEFTKANNSPDMYHEVYGGNVSSLKTLTLLTKTKTPPTVVLTTYGIVQNEWTKHSKGRMT  
DEDVNISSGLFSVNFYRIIIDEGHNIRNRRTTVTSTKAVMALQKCKWVLTGTPINRLDDL  
YSLVKFLELDPWRQINYWKTFFVSTPFESKNYKQAFDVVNAILEPVLRLRRTKQMKDKDGKPK  
LVELPPKEVVIKRLPFSKSDLLYKFLLDKAEVSVKSGIARGDLLKYSTILVHILRLRQ  
VCCHPGLIGSQDENDEDLKNNKLVTEQTVELDSLVRVVSERFDNSFSKEELDAMIQRLK  
VKYPDNKSFQSLECSICTTEPMDLDKALFTECGHSFCEKCLFEYIEFQNSKNLGLKCPNC  
RNQIDACRLLALVQTNNSKNLEFKPYSPASKSSKITALLKEQLLQDSSAGEQVVI FSQ  
FSTYLDILEKELTHTFSKDVAKIYKFDGRLSLKERTSVLADFAVKDYSRQKILLLSLKAG  
GVGLNLT CASHAYMMDPWSPSMEDQAIDRLHRIGQTNVSKVMRF IQDSIEEKMLRIQE  
KKRTIGEAMDTDEDERRKRIEEIQMLFE

>P16551

MISKYCRLLSSPRSDLI IKTHPHAEI IWWGSALKHFSPDDCASLERPVANGRLDIDTPLTL  
IAENALGLFSSPGLGHRNGLDASPVFYTVDVEHTENTLRLTSEDSVAGLRLVSELVMTPL  
SGILKVRHALTNLREGDWQINRFAITLPVAERAEVMAFHGRWTRREFQPHRVRLTHDAFV  
LENRRGRTSHEHFPALIVGTPGFSEQQGEVWAVHLGWSGNHRMRCEAKTDGRRYVQAEAL  
WMPGEKALRKNETLYTPWLYACHSADGLNGMSQQYHRFLRDEIRFPEQKLRPVHLNTWE  
GIYFNHNPDIYIMQMAERAAALGVERFIIDDGWFKGRNDDRAALGDWYTDEQKYPNGLMPV  
INHVKSLGMEFGIWEPEMINPDSDFRLHPDWILSMPGYSQPTGRYQYVNLNLIPEAFD  
YIYKRFLWLLGEHPVDYVWKDMNREL VQAGHEGRAAAADAQTRQFYRLDLLRERFPHVEF  
ESCASGGGRIDFEVLKRTHRFWASDNNDALERCTIQRGMSYFFPPEVMGAHIGHRRCHAT  
FRQHSIAFRGLTALFGHMGLELDPVAADAKESDGYRRYALLYKEWRQLIHTGVLWRVDMPL  
DSSIQVQGVVSPDQSQALFMISQLAMPDYTLPGILRFPGLAAEVRYRLRVIDHPEIQLVG  
EGGHTMRRLPAWMNQPLEASGEWLAKGGIQLPVLDPESAILIALERAV

>P16553

MKQRLSLAQSALEKLSARRGNTWYPIFHLAPPAGWMNDPNGLIYFNGRYHAFFQHHPASA  
YQGPMDHWGHATSTDMLHWQHELVALAPGDKYDRDGCFSGSAVDDDGVLSLIYTGHCILED  
RGNDSIIREVQCLATSHDGIREFEKQGCVLTPPEGIMHFRDPKVVHEDGSWMMVIGARDAS  
DNGQVLLYRGTSLRDWHLEHVLHAASAAGESYMWECPDFFRCGNFHWLMFSPQGMNPSGYR  
FRNLQSGVLAGNWKPGSVFALKGVFEELDYGHDFYAPQSMLAEDGRRIMAWMNMWDSP  
VPTRSEAWAGCLTLPREVFERDGRRCQRPVREVESLRRKCQPLSPVRLHGVQLLTENVQA  
AELLVTWHTVDSHAHEHYGIRLGEGLRFYVDNQAGRLILWRYYPEEGLDGYRSVELPDTEY  
LTLRIFLDRSSVEVFVNDGEATLSSRIYPQADSRQLSLYAAHGDAILTDTGLWMLT

>P21867

MSLKAIATTLGISVTTVSRALGGFSDVAASTRERVEAEARRRGYRPNQARRLKTGKTDA  
IGLVYPENDVPFNSGVFMDMVSCISRELAYHDIDLILLIADDEHADCHSYMRLVESRRIDA  
LIIAHTLDDDPRITHLHKAGIPFLALGRVPQGLPCAWFDFDNHAGTWQATQKLIALGHKS  
IALLSENTSHSYVIARRQGWLDALHEHGLKDP LLRLVSPTRRAGYLAVMELMSLPAPPTA  
IITDNDLSGDGAAMALQLRGRLSGKEAVSLVVYDGLPQDSIIELDVAAVIQSTRSLVGRQ  
ISDMVYQIINGASPESLQITWTPIFYPGSTVHSPSF

>O13066

MAAEDIAQLADCLAKANVGDGELSFKGKTLKLNQAQDAEEVIREIEEYEGQLALRLEGNT

VGVEAAKAI AEVLQRKPD LKRCHWSDMFTGRLRPEIPTALRSLGDALITAGAQLTELDLS  
DNAFGPDGVRGFEALLKSPTCFTLQELKLNCGMIGGGKILAAALTECHKKSSAHGKPL  
ALKVFIAGRNRLENDGATALSEAFRLIGTLEEVHMPQNGINHAGITALAESFKANSLLKV  
INLNDNTFTEKGGVAMAEALKTLRQVEVINFGDCLVRSKGAQAIASALKEGLHKLKDLNL  
SYCEIKADA AVSLAESVEDKSDLEKLDLNGNCLGEEGCEQVQEILESINMANILGSLSD  
EDEDDDDDDDDDDDDDDDDDDDDDEEVEEEEEVEEEEEGGDNENKEKSKEIPCLSGSAPAS  
PKLPVDASTFLSFPSPPEKLVRMGPRRSAMIAQQVNVADTEKVVQAFIQVSSVYREDGEIK  
AAVEETIDGLMKEAFENRGFQANVFITSLLVQMGLLKSEDKMKTI PHLNGPLLTNLHMVQ  
QNYFPKSLASTLLAFISKPNGVLENNASARHTLLCNLHNL

>P11938

MSSPDDFETAPAEYVDALDPSMVVVDSSGSAAVTAPSDSAAEVKANQNEENTGATAAETSE  
KVDQTEVEKDDDDDDTTEVGVTTTTTPSIADTAATANIASTSGASVTEPTTDDTADEKKEQ  
VSGPPLSNMKFYLNRDADAHDSLNDIDQLARLIRANGGEVLDSKPRESKENVFIVSPYNH  
TNLPTVTPTYIKACCQSNLLNMENYLVPYDNFREVVD SRLQEESHNGVDNSNSNSDNK  
DSIRPKTEIISTNTGATEDSTSEKVMVDAEQQARLQEQALLRQHVSSTASITSGGHND  
LVQIEQPQKDTSNNNNSNVNDEDNDLLTQDNNPQTADEGNASFQAQRSMISRGALPSHNK  
ASFTDEEDEFILDVVRKNPTRRTTHTLYDEISHYVPNHTGNSIRHRFRVYLSKRLEYVYE  
VDKFGKLVRRDDGNLIKTKVLPPSIKRKFSADEDYTLAIAVKKQFYRDLFQIDPDTGRSL  
ITDEDTPTAIARRNMTMDPNHVPGSEPNFAAYRTQSRRGPIAREFFKHF AEHAAHTENA  
WRDRFRKFLLAYGIDDI SYEAEKAQNREPEPMKNLTNRPKRPGVPTPGNYNSAAKRAR  
NYSSQRNVQPTANAASANAAAAAASNSYAI PENELLDEDTMNFISLKNLDSNISNS  
LPFEYPHEIAEAIRSDFSNEDIYDNIDPDTISFPFKIATTDLFLPLFFHFGSTRQFMDKL  
HEVISGDYEPSQAEKLVQDLCD ETGIRKNFSTSI LTCLSGDLMVFP RYFLNMFKDNVNP  
PNVPGI WTHDDDESLSKSNQEQIRKLVKKGHTGRMEMRKRFFEKDLL

>P03050

MKGMSKMPQFNLRWPREVLDLVRKVAEENGRSVNSEIYQRMESFKKEGRIGA

>Q8IZ41

MEADGDGEELARLRSVFAACDANRSGRLEREEFRALCTELRVRPADAEAVFQRLDADR DG  
AITFQEFARGFLGSLRGGRRRDWGPLDPAPAVSEAGPETHDSEDEGEDAAAAALATSCG  
PASPRAWQDFQARLGDEAKFIPREEQVSTLYQNINLVEPRLIQPYEHVIKNFIREIRLQ  
STEMENLAI AVKRAQDKAAMQLSELEEMDQRIQAAEHKTRKDEKRKAEEALSDLRQYE  
TEVGDLQVTIKKLRKLEEQSKRVSQKEDVAALKKQIYDLSMENQKVKKDLLEAQTNIAFL  
QSELDALKSDYADQSLNTERDLEIRAYTEDRNSLERQIEILQTANRKLHDSNDGLRSAL  
ENSYSKFNRLSHINNI SPGNTISRSSPKFIGHSPQPLGYDRSSRSYVDEDCDSLALCDP  
LQRTNCEVDSLPESCFDSGLSTLRDPNEYDSEVEYKHQRGFQRSHGVQESFGGDASD TDV  
PDIRDEETFGL EDVASVL DWK PQGSVSEGSIVSSSRKPI SALSPQTDLVDDNAKSFSSQK  
AYKIVLAGDAAVGKSSFLMRLCKNEFRENISATLGVD FQMKTLIVDGERTVLQLWDTAGQ  
ERFRSIAKSYFRKADGVLLLLYDVTCEKSFLNIREWVDMIEDAAHETVPI MLVGNKADIRD  
TAATEGQKCVPGHFGEK LAMTYGALFCETS AKDGSNIVEAVLHLAREVKKRTDKDDRSI  
TNLTGTNSKKSPQMKNCCNG

>P04718

MDQSSRYVNLALKEEDLIAGGEHVLCA YIMKPKAGYGYVATAAHFAAESSTGTNVEVCTT  
DDFTRGVDALVYEVDEARELTKIAYPVALFHRNITDGKAMIASFLTLTMGNNQGMGDVEY  
AKMHDFYVPEAYRALFDGPSVNI SALWKVLGRPEVDGGLVVGTI IKPKLGLRKPFAEAC  
HAFWLGGDFIKNDEPQGNQFPAPLRDTIALVADAMRRAQDETGEAKLFSANITADDPFEI  
IARGEYVLETFGENASHVALLVDGYVAGAAA ITTARRRFPDNFLHYHRAGHGAVTSPQSK

RGYTAFVHCKMARLQGASGIHTGMTMGFKMEGESSDRAIAYMLTQDEAQGPFYRQSWGGM  
KACTPIISGGMNALRMPGFFENLGNANVILTAGGGAFGHIDGPVAGARSLRQAWQAWRDG  
VPVLDYAREHKELARAFESFPGDADQIYPGWRKALGVEDTRSALPA

>O28635

MAEFEIYREYVDKSYEPQKDDIVAVFRITPAEGFTIEDAAGAVAAESSTGTWTSLHPWYD  
EERVKGLSAKAYDFVDLGDGSSIVRIAYPSELFEPHNMPGLLASIAGNVFGMKRVKGLRL  
EDLQLPKSFLKDFKGPSKGEKGVKKIFGVADRPIVGTVPKPKVGYSAEEVEKLAYELLSG  
GMDYIKDDENLTSPAYCRFEERAERIMKVIEKVEAETGEKKSWFANITADVREMERRLKL  
VAELGNPHVMVDVVITGWGALEYIRDLAEDYDLAIHGHRAMHAAFTRNAKHGISMFVLAK  
LYRIIGIDQLHIGTAGAGKLEGQKWDTVQNARIFSEVEYTPDEGD AFHLSQNFHHIKPAM  
PVSSGGLHPGNLEPVIDALGKEIVIQVGGGVLGHPMGAKAGAKAVRQALDAIISAIPLEE  
HAKQHPQLQAALKEKWGRVTP I

>Q8THG2

MRRDYVDPGYSKPD TDLICEFHIEPAAGISFEEASTHMAGESSIDSWTEISTLSPELAAR  
LKPHVFYLDADTQTVRVAYSEDLFELGSVPQVLSAVAGNIFSMKIVDNLRLQDITFPKSM  
LREFEGPNFGLPGVRDIVGVKDRPLVGTIVKPKVGLTSEMHAEVAYNAFAGGCDLVKDDE  
NLTDQKFNGFEKRAELTLKIAEKAEAEETGERKMYLCNITAPTCEEMIRRLHVLKDLGASY  
AMIDIVPTGWTALQTLREAAADEGLALHAHRCMHSAFTRNPRHGVSMLLVAKLCRLIGLD  
QLHIGTVVGKMHGDKDEVLSIRDECVLDTVPADPEQHVLAQDWGGLKPMFPVASGGLAPT  
MIPDLYSIFGKEVIMQFGGGIHAHPMGTAAGAAACRQALEASLEGISLQDYAKDHKELEA  
ALGKWLEK

>Q58632

MDYINLNYPNEGDLSCMVIKGENLEKLANE IAGESSIGTWTQVQTMKSDIYEKLRPKV  
YEIKEIGEENGYKVGLIKIAYPLYDFEINNMPGVLAGIAGNIFGMKIAKGLRILDFRFP  
EFVKAYKGRFPGIEGVRETLKIKERPLLGTIVKPKVGLKTEEHAKVAYEAWVGGVDLVKD  
DENLTSQEFNK FEDRIYKTLERDKAEFEETGERKAYMPNITAPYREMIRRAEIAEDAGSE  
YVMIDVVVCGFSAVQS FREEDFKFIHAHRAMHAAMTRSRDFGISMLALAKIYRLLGVDQ  
LHIGTVVGKMEGGEKEVKAIRDEIVYDKVEADNENKFFNQDWFDIKPVFPVSSGGVHPRL  
VPKIVEILGRDLIIQAGGGVHGHDPDTRAGAKAMRAAIEAIEGKSL EEKAEVAELKKA  
LEYWK

>Q8KBL4

MNAEDVKGFFASRESLDMEQYLVLDYYLESVGD IETALAHFCSEQSTAQWKRVGVEDDFR  
LVHAAKVIDYEVIEEELQLSYPVKHSETGKIHACRVTI AHPHCNFGPKIPNLLTAVCGEG  
TYFTPGVPVVKLMDIHFPD TYLADFE GPKFGIEGLRDILNAHGRPIFFGVVKPNIGLSPG  
EFAE IAYQSWLGGLDI AKDDEMLADVTWSSIEERAAHLGKARRKAEAEETGEPKIYLANIT  
DEVDSLMEKHADVAVRNGANALLINALPVGLSAVRMLSNTYQVPLIGHFPFIASF SRMEKY  
GIHSKVMTKLQRLAGLDAVIMPGFGDRMMTP EEEVLE NVIECTKPMGR IKPCLPVPGGSD  
SALTLQTVYEKVG NVDFGFVPGRGVFGHPMGPKAGAKSIRQAWAEIEQGISIETWAETHP  
ELQAMVDQSLKKQD

>P0A9J6

MQNAGSLVVLGSINADHILNLQSFPTPGETVTGNHYQVAFGGKGANQAVAAGRSGANIAF  
IACTGDDSIGESVRQQLATDNIDITPVSVIKGESTGVALIFVNGEGENVIGIHAGANAAL  
SPALVEAQRERIANASALLMQLESPLSVMAAAKIAHQNKTI VALNPAPARELPDELLAL  
VDIITPNETEA EKL TGIRVENDEDAAKAAQVLHEKGIRTVLITLGSRGVWASVNGEGQRV  
PGFRVQAVDTIAAGDTFNGALITALLEEKPLPEAIRFAHAAAAIAVTRKGAQPSVPWREE

IDAFLDRQR

>P52061

MQKVVLATGNVGVRELASLLSDFGLDIVAQTDLGVDSAEETGLTFIENAILKARHAAKV  
TALPAIADDSGLAVDVLGGAPGIYSARYSGEDATDQKNLQKLLLETMKDVPDDQRQARFHC  
VLVYLRHAEDPTPLVCHGSWPGVITREPAGTGGFGYDPIFFVPSSEKTAAEELTREETSAI  
SHRGQALKLLLDALRNG

>O42581

MVLFKAKFSFQRRVKLAQTLWLLSWLSVLVGLCLTFGMGIFLKVQLWIHNEVMENTSAAHAV  
PNTVITAGLVGILLGIYAGKVSQASMDVTKYQRWKSFMMPFFFLAILLSCLVCLAALVLSV  
ALRGTTLEESLKIIGLKNAIRFYKDTDTTPGRCYQKRSMQKQMDQCCGNNHPKDWFEVQWI  
SNRYLDFSSKEVKDRIKSNVDGRYLMDSVPPFSCNPSSPRPCIQMQITNNSAHYSYNYQS  
DELNIWVRGCREALLSYYTGIMATNGAAVTLSFLLQASVLVSLRYLHTSMDKISGPDDME  
ADTEGFIFILEKGVTTETMNTTLEKMKGLFMSNQVETAEGGGEAAAAAS

>P15032

MSTKPLFLLRKAKKSSGEPDVVLWASNDFESTCATLDYLVKSGKKLSSYFKAVATNFPV  
VNDLPAEAGEIDFTWSEYQLSKDSMTWELKPGAAPDNAHYQGNTNVNGEDMTEIEENMLL  
PISGQELPIRWLAQHGSEKPVTHVSRDGLQALHIARAEELPAVTALAVSHKTSLLDPLEI  
RELHKLVRDTRDKVFPNPGNSNLGLITAFFEAYLNADYTDRGLLTKKEMKGNRVSHITRTRTA  
SGANAGGGNLTDRGEGFVHDLTSLARDVATGVLARSMDLDIYNLHPAHAKRIEEIIAENK  
PPFSVFRDKFITMPGGLDYSRAIVVASVKEAPIGIEVIPAHVTEYLNKVLTEVDHANPDP  
EIVDIACGRSSAPMPQORVTEEGKQDDEEKQPQSGTTAVEQGEAETMEPDATEHHQDTQPL  
DAQSQVNSVDAKYQELRAELHEARKNIPSKNPVDDDKLLAASRGEFVDGISDPNDPKVVK  
GIQTRDCVYQNPETEKTSPPDMNQPEPVVQQEPEIACNACGQTGGDNCPCGAVMGDATY  
QETFDEESQVEAKENDPEEMEGAEPHNENAGSDPHRDCSDETEGEVADPVIVEDIEPGIY  
YGISNENYHAGPGISKSQQLDDIADTPALYLWRKNAPVDTTKTKTLDLGTAFHCRVLEPEE  
FSNRFIVAPEFNRRTNAGKEEEEKAFLMECASTGKTVITAEGRKIELMYQSVMALPLGQW  
LVESAGHAESSIYWEDPETGILCRCPDKIIEPEFWIMDVKTADIQRFKTAYYDYRYHV  
QDAFYSDGYEAQFGVQPTFVFLVASTTIECGRYPVEIFMMGEEAKLAGQQEYHRNLRRTLS  
DCLNTDEWPAIKTTLSPRWAKEYAND

>P06956

MSNLLTVHQNLPALPVDATSDEVRKNLMDMFRDRQAFSEHTWKMLLSVCRSWAAWCKLNN  
RKWFFAEPEDVRDYLLYLQARGLAVKTIQQHLGQLNMLHRRSGLPRPSDSNAVSLVMRRI  
RKENVDAGERAKQALAFERTDFDQVRSMLMENS DRCQDIRNLAFLGIAYNLTLRIAEIARI  
RVKDISRTDGGRLIHIIGRTKTLVSTAGVEKALS LGVTKLVERWISVSGVADDPNNYLFC  
RVRKNGVAAPSATSQ LSTRALEGIFEATHRLIYGAKDDSGQRYLAWSGHSARVGAARDMA  
RAGVSIPEIMQAGGWTNVNIVMNYIRNLDSETGAMVRLLEDGD

>P39792

MIRYPNGKTFQPKHSVSSQNSQKRAPSYSNRGMTLEDDLNETNKYYLTNQIAVIHKKPTP  
VQIVNVHYPKRSAAVIKEAYFKQSSTTDYNGIYKGRYIDFEAKETKNKTSFPLQNFHDHQ  
IEHMKQVKAQDGIQFVVIISAFDQVYFLEADKLFYFWRKEKNGRKSIRKDELEETAYPIS  
LGYAPRIDYISIIIEQLYFSPSSGAKG

>Q5KXY4

MALKYPSGKEYRGNKPNARRPAADYANRGMTEDDLNATNEYRERGI AVIHKKPTPVQ  
IVRVDPKRSAAVITEAYFRQASTTDYNGVYRGKYIDFEAKETKNKTAFLKPNFHAHQIR



HMEQVVAHGGICFAILRFSLNETYLLDASHLIAWVNKQEAGGRKSIPKQEI ERHGHSIP  
LGYQPRIDYISVVDNVYFTR

>P42180

MIDERDKIILEILEKDARTPFTEIAKKLGISETAVRKRKVKALEEKGIIEGYTIKINPKKL  
GYSLVTTITGVDTKPEKLFVEAEKLEKEYDFVKELYLSSGDHMI MAVIWAKDGEDLAEIISN  
KIGKIEGVTKVCPAIILEKLLK

>P16236

MAGISEPYIEIFEQPRQRGMRFRYKCEGRSAGSIPGEHSTDNNKTFPSIQILNYFGKVKI  
RTTLVTKNEPYKPHPHDLVGKDCRDGYYEAEFGPERRVLSFQNLGIQCVKKKDLKESISL  
RISKKINPFNVPEEQHLNIDEYDLNVVRLCFQAFLPDEHGNYTLALPPLISNPIYDNRAP  
NTAELRIRCVNKNCGSVKGGDEIFILCDKVQKDDIEVRFVLDNWEAKGSFSQADVHRQVA  
IVFRTPPFLRDITEPITVKMQLRRPSDQEVSEPMDFRYLPDEKDPYGNKAKRQRSTLAWQ  
KLIQDCGSAVTERPKAAP IPTVNPEGKLIKKEPNMFSPTLMLPGLGTLTSSSQMYPPCSQ  
MPHQPAQLGPGKQDTLPSCWQQLFSSSPSASSLLSMHPHNSFTA EVPQPGAQGSSSLP AF  
HDNPLNWPDEKDS SFYRNFGSTNGMGAAMVSAADMQSASSNSIVHATHQASATAASIVNM  
ETNDMNCTSLNFEKYTQVLNVSNRQQLHQAPAACPVAAPGSTPFSSQPNLADTAVYNS  
FLDQEVISDSRLSTNPLQNHQNSLTLTDNQFYD TDGVHTDELYQSFQLDTNILQSYNH

>P20044

MVEVEKKKITLSIPVETNGKLEELAQKYGMTKSGLVNFLVNQVAEAGTIYRQ

>Q9WX14

MATGRAHRPATRSRGIPEATVARLPLYLRALTALSERSVPTVSSEELAAAAGVNSAKLRK  
DFSYLGSYGTRGVGYDVEYL VYQISRELGLTQDWPVVIVGIGNLGAALANYGGFASRGFR  
VAALIDADPGMAGKPVAGIPVQHTDELEKIIQDDGVSIGVIATPAGAAQQVCDRLVAAGV  
TSILNFAPTVLNVPEGVDVRKVDLSIELQILAFHEQRKAGEEAAAADGAAPPVAARKQQRS  
TGSADQGP DGDVPAVMPA

>Q9X2V5

MKVPEAAISRLITYLRILEEELEAQGVHRTSSEQLGELAQVTAQVRKDL SYFGSYGTRGV  
GYTVPVLKREL RHILGLNRKWGLCIVGMGR LGSALADYPGFGESFELRGGFFD VDPEKVGR  
PVRGGVIEHVDLLPQRVPGRIEIALLTVPREAAQKAADLLVAAGIKGILNFAPVVLEVPK  
EVAVENVD FLA GLTRL SFAILNPKWREEMMG

>Q69IL4

MNREKSPIPGDGGDGLPPQATRRAGPPAAAAAAEYDISRMPDFPTRNPGHRRAHSEILSL  
PEDLDLCAAGGGDGPLSDENDEELFSMFLDVEKLNSTCGASSEAEAESSAGAAAAVAA  
AAAAAAHGARPKHQHLSMDESMSIKAEEELVGASPGTEGMSSAEAKKAVSAAKLAE LALV  
DPKRAKRIWANRQSAARSKERKMRYIAELERKVQTLQTEATTL SAQLALLQRDT SGLTTE  
NSELKLR LQTMEQQVHLQDALNDTLKSEVQRLKVATGQMANGGMMNF GMPHQFGGNQ  
QMFQNNQAMQSMLAAHQQLQLHPQAQQQV LHPQHQQQPLHPLQAQQQLQAARDLKM  
KSPMGGQSQWGDGKSGSSGN

>Q6S4P4

MQEPKHTDPAAMRGAHRRARSEVAFRLPDDL DLGGGAGAFDEIGSEDDL FSTFMDIEK  
ISSGPAAAGGSDRDRAAETSSPPRPKHRHSSSV DGS GFFAAARKDAAA SLAEVMEAKKAM  
TPEQLSDLAAIDPKRAKRILANRQSAARSKERKARYITELERKVQTLQTEATTL SAQLTL  
FQRDTTGLSAENAELKIRLQAMEQQAQLRDALNDALKQELERLKLATGEMTNSNETYSMG

LQHVPYNTPFPLAQHNAARQNGGTQLPPQFQPPRPVNPNHMLSHPNGLQDIMQQDPLGR  
LQGLDISKGPLVVKSESSSISASESSSTF

>P26404

MSFLPVIMAGGTGSRLWPLSREYHPKQFLSVEGKLSMLQNTIKRLASLSTEEPVVICNDR  
HRFLVAEQREIDKLANNIILEPVGRNTAPAIALAAFCALQNADNADPLLLVLAADHVIQ  
DEIAFTKAVRHAEYYAANGKLVTFGIVPHTAETGYGYIRRGELIGNDAYAVAEEFVEKPD  
DTAGDYFKSGKYWNSGMFLFRASSYLNELKYLSPFIYKACEKAVGHINPDLDFIRIDKE  
EFMSCPSDSIDYAVMEHTQHAVVIMPMSAGWSDVGSWSSLWDISNKDHQRNVLKGDIFAHA  
CNDNYIYSEDMFISAIIGVSNLVIVQTTDALLVANKDTVQDVKKIVDYLKRNDRNEYKQHQ  
EVFRPWGKYNVIDSGKNYLVRICITVKPGEKFVAQMHHHRAEHWIVLSGTARVTKGEQTYM  
VSENESTFIPPNTIHALENPGMTPLKLIIEIQSGTYLGEDDIRLEQRSGFKEWTNERS

>P27830

MRKILITGGAGFIGSALVRYIINETSDAVVVVDKLTAYAGNLMSLAPVAQSERFAFEKVDI  
CDRAELARVFTEHQPCVMHLAAESHVDRSIDGPAAFIETNIVGTYTLLEAARAYWNALT  
EDKKSAFRFHHIISTDEVYGLHSTDDFFTEETTPYAPSSPYASASKASSDHLVRAWLRTYGL  
PTLITNCSNNYPYHFPEKLIPLMILNALAGKSLPVYGNQQIRDWLYVEDHARALYCVA  
TTGKVGETYNIGGHNERKNLDVVETICELLEELAPNKPVGVAHYRDLITFVADRPGHDLR  
YAIIDASKIARELGWLPQETFESGMRKTVQWYLANESWWKQVQDGSYQGERLGLKG

>Q8NHY2

MSGSRQAGSGSAGTSPGSSAASSVTSASSSLSSSPSPSVAVSAAALVSGGVAQAAGSGG  
LGGPVRPVLVAPAVSGSGGGAVSTGLSRHSCAARPSAGVGGSSSSSLGSGSRKRPLLAPLC  
NGLINSYEDKSNDFVCPICFDMIEEAYMTKCGHSFCYKCIHQSLLEDNNRCPKCNVVDNI  
DHLYPNFLVNELILKQKQRFEEKRFLKLDHSVSSSTNGHRWQIFQDWLGTQDNLDLANVNL  
MLELLVQKKKQLEAESHAALQILMEFLKVARRNKREQLQIQKELSVLEEDIKRVEEMS  
GLYSPVSEDSTVPQFEAPSPSHSSIIDSTEYSQPPGFGSGSSQTKKQPWYNSTLASRRKRL  
TAHFEDLEQCYFSTRMSRISDDSRASQLDEFQECLSKFTRYNSVRPLATLSYASDLYNG  
SSIIVSSIEFDRDCDYFAIAGVTKKIKVYDYDTVIQDAVDIHYPENEMTCNSKISCISWSS  
YHKNLASSDYEGTVILWDGFTGQRSKVYQEHEKRCWSVDFNLMDPKLLASGSDDAKVKL  
WSTNLDNSVASIEAKANVCCVKFSPSSRYHLAFGCADHCVHYDLRNTKQPIMVFKGHRK  
AVSYAKFVSGEEIVSASTDSQLKLWNVKGKPYCLRSFKGHINEKNFVGLASNGDYIACGSE  
NNSLYLYYKGLSKTLLTFKFDTVKSVLDKDRKEDDTNEFVSAVCWRALPDGESNVLIAAN  
SQGTIKVLELV

>P32169

MQNITQSWFVQGMIKATTDRAWLKGWDERNNGNLTLRLDDADIAPYHDFHQPPRYIPLSQ  
PMPLLANTPFIVTGSCKFFRNQVLDPAANLGIKVDSDGAGYHILWGLTNEAVPTSELPA  
HFLSHCERIKATNGKDRVIMHCHATNLIALTIVLENDTAVFTRQLWEGSTECLVFPDGV  
GILPMMVPGTDEIGQATAQEMQKHSLLVWPFHGVFGSGPTLDETFGLIDTAEKSAQVLVK  
VYSMGMKQTIISREELIALGKRFVGTPLASALAL

>P0AG30

MNLTELKNTPVSELITLGENMGLENLARMRKQDIIFAILKQHAKSGEDIFGDGVLEILQD  
GFGFLRSADSSYLAGPDDIYVSPSQIRRFNLRGTDTISGKIRPPKEGERYFALLKVNEVN  
FDKPENARNKILFENLTPLHANSRLRMRGNGSTEDLTARVLDLASPGRGQGLIVAPP  
KAGKTMLLQNIQSIAYNHPDCVLMVLLIDERPEEVTEMQRLVKGEVVASTFDEPASRHV  
QVAEMVIEKAKRLVEHKKDVILLDSITRLARAYNTVVPASGKVLTTGGVDANALHRPKRF  
FGAARNVEEGSLTIIATALIDTGSKMDEVIYEEFKGTGNMELHLSRKAIEKRVFPAIDY

NRSGTRKEELLTTQEELQKMWILRKIIHPMGEIDAMEFLINKLAMTKTNDDFFEMMKRS

>Q5A3V6

MTNIFTPIEEALEAYKNGEFLIVMDEEDRENEGDLIMAAELITQEKMAFLVRYSSGYVCV  
PLSEERANQLELPPMLANRSDRHGTAYTITCDFAEGTTTGTISAHDRALTTRSLANPNSKP  
QDFIKPGHILPLRAVPGLLKKRRRGHTEAAVQLSTLAGLQFAGVICELVRDEDGLMMRLDD  
CIQFGKKHGIKIININQLVEYISK

>Q8TG90

MPSTDSIPKSNFDAIPDVIQAFKNGEFVVVLDLDDPSRENEADLI IAAESVTTEQMAFMVRH  
SSGLICAPLTPERTTALDLPQMVTNADPRGTAYTVSVDAEHPSTTTGTISAHDRALACRM  
LAAPDAQPSHFRRPGHVFPPLRAVAGGVRARRRGHTEAGVELCRLAGKRPVAVISEIVDDGQ  
EVEGRAVRAAPGMLRGDECVAFARRWGLKVCTIEDMIAHVEKTEGKLETNGSG

>Q9UVT8

MHTKGPTPQQHDGSALRIGIVHARWNETIIEPLLAKKLLACGVKESNIVVQSVPGSW  
ELPIAVQRLYSASQLQTPSSGSPSLAGDLLGSSTTDLTALPTTTASSTGPFDALIAIGVL  
IKGETMHFEYIADSVSHGLMRVQLDVGVPVIFGVLTVLTDQAKARAGVIEGSHNHGEDW  
GLAAVEMGVRRRDWAAGKTE

>P50861

MAVKGLGKPDQVYDGSKIRVGI IHARWNRVI IDALVKGAIERMASLGEENNI I IETVPG  
SYELPWGTRKRVDRQAKLQKPLDVVPIIGVLIKGSTMHFEYISDSTTHALMNLQEKVDMP  
VIFGLLTCMTEEQALARAGIDEAHSMHNHGEDWGAAAVEMAVKFGKNAF

>P0A7J0

MNQTLSSFGTFFERVENALAALREGRGVMVLDDDEDRENEGDMIFPAETMTVEQMALTIR  
HGSGIVCLCITEDRRKQLDLPMMVENNTSAYGTGFTVTIEAAEGVTTGVSAAADRITTVRA  
AIADGAKPSDLNRPGHVFPPLRAQAGGVLTRGGHTEATIDLMTLAGFKPAGVLCELTNDG  
TMARAPECIEFANKHNMALVTIEDLVAYRQAHERKAS

>Q60364

MNNVEKAIEALKKGEIILVYDSDEREGETDMVVASQFITPEHIRIMRKDAGGLICTALHP  
DICNKLGIPIFMDILEFASQKFKVLRELYPNDIPYDEKSSFSITINHRKTF'TGITDNDRA  
FTIKKLAELVKEGRFNDGFKEFRSPGHVTLRLAAEGLVKNRQGHTEMTVALAELANLVP  
TTICEMMGDDGNAMSKNETKRYAEKHNLIIYLSGEEIINYLDKYLKD

>P00335

MKHSVSSMNTSLSGKVAAITGAASGIGLECARTLLGAGAKVVLIDREGEKLNKLVAELGE  
NAFALQVDLMQADQVDNLLQGILQLTGRDLIFHANAGAYIGGPVAEGDPDWDRLHLNI  
NAAFRCVRSVLPHLIAQKSGDIIFTAVIAGVVPVIWEPVYTASKFAVQAFVHTTRRQVAQ  
YGVVRVAVLPGPVVTTALLDDWPKAKMDEALANGSLMQPIEVAESVLFMVTRSKNVTVRDI  
VILPNSVDL

>P33022

MEKRKIILDCDPGHDDAIAIMMAAKHPAIDLLGITIVAGNQTLDKTLINGLNVCQKLEIN  
VPVYAGMPQPIMRQQIVADNIHGETGLDGPVFEPLTRQAESESTHAVKYIIDTLMASDGDIT  
LVPVGPLSNIAVAMRMQPAILPKIREIVLMGGAYGTGNFTPSAEFNIFADPEAARVVF'S  
GVPLVMMGLDLTNQTVCTPDVIARMERAGGPAGELFSDIMNFTLKTQFENYGLAGGPVHD  
ATCIGYLINPDGIKTQEMYVEVDVNSGPCYGRVTCDELGVLGKPAANTKVGITIDTDWFWG

LVEECVIRGYIKTH

>Q8WYP3

MTAWTMGARGLDKRGSEFFKLI DTIASEIGELKQEMVRTD VNLENGLEPAETHSMVRHKDG  
GYSEEDVKT CARDSSGYDSL SNRSLILDRL LH THPIWLQSLSEEEAAEVLQAQPPGIFL  
VHKSTKMQKKVLSRLPCEFGAPLKEFAIKESTYTF SLESGISFADLFRLIAFYCISR  
VLPFTLKL PYAISTAKSEAQLEELAQMGLNFWSSPADSKPPNLPPPHRPLSSDGVC PASL  
RQLCLINGVHSIKTRTPSELECSQTNGALCFINPLFLKVHSQDLSGGLKRPSTRTPNANG  
TERTRSPPPPPPPAINSLHTSPRLARTETQTSMPETVNH NKHG NVALPGTKPTPIPPPR  
LKKQASFLAEAGGAKT LSGRPGAGPELELGTAGSPGAPPEAAPGDCTRAPPSSSERP  
PCHGGRQLSDMSISTSSSDSLEFDRSMPLFGYEADTNSSLEDEYEGESDQETMAPP I KSK  
KKRSSSFVLPKLVKSQLQKVSQVSSFMTP EKRMVRRIAELSRDKCTYFGCLVQDYVSFL  
QENKECHVSSDMLQ TIRQFMTQVKNYLSQSSELDPPIESLIPEDQIDVVLEKAMHKCIL  
KPLKGHVEAMLKDFHMADGSWKQLKENLQLVQRNPQELGVFAPTPDFVDVEKIKVKFMT  
MQKMYSPEKKVMLLLRVCKLIYTMENNSGRMYGADDFLPVLT YVIAQC DMLELDTEIEY  
MMELLDPSLLHGEGGYLTSAYGALS LIKNFQEEQAARLLSSETRDTLRQWHKRRTTNRT  
IPSVDDFQNYLRVAFQEVNSGCTGKTL LV RPYITTEDVCQICAEKFKVGDPEEYSLFLFV  
DETWQQLAEDTYPQKIKAE LHSRQPPIHFH FVYKR IKNDPYGIIFQNGEEDLTS

>P33186

MKGNMKVYWIKIAVATWFCCTTIVLGSTARIFSLPTNDEEETS KTLGLD TVSFSTKGATY  
ITYVNF LNELRVK LKPEGNSHG IPLL RKKCDDPGKCFVLVALSNDNGQLAEIAIDVTSVY  
VVG YQVRNRSYFFKDAPDAA YEGLFKNTIKTRLHF GGSYPSLEGEKAYRETTDLGIEPLR  
IGIKKLDEN AIDNYK PTEIASSLLVVIQMVSEAA RFTFIENQIRN NFQQRIRPANNTISL  
ENKWKLSFQIRTSGANGMFSEAVELERANGKKYVTAVDQVKPKIAL LKFV D KDPKTSL  
AAELIIQNYESLVGFD

>Q9Y7P0

MFTGLVEAIGVVKDVQGTIDNGFAMKIEAPQILDDCHTGDSIAVNGTCLTVTDFDRYHFT  
VGIAPESLRLTNLGQCKAGDPVNLERAVLSSTRMGGHFVQGHVDTVAEIVEKKQDGEAID  
FTFRPRDPFVLKYIVYKGYIALDGTSLTITHVDDSTFSIMMISYTSKVMIMAKKNVGD LV  
NVEVDQIGKYTEKLVEAHIADWIKKTQA

>P03049

MARDDPHFNFRMPMEVREKLKFRAEANGRSMNSELLQIVQDALSKPSPVTGYRND AERLA  
DEQSELVKKMVFDTLKDLYKKT

>P30014

MSDNAQLTGLCDRFRGFYPVVIDVETAGFNAKTDALLEIAAITLKMDEQGWLMPDTTLHF  
HVEPFVGANLQPEALAFNGIDPNPDPRGAVSEYEALHEIFKVVRKGIKASGCNRAIMVAH  
NANFDHSFMMAAAERASLKRNPFFHPFATFDTAALAGLALGQTVLSKACQTAGMDFDSTQA  
HSALYDTERTA VLFCEIVNRWKRLGGWPLSAAEEV

>Q03395

MAPVLPLVLPQPRIRLAQGLWLLSWLLALAGGVILLCSGHLLVQLRHLGTFLAPSCQFP  
VLPQAALAAGAVALGTGLVGVGASRASLNAALYPPWRGVLP LLVAGTAGGGLLVVG L  
LALALPGSLDEALEEGLVTALAHYKDTEVP GHCQAKRLVDELQLRYHCCGRHGYKDFWGV  
QWVSSRYLDPGDRDVADRIQSNVEGLYLTGVPFSCCNPHSPRPCLQNRLSDSYAHPLFD  
PRQPNQNLWAQGCHEVLL EHLQDLAGTLGSMLAVTFLLQALVLLGLRYLQTALEGLGGVI  
DAGGETQGYLFP SGLKDM LKTAWLQGGVACRPAPPEEAPPGEAPPKEDLSEA

>Q9F0J6

MQATKIIDGFHLVGAIDWNSRDFHGYTLSPMGTTYNAYLVEDEKTTLFDTVKAEYKGELL  
CGIASVIDPKKIDYLVIQHLELDHAGALPALIEACQPEKIFTSSLGQKAMESHFHYKDWP  
VQVVKHGETLSLGGKRTVTFYETRMLHWPDSMVSWFADKVLISNDIFGQNIASERFSDQ  
IPVHTLERAMREYYANIVNYPYAPQTLKAIETLVGAGVAPEFICPDHGVIFRGADQCTFAV  
QKYVEYAEQKPTNKVVIFYDSMWHSTEKMARVLAESFRDEGCTVKLMWCKACHHSQIMSE  
ISDAGAVIVGSPTHNNGILPYVAGTLQYIKGLRPQNKIGGAFGSFGWSGESTKVLAEWLT  
GMGFDMPATPVKKNVPTHADYEQLKTMAQTIARALKAKLAA

>P16117

MSISSRVKSKRIQLGLNQAELAQKVGTTQQSIEQLENGKTKRPRFLPELASALGVSVDWL  
LNGTSDSNVRFVGHVEPKGKYPLISMVRAGSWCEA

>Q9SE42

MAAAAAAKIAPSMSSDFANLAAEADMVRLGADWLHMDIMDGHFVFNLTIGAPVIQSLR  
KHTKAYLDCHLMVTNPSDYVEPLAKAGASGFTFHIEVSRDNWQELIQSIKAKGMRPGVSL  
RPGTPVEEVFPLVEAENPVELVLVMTVEPGFGGQKFMPEMMEKVRALRKKYPSLDIEVDG  
GLGPSTIDVAASAGANCIVAGSSIFGAAEPGEVISALRKSVEGSQNK

>Q43157

MSAASLCQSTLQSQINGFCGGLNIRKQLQPSTSSPNSLTFTRRKVQTLVKATSRVDKFSKS  
DIIIVSPSILSANFAKLGEQVKAVELAGCDWIHVDVMDGRFVFNITIGPLVVDALRPVTDL  
PLDVHLMIVEPEQRVPDFIKAGADIVSVHCELASTIHLHRTVNQIKSLGAKAGVVLNPGT  
PLSTIEYVLDVVDLVLIMSVNPGFGGQSFIESQVKKISDLRKMCEKGVNPNWIEVDGGVT  
PANAYKVI EAGANALVAGSAVFGAKDYAEA IKG I KASKRPEPVAV

>P0A7Z0

MTQDELKKA VGWAALQYVQPGTIVGVGTGSTAAHFIDALGTMKGQIEGAVSSSDASTEKL  
KSLGIHVFDLNEVDSLGIYVDGADEINGHMQMIKGGGAALTREKIIASVAEKFCIADAS  
KQVDILGKFPLPVEVIPMARS AVARQLVKLGGRPEYRQGVVTDNGNVILDVHGMEILDPI  
AMENAINAIPGVVTVGLFANRGADVALIGTPDGVKTI VK

>O50083

MNVEEMKKIAAKEALKFIEDDMVIGLGTGSTTAYFIKLLGEKLRGEISDIVGVPTS YQA  
KLLAIEHDIPIASLDQVDAIDVAVDGADEVDPNLNLKGRGAALTEKII EYRAGTFIVL  
VDERKLV DYL CQKMPVPIEVI PQAWKAIIEELSIFNAKAE LRMGVNKGDPVITDNGNFII  
DAKFPRIDDPLDMEIELNTIPGVIENGFAD IADIVIVGTREGVKKLER

>P0A7Z4

MQGSVTEFLKPRLDVIEQVSSTHAKVTLEPLERGF GHTLGNALRRILLSSMPGCAVTEVE  
IDGVLHEYSTKEGVQEDILEILLNLKGLAVRVQKDEVILTLNKSIGIPVTAADITHGDG  
VEIVK PQHVICHILTENASISMRIKVQRGRGYVPASTRIHSEEDERPIGRLLVDACYSPV  
ERIAYNVEAARVEQRTDLDKLVIEMETNGTIDPEEAIRRAATILAEQLEAFVDLRDVRQP  
EVKEEKPEFDPILLRPVDDLELTVRSANCLKAEAIHYIGDLVQRTEVELLKT PNLGKKS L  
TEIKDVLASRGLSLGMRL ENWPPASIADE

>Q9Z9H6

MLDSK LKAPVFTVRTQGREYGEFVLEPLERGFVTLGNPLRRILLSSIPGTAVTSVYIED  
VLHEFSTIPGVKEDVVEIILNLKELVVRFLNPSLQTVTL LLLKAE GPK EVKARDFLPVADV

EIMNPDLHIATLEEGRLNMEVRVDRGVGYVPAEKHGKDRINAIPVDAVFSVRRVAFQ  
VEDTRLGQRTDLDKLTLRIWTDGSVTPLEALNQAVEILREHLTYFSNPQAAAVAAPPEAK  
EPEAPPEQEEELDLPLEELGLSTRVLHSLKEEGIESVRALLALNLKDLKNIPGIGERSLE  
EIKEALEKKGFTLKE

>Q9S7B2

MKERQRWRPEEDAVLRAYVRQYGPREWHLVSQRMNVALDRDAKSCLERWKNYLRLPGIKKG  
SLTEEEQRLVIRLQAKHGKWKKIAAEVPGRTAKRLGKWWVEVFKEKQORELRDSRRPPE  
PSPDERGRYEWLLENFAEKLVGERPQAAAAAPSPLLMAAPVLPWPWSSNAGPAAAAAAAV  
AHPPRPPSPSVTLASAAVAPGPPAPAPWMPDRAAADAAPYGFPSPSQHGAAPPGMA  
VVDGQALAEAECCRELEEGRRAAHREAAWRLKRVEQQLEMEREMRRREVWEEFEAK  
MRTMRLEQAAAAERVERDHRKVAELRRDAQVKEEKMAEQWAAKHARVAKFVEQMGGCSR  
SWSSATDMNC

>O95197

MAEPSAATQSHSISSSSFGAEPSPAGGGSPGACPALGTKSCSSCADSFVSSSSSQPVS  
LFSTSQEGLSSLCSDEPSSEIMTSSFLSSSEIHNTGLTILHGKSHVLGSQPILAKEGKD  
HLDLLDMKKMEKQGTSTNNVSDSSVSLAAGVHCDRPSIPASFPEHPAFLSKKGQVEEQI  
DKETKNPNVSSREAKTALDADDRFTLLTAQKPPTEYSKVEGIYTYSLSPSKVSGDDVIE  
KDSPEPFEVIIDKAAFDFKFKDSYKESTDDFGSWSVHTDKESSEDISETNDKLFPLRNK  
EAGRYPMSALLSRQFSHTNAALEEVSRCVNDMHNFTNEILTWDLVPQVKQQTDKSSDCIT  
KTTGLDMSEYNSEIPVVNLKTSTHQKTPVCSIDGSTPITKSTGDWAEASLQQENAITGKP  
VPDSLNSTKEFSIKGVQGNMQQDDTLAELPGSPPEKCDSLGSGVATVKVVLPPDHLKDE  
MDWQSSALGEITEADSSGESDDTVIEDITADTSFENNKIQAEKPVSIPIPAVVKTGEREIK  
EIPSCEREKTSKNFEELVSDSELHQDQDPDILGRSPASEAACSKVPDNTVSLLEDVSEVAP  
EKPITTENPKLPSTVSPNVFNTEFSLNVTTSAYLESLSHGKNVKHIDDSSPEDLIAAFTE  
TRDKGIVDSERNAFKAISEKMTDFKTTTPPEVLHENESGGSEIKDIGSKYSEQSKETNGS  
EPLGVFPTQGTVPASLDLEQEQLTIKALKELGERQVEKSTSAQRDAELPSEEVKQTFTF  
APESWPQRSYDILERNVKNNGSDLGISQKPIITIRETTRVDAVSSLSKTELVKKHVLRLLT  
DFSVHDLIFWRDVKKTGFVFGTTLIMLLSLAAFSVISVVSYLILALLSVTISFRYKSVI  
QAVQKSEEGHPFKAYLDVDITLSSEAFHNYMNAAMVHINRALKLIRLFLVEDLVDSLKL  
AVFMWLMTYVGAVFNGITLLILAELLI FSVPIVYEKYKTQIDHYVGIARDQTKSIVEKIQ  
AKLPGIAKKKAE

>P51591

MKSLKGTKTAENLMKSFAGECQARTRYTYFSSSTARKEGYVQISNIFLETAENEKEHAKRF  
YKFLKDDLQGEAVEINAAYPVELPTDTLTNLKFAAEGEHDEL SNLYPSFADVADEEGFPE  
VAAAFRMIAKAETAHYNRFMKLAKNIEEGKVFKKDEVVLWKCGNCGFIWEGAEAPLKCPA  
CLHPQAYFEVFKETY

>P24931

MKSLKGSRTTEKNILTAFAGESQARNRYNYFGGQAKKDGfVQISDIFAETADQEREHAKRL  
FKFLEGGDLEIVAFAFAGIIADTHANLIASAAGEHHEYTEMYPFAR IAREEGYEEIARV  
FASIAVAEEFHEKRFLLDFARNIKEGRVFLREQATKWRCRNCGYVHEGTGAPELCPACAHP  
KAHFELGINW

>P0ACU2

MTQGAVKTTGKRSRAVSAKKKAISAAALDFTSQFGFHGTRLEQIAELAGVSKTNLLYYFP  
SKEALYIAVLRQILD IWLAPLKA FREDFAPLAAIKEYIRLKL EVS RDYPQASRLFCMEML  
AGAPLLMDEL TGD LKAL IDEKSALIAGWVKSGLAPIDPQH LIFMIWASTQHYADFAPQV

EAVTGATLRDEVFFNQTVENVQRIIIIEGIRPR

>P0A809

MIGRLRGIIEKQPPLVLIIEVGGVGYEVHMPMTCFYELPEAGQEAIVFTHFVVREDAQLL  
YGFNNKQERTLTKELIKTNGVGPKLALAILSGMSAQQFVNAVEREEV GALVKLPGIGKKT  
AERLIVEMKDRFKGLHGDLFTPAADLVLTSPASPATDDAEQEAVAALVALGYKQPQASRM  
VSKIARPDASSETLIREALRAAL

>Q03940

MVAISEVKENPGVNSSNSGAVTRTAAHTHIKGLGLDESGVAKRVEGGFVGGQIEAREACGV  
IVDLIKAKKMSGRAILLAGGPSTGKTALALAI SQELGPKVPFCPLVGSSELYSVEVKKTET  
LMENFRRAIGLRIKETKEVYEGEVTELTPEDAENPLGGYGKTI SHVIVGLKSAKGTKTLR  
LDPTIYESIQREKVSIGDVIYIEANTGAVKRVGRSDAYATEFDLETEEYVPLPKGEVHKK  
KEIVQDVTLHDLVDANARPOGGQDVISMGGQLLKPCKTEITEKLRQEVNKVVAKYIDQGV  
AELIPGVLFIDEVNMLDIEIFTYLNKALESNIAPVVVLASNRGMTTVRGTEDVISPHGVP  
PDLIDRLLIVRTLTPYDKDEIRTI IERRATVERLQVLESSALDLLATMGTE TSLRYALQLLA  
PCGILAQTSNRKEIVVNDVNEAKLLFLDAKRSTKILETSANYL

>Q12464

MSIQTSDPNETSDLKSLSLIAAHSHITGLGLDENLQPRPTSEGMVGGQLQARRAAGVILKM  
VQNGTIAGRAVLVAGPPSTGKTALAMGVSQSLGKDV PFTA IAGSEIFSLELSKTEALTQA  
FRKSIGIKIKEETELIEGEEVVEIQIDRSITGGHKQKLTIKTTDMETIYELGNKMIDGLT  
KEKVLGADVISIDKASGKITKLGRSFARSRDYDAMGADTRFVQCPEGELQKRKTVVHTVS  
LHEIDVINSRTQGFLALFTGDTGEIRSEVRDQINTKVAEWKEEGKAEIVPGVLFIDEVHM  
LDIECFSFINRALEDEFAPIVMMATNRGVSKTRGTNYKSPHGLPLDLLDRSIIITTKSYN  
EQEIKTILSIRAQEEVEVELSSDALDLLTKTG VETSLRYSSNLISVAQQIAMKRKNNTVEV  
EDVKRAYLLFLDSARSVKYVQENESQYIDDQGNVQISIAKSADPDAMD'TTE

>P25815

MTELETAMGMIIDVFSRYSGSEGSTQTLTKGELKVLMEKELPGFLQSGKDKDAVDKLLKD  
LDANGDAQVDFSEFIVFVAAIT SACHKYFEKAGLK

>P26447

MACPLEKALDVMVSTFHKYSGKEGDKFKLNKSELKELLTRELPSFLGKRTDEAAFQKLMS  
NLDSNRDNEVDFQEYCVFLSCIAMMCNEFFEGFPDKQPRKK

>P63083

METPLEKALTTMVTTFHKYSGREGSKLTL SRKELKELIKTELSLA EKMKESSIDNLMKSL  
DKNSDQEIDFKEYSVFLTTLCMAYNDFFLDNK

>P46285

METVAAAGYAHGAATRSPACCAAMSFSQSYRPKAARPATSFYGESLRANTARTSFPAGRQ  
SKAASRAALTTRCAIGDSLEEFFLT KATPDKNLI RLLICMGEMRTIAFKVRTASCGGTAC  
VNSFGDEQLAVDMLADKLLFEALEYSHVCKYACSEEVPELQDMGGPVEGGFSVAFDPLDG  
SSIIVDTNFTVGTIFGVWPGDKLTGVTGGDQVAAAAMGIYGPRTTFVVALKDCPGTHEFLLL  
DEGKWQHVKDTTTSIGEGKMFSPGNLRATFDNPDYDKLVNYYVKEKYTLRYTGGMVPDVNQ  
IIVKEKGIFTNVT SPTAKAKLRLLEFVAPLGF LIEKAGHSSDGKQSVL DKVISVLDERT  
QVAYGSKNEIIRFEETLYGSSRLAASATVGATA

>Q60714

MRAPGAGTASVASLALLWFLGLPWTWSAAAAFCVYVGGGGWRFLRIVCKTARRDLFGLSV  
LIRVRLELRRHRRAGDTIPCIFQAVARRQPERLALVDASSGICWTFQAQLDYSNAVANLF  
RQLGFAPGDVVAVFLEGRPEFVGLWLGLAKAGVVAALLNVNLRREPLAFCLGTSAAKALI  
YGGEMAAVAEVSEQLGKSLKFCSGDLGPESILPDTQLLDPMLAEAPTTPLAQAPGKGM  
DDRLFYIYTSGETTGLPKAAIIVVHSRYRIAFAFGHHSYSMRAADVLYDCLPLYHSAGNIMG  
VGQCVIYGLTVVLRKKFSASRFWDDCVKYNCTVVQYIGEICRYLLRQPVRDVEQRHRVRL  
AVGNGLRPAIWEEFTQRFQVGPQIGEFYGATECNCSIANMDGKVGSCGFNSRILTHVYPIR  
LVKVNEDTMEPLRDSEGLCIPCQGPGLLVGQINQQDPLRRFDGYVSDSATNKKIAHSV  
FRKGD SAYLSGDVLMDELGYMYFRDRSGDTFRWRGENVSTTEVEAVLSRLLGQTDVAVY  
GVAVPGVEGKAGMAAIADPHSQLDPNSMYQELQKVLASYARPIFLRLLPQVDTTGTFKIQ  
KTRLQREGFDPRQTSDRLLFFLDLKQGRYVPLDERVHARICAGDFSL

>P27604

MAQSKPAYKVADIKLADFGRKEIILAENEMPGLMAMRSKYGPSQPLKGARIAGCLHMTIQ  
TAVLIETLTALGAEVQWSSCNIFSTQDHAAAAIAQTGVPVYAWKGETDEEYEWCI EQTIV  
FKDGQPLNMLDDGGDLTNLVHAKYPQYLAGIRGLSEETTTGVHNLAKMLAKGLKVP  
AI NVNDSVTKSKFDNLYGIRESLPDGIKRA TDVMLAGKVAVVAGYGDVKGSAASLKA  
FGSR VIVTEIDPINALQAAMEGYEVTTLEEAAPKANIIVTTTGCKDIVTGKHFELLP  
ND AIVCN VGHFDCEIDVKWLNTNATKKDTIKPQVD RYTLKNGRHVILLAEGR  
LVNLGCATGHP SFVM SNSFTNQVLAQVELWTKFGTPQEYKLG  
LYVLPKTLDEEVAYLHLAQLGVKLT  
KLSDEQAS YLGVPVAGPYKPDHYRY

>Q01781

MALSVEKTAAGREYKVKDMSLADFGRLELELAEVEMPGLMSCRTEFGPSQPFKGARITGS  
LHMTIQTGVL IETLTALGAEVRWCSCNIFSTQDHAAAAIARDSCAVFAWKGETLQ  
EYWWC TERALDWGPDGGPDLIVDDGGDATLLIHEGVKAE EYKKS  
GAIPDPASTDNAEFQIVLSI IRDGLKSDPMKYHKMKDRLVGVSEETTTGVK  
RLYQMQQNGTLLFPAINVND SVTKSKFDN LYGCRHSLPDGLMRATD  
VMIAGKVALIAGYGDVKGKCAAAMKQAGARVIVTEIDPICALQ  
ATMEGLQVLPLEDVVSEVDIFVTTTGNKDIIMVSDMRKMKNN AIVCNIG  
HFDNEIDMLGL ETYPGVKRITIKPQTD RWFVPDTGRGIIILAEGRLMNL  
GCATGHP SFVMSCSFTNQVIAQ LELWNEKSSGKYEKKVYVLPKHLDEK  
VAALHLGKLGAKLTKLSKDQADYISVPVEGPKYKPAHYRY

>P50250

MVENKSKVKDISLAPFGKMOMEISENEMPGLMRIREEYGKDQPLKNAKITGCLHMTVECA  
LLIETLQKLGAIQIRWCSCNIYSTADYAAAAVSTLENVTVF  
AWKNETLEEYWWCVESALTW GDGDDNGPDMIVDDGGDATLLVHKGV  
EYKLYEKNILPDPEKAKNEEERCFLTLLKNSI LKNPKKWTNIAKKI  
IGVSEETTTGVLRLKKMDKQNELLF TAINVND AVTKQKYDNVY  
GCR HSLPDGLMRATDFLISGKIVVICGYGDVKGK CASSMKGLGARVYI  
TEIDPICA IQAVMEG FNVVTLDEIVDKGDFFITCTGNVDVIKLEHLLK  
MKNNAVVGNIGHFDDEIQVNELFNYKG IHIENVKPVDRITLPNGNKI  
IVLARGRLNLGCATGHPAFVMSFSFCNQTFQAQLDLWQN KDTNKYENK  
VYLLPKHLDEKVALYHLKKNASLTELDDNQCF LGVNKSGP  
FKSNEYRY

>Q9PVW8

MMLILKLSLLSLLIATPGLLVSGANMITCYGDVQKLHCETGLIIVKSSLYGR  
TDSTTCST NRPPAQVAVTTCSLPITTTIGDRCNGLPDCELKTDLLGNTD  
PCQGTYYKYYNTSFDCINGNY AVICEHGYSTLDCGNDAI  
LIVNANYGRASSQICSNGLPNGLTQNTNCYAANTLTTVAGLC  
NGKKSCTVEALNTIFSDPCS  
GTVKYLTVTYICTKEMVVCEGGSASINCGAQTIKTIWANY  
GRTDSTVCSTGRPGSQLLNTNCYTS  
DTLNKVAAGCDHLSTCTIPANNNFFG  
DPCPNTYKYL RIVYACV



>Q1RNF8

MPEHPRHCDFQGRNVEIIGLPGGDLGKRLSCPCITSHCSSEKKARSKDPQATSLLPELE  
STMAPEDHYHQLMSALSEASSFEETQRLYHLGIPSHDLLRVRQEVATATLRGPSGLEVHL  
PSSTADHRRKQGLVQRREGAVPAAATSFSEREMSQPPPLLSPQNAAHITMSSHLRPPFLG  
MPTAVCQTPGFSFLPSAQAEMLARQQELLRKQSLARLEMSELLRQKELGSVHRPPLPPE  
VALHIPEGPDELQRRGSMLVLKHSSAPLLALPPQPPGPGPPIPPKE SARSRSEKGS LGV  
QPSQPKETT GAGLWAQEVSEEPSKDS DGEDPETAAAREGTSTPSQVPAGGTRAEGRGLLS  
GSTLPPPLPLGFP CGAVSPYFHTGTMGGLFTDEETT TLEDVNKWTVDV CNFVGGLSGCC  
EYARVFGEQ GIDGETLPLLT EEHLLNTMGLKLG PALKIRAQVAKRLGRV FYMASFPVALP  
LQPPSLQAPELS PGHQPLSPATTTSPYEGTHLPTGQASPKQENGSGTIALLSGAPDPSQL  
LQ

>P07629

MDKLLSLLGVSILAGLLLEAFAQTDLTGKVFVFP RQSETDYVKLI PRLDKPLQNFTVCFR  
AYS DLSRPHSLFSYNAEYGENELLIYKERIGEYELYIGNQGTKVHGVEEFASPVHFCTSW  
ESSSGIAEFWVNGKPWVKKGLQKGYTVKNKPSIILGQEQDNYGGGF'DNYQSFVGEIGDLN  
MWDSVLTPEEIKSVYQGVPLEPNILDWQALNYEMNGYAVIRPRCVALS SYNKIS

>P07602

MYALFLLASLLGAALAGPVLGLKECTRGSAVWCQNVKTASDCGAVKHCLQTVWNKPTVKS  
LPCDICKDVVTAAGDMLKDNATEEEILVYLEKTCDWLPKPNMSASCKEIVDSYLPVILDI  
IKGEMSRPGEVCSALNLCELSQKHLAELNHQKQLESNKIPELDMTEVVAPFMANIPLLLY  
PQDGRSKPQPKDNGDVCQDCIQMVTDIQTAVRTNSTFVQALVEHVKEECDRLGPGMADI  
CKNYISQYSEIAIQMMMHMQPKEICALVGFCEVKEMPMQTLVPAKVASKNVIPALELVE  
PIKKHEVPAKSDVYCEVCEFLVKEVTKLIDMNKTEKEILDAFDKMC SKLPKSLSEECQEV  
VDTYGS SILSILLEEVSP ELVCSMLHLCSGTRLPALTVHVTQPKDGGFCEVCKKLVGYLD  
RNLEKNSTKQEILAALEKGC SFLPDPYQKQCDQFVAEYEPVLEILVEVMDPSFVCLKIG  
ACPSAHKPLLGT ECKI WGPSYWCQNTETAAQCNAVEHCKRHVWN

>Q9QVY3

MSFIFDWIYSGFSSVLQFLGLYKKTGKLVFLGLDNAGKT'TLLHMLKDDRLGQHVP TLHPT  
SEELTIAGMTFTTDFDLGGHIQARRVWKNYLPAINGIVFLVDCADHERLLESKEELDSLMT  
DETIANVPIILGNKIDRPEAISEERLREMFGLYGQTTGKGSVSLKELNARPLEVFMCSV  
LKRQGYGEGFRWMAQYID

>Q06904

MGESLSPQALAQPLLLQLFVDTRPLSQHIVQRVKNILAAVEATVPI SLQVINVADQPQLV  
EYYRLVVTPALVKIGPGRSQVLSGIDLTDQLANQLPQWL VQQEAFFADREPPEVNI PFTE  
LGQPETPALQQADAFFQLQQYADLSERTKFLEQVIALVAHDLRNPLTAALLAVDTIQIR  
SQSFSVATAKEMOGLCSLFDQARSQ LREIERMIAEILEATRHSGESLRINPREVVFEPLL  
QQVLEQLHERWRSKQQQLITDVP GDLPTLYADPDRLRQVLVNL LDNAIKYTPPGGTITIA  
ALHRTSQKVQISISDTGSGIPRDQLSVIFKNLVRLSRDSSQEGYIGLSVCQRIVQA HFG  
RIWVASELGQGSTFHFTMPVYRYTMP C

>Q9H4B6

MLSRKKTNEVSKPAEVQ GK YVKKETS PLLRNLMPSFIRHGPTIPRRTDICLPDSSPNAF  
STSGDVVSRNQSF LRTP IQRT PHEIMRRESNRLSAPSYLARSLADVPREY GSSQSFVTEV  
SFAVENGDSGSRYYYSDNFFFDGQRKRPLGDRAHEDYRYEYNHDLFQRMPQNQRHASGI  
GRVAATSLGNLTNHGSEDLPLPPGWSVDWTMRGRKYYIDHNTNTTHWSHPLEREGLP PGW

ERVESSEFGTYVVDHTNKKAQYRHPCAPSVPRYDQPPPVTYQPQQTERNQSLLVPANPYH  
TAEIPDWLQVYARAPVKYDHILKWELFQLADLDTYQGMLKLLFMKELEQIVKMYEAYRQA  
LLTELENRKQRQQWYAQQHGKNF

>P22629

MRKIVVAAIAVSLTTVSITASASADPSKDSKAQVSAAEAGITGTWYNQLGSTFIVTAGAD  
GALTGTYESAVGNAESRYVLTGRYDSAPATDGSSTALGWTVAWKNNYRNAHSATTWSGQY  
VGGAEARINTQWLLTSGTTEANAWKSTLVGHDTFTKVKPSAASIDAACKAGVNNGNPLDA  
VQQ

>P16933

MFARLPVVFLYAFVAFGALVAALPGGHPGTTTTTPPVTTTVTVTTPPSTTTIAAGGTCTTGS  
LSCCNQVQSASSSPVTALLGLLGIVLSDNLVVGISCSPLTVIGVGGSGCSAQTVCCENT  
QFNGLINIGCTPINIL

>P97260

MTLTERLREKISQAFYNHGLLCASYPIPIILFTGLCILACCYPLLKLPPLPGTGPVEFSTP  
VKDYSPPPVDSDHKQGEPEQPEWYVVGAPVAYIQQIFVKSSVSPWHKNLLAVDVFRLPLS  
RAFQLVEEIRNHVLRDSSGTSLEEVCLQVTDLLPGLRKLRLNLLPEHGCLLLSPGNFWQN  
DWERFHADPDIIGTIHQHEPKTLQTSATLKDLLFGVPGKYSVSLYTRKRTVSYTITLVF  
QRYHAKFLSSLRARLMLLHPSPNCSLRAENLVHVHFKEEIGIAELIPLVTTYIILFAYIY  
FSTRKIDMVKSKWGLAALAAVVTVLSSLLMSVGLCTLFGLTPTLNGGEIFPYLVVIGLEN  
VLVLTKSUVSTPVDLEVKLRIAQGLSSESWSIMKNVATELGIILIGYFTLVPAIQEFCLF  
AVVGLVSDFFLQMFFFTTVLSIDIRRMELADLNKRLPPESECLPSAKPVGRPARYERQLAV  
RPAMPHTITLQPSFRNLRLPKRLRVYFLARTRLAQRLIMAGTVVWIGILVYTDPAGLR  
TYLAAQVTEQSPLGEGSLGPMVPVSGVLPASRPDPAFSIFPPDAPKLPENQTVPGELPEH  
AAPAEGVHDSRAPEVTWGPEDDEELWRRLSFRHWPTLFFNYNITLAKRYISLLPVIPTLR  
LNPQEALEGRQPQDGRSAWAPPELPAGLWEAGPKGPGGTQAHGDIITYKVAALGLAAGI  
VLVLLLLCLYRVLCPRNYGQPGGGAGRRRRRREGELPCDDYGYAPPEITEIVPLVLRGHLMDIE  
CLASDGMLLVSCCLAGQVCVWDAQTGDCLTRIPRPGSRRDSCGGGAFETQENWERLSDGG  
KTSPEEPGESPLRHRPRGPPQALFGDQPDLTCLIDTNFSVQLPPEPTQPEPRHRAGCG  
RARDSGYDFSRLVQRVYQEEGLAAVRMPALRPPSPGSPLPQASQEDGAAPEKGSPLAWA  
PSTAGSIWSLELQGNLIVVGRSSGRLEWDAIEGVLCCSNDEVSSGITALVFLDRRIVAA  
RLNGSLDFFSLEHTHTSLSPQLFRGTPGRGSSPSSSVYSSSNTVACHLTHTVPCAHQKPIIT  
ALRAAAGRLVTGSQDHTLRVFRLEDSCLFTLQGHSGAITTVYIDQTMVLASGGQDGAIC  
LWDVLTGSRVSHTFAHRGDVTSLTCTTSCVISSGLDDLINIWRSTGIKLYSIQQDLGCG  
ASLGVISDNLVVTGGQGCVSFWDLNLYGDLQTVYLGKNSEAPARQILVLDNAAIVCNFG  
SELSLVYVPSVLEKLD

>Q9JLI6

MDAARNGALGSVESLPDRKVYMDYNATTPLEPEVIQAVTEAMKEAWGNPSSSYVSGRKAK  
DIINAARASLAKMIGGKQDIIFTSGGTESNNLVIHSMVRCFHEQQTLKGNMVDQHSPEE  
GTRPHFITCTVEHDSIRLPLEHLVENQMAEVTFFVPVSKVNGQAEVEDILAAVRPTTCLVT  
IMLANNETGVIMPVSEISRRIKALNQIRAASGLPRVLVHTDAAQALGKRRVDVEDLGVDF  
LTIVGHKFYGPRI GALYVRGVGKLTPLYPMLFGGGQERNFRPGTENTPMIAGLGKAADLV  
SENCETYEAHMRDIRDYLEERLEAEFGKRIHLNSRFPGVERLPNTCNFSIQGSQLOGYTV  
LAQCRTLLASVGASCHSNHEDRPSVLLSCGIPVDVARNVRLSVGRGTTRADVLDLIVQD  
LKQAVAQLEGRL

>O75880

MAMLVLPGRVMRPLGGQLWRFLPRGLEFWGPAEGTARVLLRQFCARQAEAWRASGRPGY  
CLGTRPLSTARPPPPWSQKGPGDSTRPSKPGPVSWKSLAITFAIGGALLAGMKHVKKEKA  
EKLEKERQRHIGKPLLGGPFSLTHTHTGERKTDKDYLGQWLLIYFGFTHCPDVCPEELEKM  
IQVVDEIDSITTLPLDLTPLFISIDPERDTKEAIANYVKEFSPKLVGLTGTREEVDQVARA  
YRVYYSPPGPKDEDEDYIVDHTIIMYLIIGPDGEFLDYFGQNKRKGEIAASIATHMRPYRKK  
S

>P55809

MAALKLLSSGLRLCASARGSGATWYKGCVCFSSTSAHRHTKFYTDPVEAVKDIPDGATVL  
VGGFGLCGIPENLIDALLKTGVKGLTAVSNNAGVDNFGGLLLRSKQIKRMVSSYVGENA  
EFERQYLSGELEVELTPQGTLAERIRAGGAGVPAFYTPTGYGTLVQEGGSPIKYNKDGSV  
AIASKPREVREFNGQHFILEEAITGDFALVKAWKADRAGNVIFRKSARNFNLPCKAAET  
TVVEVEEIVDIGAFAPEDIHIPQIYVHRLIKGEKYEKRIERLSIRKEGDGEAKSAKPGDD  
VRERIIKRAALEFEDGMYANLIGIGIPLLASNFISPNITVHLQSENGVLGGLGPYPRQHEAD  
ADLINAGKETVTILPGASFFSDESFAMIRGGHVDLTMLGAMQVSKYGDLANWMI PGKMV  
KGMGGAMDLVSSAKTKVVVTMEHSAKNAHKIMEKCTLPLTGKQCVNRIITEKAVFDVVK  
KKGLTLIELWEGLTVDDVQKSTGCDFAVSPKLMPMQQIAN

>P35154

MEEYQVKIDTFEGPLDLLLHLINRLEIDIYDIPVAKITEQYLLYVHTMRVLELDIASEYL  
VMAATLLSIKSRMLLPKQEEELFEDELLEEEEDPREELIEKLI EYRKYKDAADLKEREEE  
RQKSFTKPPSDLSEYAKEVKQSEQKLSVTVYDMIGAFQKVLKRKKINRPMETTITRQDIP  
I EARMNEIVHSLKSRGTRINFMDLFPYEQKEHLVVTF LAVLELMKNQLVLI EQEHNFSDI  
YITGSESIHGA

>P22340

MYRKSTLAMLIALLTSAASAHAQTDISTIEARLNALEKRLQEAENRAQTAENRAGAAEKK  
VQQLTAQQKNQNSTQEVARTARLEKKADKSGFEFHHGYARSGVIMNDSGASTKSGAYI  
TPAGETGGAIGRLGNQADTYVEMNLEHKQTLDNQATTRFKVMVADGQTSYNDWTASTSDL  
NVRQAFVELGNLPTFAGPFKGSTLWAGKRFRDRDNFDIHWIDSDVVF LAGTGGGIYDVKWN  
DGLRSNFSLYGRNFGDIDDSSNSVQNYILTMNHFAGPLQMMVSGLRAKDNDERKDSNGNL  
AKGDAANTGVHALLGLHND SFYGLRDSGSKTALLYGHGLGAEVKGIGSDGALRPGADTWR  
IASYGTTPLENSWSVAPAMLAQRSKDRYADGDSYQWATFNLR LIQA INQN FALAYEGSYQ  
YMDLKPEGYNDRQAVNGSFYKLTFAPTFKVGSIGDFFSRPEIRFYTSWMDWSKLLNNYAS  
DDALGSDGFNSGGEWSFGVQMETWF

>Q9KWN1

MSGTILITGATSGFGQATAQRVKEGWKVI GTGRRRAERLEALS AELGSAFHGVAFDITDE  
EATKKALAGLPDGF RDIDILVNNAGLALGTAPAPQVPLKDWQTMVD TNITGLLNVT HLLL  
PTLIERKGIVINLSSVAAHPYLGGNVYGGTKAFLRQFSLGLRSDLHGKGV RVTSIEPGM  
CETEFTLVRTGGNQEASDNLYKGVNPITADDIANTIHWWASQPKHININSLELMPVNQSF  
AGFQVYRES

>P00947

MNTPEHMTAVVQRYVAALNAGDL DGI VALFADDATVEDPVGSEPRSGTAAIREFYANSLK  
LPLAVELTQEVRAVANEAAFAFTVSFEYQGRKTVVAPIDHFRFNGAGKVVSMRALFGEKN  
IHAGA

>P07445

MNLPTAQEVQGLMARYIELVDVGDIEAIVQMYADDATVEDPFGQPP IHGREQIAAFYRQG

LGGGKVRACL TGPVRASHNGCGAMPFRVEMVWNGQPCALDVIDVMRFDEHGR IQTMQAYW  
SEVNLSVREPQ

>P18759

MFKIPGFGKAAANHTPPDMTNMDTRTRHLKVSNCPNNSYALANVAAVSPNDFPNNIYIIII  
DNLFVFTTRHSNDIPPGTIGFNGNQRTWGGWSLNQDVQAKAFDLFKYSGKQSYLGSIDID  
ISFRARGKAVSTVFDQDELAKQFVRCYESQIFSPQYLIIMEFQGHFFDLKIRNVQAIDLG  
DIEPTSAVATGIETKGI LTKQTQINFFKGRDGLVNLKSSNSLRPRSNAVIRPDFKFEDLG  
VGGLDKEFTKIFRRAFASRIFPPSVIEKLGISHVKGLLLYGPPGTGKTLIARKIGTMLNA  
KEPKIVNGPEILSKYVGSSEENIRNLFKDAEAEYRAKGEESLHIIIFDELDSVFKQRGS  
RGDGTGVGDNVVNQLLAKMDGVDQLNNILVIGMTNRKDLIDSALLRPGRFEVQVEIHLPD  
EKGR LQIFDIQTKKMRENMMSSDDVNLAELAALTKNFSGAEIEGLVKSASSFAINKTVNI  
GKGATKLN TKDI AKLKVTREDFLNALNDVTPAFGISEEDLKTCEVGGMMLYSERVNSILK  
NGARYVRQVRESDKSRLVSLLIHGPA GSKTALAAEIALKSGFPFIRLISPNELSGMSES  
AKIAYIDNTFRDAYKSPLNILVIDSLETLV DWVPIGPRFSNNILQMLKVALKRKPPQDRR  
LLIMTTTSAYSVLQQMDILSCFDNEIAVPNMTNLDELNNVMIESNFLDDAGR VKVINELS  
RSCPNFNVGIKKTLTNIETARHDEDPVNELVELMTQSA

>P0AG86

MSEQNNTMETFQIQRIYTKDISFEAPNAPHVFKDWQPEVKLDLDTASSQLADDVYEVVL  
RVTVTASLGEETAFLCEVQQGGIFSIAGIEGTQMAHCLGAYCPNILFPYARECITSMVSR  
GTFPQLNLAPVNF DALFMNYLQQQAGEGTEEHQDA

>P44853

MSEQKQDVAATEEQPV LQIQRIYVKDVSFEAPNLPHIFQQEWKPKLGF DLSTETTQVGD  
DLYEVVLNISVETTLEDSDGVAFICEVKQAGVFTISGLE DVQMAHCLTSQCPNMLFPYAR  
ELVSNLVNRGTFPALNLSPVNF DALFVEYMN RQQAENAE EKSEEEQTKH

>P0AG96

MSANTEAQGSGRGLEAMKWVVVVALLLVAVIVGNLYRDI MLPLRALAVVILIAAAGGVAL  
LTTKGKATVAFAREARTEVRKVIWPTRQETLHTTLIVAAVTAVMSLILWGLDGILVRLVS  
FITGLRF

>Q92854

MRMCTPIRGLLMALAVMFGTAMAFAPIPRITWEHREVHLVQFHEPDIYNYSALLLSEDKD  
TLYIGAREAVFAVNALNISEKQHEVYWKVSEDKKAKCAEKGKSKQTECLNYIRVLQPLSA  
TSLYVCGTNAFQPACDHLNLT SFKFLGKNEDGKGRCPFPDPAHSYTSVMVDGELYSGTSYN  
FLGSEPIISRNSSHSPLRTEYAI PWLNEPSFVFADVIRKSPDSPDGEDDRVYFFFTEVSV  
EYEFVFRVLI PRIARVCKGDQGLRRTLQKKWTSFLKARL ICSRPD SGLVFNVL RDVFLR  
SPGLKVPV FYALFTPQLNNVGLSAVCAYNLSTAEVFSHGKYMQSTTVEQSHTKWVR YNG  
PVPKPRPGACIDSEARAANYTSSLNLPDKTLQFVKDHP LMDDSVTPIDNRPR LIKKDVNY  
TQIVVDRTQALDGT VYDVMFVSTDRGALHKAISLEHAVHII EETQLFQDFEPVQTL LLS  
KKG NR FVYAGS NSGVVQAPLAF CGKHGTCEDCVLARDPYCAWSPPTATCVALHQTESPSR  
GLIQEMSGDASVCPDKSKGSYRQHFFKHGGTAELKCSQKSNLARVFWKFQNGVLKAESPK  
YGLMGRKNLLIFNLSEGD SGVYQCLSEERVKNKTVFQVVAKHVLEVKVVPKPVVAP T LSV  
VQTEGSRIATKVLVASTQSSPPTPAVQATSSGAI TLPPKPAPTGTSC EPKIVINTVPQL  
HSEKTMYLKSSDNRL LMSLFLFFFVLFCLFFYNCYKGYLPRQCLKFRSALLIGKKKPKS  
DFCDREQSLKETLVEPGSFSQNGEHPK PALDTGYETE QDTITSKVPTDREDSQRID DLS  
ARDKPF DVKCELKFADSDADGD

>O35464

MRPAALLLCLTLLHCAGAGFPEDSEPI SISHGNYTKQYPVFGHKPGRNTTQRHRLDIQM  
IMIMNRTLYVAARDHIYTVDIDTSHTEEIIYCSKKLTWKSQRQADVDTCRMKGKHKDECHNF  
IKVLLKKNDDTLFVCGTNAFNPSCRNYRVDLTLETFGDEFSGMARCPYDAKHANIALFADG  
KLYSATVTDFLAIDAVIYRSLGDSPTLRTVKHDSKWLKEPYFVQAVDYGDYIYFFFREIA  
VEYNTMGKVVFPRAVQVCKNDMGGSQRVLEKQWTSFLKARLNCSVPGDSHFYFNILQAVT  
DVIRINGRDVVLATFSTPYNSIPGSAVCAYDMLDIANVFTGRFKEQKSPDSTWTPVPDER  
VPKPRPGCCAGSSSLEKYATSNEFPDDTLNFIKTHPLMDEAVPSIINRPWFLRTMVRYL  
TKIAVDNAAGPYQNHTVVFLGSEKGIILKFLARIGSSGFLNGSLFLEEMNVYNPEKCSYD  
GVEDKRIMGMQLDRASGSLYVAFSTCVIKVPLGRCERHGKCKKTCIASRDPYCGWVRESG  
SCAHLSPLSRLTFEQDIERGNTDGLGDCHNSFVALNGHASSLYPSTTTSDSASRDGYESR  
GGMLDWNLDLLEAPGSTDPLGAVSSHNHQDKKGVIRESYLKSNDQLVPVTLAIAVILAFV  
MGAVFSGIIVYCVCDHRRKDVAVVQRKEKELTHSRRGSMSSVTKLSGLFGDTQSKDPKPE  
AILTPLMHNGKLATPSNTAKMLIKADQHHLDLTALPTPESTPTLQQKRKPNRGSREWERN  
QNIINACTKDMPPMGSPVIPTDLPLRASPSHIPSVVVLPIITQQGYQHEYVDQPKMSEVVA  
QMALEDQAATLEYKTIKEHLSKSPNHGVNLVENLDSLPPKVPQREASLGPPGTSLSQTG  
LSKRLEMQHSSSYGLEKRSYPTNSLTRSHQTTTLKRNNNTNSNSSHLSRNQSFGRGDNP  
PPAPQRVDSIQVHSSQPSGQAVTVSRQPSLNAYNSLTRSGLKRTPSLKPDPVPPKPSFAPL  
STSMKPNDACT

>O54951

MWTPRVPPPPALSFLLLLLLGVTYGLFPEEPPPLSVAPRDYLSHYPVFVGS GPGRLTAA  
EGAEDLNIQRVLRVNRTLFIGDRDNLYQVELEPSTSTELRYQRKLTWRSNPSDIDVCRMK  
GKQEGECRNFVKVLLLRDESTLFVCGSNAFNPICANYSMDTLQLLGDSISGMARCPYDPK  
HANVALFSDGMLFTATVTDFLAIDAVIYRSLGDRPTLRTVKHDSKWFKEPYFVHAVEWGS  
HVYFFFREIAMEFNYLEKVVVSRVARVCKNDVGGSPRVLEKQWTSFLKARLNCSVPGDSH  
FYFNVLQAVTGVVSLGGRPVILAVFSTPSNSIPGSAVCAFDMNQVAAVFEGRFREQKSPE  
SIWTPVPEDQVPRPRPGCCAAPGMQYNASSALPDEILNFVKTHPLMDEAVPSLGHSPWIV  
RTLMRHQLTRVAVDVGAGPWGNQTIIVFLGSEAGTVLKFLVKPNASVSGTTGPSIFLEEF  
TYRPDRCGRPSSAGEWQRLLSLELDAASGGLLAAFPRCVVRVPVARCQLYSGCMKNCIG  
SQDPYCGWAPDGSCIFLRPGTSATFEQDVSGASTSGLGDC TGLLRASLSDDRAGLVS VNL  
LVTSSVAAFVVGAVVSGF SVGWVGLRERRELARRKDKEAILAHGGSEAVLSVSRLGERR  
GTGPGGRGGAGGGPGPPEALLAPLMQNGWTKAALLHGGPHDLDTGLLPTPEQTPLPQKR  
LPTPHPHAHALGSRADHSHALLSASASTSLLLLAPARASEQPQVPAEPGPESRLCAPRS  
CRASHPGDFPLTPHASPDRRRVVSAPTGPLDPSVGDGLPGPWSPPATSSSLRRPGPHGPPT  
AALRRTHTFNSGEARPGGHRPRRHPADSTHLLPCGTGERTAPPVP

>P0A9T0

MAKVSLEKDKIKFLLVEGVHQKALESLRAAGYTNIEFHKGALDDEQLKESIRDAHF IGLR  
SRTHLTEDVINAAEKLVAIGCFICIGNQVDLDAAAKRGIPVFNAPFSNTRSV AELVIGEL  
LLLLRGVPEANAKAHRGVWNKLAAGSF EARGKKLGIIGYGHIGTQLGILAESLGMVYFY  
DIENKPLPLGNATQVQHLSDLLNMSDVVSLHVPENPSTKNMMGAKEISLMKPGSLLINASR  
GTVVDIPALCDALASKHLGAAIDVFPTEPATNSDPFTSPLCEFDNVLLTPHIGGSTQEA  
QENIGLEVAGKLIKYS DNGSTLSAVNFPEVSLPLHGRRMLMHIHENRPGVLTALNKIFAE  
QGVNIAAQYLQTS AQMGYVVIDIEADEDVAEKALQAMKAIPTIRARLLY

>O08651

MAFANLRKILISDSLDPCCRKILQDGGQLQVVEKQNL SKEELIAELQDCEGLIVRSATKVT  
ADVINAAEKLQVVGRAGTGVDNVLDLEAATRKGVLVMNTPNGNSLSAAELTCGMLMCLARQ  
IPQATASMKGDKWDRKKFMGTELNKTLGILGLGRIGREVAARMQAFGMKTVGYDPIISP

EVAASFVQQLPLEEIIWPLCDFITVHTPLLPSTTGLLNDSTFAQCKKGVRVVNCARGGIV  
DEGALLRALQSGQCAGAALDVFTTEPPRDRALVDHENVI SCPHLGASTKEAQRSGEEIA  
VQFVDMVKGKSLTGVVNAQALTSAFSPHTKPWIGLAEALGTLMHAWAGSPKGTIQVVTQG  
TSLKNAGTCLSPAVIVGLLREASKQADVNLVNAKLLVKEAGLNVTTSHSPGVPGEQGIGE  
CLLTVALAGAPYQAVGLVQGTTPMLQMLNGAVFRPEVPLRRGQPLLLFRAQPSDPVMLPT  
MIGLLAEAGVQLLSYQTSKVSDGDTWHVMGLSSLLPSLDAWKQHVSEAFQFCF

>Q9RME2

MVKQVFNFNAGPSALPKPALERAQKELLNFNDTQMSVMELSHRSQSYYEEVHEQAQNLLRE  
LLQIPNDYQILFLQGGASLQFTMLPMNLLTKGTIGNYVLTGSWSEKALKEAKLLGETHIA  
ASTKANSYQSI PDFSEFQLNENDAYLHITSNNTIYGTQYQNFPEINHAPLIADMSSDILS  
RPLKVNQFGMIYAGAQNKGPSGVTVVIVKKDLLNTKVEQVPTMLQYATHIKSDSLYNT  
PTFSIYMLRNVLWDIKDLGGAEAIKQNEEKAKIIYDTIDESNGFYVGHAEKGSRLMNV  
TFNLRNEELNQOFLAKAKEQGFVGLNGHRSVGGCRASIYNAVPIDACIALRELMIQFKEN  
A

>Q59196

MSKRAYNFNAGPAALPLEVLERAQAEFVDYQHTGMSIMEMSHRGAVYEAVHNEAQRLLA  
LLGNPTGYKVLFIQGGASTQFAMIPMNFLEKQGTANYVMTGSWASKALKEAKLIGDTHVA  
ASSEASNYMTLPKLQEIQLDNAAYLHLTSNETIEGAQFKAFPDTGVSPLIGDMSSDILS  
RPFDLNQFGLVYAGAQNKGPSGVTVVIVREDLVAESP KHLPTMLRYDTYVKNNSLYNT  
PSFGIYMVNEVLKWIIEERGGLEGVQQANRKKASLIYDAIDQSGGFYRGCVDVDSRSDMNI  
TFRLASEELEKEFVKASEQEGFVGLKGHRVGGGLRASIYNAVPYESCEALVQFMEHFKRS  
RG

>P23721

MAQIFNFSSGPAMLPAEVLKQAQQELRDWNLGTSVMEVSHRGKEFIQVAEEAEKDFRDL  
LNVPSNYKVLFCHEGGGRGQFAAVPLNILGDKTTADYVDAGYWAASAIKEAKKYCTPNVFD  
AKVTVDGLRAVKPMREWQLSDNAAVMHYCPNETIDGIAIDETPDFGADVVAADFSSSTIL  
SRPIDVSRYGVIYAGAQNIGPAGLTIVIVREDLLGKANIACPSILDYSILNDNGSMFNT  
PPTFAWYLSGLVFKWLKANGVAEMDKINQQAELLYGVIDNSDFYRNDVAKANRSRMNV  
PFQLADSALDKLFLEESFAAGLHALKGHRSVGGMRASIYNAMPLEGVKAL'TDFMVEFERR  
HG

>P10658

MDSRQIVNFGPGPAKLPHSVLLEIQKELLDYKGLGISVLEMSHRSSDFAKIVNNTENLV  
RELLAVPDNYKVIIFLQGGGCGQFSAVPLNLI GLKPGRCADYVVTGAWSAKAAEEAKKFGT  
VNI VHPKLSYTKIPDPSTWNLNPDASVYYCANETVHGVEFDVFPDVKGAILVCDMSSN  
FLSRPVDVSKFGVIFAGAQNKGVAAGVTVVIVRDDLLGFALRECPVLEYKQATSSSLY  
NTPPCFSIYVMGLVLEWIKNNGGAAAMKLLSTIKSQMIYEIIDNSQGFYVCPVEPRNRSM  
MNI PFRIGNAKGDEALEKRFLDKALELHMISLKGHRVGGVRSVSLYNAVTTIEDVQKLASF  
MKNFLEMHQL

>P02784

MALQLGLFLIWAGVSVFLQLDPVNGDQDEGVSTEPTQDGPaelPEDEECVFPFVYRNRKH  
FDCTVHGSLFPWCSLDADYVGRWKYCAQRDYAKCVFPFIYGGKKYETCTKIGSMWMSWCS  
LSPNYDKDRAWKYC

>Q920H1

MKLVSIFLLVTIGICYSATALLINRLPVVDKLPVPLDDIIPSFDPKMLLLKTLGISVEH

LVTGLKKCVDELGPEASEAVKLLLVIIICSYFPGRSLCYVNNLPSFVSVLFLPMICAYPR  
DSKKQTFAFIERVFEQSKL

>Q24141

MGSKVEQQYKLLNAELMDQVQKQRLEIGEYRKRVISLEREIMDIREEHVLQNRQRMENI  
SIVRSLMLSLNVDSDSLAVRQEPAPAAQINRPSGPRSSREICKDMRRTCALARTTRPIS  
PRRSSVTSTVSSTSRSSAEVQSEVVTTTRIPEDRRANKPTPPRRPAELVFDEDDSDDD  
FDEAVSPVEETQTEQNEENRFLFSIIIEENGSEGESTDSSSSCEAIYCDTTFESSPPNAQV  
TVTPSGRALREVDTNIPVAVSLSRGKETGKGSWLAISVAVEDSPQEPSIQCPRLAVTRPS  
QSSGIFPDVNGLTPRRSLFNGIGKMGASTSTPKSFLVEEMPSIRTRSRTAANKKSENTDM  
SSSFCNNSARPSRSCRIPTSLVEPSLKNKLRNGSKGKAKAKK

>Q9P0V3

MAAQRIRAANSNGLPRCKSEGTLIDLSEGFSETSFNDIKVPSALLVDNPTPFNAKEV  
IAIKDYCPTNFTTLKFSKGDHLYVLDTSGGEWYAHNTTEMGYIPSSYVQPLNYRNSTLS  
DSGMIDNLPDSDPEVAKELELLGGWTDKVKVGRMYSNPFWNGVQTNPFNLGNVPMPS  
LDELNPKSTVDLLLFDAGTSSFTSESSATTNSTGNIFDELPTNGLHAEPPVRRDNPFFR  
SKRSYLSSELSVLQAKSDAPTSSSFFTGLKSPAPEQFQSREDFRTAWLNHRKLARSCHDL  
DLLGQSPGWGQTQAVETNIVCKLDSSGGAVQLPDTSSISIHVPEGHVAPGETQQISMKALL  
DPPLELNSDRSCSISPVLEVKLSNLEVKTSIILEMKVSAEIKNDLFSKSTVGLQCLRSDS  
KEGPYVSVPLNCSGDTVQAQLHNLPCMYVAVVAHGPSILYPSTVWDFINKKVTVGLYG  
PKHIHPSFKTVVTFIFGHDCAPKTLVSEVTRQAPNPAPVALQLWGKHQFVLSRPQDLKVC  
MFSNMTNYEVKASEQAKVVRGFQLKLGKVSRLIFPITSQNPNELSDFTLRVQVKDDQEAI  
LTQFCVQTPQPPKSAIKPSGQRRFLKKNEVGKIIILSPFATTTKYPTFQDRPVSSLKFGK  
LLKTVVRQKNHYLLEYKKGDIALLSEERVRLRGQLWTKEWYIGYYQGRVGLVHTKNVL  
VVGRARPSLCSGPELSTSVLLEQILRPCKFLTYIYASVRTLLMENISSWRSFADALGYVN  
LPLTFFCRAELDSEPERVASVLEKLEKDCNNTENKERKSFQKELVMALLKMDCQGLVVRL  
IQDFVLLTTAVEVAQRWRELAEKLAKVSKQQMDAYESPHRDRNGVVDSEAMWKPAYDFLL  
TWSHQIGDSYRDVIQELHLGLDKMKNPITKRWKHLTGTLILVNSLDVLRAAAFFSPADQDD  
FVI

>P08689

MEKGEVASLRCLLLLLLLLLLTLPPTHQGRTLRHIDPIQSAQDSPAKYLSNGPGQEPVTVL  
TIDLTKISKPSSSFEFRTWDPEGVIFYGDTNTEDDWFMLGLRDGQLEIQLHNLWARLTVG  
FGPRLNDGRWHPVELKMNGDSLWLDVKGEMLCRLQVSASLADHPQLSMRIALGGLLLPT  
SKLRFPLVPALDGCIRRDIDLGHQAQLSTARSLSGNCVDLQPLGFFPPGTHAEFSLQD  
IPQPHTDPWTFSLLELGFKLVDGAGRLLTLGTGTNSSWLTLLHLQDQTVVLSSEAEPKLALP  
LAVGLPLQLKLDVFKVALSQGPKMEVLSTSLRLASLWRLWSHPQGHLISLALPAGEDSSA  
SFCLSDLWVQGRQLDIDKALSRSQDIWTHSCPQSPSNDTHTSH

>Q149N8

MSSRRKRAPPVRVDEEKRQQLHWNMHEDRRNEPIIISDDDEQPCPGSDTSSAHYIILSDS  
LKEEVAHRDKKRCVKVVSFSKPIEKEETVGIFSPLSVKLNIVISPYHFDNSWKAFLGELT  
LQLLPAQSLIENFSERSITLMSSESSNQFLIYVHSGGEDVEKQKKEPMSICDKGILVSS  
FSGEMLEDLGWLQKKRRIKLYQKPEGNIHKVGIYLLLEAGLAKLDFLSDANSRMKKFNQL  
MKKVMEKLNHSIIPDVLEEDDDPESEPEGQDIDELYHFVKQTHQOETQSIOQVDVQHPAL  
IPVLRPYQREAVNWMLQOECFRSSPATESALHFLWREIVTSEGLKLYNPNYTGCIIREYP  
NSGPQLLGGILADEMGLGKTVEVLALILTHTRQDVKQDALTLPEGKVNYFIPSHYFGGK  
LKKTEIQNIEFEPKEKVQCPTRVMILTAVKEMNGKKGVSILSIKYVSSIRYDVQRNR  
SLLKRMKCLIFEGLVKQIKGHGFSGTFTLGKNYKEEDICDKTKKQAVGSPRKIQKETRK

SGNKD TDSEYLPSDTSDDDDDPYYYYYKSRNRNRSKLRKKLVPSTKKGKSQPF INPDSQGH  
CPATSDSGITDVAMSKSTCISEFNQEHETEDCAESLNHADSDVPPSNTMSPFNTSDYRFE  
CICGELDQIDRKPRVQCLKCHLWQHAKCVNYDEKNLKI KPFYCPHCLVAMEPVSTRATLI  
ISPSSICHQWVDEINRHRVSSSLRVLVYQGVKKDGF LQPHFLAEQDIVIITYDVL RSELN  
YVDIPHSNSEDGRRLRNQKRYMAIP SPLVAVEWWRICLDEAQMVECP TVKAAEMAQR LSG  
INRWCISGTPVQRGLEDLFLGLVFLGIEPYCVKHWWRLLYR PYCKKNPQHLYSFIAKIL  
WRSAKKDVIDQIQIPPQTEEIHWHLHFSPVERHFYHRQHEVCCQD VVVKLRKISDWALKLS  
SLDRRTVTSILYPLRLRQACCHPQAVRGEFLPLQKSTMTMEELLTSLQKCKGTECEEAH  
RQLVCALNGLAGIHIKGEYALAAELYREVLRSSSEEHKGLKTD SLQRLHATHNLMELLI  
ARHPGIPPTLRDGRLEEEAKQLREHYMSKCNTEVAEAQQALYPVQQT IHELQRKIHNSP  
WWLNVIHRAIEFTIDEELVQVRNEITSNYKQQTGKLSMSEKFRDCRGLQFLLTTQMEEL  
NKCQKLVREAVKNLEGGPPSRNVIESATVCHLRPARLPLNCCVFC KADELFT EYESKLF SN  
TVKGQTAIFEEMIEDEEGLVDDRAPTTRGLWAISETERSMKAIL SFAKSHRFDVEFVDE  
GSTSMDLFEAWKKEYKLLHEYWALNRNRSVAVDELAMATERLRVRDPREPKNPPVLHII  
EPHEVEQNRIKLLNDKAVATSQ LQKKGQLLYLTNLEKSQDKTSGGVNPEPCPICARQLG  
KQWAVLTCGHCFNECISIIIEQYSVGS HRSSIKCAICRQTTSHKEISYVFTSEKANQEE  
DIPVKGSHSTKVEAVVRTLMKIQLRDPGAKALVFSTWQDVLDIISKALTDNNMEFAQISR  
VKTFQENLSAFKRDPQINILLPLHTG SNGLTIEATHVLLVEPILNPAHELQAIGRVHR  
IGQTKPTIVHRFLIKATIEERMQAMLKTAERSHTNSSAKHSEASVLT VADLADLFTKETE  
ELE

>P38262

MSITSEELNYLIWRYCQEMGHEVSALALQDETRVLEFDEKYKEHIPLGTLVNLVQRGILY  
TESELMVDSKGDISALNEHHLSEDFNLVQALQIDKEKFPEISSEGRFTLETNSESNKAGE  
DGASTVERETQEDD TNSIDSSDDL DGFVKILKEIVKLDNIVSSTWNPLDESILAYGEKNS  
VARLARIVETDQEGKKYWKLTI IAE LRHPFALSASSGKT TNQVTC LAWSHDGNSIVTGVE  
NGELRLWNKTGALLNVLNFHRAPIVSVKWNKDGT HII SMDVENVTILWNVISGTVMQHFE  
LKETGGSSINAENHSGDGLGVDVEWVDDDKFVIPGPKGAIFVYQITEKTP TGKLI GHHG  
PISVLEFNDTNKLLLSASDDGTLRIWHGGNGNSQNC FYGHSQSIVSASWVGDDKVISCSM  
DGSVRLWSLKQNTLLALSIVDGVPIFAGRISQDGQKYAVAFMDGQVNVYDLK KLNKSR S  
LYGNRDGILNPLPIPLYASYQSSQDNDYIFDLSWNCAGNKISVAYSLQEGSVVAI

>Q91Y57

MLLLLLLLLLLWGIKGV EQNPQEVFTLNVERKVVVQEGLCVLVPCNFSYLK KRLTDWTD S  
DPVHGFWYREGTDRRKDSIVATNPNIRKAVKETRNRFFLLGDPWRNDCSLNIREIRK KDA  
GLYFFRLERGKTKYNYMWDKMTLVVTALTNTPQILLPETLEAGHPSNL TCSVPWDCGWTA  
PPIFSWTGTSV SFLSTNTTGSSVLTITPQPQDHGTNLTCQVTLPGTNVSTRMTTRLNVS Y  
APKNLTVTIYQGADSVSTILKNGSSLP ISEGQSLRLICSTDSYPPANLSWSWDNL TLCP S  
KLSKPGLLELFPVHLKHGGVYTCQAQHALG SQHISLSLSPQSSATLSEMMMGTFVGS GVT  
ALLFLSVCILLLAVRSYRRKPARPAVVAPHDPALKVSVSQNPLVESQADDSSEPLPSILE  
AAPSSTEEIHYATLSFHEMKPMNLWGQQDTTTEYSEIKFPQRTAWP

>P22753

MIGQRIKQYRKEKGYSLSELAEKAGVAKSYLSSIERNLQTNPSIQFLEKVS AVLDVSVHT  
LLNEKDETEYDGLDSEWENLVRDAMASGVSKKQFREFLDYQKWKKRQEKE

>Q56019

MVNDASSISRSGYTQNRLAEAAFE GVRKNTDFLKAADKAFKDVVATKAGDLKAGTKSGE  
SAINTVGLKPPTDAAREKLSSEGLTLLLGKLM TLLGDVSLSQLESRLAVWQAMIESQKE  
MGIQVSKEFQTALGAEQ EATDLYEASIKKTD TAKSVYDAATK KLTQAQNKLQSLDPADPG



YAQAEAAVEQAGKEATEAKEALDKATDATVKAGTDAKAKAEKADN I LTKFQGTANAASQN  
QVSQGEQDNL SNVARL TMLMAMF I E IVGKNTEESL QNDLALFNALQEGRQAEMEKKSAEF  
QEETRKA EETNRIMGCI GKV LGALLTIVSVVAAVFTGGASLALAAVGLAVMVADEIVKAA  
TGVSF IQQALNPIMEHVLKPLMELIGKAITKALEGLGVDKKTAE MAGSIVGAI VAAIAMV  
AVIVVVAVVVGKAAAKLGNALSKMMGETIKKLVPNVLKQLAQNGSKLFTQGMQRITSGLG  
NVGSKMGLQTNALSKELVGN TLNKVALGMEVTNTAAQSAGGVAEGVF IKNASEALADFML  
ARFAMDQIQQWLKQSVEIFGENQKVTAELQKAMSSAVQQNADASRFILRQSRA

>P06701

MAKTLKDL DGWQVIITDDQGRVIDDNNRRRSRKRGENVFLKRI SDGLSFGKGESVIFND  
NVTETYSVYL IHEIRLNTLNNVVEI WVFSYLRWFELKPKLYEQFRPDLIKEDHPLEFYK  
DKFFNEVNKSELYLTAELSEIWLKDFI AVGQILPESQWNDSSIDKIEDRDFLVRYACEPT  
AEKFVPIDIFQI IRRVKEMEPKQSDEYLKRVSPVSGQKTNRQVMHKMGVERSSKRLAKK  
PSMKKIKIEPSADDDVNNGNIP SQRGSTSTHGSISPQEE SVSPNISSASPSALTSPTDSS  
KILQKRSISKELIVSEEIPINSSEQESDYEPNNETSVLSSKPGSKPEKTSTELVDGRENF  
VYANNPEVSDDGGLEEETDEVSSESSDEAIIPV NKRRGAH GSELSSKIRKIH I QETQEF S  
KNYTTETDNEMNGNGKPGIPRGNTKI HSMNENPTPEKGNAKMIDFATLSKLKKKYQIILD  
RFAPDNQVTDSSQLNKLTDEQSSLDVAGLEDKFRKACSSSGRETILSNFNADINLEESIR  
ESLQKRELLKSQVEDFTRIFLPIYDSL MSSQNKLFYITNADDSTKFQLVNDVMDELITSS  
ARKELPIDFYIHIDALELAGMDALYEKIWF AISKENLCGDISLEALNFYITNVPKAKKRK  
TLILIQNPENLLSEKILQYFEKWISSKNSKLSIICVGGHNV TIREQINIMPSLKAHFTEI  
KLNKVDKNELQOMIITRLKSLKPFHVKNVDKKEMTIYNNIREGQNKIPDNVIVINHKI  
NNKITQLIAKNVANVSGSTEKAFKICEAAVEISKKDFVRKGG LQKGLVVSQEMVPRYFS  
EAINGFKDETI SKKIIGMSLLMRTFLYTLAQETEGTNRHTLALETVLIKVMKMLRDNPGY  
KASKEIKKVICGAWEPAITIEK LKQFSWISV VNDLVGEKLVVVVLEEPSASIMVELK LPL  
EINYAFSMDEEFKNMDCI

>Q86WV1

MQAAALPEEIRWLLEDAEEFLA EGLRNENLSAVARDHRDHILRGFQQIKARYYWDFQPQG  
GDIGQDSSDDNHSGTLGLSLTSDAPFLSDYQDEGMEDIVKGAQELDNVIKQGYLEKKSKD  
HSFFGSEWQKRWCVVSRGLFYYYANEKSKQPKGTFLIKGYSVRMAPHLRRDSKKE SCFEL  
TSQDRRSYEFTATSPA EARDWVDQISFL LKDLSSLTIPYEEDEEEEEKEET YDDIDGFDS  
PSCGSQCRPTILPGSVGIKEPTEEKEEEDIYEVLPDEEHDLEEDESGTRRKGVDYASYQ  
GLWDCHGDQPDELSFQRGDLIRILSKEYNMYGWWV GELNSLVGIVPKEYLTTAF EVEER

>P0AEU7

MKKWLLAAGLGLALATSAQAADKIAIVNMGSLFQQVAQKTGVSNTLENEFKGRASELQRM  
ETDLQAKMKKLQSMKAGSDRTKLEKDVMAQRQTFAQKAQAFEQDRARRSNEERGKLVTRI  
QTAVKSVANSQDIDL VVDANAVAYNSSDVKDI TADV LKQVK

>Q3URD3

MPSALAI FTCPNSHPFQERHVYLDEPIKIGRSVARCRPAQNNATFDCKVLSRNHALVWF  
DHKTSKFYQLQDTKSSNGTFINSQR LSRGSEESPPCEILSGDI IQFGVDVTENTRKVTHGC  
IVSTIKLFLPDGMEARLRS DVIHAPLPSVVDKVAANTPSMYSQELFQLSQYLQEALHREQ  
MLEQKLATLQRLLAITQEASDTSWQALIDEDRLLSRLEVMGNQLQACSKNQTEDSLRKEL  
IALQEDKHSYETTAKESLRRVLQEKIEVVRKLSEVERSLSNTEDECTHLKEMNERTQEEL  
RELANKYNGAVNEIKDLSDKLKV AEGKQEEIQQKGQAEKKELQTKIDEMEKEQE LQAKI  
EALQADNDF TNERLTALQVRLEHLQEKTLKECSSLGIQVDDFLPKINGSTEKEHLLSKSG  
GDCTFIHQFLECQKLMVQGH LTKVVEESKLSKENQAKAKESDLSDTLSPSKEKSSDDTT  
DAQMDEQDLNEPLAKVSL LKDDLQGTQSETEAKQDIQH LRKELVEAQELARTSKQKCFEL

QALLEEERKAYRNQVEESAKQIQVLQVQLQKLHMDMENLQEEKDTEISSTRDKLLSAQDE  
ILLLRQAAAEAVSERDTRDFVSLQEELKKVRAELEGWRKAASEYENEIRSLQSSFQLRCQQ  
CEDQQREEATRLQGELEKLLKKEWDVLETECHSLKKENVLLSSELQRQEKELHNSQKQSF  
LTSDL SILQMTRKELEKQVGSLEKQHLRDAADLKTLLSKAENQAKDVQKEYEKTQTVLSE  
LKLKFEMTEQEKQSITDELKQCKDNLLKLLREKGNKPPWPMPMLAALVAVTAMVLYVPGL  
ARASP

>Q7G7J6

MKREYQEAGGSSGGSSADMGSCKDKVMAGAAGEEEDVDELLAALGYKVRSSDMADVAQK  
LEQLEMAMGMGGVSAPGAADDGFVSHLATDTVHYNPSDLSSWVESMLSELNAPLPPIPPA  
PPAARHASTSSTVTGGGGSGFFELPAAADSSSSSTYALRPI SLPVVATADPSAADSARDTK  
RMRTGGGSTSSSSSSSSSLGGGASRGSVVEAAPPATQGAAAANAPAVPVVVVDTQEAGIR  
LVHALLACAEAVQQENFAAAEALVKQIPTLAASQGGAMRKVAAYFGEALARRVYRFRPAD  
STLLDAAFADLLHAHFYESCPLYLKFHFHTANQAILEAFAGCHRHHVDFGIKQGMQWPAL  
LQALALRPGGPPSFRLTGVPQPDETDALQQVGWKLQFAHTIRVDFQYRGLVAATLAD  
LEPFMLQPEGEADANEPEVI AVNSVFELHRLLAQPGALEKVLGTVHAVRPRIVTVVEQE  
ANHNSGSFLDRFTESLHYSTMFDSLEGGSSGQAE LSPPAAGGGGTDQVMSEVYLGRQI  
CNVVACEGAERTERHETLGQWRNRLGRAGFEPVHLGSNAYKQASTLLALFAGGDGYRVEE  
KEGCLTLGWHTRPLIATSARVAAA

>P55000

MASRWAVQLLLVAAWSMGCGEALKCYTCKEPMTSASCRTITRCKPEDTACMTTLVTVEAE  
YPFNQSPVVTRSCSSSCVATDPDSIGAAHLIFCCFRDLCNSEL

>P40676

MESPLGSDLARLVRIWRALIDHRLKPLELTQTHWVTLHNIHQLPDQSQIQLAKAIGIEQ  
PSLVRTLQLEDKGLISRQTCASDRRAKRKIKLTEKADALIAEMEEVIHKTRGEILAGISS  
EEIELLIKLIAKLEHNIMELHSHD

>P30340

MTKPVLQDGETVVCQGTHAAIASSELQAI APEVAQSLAEFFAVLADPNRLRLLSLLARSEL  
CVGDLAQAI GVSESAVSHQLRSLRNLRLVSYRKQGRHVYYQLQDHHIVALYQNALDHLQE  
CR

>Q07449

MINSFIVIFLSFLIFINYANLVCVEATHVYGRRSHSNGMHGNGARRAVAVLRGDAGVSGI  
IYFQQSGSGSITTI SGSVSGLTPGLHGFHVHQYGDQTNCT SAGDHYNPF GKTHGGPNDR  
IKHIGDLGNIVAGANGVAEVYINSYDIKLRGPLSVIGHSLVVHANTDDLGQGTGNMREES  
LKTGNAGSRLACGVIGIAAVS

>P16026

MTVYSYLVILFILLDNYCSAYGYGYSYHRRHFDPAIASFTKEPYIGAVWFTQHGDYMYV  
NGSVAGLPPGKLLGTHVHRYGGLGNMCLEAGPHFNPFNRHGPRHGYPRHAGDLGNIRVG  
RGGVAKFDYVVTIKGLGPFDFGFIGRALVIHANRDDLGRNRDEGSRTTGNSGPRLACATIG  
FRAP

>P43312

MFTLREL PFAKDSMGDFLSPVAFDFHHGKHHQTYVMNLNLIKGTDFEKSSSLFDILT KSS  
GGVFNNAAQIYNHDFYWDCLSPKATALSDELKGALEKDFGSLEKFKEDFIKSATTLFGSG  
WNWAAYNLDTQKIEIIQTSNAQTPVTDKKVPLLVVDVWEHAYYIDHKNARPVYLEK FYGH

INWHFVSQCYEWAKKEGLGSVDYYINELVHKKA

>P18868

MNDLEKKFYELPELPYPYDALEPHISREQLTIHHQKHHQAYVDGANALLRKLDEARES  
DVTDIKAAKELSFHVGYYVHLHLFFWGNMGPADCECGGEPGKLAEYIEKDFGSFERFRKEF  
SQAAISAEGSGWAVLTYCQRTDRLFIMQVEKHNVNVI PHFRILLVLDVWEHAYYIDYRNV  
RPDYVEAFWNIVNWKEVEKRFEDIL

>P17670

MAEYTLPLDWDYGALEPHISGQINELHHSKHHATYVKGANDAVAKLEEARAKEDHSAIL  
LNEKNLAFNLAGHVNHTIWWKNLSPNGGDKPTGELAAA IADAFGSFDKFRAQFHAAATTV  
QGGSGWAALGWDTLGNKLLIFQVYDHQTNFPLGIVPLLLLDMWEHAFYLYQYKNVKVDF  
FAKAFWNVNVNADVQSRYAAATSQTKGLIFG

>Q8IAY6

MVITLPLKLYALNALSPHISEETLNFHYNKHHAGYVVKLNLTLIKDTPFAEKSLLDIVKES  
SGAIFNNAQIWNHTFYWDSMGPDCEGEPHGEIKEKIQEDFGSFNNFKEQFSNILCGHFG  
SGWGWLALNNNNKLVILQTHDAGNP IKDNTGIPILTCDIWEHAYYIDYRNDRASVYKAWW  
NLVNVNWFANENLKKAMQK

>P19665

MTHELISLPHYAVDALAPVISKETVEFHGKHLKTYVDNLNKLII GTEFENADLNTIVQKS  
EGGIFNNAQTLNHNLYFTQFRPGKGGAPKGLGEAIDKQFGSFEKFKEEFN TAGTTLFG  
SGWVWLASDANGKLSIEKEPNAGNPVRKGLNPLLGFDVWEHAYYLYTYQNRADHLKDLWS  
IVDWDIVESRY

>P09223

MAFELPPLPYAHDALQPHISKETLEFHHDKHHNTYVVNLNMLVPGTEFEGKTLEEIVKTS  
SGGIFNNAQVWNHTFYWNCLAPNAGGQPTGALADAINAAGSFDKFKEEFTKTSVGTFG  
SGWGWLVKKADGSLALASTIGACPLTSGDTPLLTCDVWEHAYYIDYRNLRPKYVEAFWN  
LVNWFVVAEQFEGKTFKA

>O93724

MVTTKRYTLPLPYAYNALEPYISAEIMQLHHQKHHQGYVNGANAALAEKLEKFRKGAEQI  
DIRAVLRDLSFHLNGHILHSIFWPNMAPPKGGGKPGGKIADLINKFFGSFEKFKEEFSQ  
AAKNVEGVGWAILVYEPLEEQLLILQIEKHNLMHAADAQVLLALDVWEHAYYLYQYKNDRG  
SYVDNWNVNVNWDVVERRLQKALNGQIALKL

>Q9XD74

MAFELPNLPHYDALAPYMSRETLEYHHDKHHLAYVTNGNKLAEAEAGLSDLSDLEIVKKS  
YGTNQPLFNNAGQHYNHVHFWKWMKGGGGTSLPGKLDAAIKSDLGGYDKFRADFSAAGA  
GQFGSGWAWLSVKNKLEISKTPNGENPLVHGATPILGVDVWEHSYYIDYRNARPKYLEA  
FVDNLINWDYVLELEYEAAK

>P28759

MASLGGQNVSGINFLIKEGPKVNAKFEKPPPYPLNGLEPVMSQQTLEFWGKHHKTYV  
ENLKKQVVGTELDGKSLEEIIVTSSYNGDILPAFNNAQVWNHDFWECMKPGGGGKPSG  
ELLELIERDFGSFVKFLDEFKAAAATQFGSGWAWLAYRARKFDGENVANPPSPDEDNKL  
VLKSPNAVNPLVWGGYPLLTIDVWEHAYYLDQNRDPDYISVFMKDLVSWDAVSSRLEQ  
AKALITSA

>Q08713

MTQVIQLKRYEFPQLPYKVDALPEYISKDIIDVHYNGHHKGYVNGANSLLDRLEKLIKGD  
LPQGQYDLQGI LRGLTFNINHGKHLHAIYWNMAPAGKGGGKPGGALADLINKQYGSFDRF  
KQVFSESANSLPGSGWTVLYYDNESEGNLQIMTVENHFMMNHIAELPVILIVDEFEHAYYLQ  
YKNKRGDYLNAWWNVVNWDDAEKRLQKYLNK

>P18655

MSYELPALPFDYTALAPYITKETLEFHHDKHHAAAYVNNYNNAVKDTDLDGQPIEAVIKAI  
AGDASKAGLFNNAQAAWNHSFYWNSIKPNGGGAPT GALADKIAADFGSFENFVTEFKQAA  
ATQFGSGWAWLVLDNGTLKITKTGNADTPIAHGQTPLLTIDVWEHAYYLDYQNRDPDYIS  
TFVEKLANWDFASANYAAAIA

>P19666

LNYEYSDLEPVL SAHLLSFHHGKHHQAYVNNLNATYEQIAAATKENDAHKIATLQSA LRF  
NLGGHVNHWIYWDNLAPVKSGGGVLPDEHSPLTKAIKEKWSYENFITL FNTRTAAIQGS  
GWGWLGYDTVSKSLRFLFELGNQDMP EWSSIVPLLTIDVWEHAYYLDYQNL RPKYLTEVWK  
IVNWREVEKRYLQAIE

>P09233

MALRTLASKKVL SFPFGGAGRPLAAAA SARGVTTVTL PDLSYDFGALEPAISGEIMRLHH  
QKHHATYVANYNKALEQLETAVSKGDASAVVQLQAAIKFNGGGHVNHSIFWKNLKP ISEG  
GGEPHGHKLGWAIDEDFGSFEALVKKMNAEGAALQGS GWVWLALDKEAKKVSVE TTANQD  
PLVTKGASLVPLLGIDVWEHAYYLQYKNVRPDYLNNIWKVMNWKYAGEVYENVLA

>Q92450

MSQQYTL PPLPYPYDALQPYISQQIMELHKKHHQTYVNGLNAALEAQKKAEEANDVPKL  
VSVQQAIFNGGGHINHS LFWKNLAPEKSGGGKIDQAPVLKAAIEQRWGSFDFKDFAFNT  
TLLGIQGS GWLVTDGPKGKLDITTTTHDQDPVTGAAPVFGVDMWEHAYYLQYLNDKASY  
AKGIWNVINWAAEAENRYIAGDKGGHPFMKL

>O13401

MFSIRSSSRVLLKASSATTRATLNAAA SKTFTRSKYSLPELDYEF SATEPYISGQINEIH  
YTKHHQTYVNNLNASIEQAVEAKSKGEVKKLVALEKAINFNNGGGLNHCLWWKNLAPVSQ  
GGGQPPSEDSKLGKQIVKQFGSLDKLIEITNGKLAGIQGS GWA FIVKNKANGDTIDVIT T  
ANQD TVTDPNLVPLIAIDAWEHAYYLQYQNVKADYFKNLWHVINWKEAERRFEF

>Q00637

MFVARKISPNC KPGVRGKHTLPKLPYDYAALEPIICREIMELHHQKHHQTYVNNLNAAEE  
QLEEA KSKSDTTKLIQLAPALRFNNGGGHINHTIFWQNLSPNKTQPSDDLKKAIESQWKS L  
EEFKKELTTLTVAVQGS GWLGFNKKSGKLQLAALPNQDPLEASTGLIPLFGIDVWEHA  
YYLQYKNVRPSYVEAIWDIANWDDISCRFQEAKKLG C

>P00448

MSYTLPSLPYAYDALEPHFDKQ TMEIHHTKHHQTYVNNANAALESLEPEFANLPVEELITK  
LDQLPADKKT VLRNAGGHANHS LFWKGLKKGTTLQGD LKAAIERDFGSVDNFKA EF EKA  
AASRFGSGWAWLV LKGDKLAVVSTANQDSPLMGEAISGASGFPIMGLDVWEHAYYLK FQN  
RRPDYIKEFWNVVNWDEAAARFAAKK

>Q838I4

MTYTLPELPHYAYDALEPYIDVETMHLHHDKHHNTYVVTNLNAAIEKHPELGEKSVENLISD  
MNAIPEDIRTAVRNNGGGHANHTFFWEIMAPNAGGQPTGAIKEAIDEFTFGSFDEMKAAFK  
TAATGRFGSGAWLVVNNKLEITSTPNQD SPLMDGQTPVLGLDVWEHAYYLKYKNVRPD  
YIEAFWNVVNWDKVNELFAAAK

>P04179

MLSRAVCGTSRQLAPALGYLGSRQKHSPLDLPYDYGALPHINAQIMQLHHSKHHAAYVN  
NLNVTEEKYQEALAKGDVTAQIALQPALKFNNGGGHINH SIFWTNLSPNGGGEPKGELLEA  
IKRDFGSGFDKFKKLTAA SVGVQSGWGWLGFNKERGH LQIAACPNQDPLQGTGLIPLL  
GIDVWEHAYYLQYKNVRPDY LKAIWNVINWENVTERYMACKK

>Q9UQX0

MLRFLSKNSVAAIRNVSIARGVHTKATLPLLPYAYNALEPALSETIMKLHHDKHHQTYVN  
NLNAAQEK LADPNLDLEGEVALQAAIKFNNGGGHINHSLFWKILAPQKEGGKPVTSGLSH  
KAITSKWGSLEDFQKEMNAALASIQSGSGAWLIVDKDGLRITTTANQDTIVKSKPIIGI  
DAWEHAYYPQYENRKA EYFKAIWNVINWKEAESRYSNR

>P61503

MPYPFKLPDLGYPYEALPHIDAKTMEIHHQKHHGAYVTNLNAALEKYPYLHGVEVEVLL  
RHLAALPQDIQTAVRNNGGGHLNHS LFWRL LTPGGAKEPVGELKKAIDEQFGGFQALKEK  
LTQAAMGRFGSGAWLVKDPFGKLHVLSTPNQDNPMEGFTPIVGI DVWEHAYYLKYQNR  
RADY LQAIWNV LNW DVAEFFKKA

>P00447

MFAKTAAANLTKKGGLSLLSTTARRTKVTL PDLKWD FGALEPYISGQINELHYTKHHQTY  
VNGFNTAVDQFQELSDLLAKEP SPANARKMIAIQQNIKFHGGGF'TNHCLFWENLAPESQG  
GGEPPTGALAKAIDEQFGSLDEL IKL'TNTKLAGVQSGWAFIVKNLSNGGKLDVVQTYNQ  
DTVTGPLVPLVAIDAWEHAYYLQYQNK KADYFKAIWNVVNWEASRRFDAGKI

>P87219

MSEEEIISFTNPALGPLPTKAPQLPSNVLDL FSLKGVASVTGSSGGIGWAVAEFAQAGA  
DVAIWYNSKPADAKAEYLTEKYGVKAKAYKCNVTD PNDVSKVINEIEKDFGTIDIFVANA  
GVAWTDGPEIDVQGYDQWKKIVDCDLNGVYYCAHTVQQIFKKNKSGSLIITSSMSGTIVN  
IPQLQAPYNAAKAACTHLAKSLSVEWASFGARVNSISPGYILTDIADFADPEMKKKWWQL  
TPLGREGLPQELVGAYLYLASNASTYTTGSNIAVDGGYTCP

>P0ACS2

MEKKLPRIKALLTPGEVAKRSGVAVSALHFYESKGLITSIRNSGNQRRYKRDVLRVVAII  
KIAQRIGIPLATIGEAFGVLP EGH TLSAK EWKQLSSQWREELDRRIHTLVALRDELDCI  
GCGCLSRSDCPLRNPGDRLGEEGTGARLLEDEQN

>P23497

MAGGGDLSTRRLNECISPVANEMNHLPAHSHDLQRMFTEDQGVDDRLLYDIVFKHFKRN  
KVEISNAIKKTFPFLEGLRDRDLITNKMFEDSQDSCRNLVPVQRVVYNVLSLEKTFNLP  
VLEALFSDVMNQEYPDLIHIYKGFENVIHDKLPLQESEEEEREERSGLQLSLEQGTGENS  
FRSLTWPPSGSPSHAGTTPPENGLSEHPCETEQINAKRKDTTSDKDDSLGSQQTNEQCAQ  
KAEPTESCEQIAVQVNNGDAGREMP CPLPCDEESPEAELHNHGIQINSCSVRLVDIKKEK  
PFSNSKVECQAQARTHQNASDIIVISS E DSEGSTDVDEPLEVFISAPRSEPVINNDNPL  
ESNDEKEGQEATCSR PQIVPEPMDFRKLS TFR ESFKRVIGQDHDFSESEEEEP AEASS  
GALRSKHGEKAPMTSRSTSTWRIPSRKRRFSSSDFSDLSNGEELQETCSSSLRRGSGSQP

QEPENKKCSCVMCFPKGVPRSQEARTESSQASDMMDTMDVENNSTLEKHSKRRRKRHR  
SKVNLQGRKKDRPRKHLTLNNKVQKKRWQQRGRKANTRPLKRRRKRGRIPKDENINF  
KQSELPVTCGEVKGTLTKERFKQGTSKKCIQSEDKKWFTPREFEIEGDRGASKNWKLSIR  
CGGYTLKVLNENKFLPEPPSTRKKRILESHNNTLVDPCEEHKKKNPDASVKFSEFLKKCS  
ETWKTIFAKEKGFEDMAKADKAHYEREMKTYIPPKGEKKKKFKDPNAPKRPLAFFLFC  
SEYRPKIKGEHPGLSIDDVVKKLAGMWNNTAAADKQFYEKKAALKKEKYKDI AAYRAKG  
KPNSAKKRVVKAESKSKKKKEEEDEEEDQEEENEEDDDK

>P19965

MARRAKMASNSGDSSPEPGIKEINETWKGAIACLGVALLFLMTIGVLYWQVVEKPD TNW  
VLRGQVSVGLVWDKSLSFKSLSQDKTFARIDARHLPVRGGALLNNHCWFNTTRFCHTW  
DGVANLQVTLDPNQSVAEQYRVEWTPLNQVALQDCFSMVNTSWYGGGSMRLQYWPINN  
ANINSQPFVISDLQDTPGTGYSVLERYFLGSTGVAVRVHQEVPLHVGIESRKQLCLGIPP  
NAEMQPLRYTICVSDSLRSAHQFGTVIPVVQPDQPDTSILRLPHWRSQRVADIALKLEH  
NLKTFTRKLLKHLRLEGIMDLGEQSTLLLSNEVDETLQSQNRYRGLRQLRLSITLSPFTS  
IDSHHFQTTLQEGRENLWGLPSAANGSQGPLLMKWKGKFAVKLNISNEEAQDWFIEQVH  
SLQRRLEVDYVNLEVGVSYPVQQAQHHSCRLCGDDYINQFALLAEKLGNGTTVSAATRT  
AHLPVFVRMVPRQSDWSHAGLKLIP SILHYSLLGYSFFIPDVI GGSGLTDGFLADEELFV  
RWMQIATFLPVMSFSTPPWVFGETWIVNTRSCIHRHQTFVVP LLMKYAAEWTSLGHPVF  
RPLWVWVSPDPNTFTINDEFLLIGDEVLVAPVTESGKVHRDIYLPGNSFQWKDMNTAQVFE  
GGTLLREYPVALTEVAVFIRQKSKYTPAIAEIQQATT

>O55034

MRRNPRPGSAASSHNHTPNFYSENSNSSSH SATSGDSNGRRSAGPELGE PDGRMARGSSCG  
EPALSSGVPGGDTWAGSSRPKLAPRSHNGQTACGAATVRGGASEPSGSPAVLEEQLNLLP  
ILDLRQEMPPPPVSKSFLSLFFQVLSVFLSLVADGLVCVYREIC SIRFLFTAVSLLSIFL  
AALWWGLLYLIPPLENEPKEMLTLSQYHHRVHSQGGQLQQLQAE LSKLHKEVTSVRAAHS  
ERVAKLVFQRLNEDFVRKPDYALSSVGASIDLEKTS SDYEDRNTAYFWNRLSFWNYP  
SVILEPDVFPNGCWA FEQEQQV VIRLPGHVQLSDITLQHPPPTVAHTGGASSAPRDFAV  
FGLQADDETEVFLGKFI FEVQKSEIQTFHLQNDPPSAFPKVKIQILSNWGHPRFTCLYR  
VRAHGVRISESAEDNAMGVTGGPH

>Q9ZUB3

MDAKETSATDLKRPREEDDNGGAATMETENG DQKKEPACFSTVIPGWFSEMSPMWPGEAH  
SLKVEKVL FQGKSDYQDVIVFQSATYGVVLVLDGVIQLTERDE CAYQEMITHLPLCSIPN  
PKKVLVIGGGDGGVLRVARHASIEQIDMCEIDKMVVDVSKQFFPDVAIGYEDPRVNLVI  
GDGVAFLKNAEAGSYDAVIDSSDPIGPAKELFEKPF FQSVARALRPGGVVCTQAESLWL  
HMDIIEDIVSNCREIFKGSVNYAWTSVPTYP SGVIGFMLCSTEGPDVDFKHPLNPIDESS  
SKSNGPLKFYNAEIHSAAFCLPSFAKKVIESKAN

>P70998

MSELWYTEKQTKNFGITMKVNKTLHTEQTEFQHLEMVETE EFGNMLFLDGMVMTSEKDEF  
VYHEMVAHVPLFTHPNPEHVLVVGDDGGVIREILKHPSVKKATLVDIDGKVI EYSKKFL  
PSIAGKLD DPRVDVQVDDGFMHIAKSENQYDVIMVDSTEPVGP AVNLF'TKGFYAGIAKAL  
KEDGIFVAQTDNPWFTPELITNVQRDVKEIFPITKLYTANIPTYPSGLWFTTIGSKKYDP  
LAVEDSRFFDIETKYTKDIHKA AFVLPKFVSDLIK

>P09158

MAEKKQWHETLHDQFGQYFAVDNVL YHEKTDHQDLIIFENAAFGRVMALDGVVQTTTERDE  
FIYHEMMTHVPLLAHGHAHVLIIGGGD GAMLREVTRHKNVESITMVEIDAGVVSFCRQY

LPNHNAGSYDDPRFKLVIDDGVNFVNQTSQTFDVIISDCTDPIGPGESLFTSAFYEGCKR  
CLNPGGIFVAQNGVCFLLQOEEAIDSHRKLSHYFSDVGFYQAAIPTYYGGIMTFAWATDND  
ALRHLSTEIIQARFLASGLKCRYYNPAIHTAAAFALPQYLQDALASQPS

>O25503

MWITQEITPYLRKEYTIEAKLLDVRSEHNILEIFKSKDFGEIAMLNRQLLFKNFLHIESE  
LLAHMGGCTKKELKEVLIVDGFDELAHQLFKYDTHIDFVQADEKILDSFISFFPHFHEV  
KNNKNFTHAKQLLDLDIKKYDLIFCLQEPDIHRIDGLKRMKEDGVFISVAKHPLEHVS  
MQNALKNMGGVFSVAMPFVAPLRILSNKGYIYASFKTHPLKDLMTPKIEALTSVRYYNED  
IHRAAFALPKNLQEVFKDNIKS

>P19623

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSQVEQLLHRRSRYQDILVFRSKTYG  
NVLVLDGVIQCTERDEFSYQEMIANLPLCSHPNPRKVLIIIGGGDGGVLRREVVKHPSVESV  
VQCEIDEDVIQVSKKFLPGMAIGYSSSKLTLHVGDGFEFMKQNDADFVIIITDSSDPMGP  
AESLFKESYYQLMKTALKEDGVLCQGEQWLHLDLIKEMRQFCQSLFPVVAYAYCTIPT  
YPSGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYNSDVHRAAFVLPPEFARKALND  
VS

>Q8U4G1

MERAFIEWYPRGYGVAFKIKKKIYEKLSKYQKIEVYETEGFGRLLALDGTVQLVTLGERS  
YHEPLVHPAMLAHPKPKRVLVIIGGGDGGTVREVLQHDVDEVIMVEIDEDVIMVSKDLIKI  
DNGLLEAMLNGKHEKAKLTIGDGFEFIKMNRGFDVIIADSTDPVGPVAKVLFSEEFYRYVY  
DALNNPGIYVTQAGSVYLFTEDELISAYKEMKKVFDREVYYSFPVIGYASPWAFVGVKGD  
IDFTKIDRERAKKLQLEYYDPLMHETLQMPKYIRETLQRL

>Q9WZC2

MRTLKELERELQPRQHLWYFEYYTGNNVGLFMKMNRIYSGQSDIQRIDIFENPDLGVVF  
ALDGITMTTEKDEFMYHEMLAHVPMFLHPNPKKVLIIIGGGDGGTLREVLKHDSVEKAILC  
EVDGLVIEAARKYLKQTSCEGDDPRAEIVIANGAEYVRKFKNEFDVIIIDSTDPVGPVAKVLFSEEFYRYVY  
HLFTEEFYQACYDALKEDGVFSAETEDPFYDIGWFKLAYRRISKVFPITRVYLGFMITYP  
SGMWSYTFASKGIDPIKDFDPEKVRKFNKELKYYNEEVHVASFALPNFVKKELGLM

>P59594

MFIFLLFLTLTSGSDLRCTTFDDVQAPNYTQHTSSMRGVYYPDEIFRSDTLYLQDLFL  
PFYSNVTGFHTINHTFGNPVIFPKDGIYFAATEKSNVVRGWVFGSTMNKSQSVIIINNS  
TNVVIRACNFELCDNPFPAVSKPMGTQHTMIFDNAFNCTFEYISDAFSLDVSEKSGNFK  
HLREFVFKNKDGFYVYKGYQPIDVVRDLPSGFNTLKPFIKFLPLGINITNFRAILTAFSP  
AQDIWGTSAAYFVGYLKPPTFMLKYDENGITDAVDCSQNPLAELKCSVKSFIDKGIY  
QTSNFRVVPDGVVRFNITNLCPFGVFNATKFPVYAWERKKSNCVADYSVLYNSTF  
FSTFKCYGVSATKLNLDLCSNVYADSFVVKGDDVVRQIAPGQTGVIADYNYKLPDDFMGCV  
LAWNTRNIDATSTGNYNYKYRYLRHGKLRPFERDISNVPFSPDGKPCPPALNCYWPLND  
YGFYTTTGIGYQPYRVVLSFELLNAPATVCGPKLSTDLIKNQCVNFNFNGLTGTGVLT  
SSKRFQPFQFGRDVSDFDTSVRDPKTSEILDISPCSFGGVSVITPGTNASSEVAVLYQD  
VNCTDVSTAIHADQLTPAWRIYSTGNNVFTQAGCLIGAHEVDTSYECDIPIGAGICASY  
HTVSLLRSTSQKSIVAYTMSLGADSSIAYSNNTIAIPTNFSISITTEVMPVSMAKTSVDC  
NMYICGDSTECANLLLQYGSFCTQLNRALSGIAAEQDRNTREVFQVKQMYKTPTLKYFG  
GFNFSQILPDPLKPTKRSFIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGL  
TVLPPLLTDDMIAAYTAALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYE  
NQKQIANQFNKAISQIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLN

DILSRLDKVEAEVQIDRLITGRLQSLQTYVVTQQLIRAAEIRASANLAATKMSECVLGQSK  
RVDFCGKGYHLMSFPQAAPHGVVFLHVITYVPSQERNFTTAPAI CHEGKAYFPREGVVFVN  
GTSWFITQRNFFSPQIITTDNTFVSGNCDVVIGI INNTVYDPLQPELDSFKEELDKYFKN  
HTSPDVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWL  
GFIAGLIAIVMVTILLCCMTSCCSCCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

>P10033

MIVLVTCLLLLLCSYHTVLSTTNNECIQVNVVTQLAGNENLIRDFLFSNFKEEGSVVVGYY  
PTEVWYNCSTARTTAFQYFNNIHAFYFVMEAMENSTGNARGKPLLHFVHGEPVSVIISA  
YRDDVQQRPLLKHGLVCITKNRHINYEQFTSNQWNSTCTGADRKIPFSVIPTDNGTKIYG  
LEWNDDFVTAYISGRSYHLNINTNWFNNTLLYSRSSTATWEYSAAAYQGVSNTFYKYL  
NNTNGLKTYELCEDYEHCTGYATNVFAPTSGGYIPDGF SFNNWFLLTNSSTFVSGRFVTN  
QPLLINCLWPVPSFGVAAQEFCEGAQFSQCNGVSLNNTVDVIRFNLNFTADVQSGMGAT  
VFSLNTTGGVILEISCYSDTVSESSSYSGEIPFGITDGPYCYVLYNGTALKYLGTLP  
SVKEIAISKWGHFYINGYNFFSTFPICISFNLTGVS GAFWTIAYTSYTEALVQVENTA  
IKNVTYCN SHINNIKCSQLTANLNMGFYPVASSEVGFVNKSVVLLPSFFTYTAVNITIDL  
GMKLSGYGQPIASTLSNITLPMQDNNTDVYCI RSNQFSVYVHSTCKSSLWDNIFNQDCTD  
VLEATAVIKTGTCPFSFDKLNMYLTFNKFCLSLSPVGANCKFDVAARTRTNEQVVRSLYV  
IYEEGDNI VGVPSDNSGLHDL SVLHLD SCTDYNIYGR TG VGI IRRTNSTLLSGLYYSLS  
GDLLGFKNVSDGVIYSVTPCDVSAQAAVIDGAI VGAMTSINSELLGLTHWTTTPNFYYS  
IYNYTSERTRGTAIDSNDVDCEPVITYSNIGVCKNGALVF INVTHSDGDVQPISTGNVTI  
PTNFTISVQVEYMQVYTPV SIDCARYVCNGNPRCNKLLTQYVSACQTI EQALAMGARLE  
NMEVDSMLFVSENALKLASVEAFNSTENLDP IYKEWPSIGGSWLGLKDILPSHNSKRKY  
GSAIEDLLFDKVVTSGLGTVDEYKRCTGGYDIADLVCAQYYNGIMVLPGVANADKMTMY  
TASLAGGITL GALGGGAVAIPFAVAVQARLNYVALQTDV LNKNQQILANAFNQAIGNITQ  
AFGKVNDAIHQTSQGLATVAKALAKVQDVVNTQGQALSHLTVQLQNNFQAISSSISDIYN  
RLDELSADAQVDRLITGRLTALNAFVSQTLTRQAEVRASRQLAKDKVNECVRSQSQRFGF  
CGNGTHLFLSANAAPNGMIFFH TVLLPTAYETVTAWSGI CASDGDRTFGLVVKDVQLTLF  
RNLDDKFYLTPTRTMYQPRVATSSDFVQIEGCDVLFVNATVIDLPSIIPDYIDINQTVQDI  
LENYRPNWTVPEFTLDIFNATYLNLTGEIDDL EFRSEKLNHTTVELAILIDNINNTLVNL  
EWLNR IETVYKWPWYVWLLIGLVVVF CIPLLLFCFSTGCCGICGLGSCCHSICSRRQF  
ENYEP I EKVHVH

>P23061

MNKLILISLIASLYQVEVDAHG YMTFPIARQRRCSAAGGNWYPVGGGGIQDPMCRAAYQN  
VFNKVLNSNGGDVIDASEAANYMYTQDNEYAALAGPDYTNICHIQQRVVP SYLCAAGASD  
WSIRPFGDKSGMDLPGSWTPTIIQLSDNQQSNVMELEFCPTAVHDP SYEYVIITNPSFN  
VYTDNVWANLDLIYNNTVTLRPKLPESTCAANS MVYRFEVSI PVRPSQFVLYVRWQRID  
PVGEGFYNCVDMKFYSEGPDEEDIIEPEYEV DNEAECFA YRTNSGNVNVNPLQENKYMA  
YANKAIRNINTHSNGCSRNRNKNYNYKYYSKTYNYNQNRK

>P23058

MIALLI ALFAAIHAPAVRSHGYLSVPTARQYKCFKDGNFY WPDNGDNIPDAACRNAYKSV  
YYKYRALDLESGAAASTAQYMFQQYMEYAAVAGPNYDDFDLIKQRVVPHTLCGAGSNDRN  
SVFGDKSGMDEPFNNWRPNTLYLNRYQP VYQMNVHFCPTAIHEPSYFEVFITKSNWDRRN  
PITWNELEYIGGNSNLIPNPGDSLCDNSLVYSIPVVIPYRSNQFVMYVRWQRIDPVGEG  
FYNCADLVFETLDDECRYAQMAKVVRSQLQKHKL DARIDHNDEESCWRARKSNYSSFFNP  
GF

>O43791



MSRVSPPPPAEMSSGPVAESWCYTQIKVVKFSYMWTINNFSFCREEMGEVIKSSTFSSG  
ANDKLLKWLVRVNPVKGLDEESKDYLSLYLLLVSCPKSEVRKFKFSILNAKGEETKAMESQ  
RAYRFVQGDWGFKKFIRRDFLLDEANGLLPDDKLTFLFCEVSVVQDSVNI SGQNTMNMVK  
VPECRLADELGGWENSRFTDCCLCVAGQEFQAHKAILAARSPVFSAMFEHEMEESSKKNR  
VEINDVEPEVFKEMMCFIYTGKAPNLDKMADDLLAAADKYALERLKMVEDALCSNLSVE  
NAAEILILADLHSADQLKTQAVDFINYHASDVLETSGWKSMMVSHPHLVAEAYRSLASAQ  
CPFLGPPRKRLKQS

>P08395

MRTLWRFIAGFFKWTWRLLNFRVREMLNLFFIFLVLVGVGIWMQVSGGDSKETASRGALL  
LDISGVIIVDKPDSSQRFKLSRQLLGASSDRLQENSLFDIVNTIRQAKDDRNITGIVMDL  
KNFAGGDQPSMQYIGKALKEFRDSGKPVYAVGENYSQGQYYLASFANKIWLSPQGVVDLH  
GFATNGLYYKSLLDKLVSTHVFRVGTYSKSAVEPFIRDDMSPAAREADSRWIGELWQNYL  
NTVAANRQIPAEQVFPGAQGLLEGLTKTGGDTAKYALENKLVDALASSAEIEKALTKEFG  
WSKTDKNYRAISYYDYALKTPADTGDSIGVVFANGAIMDGEETQGNVGGDTTAAQIRDAR  
LDPKVKAIVLRVNSPGGSVTASEVIRAEALAAARAAGKPVVSMGMAASGGYWI STPANY  
IVANPSTLTGSIGIFGVITTVENSLDSIGVHTDGVSTSPADVSI TRALPPEAQLMMQLS  
IENGYKRFITLVADARHSTPEQIDKIAQGHVWTGQDAKANGLVDSLGFDDAVAKAAELA  
KVKQWHLEYVDEPTFFDKVMDNMSGSVRAMLPDAFQAMLPAPLASVASTVKSESDKLAA  
FNDPQNRVAFCLTCANMR

>P31927

MAGNEWINGYLEAAILDSHTSSRGAGGGGGGGDPRSPTKAASPRGAHMNFNP SHYFVEEVV  
KGVDES DLHRTWIKVVATRNRERSTRLENMCWRIWHLARKKKQLELEGIQRISARRKEQ  
EQVRREATEDLAEDLSEGEKGDITIGELAPVETTKKKFQRNFSDLTVWSDDNKEKKLYIVL  
ISVHGLVRGENMELGRDSDTGGQVKYVVELARAMSMMPGVYRVDLFTTRQVSSPDVDWSYG  
EPTMLCAGSNDGEGMGESGGAYIVRIPCGRDKYLKKEALWPYQLQEFVDGALAHILNMS  
KALGEQVGNRPVLPYVIHGHYADAGDVAALLSGALNVPMLTGHSLGRNKLEQLLKQGR  
MSKEEIDSTYKIMRRIEGEELALDASELVI TSTRQEI DEQWGLYDGFVKLEKVLRARAR  
RGV SCHGRYMPRMVVI PPGMDFSNVVHEDIDGDGDVKDDIVGLEGASPKSMPP IWA EVM  
RFLTNP HKP MILALSRPDPKKNITTLVKAFGE CRPLRELANLTL IMGNRDDIDDMSAGNA  
SVLTTVLKLDIKYDLYGSVAFPKHHNQADVPEIYRLAAKMKGVFINPALVEPFGLTLIEA  
AAHGLPIVATKNGGPVDITNALNGLLVDPHDQNAIADALLKLVADKNLWQECRRNGLRN  
IHLYSWPEHCRTYLTRVAGCRLRNPRWLKDT PADAGADEEEFLEDSMDAQDLSLRLSIDG  
EKSSLNTNDPLWFDPDQVQKIMNNIKQSSALPPSMSSVAAEGTGSTMNKYPLLRRRRRL  
FVIAVDCYQDDGRASKMLQVIQEVFRAVRSDSQMFKISGFTLSTAMPLSETLQLLQLGK  
IPATDFDALICGSGSEVYYPGTANCM DAEGKLRPDQDYLMI SHRW SHD GARQTIAKLMG  
AQDGS GDAVEQDVASSNAHCVAFLIKDPQKVKTVDEMRELRMRGLRCHIMYCRNSTRLQ  
VVPLLASRSQALRYLSVRWGVSVGNMYLITGEHGD TDLEEMLSGLHKTIVIRGVTEKGSE  
ALVRSPGSYKRDDVVPSETPLAAYTTGELKADEIMRALKQVSKTSSGM

>P21549

MASHKLLVTPPKALLKPLSIPNQLLLGPSPNLPPRIMAAGGLQMIGSMSKDMYQIMDEI  
KEGIQYVFQTRNPLTLVISGSGHCALEAALVNVLEPGDSFLVGVANGIWGQRAVDIGERIG  
ARVHPMTKDPGGHYTLQEVEEGLAQHKPVLLFLTHGESSTGVLPDGF GELCHRYKCLL  
LVDSVASLGGTPLYMDRQIDILYSGSQKALNAPPGTSLISFSDKAKKKMYSRKT KPF SF  
YLDIKWLANFWGCCDDQPRMYHHTIPVISLYSLRESLALIAEQGLENSWRQHREAAAYLHG  
RLQALGLQLFVKDPALRLPTVTTVAVPAGYDWRDIVSYVIDHFDIEIMGGGLPSTGKVL R  
IGLLGCNATRENVDRVTEALRAALQHCPKKKL

>O22265

MQKVFLAMDTCALVIHQSLSRIKLSPPKSSSSSSSAFSPESLPIRRIELCFRGAICAAVQ  
RNYEETTSSVEEAEEDESSSSSYGEVNKIIGSRTAGEGAMEYLI EWKDGHSWVPSYI  
AADVVSEYETPWWTAAARKADEQALSQLEDRDVAVDENGR TALLFVAGLGSDKCVRLLA  
EAGADLDHRDMRGGTLALHMAAGYVRPEVVEALVELGADIEVEDERGLTAL ELAREILKT  
TPKGNPMQFGRRIGLEKVINVLEGGVFEYAEVDEIVEKRGKGDVEYLVRWKDGGDCEWV  
KGVHVAEDVAKDYEDGLE YAVAESVIGKRVGDDGKTIEYLVKWTDMSDATWEPQDNVDST  
LVLLYQQQPMNE

>P00524

MGSSKSKPKDPSQRRCSLEPPDSTHHGGFPASQTPNKTAAPDTHRTPSRSFGTVATEPKL  
FGGFNTSDTVTSPQRAGALAGGVTTFFVALYDYESRTE TDLSFKKGERLQIVNNTGDWLL  
AHSLLTGTQGYIPSNYVAPSDSIQAEWFYFGKITRRESERLLLNPENPRGTFVRESETT  
KGAYCLSVSDFDNAKGLNVKHYKIRKLDSSGGFYITSRTQFSSLQQLVAYYSKHADGLCHR  
LTNVCPTSKPQTQGLAKDAWEIPRESLRLEVKLGQCFGEVWMTWNGTTRVAIKTLKPG  
TMSPEAFLQEAQVMKKLRHEKLVQLYAVVSEEP IYIVTEYMSKGSLLDFLKGEMGKYLRL  
PQLVDMAAQIASGMAYVERMNYVHRDLRAANILVGENLVCKVADFG LARLIEDNEY TARQ  
GAKFPIKWTAPEAALYGRFTIKSDVWSFGILLTELTTKGRVPYPGMGNGEVLD RVERGYR  
MPCPPECPESLHDLMCQCWRRDPEERPTFEYLAQQLLPACVLEVAE

>P07664

MDTCCFFCGAVDLSDTGSSSSMRYETLSAKVPSSQKTVSLVLT HLANCIQTQLDLKPGARL  
CPRCFQELSDYDTIMVNLMTTQKRLTTQLKGALKSEFEVPESGEDILVEEVEIPQSDVET  
DADAEADALFVELVKDQEE SDTEIKREFVDEEEEEEDDDDDDEFICEDVDVGDSEALYGKS  
SDGEDRPTKKRVKQECTTCGKVYNSWYQLQKHISEEHKQPNHICPICGVIRRDEEYLEL  
HMNLHEGKTEKQCRYCPKSF SRPVNTRLRHRMHWDK KKYQCEKCGLRFSQDNLLYNHRLR  
HEAEENPIICSICNV SFKSRKTFNHHTLIHKENRPRHYCSVCPKSF TERYTLKMHMKTHE  
GDVVYGVREEAPADEQQVVEELHVDVDESEAAVTVIMSDNDENSGFCLICNTNFENKKE L  
EHHLQFDHVVVLK

>Q9SAK4

MVIGAAARVAIGGCRKLIS SHTSLLLVSQCRQMSMDAQSVSEKLRSSGLLRTQGLIGGK  
WLDSYDNKTIKVNNPATGEI IADVACMGTKETNDAIASSYEAF TSWSRLTAGERSKVLRR  
WYDLLIAHKEELGQLITL EQGKPLKEAIGEVAYGASFIEYYAE EAKRVYGDIPPNLSDR  
RLLVLKQPVGVVGAITPWNFPLAMITRKVGPALASGCTV VVKPSELTPLTALAAELALQ  
AGVPPGALNVVMGNAPEIGDALLTSPQVRKITFTG STAVGKKLMAAAAPT VKKVSLELGG  
NAPSIVFDDADLDVAVKGT LAAKFRNSGQTCVCANRVLVQDGIYDKFAEAFSEAVQKLEV  
GDGFRDGTQGPLINDAAVQKVETVQDAVSKGAKI IIGGKRHSLGMTFFYEPTVIRDVSD  
NMIMSKEEIFGPVAPLIRFKTEEDAIRIANDTIAGLAAYIFTNSVQR SWRVFEALEYGLV  
GVNEGLISTEVAPFGGVKQSGLGREGSKYGMDEYLEIKYVCLGDMNRH

>P51649

MATCIWLRSCGARRLGSTFP GCRLRPRAGGLVPASGPAPGPAQLRCYAGRLAGLSAALLR  
TDSFVGGRWLPAAATFPVQDPASGAALGMVADCGVREARA AVRAAYEAFCRWREVS AKER  
SSLRKRWYNLMIQNKDDLARIITAESGKPLKEAHGEILYSAFFLEWFSEEARRVYGDIIH  
TPAKDRRALVLKQPIGVAAVITPWNFP SAMITRKVGAALAAAGCTV VVKPAEDTPFSALAL  
AELASQAGIPSGVYVNI PCSRKNAKEVGEAICTDPLVSKISFTG STTTGKILLHHAANSV  
KRVSMELGGLAPFIVFDSANVDQAVAGAMASKFRNTGQTCVCSNQFLVQRGIHDAFVKAF  
AEAMKKNLRVGNGFEEGTTQGPLINEKAVEKVEKQVNDAVSKGATVVTGGKRHLGKGNFF  
EPTLLCNVTQDMLCTHEETFGLAPVIKFDTEEEAIAIANAADVGLAGYFYSQDPAQIWR

VAEQLEVMGVNEGLISSVECPFGGKQSGLGREGSKYGIDEYLELKYVCYGG

>Q9R641

SLYPASALVLTVGHGADAATAEVQRAVTLSCRPTPTGTHPAPAQACAELHSVGGALGLLR  
TGAEPGRMCTKEWRPITVTAEGVWDGRRVSYEHFTFANNCFKNAAPTTFVFEF

>Q9R645

SLYAPSAVVLISIGKGDASGPVTVLRATTLSCAPVPGGTHPAPAEACAELKAGFAGGGFGG  
LLASDPDRACPQHFDPVTVTLDGWEGARTSWQHTFSNACVMGTTLDGGEAF

>Q9R643

HAPNALVLTVAKGETARTATPLRAVTLTCAPTGGTHPAPAEACAELRAVDGRFSALRGD  
QDRACIKIYDPLVVTAEGVWEGQVRVRYERTFGNSCTLQTEAGPVFSF

>P01006

MRNTGAGPSPSVSRPPPSAAPLSGAALAAPGDAPSALYAPSALVLTVGKGVSAATTAAPER  
AVTLTCAPGPGSHTPAAGSACADLAAVGGDLNALTRGEDVMCPMVYDPVLLTVDGWVQK  
RVSYERVFSNECEMNAHGSSVFAF

>O33702

MRYITGAVALGAALVLTGTLATTAQAAAAPQPARTGGLYAPTELVLTVGQGESRATATVQR  
AVTLSCMPGARGSHPNPLGACTQLRAVAGDFNAITAATSDRLCTKEWNPLVVTADGVWQG  
KRVSYSYTFANRCEMNIDSSTVFNF

>Q9Y3M8

MFSQVPRTPASGCYYLNSMTPEGQEMYLRFDQTRRSPYRMSRILARHQLVTKIQQEIEA  
KEACDWLRAAGFPQYAQLYEDSQFPINIVAVKNDHDFLEKDLVEPLCRRNLNLCASMK  
LDVNFQRKKGDDSEEDLCISNKWTFQRTSRRWSRVDDLTYLLPRGDRNGSPGGTGMRNT  
TSSESVLTDLSEPEVCSIHSESSGSDRSRQPGQCTDNPVMLDAPLVSSSLPQPPRDVL  
NHPFHPKNEKPTRARAKSFLKRMETLRGKGAHGRHKGSGRTGGLVLSGPMQLQEPESFKA  
MQCIQIPNGDLQNSPPPACRKGKPCSGKSSGESSPSEHSSSGVSTPCLKERKCHEANKRG  
GMYLEDLDVLAGTALPDAGDQSRMHEFHQSQENLVVHIPKDHKPGTFPKALSIESLSPTDS  
SNGVNWRTGSIISLGREQVPGAREPRLMASCHRASRVSIYDNVPGSHLYASTGDLLDLEKD  
DLFPHLDDILQHVNGLQEVVDDWSKDVLPELQTHDTLVGEPGLSTFPSPNQITLDFEGNS  
VSEGRTPSDVERDVTSLNESEPPGVRDRRDSGVGASLTRPNRRLRWNSFQLSHQPRPAP  
ASPHISSQTASQLSLLQRFSLRLTAIMEKHSMSNKHGWTWSVPKFMKRMKVPDYKDKAV  
FGVPLIVHVQRTGQPLPQSIQQALRYLRSNCLDQVGLFRKSGVKSRIHALRQMNENFPEN  
VNYEDQSAYDVADMVKQFFRDLPEPLFTNKLSETFLHIYQYVSKEQRLQAVQAAIILLAD  
ENREVLQTLCLFLNDVVNLVEENQMTMPMNLAVCLAPSLFHLNLLKKESSPRVIQKKYATG  
KPDQKDLNENLAAAQGLAHMIMECDRLFVPHLVAQSRNSYVEAEIHVPTLEELGTQLE  
ESGATFHTYLNHLIQGLQKEAKEKFKGWVTCSSSTDNTDLAFKKVGDGNPLKLWKASVEVE  
APPSVVLNRVLRERHLWDEDVQWVVEVTLDRQTEIYQYVLNSMAPHPSRDFVLRRTWKT  
DLPKGMCTLVSLSVEHEEAQLLGGVRAVVMDSQYLIIEPCGSGKSRLTHICRIDLKGHSPE  
WYSKGFGLCAAEEVARIRNSFQPLIAEGPETKI

>Q70GP4

MEVTNNGSNNSSTIASTNPPTSPSTTSTSKSLPPLSFLNSQWENKQSNNNNNNNNNNNINN  
NNNNNNNNNNNNNNNNNNNNNNNSVKMEKLIELPSSSNNSPEFLNGVNNNNNGNNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNNNNSGSGGNNNSNNNSNISSPPSSSSTSTSVLSSSQS  
AYMNDKMVAATLDSIGKMESIQRKYEMQIESLMDQIQGYIEKEQKLRSQCAVEDINAKL

ENENLQLKKELFEMSRKFKEIDI INLNNTNINNINNNNNNNNNNNNNNNNNNS INNNNNNGF  
SPPPLVKYPSNGSLQDDAKRFKIMEQQSQQQQQMQQQQQIQQQKQYQQQQQTTSKRKNN  
ISIDGKEALVAEALGSFVDYAKPSLKRNSSEEVFNSSVYKNKNNINNINNNNSNNSNNNG  
NNSLLNDIQNWQQQQQQQQQLLHQKRRKDYDYDYNSTQNGKGI PSNNSNNNSNNSNNSN  
NNNNNSNNNNNIIGSISPPHSSQLQQVSSPQQQQQQKPNGLKLSISSGSIKDLINSPNK  
EQSSKSQYPSLSQSSIPDMDTDVDSTDEFDFGNSNMMNNNNNNNNNNNNNSNNSNKK  
RNNSNNNNLGGDDDDSPDSNDRNGSSSIDMEPSYDGANLFKTVTPGTITTPQEELLNEI  
HSLQMQQRETI EKMYIAQKQFLSDRSNGFNNEEILRSLQSDQTKLGSTLESELQALNQ  
LYSQTILEPNQLCKLDILLQDVISIQLKQLHLYQMEELNYGYGSNEFPATLVIKQPFPMV  
ISKFKQLQEDHLCVQLLTGANVEIVSYSPIRAELVFHSKNLTKGSSNLGTQNSLKKNIEK  
DTQVLDPIKGVAKFPIKFLTGTRKSCVKLHFVLQIKTSDGHI INVPSSTSQPFIVITNDC  
QWEGSEGTLKKETFNEKFEISWPHFVNILQKHFLKATKQSPIQPTRPLSMYDFTYLSNT  
FFGGKPFVSHKDFDSFWSWFGKSIQTLRYKRHISTLWQNGFIFMFLKRDVVTQILKNQDV  
GTFVILFSEAFPQGLEISYVGTQKDSLKSSNDLQSPTTTTTTTTSTRVKHYLVQANDT  
SGSKRTLPDFLSECNQFTHILQLNIAMIPQTETIPVFKREPKNVVLEPYYSKRQNSQNIL  
GSGYDPLF

>076061

MCAERLQGFMTLALVLATFDPARGTDATNPPEGPQDRSSQKGRLSLQNTAEIQHCLVNA  
GDVCGVFECFENNSCEIRGLHGICMTFLHNAGKFDAQKSFIKDALCKCAHALRHRFGC  
ISRKCPAIREMVSQLORECYLKHDLCAAAQENTRIVEMIHFKDLLLHEPYVDLVNLLLT  
CGEEVKEAITHSVQVQCEQNWGSLSILSFCTSAIQKPPTAPPERQPQVDRTKLSRAHHG  
EAGHHLPEPSSRETGRGAKGERGSKSHPNAHARGRVGGLGAQGPSGSSEWEDEQSEYSDI  
RR

>Q08264

MLAKFGLCAVFLVLGTAATFDTPDEEASPRRARFSSNSPVARCLNGALAVGCGTFACL  
ENSTCDTDGMHDICQLFFHTAATFNTQGKTFVKESLRCIANGVTSKVFQTI RRCGVFQRM  
ISEVQEECYSRLDICGVARSNPEAIGEYVQVPAHFVFNRYSTLLQSLACDEETVAVVRA  
GLVARLGPDMETLFLQLLNKHCPCQGSNQGPNSAPAGWRWPMGSPPSFKIQPSMRGRDPTH  
LFARKRSVEALERVME

>P27306

MPHSYDYDAIVIGSGPGGEGAAMGLVKQGARVAVIERYQNVGGGCTHWGTIPSKALRHAV  
SRIIEFNQNPPLYSDHSRLLRSSFADILNHADNVINQQTRMRQGFYERNHCEILQGNARFV  
DEHTLALDCPDGVSVELTAEKFVIACGRPYHPTDVFTHPRIYDSDSL SMHHEPRHVL  
IYGAGVIGCEYASIFRGMDVKVDLINTRDRLLAFLDQEMSDSLSYHFVNSGVVIRHNEEY  
EKIEGDDGVIMHLKSGKLLKADCLLYANGRTGNTDSLALQNI GLETD SRGQLKVN SMYQ  
TAQPHVYAVGDVIGYPSLASAAYDQGRIAAQALVKGEATAHLIEDIPTGIYTIPEISSVG  
KTEQQLTAMKVPYEVGRAQFKHLARAQIVGMNVGTLKILFHRETKEILGIHCFGERAAEI  
IHIGQAIMEQKGGGNTIEYFVNTTFNYPTMAEAYRVAALNGLNRLF

>P08842

MPLRKMKIPFLLLFFLWEAESHASRPNIILVMADDLGIGDPCYGNKTI RTPNIDRLAS  
GGVKLTQH LAASPLCTPSRAAFMTGRYPVRSGMASWSRTGVFLFTASSGGLPTDEITFAK  
LLKDQGYSTALIGKWHLGMSCHSKTDFCHHPLHHGFNYFYGISLTLNLRDCKPGEYSVFTT  
GFKRLVFLPLQIVGVTLTTLAALNCLGLLHVPLGVFFSLLFLAALILTFLGFLHYFRPL  
NCFMMRNYEIIQQPMSYDNLQRLTVEAAQFIQRNTE TPFLLVLSYLVHTALFSSKDF  
GKSQHG VYGD AVEEMDWSVGQILNLLDELRLANDTLIYFTSDQGAHVEEVSSKGEIHGGS  
NGIYKGGKANNWEGGIRVPGILRWPRVIQAGQKIDEPTSNMDFPTVAKLAGAPLPEDRI

IDGRDLMPLEGGKSQRSDHEFLFHYCNAYLNAVRWHPQNSTSIWKAFFFTPNFNPVGSNG  
CFATHVCFCFGSYVTHHDPPLLFDISKDPREERNPLTPASEPRFYEILKVMQEAAADRHTQT  
LPEVPDQFSWNNFLWKPWLQLCCPSTGLSCQCDREKQDKRLSR

>Q24509

MQTRRLHQTDQQDYSSSSTYTIQEDQQGGAGAGSVGTGTAGGSVGLLAQSLVPPPTGHE  
AAIHIGDNYQSGDSISTPDYSDDKYGKAARQWNLRAFSGHALRTLAAAAVVTGNQPGIN  
NDSQSNYSYPASIPTSSQFYQSKEEPQETEPPEPEIFVMAARDRTGEFANAIRSLQARNIT  
RAVNIRDPRKAKQVQSYSEFMMVARFIGKNIASTYAKLEKLTMLAKKSLFDDRPOEIQE  
LTYIIKGDNLNALNQIARLQDISKDQRRHTNGKHLVSHSSNMVLALQSKLASMSTDFKQI  
LEVRTENLKQKTRRDQFSQGPPLAAHTVSPSTAKQGSLLLSEENQAVSIDMGSSDTP  
LLSTQTMMAIYDDSDNYVQORAETMQNIESTIVELGGIFQQLAHMVKEQEEIVERIDTNV  
ADAELNIEAAHGEILKYFQSVSKNRWLMIKIFGVLIFFFLFFVVFMS

>Q39231

MVSHPEKAANGASALETQTGELDQPERLRKIIISVSSIAAGVQFGWALQLSLLTPYVQLL  
GIPHKWASLIWLCGPI SGMLVQPIVGYHSDRCTSRFGRRRPFIVAGAGLTVAVFLIGYA  
ADIGHSMGDQLDKPPKTRAI AIFALGFWILDVANNTLQGPCRAFLADLSAGNAKKTRTAN  
AFFSFFMAVGNVLGYAAGSYRNLYKVVFPMTTESCDLYCANLKTCFFLSITLLLIVTFVS  
LCYVKEKPWTPEPTADGKASNPFFGEIFGAFKELKRPMWMLLIVTALNWIWPFLLFD  
TDWMGREVYGGNSDATATAASKKLYNDGVRAGALGLMLNAIVLGFMSLGVWIGRKLGG  
KRLWGI VNFILAI CLAMTVVVTQAENHRRDHGGAKTGPPGNVTAGALTLFAILGIPQAI  
TFSIPFALASIFSTNSGAGQGLSLGVLNLAIVVPQMVISVGGGPFDELFGGGNIPAFVLG  
AIAAAVSGVLALTVLPSPPPDAPAFKATMGFH

>Q9EXP1

MAQLPDPQKLLRNFSRCSNWEKYLIIIELGAGLAPLSDAQRQDGNRVSGCQSQVWIDLA  
SNEQGNVVLHGSDAAIVKGLIAIVFSLYQGLSVREIVELDVRPFFASLALTQHLPSSRS  
QGLEAMLRAVRARASALI

>P77444

MIFSVDKVRADFPVLSREVNGLPLAYLDSAASAQKPSQVIDAEAEFYRHGYAAVHRGIHT  
LSAQATEKMENVRKRASLFINARSAEELVFVRGTTEGINLVANSWGNSNVRAGDNIIISQ  
MEHHANIVPWQMLCARVGAELRVIPLNPDGTLQLETLPFLFDEKTRLLAITHVSNVLGTE  
NPLAEMITLAHQHGAKVLVDGAQAVMHPVDVQALDCDFYVFSGHKLYGPTGIGILYVKE  
ALLQEMPPWEGGSMIATVLSSEGTTWTKAPWRFEAGTPNTGGIIGLGALEYVSALGLN  
NIAEYEQNLMHYALSQLESVPDLTLYGPQNRGLVIAFNLGKHHAYDVGSFLDNYGIAVRT  
GHHCAMPLMAYYNVPAMCRASLAMYNTHEEVDRLVTGLQRIHRLLG

>P22291

MDQLQIKDLEMFAHYHGLFPSEKELGQKFVVSAILSYDMTKAATDLDLTASVHYGELCQQW  
TTWFQETSEDLIETVAYKLVERTFEFYPLVQEMKLELKKPWAPVHLSLDTCSVTIHRKQ  
RAFIALGSNMGDQANLQKQAIKLRARGIHILKESSVLATEPWGGVEQDSFANQVVEVET  
WLPAQDLLETLLAIESELGRVREVHWGPRLIDLDFVEDQILYTDLILPHPIAERLF  
VLESLEQEIAPHFIHPILKQPIRNLYDALKK

>P29564

MVVYLVGAGPGDPELITLKAVNVLKKAADVLYDKPANEEILKYAEGAKLIYVGKQAGHHY  
KSQNEINTLLVEEAKENDLVVRLKGGDPFVFGRGGEEILALVEEGIDFELVPGVTSAGV  
PTTIGLPVTHRGVATSFTVVVTGHEDPTKCKKQVGVDFKADTIVILMGIGNLAENTAEIMK

HKDPETPVCVIENGTMEGQRIITGTLENIAGKDIKPPALVVLEMLSMFLKK

>P21631

MIDDLFAGLPALKEKGSVWLVGAGPGDPGLLTLHAANALRQADVIVHDALVNEDCLKLARP  
GAVLEFAGKRGKSPKQORDISLRLVELARAGNRVLRKGGDPFVFRGGEEALTLVEHQ  
VPFRIVPGITAGIGGLAYAGIPVTHREVNHAVTFLTGHDSGLVPDRINWQGIASGSPVI  
VMYMAMKHIGAITANLIAGGRSPDEPVAFVCNAATPQQAVLETTLARAADVAAGLEPP  
AIVVVGEEVRLRAALDWIGALDGRKLAADPFANRILRNPA

>Q8R086

MLLQLYRSVVVRLPQAIRVKSTPLRLCIQACSTNDSLEPQHPSLTFSDDNSRTRRWKVMG  
TLLGLGVVLLVYHEHRCRASQESPRMYSKEDVRSNNPKTGWVWTLGSEVFDVTKFVDLHP  
GGPSKMLAAGGPLEPFWALYAVHNQPHVRELLAEYKIGELNPEDSMSPSVEASDPYADD  
PIRHPALRINSQRPFNAEPPPELLTEGYITPNPIFFTRNHLVPNLDPHTYRLHVVGAPG  
GQSLSLSLDDLHKFPKHEVTVTLQCAGNRRSEMSKVKEVKGLEWRTGAI STARWAGARLC  
DVLAQAGHRLCDSEAHVCFEGLDSDPTGTAYGASIP LARAMDPEAEVLLAYEMNGQPLPR  
DHGFVVRVVVPGVVGARHVKWLGRVSVSEESYSHWQRRDYKGFSPSVDWDTVNFDLAPS  
IQELPIQSAITQPQDGAIVESGEVTIKGYAWSGGGRAVIRVDVSDGGLTWQEALEEGEE  
QCPRKAWAWRIWQLKAQVPAEQKELNICKAVDDSYNVQPD TVAP IWNLRGVLSNAWHRV  
HVQVVP

>P49035

MGEPVLTRVHSLRERMDSTLANHRNEILMFLSRIESHGKGIKPHQLLAIEYEAISKEDKL  
KLDDGHGAFAEVIKSTQEAIVSPPWVALAIRLRPGVWEYVRVNVHHLVVEELSVPQYLQF  
KEELVIGSSDANFVLELDFAPFTASFPRPTLTKSIGNGVEFLNRHLSAKMFHGKDSMHPL  
LEFLRLHNYNGKTLMLNNRVQNVNGLQSMRLKAGDYLSLTPSDTPYSEFEHKFQEI GFER  
GWGDTAERVTEMFHMLLDLLEAPDASTLETFLGKIPMVFNVVILSPHGYFAQENVLGYPD  
TGGQVVYILDQVPALEREMIKRIKEQGLDIKPRILIVTRLLPDAVGTTCNQRLEKVFGEAE  
HAHILRVPFRTEKGILRKWISRFEVWPYIETFTEDVAKEIALELQAKPDLIIGNYSEGNL  
VASLLAHKLGVTQCTIAHALEKTKYPDSDIYWEKFDKKYHFSSQFTADLIAMNHTDFIIT  
STFQEIAGSKDVTGQYESHTAFTMPGLYRVVHGIDVFDPKFNIVSPGADTSVYFSYKEKE  
KRLTTLHPEIEELLYSSVENEHLICI KDKNKPILFTMARLDNVKNLTGFVEWYAKSPKL  
RELVNLVVVGGDRRKEKDL EEQAQMKKMYELIDTYKLNQFRWISSQMNVRVNGELYRY  
IADTKGAFVQPAFYEA FGLTVVEAMTCGLPTFATLHGGPAEIVHGKSGFHIDPYHGEQV  
AELLVNFFEKCKTDPSQWDAISAGGLKRIQEKYTWQIYSERLLTLAGVYGFWKHVSKLDR  
LEIRRYLEM FYALKYRKLAE SVPLAKDE

>P24506

MQAEMNQSAEVTMKTFFTMKTRETHPQAFVAPMATA TMMP IDTGDNSTEAGVPGEKNDV  
FEKLKEKFMNELQKIPLPPWALIAIAIVSGLLLLLTCCLCICKKCKKKKKNKKEKKGK  
NDINMKDVKSGGNQDDDDAETGLTEGEDKEEEAKEEEKLGKIQFSLDYDFQANQLTVGI  
IQAAELPALDMGGTSDPYVKVFLLPDKKKKYETKVQKKTLPNPTFNESFVFKVPYQELGGK  
TLMMAVYDFDRFSKHDCIGQVTVLMTKVLDLGGQLEEWRDLES AEKEEPEKLGDICTSLRY  
VPTAGKLTVCILEAKNLKMDVGGLSDPYVKIHLLQNGKRLKKKKT TVKKNLTPYNYES  
FSFEIPFEQIQKVQVCVTVLDYDKIGKND AIGKIFVGSNASGTEL RHWSM LANPRRPIA  
QWHS LKPEEEVDVALGLKK

>P24507

MSGDGEDEL CRNALALVNELCF SVRGNHNNEKCI EFSYLLRDRDRTRHIE TDISVSLLSV  
IVTFCGIVLLGVSLFVSWKLCWIPWRDKGLNPQRSDS QHHPHQHLHHHSHFTDLTVERV

DCGPEMPERSYLDLESYPESGIKLSQTSPIVDTSSGSKENNIPNAHSQQQVSAPPPAT  
RFNSLPRPIPQQLSSPEFGTQADEKVEQVTSIGQIKPELYKQRSIDTEAKKHQKVNCGRI  
NFMLRYTYTTEQLVVKILKALDLPKADANGFSDPYVKIYLLPDRKKKFQTKVHRKTLNPI  
FNETFQFNVPFNELQNRKLFHSVYDFDRFSRHDLIGQVVLNLLFSDFSEDTTIWRDIL  
EATSEKADLGEINFSLCYLPTAGRLTITIIKATNLKAMDLTGFSDPYVKASLICDERRLK  
KRKTSIKKNTLNPVYNEALVFDIPNENMEHVNVIIAVMDYDCIGHNEVIGMCRVGNATDG  
PGREHWNEMLANPRKPIEQWHQLIEEKVMNSYMTKSFAAGTGATKPVTIIVVESPHSV

>P53852

MNIFIKALRRYTIMSTPKIVQPKWKVPTPQAKETVLKLYNSLTRSKVEFIPQSGNRGVTW  
YSCGPTVYDASHMGHARNYVSIIDINRRIIQDYFGYDVQFVQNVTDIDDKIILRARQNYLF  
DNFVKENDTKFNATVVVKVKTALFYINKNFTIQGSEIKTIEEFETWLSNADTETLKLLEN  
PKFPMHVTAVQNAIESITKGDSDAEVAFKVKDVTVPPLLDKELGSTISNPEIFRQLPAY  
WEQKFNDMLSLNVLPPVTTRVSEYVPEIIDFVQKIIDNGYAYATSDGSVYFDTLKF  
SPNHYAKCQPWNKGQLDLINDGEGSLSNFADNGKSNNDFAWKAASKAGEPEWESWGWK  
GRPGWHIECSVMASDILGSNIDIHSGGIDLAFPHHDNELAQSEARFDNQQWINYFLHTGH  
LHIEGQKMSKSLKNFITIQEALKKFSRQLRLAFASVQWNNQLDFKESLIHEVKSFENSM  
NNFFKTIRALKNDAASAGHISKKFSPLEKELLADFESESKVHSAFCDNLSTPVALKTLS  
ELVTKSNTYITTAGAALKIEPLIAICSYITKILRIIGFPSRPDNLGWAAQAGSNDGSLGS  
LEDTVMPYVKCLSTFRDDVRSALAIKKAEPKEFLQLTDKIRNEDLLNLNVALDDRNGQSAL  
IKFLTNDKLEIVKLNEEKHANELAKKQKLEQQKLREQKENERKQKAQIKPQDMFKDVT  
LYSAWDEQGLPTKDKDGNIDITKSMTKKLLKQWEQQKLLHEEYFGEDK

>P21889

MRTEYCGQLRLSHVGGQVTLGQVWVNRRLDGLSIFIDMRDREGIVQVFFDPDRADALKLA  
SELRNEFCIQVTGTVRARDEKNINRDMATGIEVLASSLTIINRADVLPPLDSNHVNTEEA  
RLKYRYLDLRRPEMAQRLKTRAKITSLVRRFMDHGFLLDIETPMLTKATPEGARDYLVP  
RVHKGKGFYALPQSPQLFKQLMMSGFDRYYQIVKCFRDEDLRADRQPEFTQIDVETSFMT  
APQVREVMEALVRHLWLEVKGVLDLGFVPMTFAAEERRYGSDKPDLRNPMELTDVADLLK  
SVEFAVAFAGPANDPKGRVAALRVPGGASLTRKQIDEYGNFVKIYGAKGLAYIKVNERAKG  
LEGINSVPVAKFLNAEIIEDILDRTAAQDGMIFFGADNKKIVADAMGALRLKVGKDLGLT  
DESKWAPLWVIDFPMFEDDGEGLTAMHHPFTSPKDMTAAELKAAPENAVANAYDMVING  
YEVGGGSVRIHNGDMQQTVMFVILGINEEEREKFGFLLDALKYGTTPPHAGLAFGLDRLTM  
LLTGTDNIRDVIAFPKTTAAACLMTEAPSFANPTALAELSIQVVKKAENN

>Q52428

MYRTHYSSEITEELNGQKVKVAGWVWEVKDLGGIKFLWIRDREGIVQITAPKKKVDPELF  
KLIPKLRSDEVVAVEGVNFTPKAKLGFELPEKIVVLNRAETPLPLDPTGKVKAEIDTR  
LDNRFMDLRRPEVMAIFKIRSSVFKAVRDFHENGFIETHTPKIATATEGGTELFPMKY  
FEEDAFLAQSPQLYKQIMMASGLDRVYEIAPIFRAEEHNTTRHLNEAWSIDSEMAFIEDE  
EEVMSFLERLVAHAINYVREHNAKELDILNFELEEPKLPFPRVSYDKALEILGDLGKEIP  
WGEDIDTEGERLLGKYMENENAPLYFLYQYPSAKPFYIMKYDNKPEICRAFDLEYRGV  
EISSGGQREHRHDILVEQIKEKGLNPESFEFYLKAFRYGMPPHGGFGLGAERLIKQMLDL  
PNIREVILFPRDRRRLTP

>P36419

MRRTHYAGSLRETHVGEEVVLGQVWVNRRLDGLSIFLDLDRDREGLVQLVAHPASPAYATA  
ERVRPEWVVRAGLVLRLRPEPNRLATGRVEVELSALEVLAEAKTPPFVVDAGWRGEEK  
EASEELRLKYRYLDLRRRRMQENLRLRHRVIKAIWDFLDREGFVQVETPFLLTKSTPEGAR  
DFLVPYRHEPGLFYALPQSPQLFKQMLMVAAGLDRYFQIARCFRDEDLRADRQPDFTQLDL

EMSFVEVEDVLELNERLMAHVFREALGVELPLPFPRLSYEEAMERYGSDKPDLRFGLELK  
EVGPLFRQSGFRVFQEAESVKALALPKALS SRKEVAELEEVAKRHKAQGLAWARVEEGGF  
GGVAKFLEPVREALLQATEARPGDTLLFVAGPRKVAATALGAVRLRAADLLGLKREGFRF  
LWVVDFPILLEWDEEEEEAWTYMHHFFTSPHPEDLPLLEKDPGRVRALAYDLVLNGVEVGGG  
SIRIHDPRQLQARVFRLLGIGEEEEQREKFGFFLEALEY GAPP HGGI AWGLDRL LALMTGSP  
SIREVIAFPKNKEGKDPLTGAPSPVPEEQLRELGLMVVRP

>P14868

MPSASASRKSQEKPREIMDAAEDYAKERYGISSMIQSQEKPDRLVLRVRDLTIQKADEVV  
WVRARVHTSRAK GKQCFLVLRQQQFNQALVAVGDHASKQMVKFAANINKESI V DVEGVV  
RKVNQKIGSCTQQDVELHVQKIYVVISLAEPRLLPLQLDDAVRPEAE GEEEGRATV NQDTRL  
DNRVIDLRTSTSQAVFRLQSGICHLFRET LINKGFVEIQTPKII SAASEGGANVFTVSYF  
KNNAYLAQSPQLYKQMCICADFEKVF SIGPVFRAEDSNTHRHLTEFVGLDIEMAFNYHYH  
EVMEEIADTMVQIFKGLQERFQTEIQTVNKQFPCEPFKFLPTLRLEYCEALAMLREAGV  
EMGDEDDLSTPNEKLLGHLVKEKYD TDFYILD KYPLAVRPFYTMPDPRNPKQSNSYDMFM  
RGEELSGAQR IHDPQLLTERALHHGIDLEKIKAYIDSFRFGAPPHAGGGIGLERVTMLF  
LGLHNVRQTSMFPRDPKRLTP

>P04802

MSQDENIVKAVEESAEP AQVILGEDGKPLSKKALKKLQKEQEKQRKKEERALQLEAEREA  
REKAAAEDTAKDNYGKLP LIQSRDSDRTGQKRVKFVDLDEAKDS DKEVLFRRARVHNTRQ  
QGATLAF LTLRQQASLIQGLVKANKEGTISKNMVKWAGSLNLESIVLVRGIVKKVDEPIK  
SATVQNLEIHITKIYTISETPEALPILLEDASRSEAEAEAAAGLPV VNLDR LDRVIDLR  
TVTINQAI FRIQAGVCELFREYLATKKFTEVHTPKLLGAPSEGGSSVFEV TYFKGKAYLAQ  
SPQFNKQQLIVADFERVYEIGPVFRAENS NTHRHMTEFTGLDMEMAFEEHYHEVLDTLSE  
LFFVIFSELPKRFAHEIELVRKQYPVEEFKLPKDGK MVRLTYKEGIEMLRAGKEIGDFE  
DLSTENEKFLGKLV RDKYD TDFYILDKFPLEIRPFYTMPDPANPKYSNSYDF FMRGEEIL  
SGAQR IHDHALLQERMKAHGLSPEDPGLKDYCDGFSYGCPPHAGGGIGLERVVMFYLDLK  
NIRRASLFPRDPKRLRP

>Q6PI48

MYFPSWLSQLYRGLSRP IRRTTQPIWGS LYRSL LQSSQRR IPEFSSFVVRTNTCGELRSS  
HLGQEVTL CGWIQYRRQNTFLVLRDFDGLVQVIIPQDESAASVKKILCEAPVESV VQVSG  
TVISRPAGQENPKMPTGEIEIKVKTAELLNACKKLPFEIKNFVKKTEALRLQYRYLDLRS  
FQMQYNLRLRSQMVMKMREYLCNLHG FVDIETPTL FKRTPGGAKEFLVPSREPGKFYSLP  
QSPQOQFKQLLMVGGLD RYFQVARCYRDEGSRPDRQPEFTQIDIEMS FVDQTGIQSLIEGL  
LQYSWPNDKDPVVVPFPTMTFAEVLATYGTDKPDTRFGMKIIDISDVFRNTEIGFLQDAL  
SKPHGTVKAICIEGAKYLKRKDIESIRNFAADHFNQEILPVFLNANRNWNSPVANFIME  
SQRLELIRLMETQEEDVLLTAGEHNKACSLLGKLRLECADLLETGRVVL RDPTLFSFLW  
VVDFFLFLPKEENPRELESAHHPFTAPHPSDIHLLYTEPKKARSQHYDLVLNGNEIGGGS  
IRIHNAELQRYILATLLKEDVKMLSHLLQALDYGAPPHGGIALGLDRLICLV TGSPSIRD  
VIAFPKSFGRHDLMSNTPDSVPPEELKPYHIRVSKPTDSKAERAH

>P41250

MPSRPVLLRGARAALLLLLPPRLLARPSLLLRSLSAASCAPISLPAAA SRSSMDGAGA  
EEVLAPLRLAVRQOGLV RKLKEDKAPQVDVDKVAELKARKRVLEAKELALQPKDDIVD  
RAKMEDTLKRRFFYDQAF AIYGGVSGLYDFGPVGCALKNNI IQTWRQHFIQEEQILEIDC  
TMLTPEPV LKTS GHVDKFADFMVKDVKNGE CFRADHLLKAHLQKLM SDKKCSVEKKSEME  
SVLAQLDNYGQOELADLFVNYNVKSPITGNDSLPPV SFNLMFKTFIGP GGNMPGYLRPET  
AQGIFLNFKRLLEFNQGKLPFAAAQIGNSFRNEISPRSGLIRVREFTMAEIEHFVDPSEK



DHPKFQNVADLHLYLSAKAQVSGQSARKMRLGDAVEQGVINNTVLGYFIGRIYLYLTKV  
GISPDKLRFQRHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPL  
VAEKPLKEPKTVNVVQFEPKSGAIGKAYKKDAKLVMYLAICDECYITEMEMLLNEKGEF  
TIETEGKTFQLTKDMINVKRFQKTLVVEEVPNVIEPSFGLGRIMYTVFEHTFHVREGDE  
QRTFFSFPVAVPAPFKCSVPLSQNQEFMPFVKELSEALTRHGVSHKVDSSSGSIGRRYAR  
TDEIGVAFGVTIDFDTVNKTPHTATLDRDRSMRQIRAEISELPSIVQDLANGNITWADVE  
ARYPLFEGQETGKKETIEE

>P56206

MPASSLDELVALCKRRGFIFQSSEIYGGLQGVYDYGPLGVELKNNLKQAWRRNVYERDD  
MEGLDASVLTURLVHYSGHEATFADPMVDNRITKKRYRLDHLLEKEQPEEVLKRLYRAME  
VEEENLHALVQAMMQAPERAGGAMTAAGVLDPASGEPGDWTPPRYFNMMFKTYVGPVEDE  
ASLAYLRPETAQGFVNFKNVLDATSRKLPFGIAQIGKAFRNEITPRNFIFRVREFEQME  
IEYFVRPGEDEYWHRYWVEERLKWQEMGLSRENLPYQQPPEELAHYAKATVDILYRFP  
HGLEELEGIANRTDFDLGSHTKDQEALGITARVLRNEHSTQRLAYRDPETGKWFVPYVIE  
PSAGVDRGVLALLAEAFTRRELPNGEERIVLKLKPLAPIKVAVIPLVKNRPEITEYAKR  
LKARLLALGLGRVLYEDTGNIGKAYRRHDEVTGTPFAVTVDYDTIGQSKDGTTRLKDTVTV  
RDRDTMEQIRLHVDELEGLRERLRW

>P38088

MSVEDIKKARAAVFPNREQLSVLRGRFFYAPAFDLYGGVSGLYDYGPPGCAFQNNIIDA  
WRKHFIILEEDMLEVDCTMLTPYEVLKTSGHVDFKSDWMCRLDKTGEIFRADHLVEEVLEA  
RLKGDQEARGLVEDANAAKDDAEKKRKKKVKQIKAVKLDLDDVVEKEYEELAKIDGYSG  
PELGELMEKYDIGNPVTGETLESPRAFNLMFETAIGPSGQLKGYLRPETAQGFVNFNKL  
LEFNNSKTPFASASIGKSFRNEISPRAGLLRVREFLMAEIEHFVDPLDKSHPKFNEIKDI  
KLSFLPRDQVQAGSTEPVKTVGEAVASRMVDNETLGYFIARIYQFLMKIGVDESKLRFR  
QHMANEMAHYAADCWDGELKTSYGWIECVGCADR SAYDLTVHSHKTKKELVVRQKLDNPI  
EVTKWEIDLTKKLFQPKFRKDAPKVESHLNMSQDDLASKAELLKANGKFTIKVDGVDGE  
VELDDKLVKIEQRTKVEHVREYVPSVIEPSFGIGRIIYSVFEHSFVNRPEDNARSVLSFP  
PLVAPTQVLLVPLSNHKDLVPVHHEVAKILRKSQIPFKIDDSGVSIGKRYARNDELGTPF  
GVTIDFESAKDHSVTLRERDSTKQVRGSVENVIKAIIRDITYNGASWEEGTDLTPFIAQA  
EAEAETD

>P60906

MAKNIQAIRGMNDYLPGETAIWQRIEGLTKNVLGSYGYSEIRLPIVEQTPLFKRAIGEV  
DVVEKEMYTFEDRNGDSLTLRPEGTAGCVRAGIEHGLLYNQEQRLWYIGPMFRHERPQK  
RQRQFHQLGCEVFGQLQGPDIDAELIMLTARWWRALGISEHVTLELNSIGSLEARANYRDA  
LVAFLEQHKEKLEDEDCKRRMYTNPLRVLDSKNPEVQALLNDAPALGDYLDEESREHFAGL  
CKLLESAGIAYTVNQRVRLGLDYNNRTVFEWVTNSLGSQGTVCAGGRYDGLVEQLGGRAT  
PAVGAFAMGLERLVLVQAVNPEFKADPVVDIYLVASGADTQSAAMALAERLRDELPGVKL  
MTNHGGGNFKKQFARADKWGARVAVVLGESEVANGTAVVKDLRSGEQTAVAQDSVAAHLR  
TLLG

>P56194

MTARAVRGTKDLFGKELRMHQIRIVATARKVLEAAGALELVTPIFEETQVFEKGVGAATDI  
VRKEMFTFQDRGGRSLTLRPEGTAAMVRAYLEHGMKVWPQPVRLWLMAGPMFRAERPQKGR  
YRQFHQVNYEALGSENPILDAEAVVLLYECLKELGLRRLKVKLSSVGDPEDRARYNAYLR  
EVLSPHREALSEDSKERLELNPMRILDSKSERDQALLKELGVRPMLDFLGEEARAHKVEV  
ERHLERLSVPYELEPALVRGLDYVVRTAFEVHHEEIGAQSALGGGRYDGLSELLGGPRV  
PGVGFAFGVERVALALEAEGFGLPEEKGPDLYLIPLTEEAVAEAFYLAELRPRLRAEYA

LAPRKPAKGLLEEALKRGAAGFAGFLGEDEL RAGEVTLKRLATGEQVRLSREEVPGYLLQAL  
G

>P0A8N3

MSEQHAQGADAVVDLNNELKTRREKLANLREQGIAFPNDFRRDHTSDQLHAEFDGKENE  
LEALNIEVAVAGRMTRIMGKASFVTLQDVGGRIQLYVARDDLPEGVYNEQFKKDWLGD  
ILGAKGKLFKTKTGELS IHCTELRLLTKALRPLPKFHGLQDQEARYRQRYLDLISNDES  
RNTFKVRSQILSGIRQFMVNRGFMVEVETPMQVIPGGAAARPFITHHNALDLDMYLR IAP  
ELYLKRLVVGGFERVF E INRNFRNEGISVRHNPEFTMMELYMAYADYKD LIELTESLFR  
LAQDILGKTEVTYGDVTLDFGKPF EKLT MREAIKKYRPE TDMADL DNFD SAKAIAESIGI  
HVEKSWGLGRIVTEIFEEVAEAHLIQPTFITEYPAEVSPLARRNDVNPEITDRFEFFIGG  
REIGNGFSELNDAEDQAQRFLDQVAAKDAGDDEAMFYDEDYVTALEHGLPPTAGLGIGID  
RMVMLFTNSHTIRDVILFPAMRPVK

>P41255

MNDQTRQRLNLEALVEAGFAPYPYRFPKTHSAEAILKAKRGAPPESEWPEEEVAVAGRL  
VALRRMGKVTFAHLLDETGRIQLYFQRDLTPKYELLKKLVDVGDILGVRGHPFTTKTGEVT  
VKVLDWTPLVKSLHPLPKWHGLRDKVEVRYRQRYLDLIVNPEVREVFRRRSEIVRYIRRF  
FEAKGFLEVETPILQPTTGGAEARPFKTYHNALDHEFYLRISLELYLKRLLVGGYEKVF  
IGRNFREGEIDHNHNPEFTMLEAYWAYADYQDMAGLVEELLSGLVLHLFGSHEVPYQGRV  
LNFKPPFRRI SFVEALKEKAGLPFDPLDLERLRLWADAHHP ELSQVPNYKLLDKLFGIYV  
EPELQDPTFVDFPLAISPLAKRHREKPG LVERWDLYAGGMELAPCYSELNDPLDQRERF  
LEQARRRKEGDEEAPEPDEDFLLALEYGMPPAAGLGLGIDRLAML L TDQP SLRDVLLFPL  
LKPKEAVEEGV

>P15180

MSQQDNVAAAEGVANLHLDEATGEMVSKSELKKRIKQRQVEAKKAAKAAAQPKPASKK  
KTDLFADLDPSQYFETR SRQIQELRKTHEPNPYPHKFHVSISNPEFLAKY AHLKKG E TLP  
EEKVSIAGRIHAKRESGSKLFYVLHGDGVEVQLMSQLQDYCDPDSYEKDHDL LKRGDI  
VVEGYVGRTPQPKKGGEVSVFVSRVQLLTPCLHMLPADHFGFKDQETRYRKYLDLIMN  
KDARNRFITRSEIIRYIRRF LDQRK FIEVETPMMNVIAGGATAKPFITHHNDLDMDMYMR  
IAP E LFLKQLVVGGLDRVYEIGRQFRNEGEIDMTHNPEFTTCEFYQAYADVYDLMDTELM  
FSEMVEITGSYI IKYHPDPADPAKELELNFSRPWKRINMIEELEKVFNVKFPSPGDQLHT  
AETGEFLKKILVDNKLECPPPLTNARMLDKLVGELEDTCINPTFIFGHPQMMSPLAKYSR  
DQPGLCERFEVVFATKEICNAYTELNDPFDQRARFEEQARQKDQGDDEAQLVDETFCNAL  
EYGLPPTGGWCGIDRLAMFLTDSNTIREVLLFP T LKPDVLR E EVKKEEEN

>P23920

MEKKTFFYL TTP IYYP S DKLH IGHAYTTVAGDAMARYKRLRGYDVMYLTGTDEHGQKIQRK  
AQEKGVTPQQYVDDIVAGIQELWRKLDISYDDFIRTTQERHKKIVEKIFARLVEQGD IYL  
GEYEGWYCTPCESFYTERQLVDGNCPCGRPVEKVK EESYFFRMSKYVDRLLQY Y EENPD  
FIQPE SRKNEMINNF IKPGL E DLAVSRTTFDWG I KVP G DPKHVIYVWIDALANYITALGY  
GTDNDEKFRKYWPADVHLVGKEIVRFHTIYWPIMLMALGLPLPKKVFHGHWLLMKDGKMS  
KSKGNVDPVMIIDRYGLDALRYLLREVFPFGSDGVFTPEGFIERINYDLANDLGNLLHR  
TVAMIEKYFGGAIPPYRGPKTPFDRDLSETAREVVRQYEEAMERMEFSVALSAVWQLIGR  
TNKYIDETQPWVLAKEESKREELASVMAHLAESLRYTAVLLQPFLTRTPERIFTQLGISD  
RSLKEWDSL YDFGLIPEGTNVQKGEPLFPRLDIGVEVEYIKAHMQGGKPAEAAKEEKQAA  
RAEEISIDDFAKVDLRVAEVVQPERMKNADKLLKLQLDLGG EK RQVISGIAEFYKPEELI  
GKKVICVANLKPALRG EWSEGMILAGGSGGGFSLATVDQHVPNGTKIK

>P00959

MTQVAKKILVTCALPYANGSIHLGHMLEHIQADVWVRYQRMRGHEVNFICADDAHGTPIM  
LKAQQLGITPEQMIGEMSQEHQTDFAGFNISYDNYHSTHSEENRQLSELIYSRLKENGFI  
KNRTISQLYDPEKGMFLPDRFVKGTCPKCKSPDQYGDNCEVCGATYSPTELIEPKSVVSG  
ATPVMRDSEHFFFDLPSFSEMLQAWTRSGALQEQVANKMQEWFESGLQQWDISRDPAYFG  
FEIPNAPGKYFYVWLDAPIGYMGFSFKNLCDKRGDSVSFDEYWKKDSTAELYHFIGKDIVY  
FHSLFWPAMLEGSNFRKPSNLFVHGYVTVNGAKMSKSRGTFIKASTWLNHFADADSLRYYY  
TAKLSSRIDIDLNLEDFVQRVNADIVNKVVNLASRNAGFINKRFDGVLASELADPQLYK  
TFTDAAEVIAGEAWESREFGKAVREIMALADLANRYVDEQAPWVVAKQEGRDADLQAICSM  
GINLFRVLMTYLKPVLPKLTERAEAFINTELTWDGIQQPLLGHKVNPFKALYNRIDMRQV  
EALVEASKEEVKAAAAPVTGPLADDP IQETITFDDFAKVDLRVALIENAEFVEGSDKLLR  
LTLDLGGEKRNVSFSGIRSAYPDPQALIGRHTIMVANLAPRKMRFGISSEGMVMAAGPGGKD  
IFLLSPDAGAKPGHQVK

>P23395

MEKVFYVTTPIYYVNAEPHLGHAYTTVVADFLARWHRLDGYRTFFLTGTDEHGETVYRAA  
QAAGEDPKAFVDRVSGRFKRAWDLGAIAYDDFIRTTEERHKKVQVLVKKVYEAGDIYYG  
EYEGLYCVSCERFYTEKELVEGLCP IHGRPVERRKEGNYFFRMEKYRPWLQEIYIENPDL  
IRPEGYRNEVLAMLAEP IGDLSISRPKSRVPWGIPLPWDENHVTYVWFDALLNYVSALDY  
PEGEAYRTFWPHAWHLIGKDILKPHAVFWPTMLKAAGIPMYRHLNVGGFLLGPDGRKMSK  
TLGNVVDPFALLEKYGRDALRYLLREIPYGQDTPVSEALRTRYEADLADDLGNLVQRT  
RAMLFRFAEGRIPEPVAGEELAEGTGLAGRLRPLVRELKHFHVALEEAMAYVKALNRYINE  
KKPWELFKKEPEEARAVLYRVVEGLRIASILLTPAMPDKMAELRRALGLKEEVRLEEAER  
WGLAEPRPIPEEAPVLFPKKEAKVEAKPKEEAWIGIEDFAKVELRVAEVLAAEKHPNADR  
LLVLRRLSLGNEERTVVSGIAKWYRPEELVGKKVVLVANLKPALKRGI ESQGMILAAQEGE  
ALALVTVEGEVPPGAVVK

>P00958

MSFLISFDKSKKHPAHLQLANNLKI ALALEYASKNLKPEVDNDNAAMELRNTKEPFLFLFD  
ANAILRYVMDDFEGQTS DKYQFALASLQNL LYHKELPQQHVEVLTNKAIENYLVELKEPL  
TTTTDLILFANVYALNSSLVHSKFPELPSKVHNAVALAKKHVPRDSSSFKNIGAVKIQADL  
TVKPKDSEILPKPNERNILITSALPYVNNVPHLGNIGSVLSADIFARYCKGRNYNALFI  
CGTDEYGTATETKALEEGVTPRQLCDKYHKIHS DVYKWFQIGFDYFGRTTTDKQTEIAQH  
IFTKLNSNGYLEEQSMKQLYCPVHNSYLADRYVEGECPKCHYDDARGDQCDKCGALLDPF  
ELINPRCKLDDASPEPKYS DHIFLSLSDKLESQISEWVEKASEEGNWSKNSKTITQSWLKD  
GLKPRCITRDLVWGTPVPLEKYKDKVLYVWF DATIGYVSITSNYTKEWKQWNNPEHVSL  
YQFMGKDNVPFH TVVFPQS LQGT EENWTMLHHLNTTEYLQYENGKFSKSRGVGVFGNNAQ  
DSGISPSVWRYYLASVRPESSDSHF SWDDFVARNNSELLANLGNFVNRLIKFVNAKYNGV  
VPKFDPKKVSNYDGLVKDINEILSNYVKEMELGHERRGLEIAMSLSARGNQFLQENKLDN  
TLFSQSPEKSDAVVAVGLNI IYAVSSII TPYMP EIGEKINKMLNAPALKIDDRFH LAILE  
GHNINKAEYLFQRIDEKKIDEWRAKYGGQQV

>P0A8M0

MSVVPVADVLQGRVAVDSEVTVRGWVRTRRDSKAGISFLAVYDGS CFDPVQAVINNSLPN  
YNEDVLRRLTTGCSVIVTGKVVASPGQGQQQFEIQASKVEVAGWVEDPDTYPM AAKRHSIEY  
LREVAHLRPRNTLIGAVARVRHTLAQALHRFFNEQGFVWSTPLITASDTEGAGEMFRVS  
TLDLENLPRNDQGVDFDKDFFGKESFLTVSGQLNGETYACALSKIYTFGPTFRAENSNT  
SRHLAEFWMLEPEVAFANLNDIAGLAEAMLKYVFKAVLEERADDMKFFAERVDKDAVSRL  
ERFIEADFAQVDYTD AVTILENCGRKFENPVYWGVDLSSEHERYLAE EHFKAPVVKNYP  
KDIKAFYMRLNEDGKTVAAMDVLAPGIGEIIGGSQREERLDVLDERMLEMGLNKEDYWWY

RDLRRYGTVPHSGFGLGFERLIAYVTGVQNVRDVIPFPRTPRNASF

>P54263

MRVFIDEIARHVDQEVELRGWLYQRRSKGKIHFLLIRDGTGFLQATVVQGEVPEAVFREA  
DHLPQETALRVWGRVREDRRAPGGFELAVRDLQVVSRRPQGEYPIGPKHEGIDFLMDHRHL  
WLRHRRPFAVMRIRDELERAIEHFFGERGFLRFDAPILTPSAVEGTTELFVEVELFDGEKA  
YLSQSGQLYAEAGALAFKVVYTFGPTFRAERSKTRRHLLLEFWMVEPEVAFMTHEENMALQ  
EELVSFLVARVLERRSRELEMLGRDPKALEPAAEGHYPRPTYKEAVALVNRFAQEDPEVP  
PLPYGEDFGAPHEAALSRRFDRPVFVERYPARIKAFYMEPDPELVLNDDLLAPEGYG  
EIIIGGSQRIHDLELLRRKIQEFGLPEEVYDWYLDLRRFGSVPHSGFGLGLERTVAWICGL  
AHVREAI PFP RMYTRMRP

>P16659

MRTSQYLLSTLKETPADAEVISHQLMLRAGMIRKSLASGLYTWLPTGVRVLKVENIVREE  
MNNAGAI EVSMPVVPADLWQESGRWEQYGPPELLRFVDRGERPFVLPPTHEEVIITDLIRN  
ELSSYKQLPLNFYQIQTKFRDEVRPRFVGMRSREFLMKDAYSFHTSQESLQETDAMYAA  
YSKIFSRMGLDFRAVQADTGSIGGSASHEFQVLAQSGEDDVVFSDTSDYAANIELAEAIA  
PKEPRAAATQEMTLVDTPNAKTI AELVEQFNLP I EKT VKTLLVKAVEGSSFPQVALLVRG  
DHELNEVKA EKLPQVASPLTFATEEEIRAVVKAGPGSLGPVNMP IPVVIDRTVAAMSDFA  
AGANIDGKH YFGINWDRDVATPEVADIRNVVAGDPSPDGQGRLLIKRGIEVGHIFQLGTK  
YSEALKASVQGEDGRNQILTMGCYGIGVTRVVAAAIEQNYDERGIVWPDAIAPFQVAILP  
MNMHKSFRVQELAEKLYSELRAQGI EVLLDDRKERPGVMFADMELIGIPHTIVLGDRLND  
NDDIEYKYRRNGEKQLIKTGDIVEYLVKQIKG

>Q58635

MEFSEWYS DILEKAEIYDVRYPIKCGVYLPYGFKIRRYTFEIRNLLDESGHDEALFPM  
LIPEDLLAKEAEHIKGFEDDEVYVWTHGGKTQLDVKLALRPTSETPIYYMMKLWVKVHTDL  
PIKIYQIVNTFRYETKHTRPLIRLREIMTFKEAHTAHSTKEEAENQVKEAISIYKKFFDT  
LGIPYLI SKRPEWDKFPGAEYTMAFDITIFPDGRMTQIATVHNLGQNFSKTFEII FETPTG  
DKDYAYQTCYGISDRVIASIIAIIHGDEKGLILPPIVAPIQVVIVPLIFK GKEDIVMEKAK  
EIIYEKLGKFRVHIDDRDIRPGRKFNDEIKGVPLRIEVGPKDIENKKITLFRRTMEKF  
QVDETQLMEVVEKTLNIMENIKNRAWEKFNFTITILEDINPDEIKNILSEKRGVILVPPF  
KEEIIYNEELEEKVEATILGETEYKGNKYIAIAKTY

>O26708

MQKPIK KDPNRYHGKMTFSEWFHNILEEAEIIDQRYPVKGMHVWMPHGFMIRKNTLKI  
LRRILDRDHEEVLFPLLVPEDELAKEAIIHVKGFEDDEVYVWTHGGLSKLQRKLALRPTSET  
VMYPMFALWVRSHDLP MRFYQVVNTFRYETKHTRPLIRVREITTFKEAHTIHATASEAE  
EQVERAVEIYKEFFNSLGIPYLI TRRPPWDKFPGSEYTVAFDTLMPDGKTLQIGTVHNLG  
QTFARTFEIKFETPEGDHEYVHQTCYGLSDRVIASVIAIHGDESGLCLPPDVAHQVVIV  
PIIFKAAEEVMEACRELRSRLEAAGFRVHLDDRDIRAGRKYEWEMRGVPLRVEIGPRD  
LEKGAAVISRRDTGEKV TADLQGI EETLREL MKDILENLRTRAWERMESEIREAETLEEA  
SRIVDEKRGII SFMWC GEEECGMDVEEKVRVDILGIQEESGTCINCGREAPTGLTLPEH  
IS

>Q5SM28

MAKEKGLTPQSQDFSEWYLEVIQKAELADYGPVVRGTIVVRPYGYAIWENIQQVLDRMFKE  
TGHQNAFYPLFI PMSFLRKEAEHVEGFSP ELAVVTHAGGEELEEP LAVRPTSETVIGYMW  
SKWIRSWRDL PQLLNQWGNVVRWEMRTRPFLRTSEFLWQEGHTAHATREEAE EEEVRRMLS  
IYARLAREYAAIPVIEGLKTEKEKFAGAVYTTTIEALMKDGKALQAGTSHYLG ENFARAF

DIKFQDRDLQVKYVHTTSWGLSWRF IGAI IMTHGDDRGLVLPRLAP IQVVIVP IYKDES  
RERVLEAAQGLRQALLAQGLRVHLDDRDQHTPGYKFHEWELKGVPPFRVELGPKDLEGGQA  
VLASRLGGKETLPLAALPEALPGKLD AFHEELYRRALAFREDHTRKVDTYEAFKEAVQEG  
FALAFHCGDKACERLIQEETTATTRCVPF EAEP EEGFCVRCGRPSAYGKR VVFAKAY

>P20488

MLLLADMDVVNQLVAGGQFRVVKEPLGFVKVLQWVFAIFAFATCGSYSGELQLSVCANK  
TKSDLNIEVEFEYFPRLHEVYFEAPT CQGD PKKIFLVGNYS SAEFFVTVAVFAFLYSMG  
ALATYIFLQNKYRENNKGPMLDFLATAVFAFMWLVSSSAWAKGLSDVKMATDPENI IKGM  
HVCHQP GNTCKELRDPVTSGLNTSVVFGFLNLVWVGNLWFVFKETGWAAPFLRAPP GAP  
EKQPAPGDAYGQAGYGGPGGYGPQDSYGPQGGYQPDYGPASSGGGGYGPQGDYGGQGY  
GPQGAPTSFSNQ M

>Q46AN5

MKLQFNLKAYFKTSADPTPAKDAIAALFEEANSTLLTRGAPEGQGAKVTEWKLGEDRIEL  
TLQSGRYVRVHDAIFRLRKQLAEALGKKYKIGIRGIEVESFI IKVPADHELRLMLKVPYIK  
SMENIEGGIQLELEVGEAEMKNRVPDRILTLLEEKIEAAQYGAKAEHWNLLWQREPM EHP  
FKEDPTQAMMKEGWLKRGS SRGQWIHG PQSARIFRTFEKIVLEELLEPLGYREMIFPKLV  
TWEVWMKSGHAKGVYPEIYYVCP PQTRDPDYWEEVADYKVTHEVPTKLIKEKIAEPIGG  
MCYAQC PPFWMYVAGETLPNEEIPVKVFD RSGTSHRYESGGIHGIERVDEFHRIEIVWIG  
TKEEVLKCAEELH DRYMHIFNDILDIEWRKARVTPWFMAQEGLLGLAEENTVGT TDYEAC  
LPYRGP DGEWLEFQNVSINGDKYPKGFNVKLQSGDELWSGCSGVGLERWAAVFLAQKGLD  
PANWPEEFRNRV GEMPKGIRFL

>Q58477

MKLTFDL DGKII FSKELSEEAKNAVEEVLKNADSI FLKGV PKGKENEASKIKSYEFEGNI  
LKLKIASGTYTRAHEGLIRLRKPLAEKLG RNFRI GVRGIEIDNYVITITETDEDKAKKLEG  
IKVPECEAKVEGNKI ILTFKDIGESELKRNI IDRAIKFVKTELEKEEEDLTFKVCKIPPG  
TIVSEYKAKRKITFDKDP TDVAEKLGWVKKFPGRGQW FYTPPITALFRAL EELIVEEVK  
KIGFQECLFPKLI PLEIMYKMRYLEGLPEGMYVCP PKREPELFKEFVNEMMIKKEIPIE  
KLKNLLRDPGYVLAPAQCEPFYQFFEGEVIDVDKPIMFFDRSGW TYRWE GGGARGLDRVN  
EFLRVECVWIGSPEFVEETRDKTLKYAEKLAEKLDLEYWVEVGDDPFYLEGRKKEDRGIE  
FPDVPKYEMRLWLPHIKDERKGVAVTSANVHGTHFVEGFR IKDYK GRRVWTGCTGYGITR  
WVVGYLAQYGFNFDDWHP I IKKKIKKLPEVPQLITWPKKDE

>P0A8L1

MLDPNLLRNEPDAVAEKLARRGFKLDVDKLGAL EERRKVLQVK TENLQAERN SRSKSIGQ  
AKARGEDIEPLRLEV NKLGEELDAAKAELDALQAEIRDIAL TIPNLPADEV PVGKDENDN  
VEVSRWGT PREFD FEVRDHVTLGEMHSGLDFAAAVKLTGSRFVVMKGQI ARMHRALSQFM  
LDLHTEQHGYSENYVPYLVNQDTLYGTGQLPKFAGDLFHTRPLEEEADTSNYAL IPTAEV  
PLTNLVRGEI IDEDDLPIKMTAHTPCFRSEAGSYGRDTRGLIRMHQFDK VEMVQIVRPED  
SMAALEEMTGHA EKVLQLLGLPYRKI ILCTGDMGFGACKTYDLE VWIPAQNTYREISSCS  
NVWDFQARRMQARCSKSDKKT RL VHTLNGSGLAVGRTLVAVMENYQQADGR IEVPEVLR  
PYMNGLEYIG

>P34945

MVDLKRRLRQEPEVFHRAIREKGV ALDLEALLALDREVQELKKRLQEVQTERNQVAKRVPK  
APPEEKEALIARGKALGEEAKRLEEALREKEARLEALLQVPLPPWPGAPVGGEEANREI  
KRVGGPPEFSFPPLDHVALMEKNGWWEPRISQVSGSRSYALKGDLALYELALLRFAMDFM  
ARRGFLPMTLPSYAREKAFLGTGHFPAYRDQVWAI AETDLYLTGTAEVVLNALSGEI LP

YEALPLRYAGYAPAFRSEAGSFGKDVRGLMRVHQFHKVEQYVLTASLEASDRAFQELLE  
NAEEILRLLLELPYRLVEVATGDMGPGKWRQVDIEVYLPSEGRYRETHSCSALLDWQARRA  
NLRYRDPEGRVRYAYTLNNTALATPRILAMLLENHQLQDGRVVRVPQALIPYMGKEVLEPC  
G

>P07284

MLDINQFIEDKGGNPELIRQSQKARNASVEIVDEIISDYKDWVKTRFELDELNKKFNKLQ  
KDIGLKFKNKEDASGLLAEKEKLTQQKKELTEKEQQEDKDLKKKVFQVGNIVHPSVVVSN  
DEENNELVRTWKPEDLEAVGPIASVTGKPPASLSHHEILLRLDGYDPDRGVKICGHRGYFF  
RNYGVFLNQALINYGLQFLAAKGYIPLQAPVMMNKELMSKTAQLSEFDEELYKVIDGEDE  
KYLIATSEQPIASAYHSGEWFKEKPEQLPIHYVGYSSCFRREAGSHGKDAWGVFRVHAFEK  
IEQFVITEPEKSWEFEKMSISYSEEFYKSLKLPYRIVGIVSGELNNAAKKYDLEAWFPY  
QKEYKELVSCSNCTDYQSRNLEIRCGIKKMGDREKKYVHCLNSTLAATQRALCCILENYQ  
TEDGLVVPEVLRKYIPGEPEFLPFVNELPKNSTSSKDKKKKN

>Q9N0F3

MAASIVRRLGPLVAGRGLRLRGGCVCNQSFKR SFATERQDRNLLYEHAREGYSALPLDDM  
ESLCAYPEDAARALDLRKGELRSKDLPGIISTWQELRQLREQIRSLEEEKEAVTEAVRAL  
VVNQDNSQVQODPOYQSLRARGREIRKQLTLLYPKEAQLEEQFYLRALRLPNQTHPDVPV  
GDESQARVLHVVDKPAFSFQPRGHLEIAEKLDIIRQKRLSHVSGHRSYYLRGAGALLQH  
GLVNFTLNKLIHRGFTPMTPDLLRGVVFEGCGMTPNAKPSQIYNIDPSRFEDLNLAGTA  
EVGLAGYFMDHSVAFRDLPIRMVCSSTCYRAETDTGKEPWGLYRVHHFTKVEMFGVTGPG  
LEQSSELLEEFSLQMEILTELGLHFRVLDMPQTQELGLPAYRKFDIEAWMPGRGRFGEVT  
SASNCTDFQSRRLHIMFQTEAGELQFAHTVNATGCAVPRLLIALLESYQQKDGSVLVPPA  
LQPYLGTDRITTPTHVPLQYIGPNQPQKPRLPQPASS

>Q9R0N4

MSFRKEDGVSSLCQKALHIITELCFAGQVEWDKCSGIFPADRSQGGGGTDISVSLLAVV  
VSFCGLALLVVSLSLVFWKLCWPCWKSCLVAPNLSVLPQSISSAPTEVFETEKKKEVEENE  
KPAPKAIEPAIKISHTSPDIPAQVQALKEHLIKHARVQRQTTEPTSSSRHNSFRRHLP  
QMNVSVDVDFSVGTEPILQRGETRSTIGRIKPELYKQKSVDSSEGNRDKDDVKTCGKLNFA  
LDYENELLVVKIKALDLPKADFTGTSDPYVKIYLLPDRKKKFQTRVHRKTLNPLFDEL  
FQFPVVYDQLSNRKLHFSIYDFDRFSRHDIMGEVILDNLFEVSDLSREATVWKDIHCATTE  
SIDLGEIMFSLCYLPTAGRMTLTVIKCRNLKAMDITGSSDPYVKVSLMCEGRRLKRRKT  
TKKNTLNPNVYNEAIIFFDIPPENVDQVSLCIAVMDYDRVGHNEVIGVCRGTGLDAEGLGRD  
HWNEMLAYHRKPI THWHPLLELPGRATSFDSQSCSSPRPPSTP

>O35681

MSGDYEDDLRRALILVSDLCARVRDADTNDRCQEFNELRIRGYPRGPDADISVSLLSVI  
VTFCGIVLLGVSLFVSWKLCWVPWRDKGGSVAVGGGPLRKDLAPGVGLAGLVGGGGHHLGA  
SLGGHPLLGGPHHHGHTAHHPPFAELLEPGGLGGSEPPPEPSYLDMSYPEAAVASVVAAG  
VKPSQTSPELPSGGTGSGLLLLPPSGGGLPSAQSHQVTS LAPTTRYPALPRPLTQQTL  
TTQADPSTEERPPALPLPLPGGEEKAKLIGQIKPELYQGTGPGGRRGGGSGEAGAPCGRI  
SFALRYLYGSDHLVVRILQALDLPKADSNGFSDPYVKIYLLPDRKKKFQTKVHRKTLNPI  
FNETFQFSVPLAELAQRKLFHFSVYDFDRFSRHDLIGQVVDNLLELAEQPPDRPLWRDIL  
EGGSEKADLGELNFSICYLPTAGRLTVTI IKASNLKAMDITGFSDPYVKASLISEGRRLK  
KRKTSIKKNTLNPTYNEALVFDVAPESVENVGLSIAVVYDCIGHNEVIGVCRVGPAAAD  
PHGREHWAEMLANPRKPVHWHQLVEEKTLSSTTKGGKGLSEKENSE

>Q9R0N5

MFPEPPTLGSPAPKTPDSSRIRQGAVPAWVLATIVLGSGLLVFSSCFCLYRKRCRRRMG  
KKSQAQAQVHLQEVKELGRSYIDKVQPEIEELDRSPSMPGQQVSDKHQLGRLQYSLDYDF  
QTGQLLVGILQAQGLAALDLGGSSDPYVSVYLLPDKRRRHETKVHRQTLNPHFGETFAFK  
VPYVELGGRVLVMAVYDFDRFSRNDAI GEVVRVPMSSVNLGRP VQAWRELQVAPKEEQEKL  
GDICFSLRYVPTAGKLTIVIVLEAKNLKMDVGGSDPYVKVHLLQGGKKVRKKKTTIKKN  
TLNPPYYNEAFSFEVPCDQVQKVQVELTVLDYDKLGKNEAIGRVAVGAAVGGAGLRHWADM  
LANPRRPIAQWHSRPPDRARPI PAP

>Q9R0N6

MQADRSMKMGHALNPFSTSAPLDATAGPSLIPDLITRIPWPRWTLFIAILAAAGVLLVSCCL  
LCVICCYCHRHRHRKQPKDKETVGLGSARNSTTTHLVQPDVDCLEPCSGGDQQWGRLLLS  
LEYDFGSQEIRVGLRQAGNLKAEGTADPYAWVSVSTQSGRRHETKVHRGTLSPMFEETCC  
FLVPPAELPKATLKVQLWDFKRFSEHEPLGELQLPLGTVDLQHVLESWYQLGPPGTTEPE  
QMGE LCFSLRYVPSGSLTVVVLEARGLNPLGLAEAYVKIQMLNQRKWKKSSTSSKKGTT  
TPYFNEAFVFLVPSVQLQSVDLVLAVWARGLQLRTEPVGKVLGSRASGQPLQHWADMLA  
HARRPIAQWHHLRSPREVDRLALQPRLPLLRPRS

>P0A8M3

MPVITLPGDSQRHYDHAVSPMDVALDIGPLAKACIAGRVNGELVDACDLIENDAQLSII  
TAKDEEGLEIIRHSCAHL LGHAIKQLWPHTKMAIGPVIDNGFYDVLDRTLTQEDVEAL  
EKRMHELAEKNYDVIKKKVSWHEARETFANRGESYKVSILDENIAHDDKPLYFH E EYVD  
MCRGPHVPMNRFCHHFKLMTAGAYWRGDSNNKMLQR IYGTAWADKKALNAYLQRLEEAA  
KRDHRKIGKQLDLYHMQEEAPGMVFWHNDGWTIFRELEV FVRSKLKEYQYQEVKGPFMMD  
RVLWEKTGHWDNYKDAMFTTSSENREYCIKPMNCPGHVQIFNQGLKSYRDLPLRMAEFGS  
CHRNEPSGSLHGLMRVRGFTQDDAHIFCTEEQIRDEVNGCIRLVYDMYSTFGFEKIVVKL  
STRPEKRIGSDEMWDRAEADLAVALEENNIPFEYQLGEGAFYGPKIEFTLYDCLDRAWQC  
GTVQLDFSLPSRLSASYVGEDNERKVPVMIHRAILGSMERFIGILT EEFAGFFPTWLAPV  
QVVIMNITDSQSEYVNELTQKLSNAGIRVKADLRNEKIGFKIREHTLRRVPYMLVCGDKE  
VESGKVAVRTRRGKDLGSMDVNEVIEKLLQOEIRSRSLKQLEE

>P56881

MTVYLPDGKPLELEPEGATAKDVARALGEGWERRAVGAIVDGELYDLLKPLPQGAKVRLLT  
EKDPEFQTLFRHTLAHVLAQAVKEFFREKGYDPESVRLGVGPVIEKGFYDIEAPEPLSD  
EDLPAIEAKMREILKRDPLRRFVLSREEALARYRGKDPYKTELVLVLEIPEGEEISFYQQG  
DEAYGFTDLRCRPHVPSTGRIPPHFKLTHVAGAYWRGDENRPMQRVYGVAFRTAEELKE  
YLWQLEEAKKRDHRRRLGRELELFLIDPLVKGGLVWLWLPKGNVVREELMAFMREEQVRRGY  
QLVTTPHIGSLELYKTSGHYPYAESQFPPISFKERGE EEEYLLKPMNCPHHIRIYAYRK  
RSYRELPLRLAEFGTVYRYEKAGELLGLTRVRGFTQDDAHIFCTPEEVKGEFLGVLDLVL  
KV FATLGLKDYRARIGVRDPKSDKYVGD EAKWALAERQIEEAAA EAGLRYTVEEGDAAFY  
GPKLDFVVKDALGREWQLGTIQVDYNLPERFGLTYVGKDGEHRPVMLHRAPFGSLERFI  
GILIEHFAGDFPLWLAPVQAVVVPVSEKQEDYAREVAGRLKEAGLRAEADTRPERMQARI  
RDAEVQKVPIILVVGEREKAEGAVSVRRRKKGNLGTMP LAAFLLEGALREYRERRLEPVF

>P26639

MFEEKASSPSGKMGGEKPIGAGEEKQKEGGKKNKEGSGDGGRAELNPWPEYIYTRLEM  
YNILKAEHDSILA EKA EKDSKPIKVTL PDGKQVDAESWKTTPYQIACGISQGLADNTVIA  
KVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMGEAMERVYGGCLCYGPPIE  
NGFYDYMLEEGGVSSNDFSSLEALCKKI I KEKQAFERLEVKKETLLAMFKYNKFKCRIL  
NEKVNTPTTTVYRCGPLIDLRCRPHVRHTGKIKALKIHKNSSTYWEKGADMETLQRIYGI  
SFPDPKMLKEWEKFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGAYIYNALIEFI

RSEYRKRGFQEVVTPNIFNSRLWMTSGHWQHYSENMF SFEVEKELFALKPMNCPGHCLMF  
DHRPRSWARELPLRLADFGVLHRNELSGALTGLTRVRRFQQDDAHIFCAMEQIEDEIKGCL  
DFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVWDQAEKQLENSLNEFGEKWELNSGDGAFY  
GPKIDIQIKDAIGRYHQCATIQLDQFLP IRFNLTYYVSHDGDGDKRPPVIVHRAILGSVERM  
IAILLTENYGGKWPFWLSPRQVMVVPVGP TCDEYAQKVRQQFHDAKFMADIDLDPGCTLNK  
KIRNAQLAQYNFILVVGEKEKISGTVNIRTRDNKVHGERTISETIERLQQLKEFRSKQAE  
EEF

>Q86TM6

MFRTAVMMAASLALTGAVVAHAYYLKHQFYPTVVYLT KSSPSMAVLYIQAFVLVFLGK  
MGKVFFGQLRAAEMEHLERSWYAVTETCLAF TVFRDDFSRPFVALFTLLLFLKCFHWLA  
EDRVDFMERSPNISWLFHCRIVSLMFLLGILD FLVSHAYHSILTRGASVQLVGFYAI  
LMTMVLTIKIKYVLHSDVLQSENPDNDKAVYMLY TELFTGF IKVLLYMAFMTIMIKVHTF  
PLFAIRPMYLAMRQFKKAVTDAIMSRRAIRNMNTLY PDATPEELQAMDNVCICREEMVT  
GAKRLPCNHI FHTSCLRSWFQRQQTCTCRMDVLRASLPAQSPPPPEPADQGPPAPHP  
PLLPQPPNFPQGLLPPFPFPGMFLWPPMGPFPV PVPSSGEAVAPPSTSAALSRPSGA  
ATTTAAGTSATAASATASGPGSGSAPEAGPAPGF PFPWGMPLPPPFAPMPVPPAG  
FAGLTPEELRALEGHERQHLEARLQSLRNIHTLL DAAMLQINQYLTVLASLGPPRPATSV  
NSTEETATTVVAASSTSI PSSEATTPTPGASPPA PEPAPERPPAPESVGTTEMPEDGE  
AELRRRRLQKLESPVAH

>Q9RVD6

MPFVDLEVPMTTTPPAATPARPRVLTGDRPTGALHLGHLAGSLQNRVRLQDEAE L FVLL  
ADVQALTDHFDRPEQVRENVLAVALDYLAAGLD POKTTCVVQSAVPELAELTVYFLNLVT  
VSHLRQNP TVKAEIAQKGYGERVPAGFFVY PVSQAADIAAFGATLVPVGGDQLPMLQTR  
EIVRRFNALYAPVLAEPQAQLSRVPRLPGLDGQAKMSKSLGNALGDSADEVARKVMGM  
YTDPGHLRASDPGRVEGNPVFTFLDAFDPD PARVQALKDQYRAGGLGDVKVKKHLIDVLN  
GVLAPIRTRRAEYERDPDAVLRVFTTEGTARGREVA AQTLGQVRRAMRLF GH

>P21656

MKQTI FSGIQPSGSVTLGNYIGAMKQFVELQHDYNSYFCIVDQHAITVPQDRLELRKNIR  
NLAALYLAVGLDPEKATLFIQSEVPAHAQAGWMMQCVAYIGELERMTQFKDKSKGNEAVV  
SGLLTYPLMAADILLYGTDLVPVGEDQKQHLELTRNLAERFNKKYNDIFTIPEVKIPKV  
GARIMSLNDPLKKMSKSDPNQKAYITLLDEPKQLEKKIKSAVTDSEGI V KFDKENKPGVS  
NLLTIYSILGNTTIEELEAKYEGKGYGEFKGDLAEVVVNALKPIQDRY YELIESEELDRI  
LDEGAERANRTANKMLKKMENAMGLGRKRR

>P00954

MTKPIVFSGAQPSGELTIGNYMGALRQWVNMQDDYHCICYIVDQHAITVRQDAQKLRKAT  
LDTLALYLACGIDPEKSTIFVQSHVPEHAQLG WALNCYTYFGELSRMTQFKDKSARYAEN  
INAGLFDYPVLM AADILLYQTNLVPVGEDQKQHLELSRDIAQRFNALYGEIFKVPEPFI  
KSGARVMSLLEPTKKMSKSDNRRNNVIGLLEDPKSVVKKIKRAVTDSEPPVRYDVQNK  
AGVSNLLDILSAVTGQSIPELEKQFEGKMYGHLKGEVADAVSGMLTELQERYHRFRNDEA  
FLQQVMKDGAEKASAHASRTLKAVYEAIGFVAKP

>P17248

MADMSNGEQCGSPLELFHSIAAQGELVRDLKARNAKDEIDSAVKMLLSLKT SYKAATG  
EDYKVDCCPPGDPAPESGEGLDATEADEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKE  
LVNRIERATGQRPHRFLRRGIFFSHRDMHQILDAYENKKPFYLYTGRGPSSEAMHVGHLI  
PFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYGYAVENAKDI IACGFDINKTFIF



SDLDYMGMSPGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFP AIQAAPSFNSFPQ  
IFRDRTDVQCLIPCAIDQDPYFRMTRDVAPRIGYPKALLHSTFFPALQGAQTKMSASDP  
NSSIFLTD TAKQIKTKVNKHAFSGGRDVEEHRQFGNCDVDV SFMYLTFLEDDDKLEQ  
IRRDYTSGAMLTGELKKELIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLSYDFQ

>Q12109

MSNDETVEKVTQQVSELKSTDVKEQVVTPWDVEGGVDEQGRAQNIDYDKLIKQFGTKPVN  
EETLKRFKQVTGREPHHFLRKLGFSSERDFTKILDLYEQGKPFPLYTGRGPSSDSMHLGH  
MIPFVFTKWLQEVFDVPLVIELTDDEKFLFKHKL TINDVKNFARENAKDI IAVGFDPKNT  
FIFSDLQYMGGAFYETVVRVSRQITGSTAKAVFGFNDSDCIGKHFH FASIQIATAFPSSFP  
NVLGLPDKTPCLIPCAIDQDPYFRVCRDVADKLLKYSKPALLHSRFFPALQGSTTKMSASD  
DTTAIFMTDTPKQIQKKINKYAFSGGQVSADLHRELGGNPDVDVAYQYLSFFKDDDVFLK  
ECYDKYKSGELLSGEMKKLCIETLQEFVKAFQERRAQVDEETLDFMVP HKLVWGEKERL  
VAPKPKTKQEKK

>P04803

MSNKQAVLKLISKRWISTVQRADFKLNSEALHSNATVFSMIQPTGCFHLGNL LGATRVWT  
DLCELKQPGQELIFGVADLHAITVPKPDGEMFRKFRHEAVASILAVGVDPEKASVIYQSA  
IPQHSELHWLLSTLASMGLLNRM TQWKS SNIKQSTNGDYLVNDSVGVKVR LGLFSYPVL  
QAADILLYKSTHVPVGDDQSQHLELTRHLAEKFNKMYKKNFFPKPVTMLAQTKKVL SLSLST  
PEKKMSKSDPNHDSVIFLNDEPKAIQKKIRKAL TDSISDRFYDPVERPGVSNLINIVSG  
IQRKSIEDVVEDVSRFN NYRDFKDYVSEVIEELKGPRT EF EKYINEPTYLHSVVESGMR  
KAREKAAKNLADIHKIMGF

>P22326

MTNLLEDLSFRGLIQQMTDEEGLNKQLNEEKIRLYSGFDPTADSLHIGHLLPILTLRRFQ  
LAGHHPIALVGGATGLIGDP SGKKAERTLN TADIVSEWSQKIKNQLSRFLDFEAAENPAV  
IANNFDWIGKMNVIDFLRDVGVKNFGIN YMLAKDTVSSRIESGISYTEFSYMILQSYDFLN  
LYRDKNCKLQIGGSDQWGNITAGLELIRKSEEEGAKAFGLTIPLVTKADGTFKGTEGGA  
IWL DKEKTSPEYEFYQFWINTDDR DVVKYLKYFTFLSKEEIEAYA EKTETETAPEKREAQKRL  
AEEVTSLVHGREALEQA INISQALFSGNIKELSAQDVKVGFKDVPSMEVDSTQELSLVDV  
LVQSKLSPSKRQARED IQNGAVYINGERQTEIN YTLSGEDRIENQFTVLRRGKKKYFLVT  
YK

>P25151

MRTFEQLTASQQKEVERQLQLYMTGAHEVIPPEELKAKLVKSI STGTPLKIKLGLDPSAP  
DVHLGHTVVNLKLRQFQENGHIVQLLIGDFTGKIGDPTGKSAARKQLTDEEVQHNAKT YF  
EQFGKVLDP EKVELHYNSKWLKTLNLEDVIELAGKITVARLMERDDFEERIAMQKPI SLH  
EFFYPLMQGYDSV VLES DIELGGTDQHFNVL MGRHFQERYNKEKQV VILMPLLEGLDGVE  
KMSKSKHNYIGINEHPNDMYGKTMSL PDSL MKKYIHLATDLELEEKQLVKDLETGAVHP  
RDAKMLLARTIVRMYHGEKAAEAAEHSFKTVFQENSLPEDIPAVNWKGEKTIAMIDLLVK  
LKL LSSKSEARRMIQNGGVRIDGEKVTDVHAKAEIRENMI IQVGKRKFLKLQ

>Q9YA64

MVRVDVEERFNRIARNTVEIVTEEELKGLLASGARIKGYIGYEPSGVAHIGWL VWMYKVK  
DLVEAGVDFSVLEATWHAYINDKLG GMDLIRAAARIVRRVMEAAAGVPVERVRFVDAEEL  
ASDKDYWGLVIRVAKRASLARVRRALTIMGRRAEAEVDASKLIYPLMQVSDIF YMDLDI  
ALGGMDQRKAHMLARDVAEKLGRKKPVAIHTPIISSLQGPGRMEASQGEID DVLAEVKMS  
KSKPETAVFVVDSDDDIRRKIRKAYCPAKQVQGNPVLEIARYILFARDGFTLRVDRPAKY  
GGPVEYTSYEELERDYTDGRLHPLDLKNAVAESLIEVVRP IRGAVLGD PAMKRALEAIEG

KVTR

>O29482

MDITEKLRLITRNAEEVVTEELRQLIETKEKPRAYVGYEPSGEIHLGHMMTVQKLMDLQ  
EAGFEIIVLLADIHAYLNEKGTFFEEIAEVADYNKKVFIALLGLDESRKFLVGLGSEYQLSRD  
YVLDVLMARITTLNRARRSMDEVSRRKEDPMVSQMIYPLMQALDIAHLGVDLAVGGIDQ  
RKIHMLARENLPRLGYSSPVCLHTPIILVGLDGQKMSSSKGNYSVRDPPEEVERKIRKAY  
CPAGVVEENPILDIAKYHILPRFGKIVVERDAKFGGDVEYASFEELAEDFKSGQLHPLDL  
KIAVAKYLNMLELLEDARKRLGVS

>P0AGJ9

MASSNLIKQLQERGLVAQVTDEEALAERLAQGPIALYCGFDPTADSLHLGHLVPLCLKR  
FQQAGHKPVALVGGATGLIGDPSFKAAERKLNTEETVQEWVDKIRKQVAPFLDFDCGENS  
AIAANNYDWFNMNVLTFRLDIGKHFVSNQMINKEAVKQRLNREDQGISFTEFSYNLLQG  
YDFACLNKQYGVVLQIGGSDQWGNITSGIDLTRRLHQNVFGLTVPLITKADGTFKFKTE  
GGAVWLDPKKTSFYQFWINTADADVRFKFFTFMSIEEINALEEEDKNSGKAPRAQ  
YVLAEQVTRLVHGEEGLQAAKRITECLFSGSLSALSEADFEQLAQDGVPMVEMEKGADLM  
QALVDSELQPSRQARKTIASNAITINGEKQSDPEYFFKEEDRLFGRFTLLRRGKKNYCL  
ICWK

>Q57834

MDEFEMIKRNTSEIISSEELREVLKCKDEKSAYIGFEPGKIHLGHYLQIKKMIDLQNAAGF  
DIIILLADLHAYLNQKGELEIRKIGDYNKKVFEAMGLKAKYVYGSEFQLDKDYTLNVYR  
LALKTTLKRARRSMELIAREDENPKVAEVIYPIMQVNDIHYLGVDVAVGGMEQRKIHMLA  
RELLPKKVVCIHNPVLTGLDGEKMSSSKGNFIAVDDSPPEIRAKIKKAYCPAGVVEGNP  
IMEIAKYFLEYPLTIKRPEKFGGDLTVNSYEELESFLFNKELHPMDLKNVAEELIKILE  
PIRKRL

>Q5UPJ7

MENTDHTNNEHRLTQLLSIAEECTLDRLKQLVDSGRIFTAYNGFEPGRIHIAQALITV  
MNTNNIIECGGQMIYIADWFAKMNLMNGDINKIRELGRYFIEVFKACGINLDGTRFIW  
ASEFIASNPSYIERMLDIAEFSTISRVKRCCQIMGRNESDCLKASQIFYPQMQAADVFE  
VPEGIDICQLGIDQRKVNMLAIEYANDRGLKIPISLSHHMLMSLSGPKKKMSKSDPQGA  
FMDDETEQEVSEKISRAYCTDETFDNPIFEYIKYLLLRWFGTLNLGKIYTDIESIQEDFS  
SMNKRELKTDVANYINTIIDLVREHFKKPELSELLSNVKSYYQPSK

>O58739

MDIEERINLVLKKPTEEVLTVENLRHLFEIGAPLQHYIGFEISGYIHLGTGLMAGAKIAD  
FQKAGIKTRVFLADWHSWINDKLGDDLEVIQEVALKYFKVGMESIEVMGGDPKKVEFVL  
ASEILEKGDYQTVIDISKNVTLRVMSITIMGRQMGEAIDFAKLIYPMQVADIFYQG  
VTIAHAGMDQRKAHVIAIEVAQKLRYPVHEGEKLPVAVHHHLLGLQEPPKWPIESE  
EEFKEIKAQMKMSKSKPYSVFIHDSPEEIRQKLRKAFCPAREVRYNPVLDWVEYIIFRE  
EPTEFTVHRPAKFGGDVYTTFFEELKRDFAEGLHPLDLKNAVAEYLINLLEPIRRYFEK  
HPEPLELMRSVKITR

>P83453

MAGTGHTPEEALALLKRGAEIVPEEELLAKLKEGRPLTVKLGADPTRPDLHLGHAVVLR  
KMRQFQELGHKVLIIGDFTGMIGDPSGRSKTRPPLTLEETRENAKTYVAQAGKILRQEP  
HLFELRYNSEWLEGLTFKEVVRLTSLMTVAQMLEREDFKKRYEAGIPISLHELLYPFAQA  
YDSVAIRADVEMGGTDQRFNLLVGREVQRAYGQSPQVCFMLPLLVGLDGREKMSKSLDNY

IGLTEPPEAMFKKLMRVPDPLLPSTYFRLLTDLEEEEEIEALLKAGPVPAPHRVLARLLTAAY  
ALPQIPPRIDRAFYESLGYAWEAFGRDKEAGPEEVRRAEARYDEVAKGGIPEEIPVETIP  
ASELKEGRIWVARLFTLAGLTPSNAEARRLIQNRGLRLDGEVLTDPMLQVDLSRPRILQR  
GKDRFVRVRLSD

>P41256

MTMKHQDAFEQIAFGTVDMLEPEGEMLARLAAAQRDNRPRIKLGMDPTAPDLHLGAYVLL  
HKARQFQDLGHRLLFVIGDFTAMIGDPTGKSVTRKALSREEVVANAATYRQVFKILDPE  
RTEVMFNSEWLGALRPEELIQIAACYTVARMLERDDFNKRYSANQPIAIEHFLYPLLQGY  
DSVAIKADVELGGTDQRFNLLVGRELQREYQKPKQLVLTMPILEGLDGVQKMSKSLGNFI  
AVEDPPAEMFGKIMSISDFLMWRYALLSRVPAVEQTRLQKEAASGARNPRDIKLDLAGE  
LVRRFHGTAAAQEAHIAFLARFQRHETPEDLPLQAIKLSAPRLSOLLVQVHLAASTSEA  
MRKMKEGAVRVDWRRVDPATILALDAVYLLQFGKRHFARVALQKGE

>P54577

MGDAPSPEEKHLITRNLQEVLGEEKLKEILKERELKIYWGTTATGKPHVAYFVPMKIA  
DFLKAGCEVTILFADLHAYLDNMKAPWELLELRVSYENVIKAMLESIGVPLEKLFKFKG  
TDYQLSKEYTLDVYRLSSVVTQHDSKKAGAEVVKQVEHPLLSGLLYPGLQALDEEYKVD  
AQFGGIDQRKIFTFAEKYLPAALGYSKRVHLMNPMVPGLTGSKMSSEESKIDLLDRKED  
VKKKLLKAFCEPGNVENNGVLSFIKHVLFPLKSEFVILRDEKWWGNKTYTAYVDLEKDF  
AEVVHPGDLKNSVEVALNKLLDPIREKFNTPALKKLASAAYPDPKQKPAKGPKNSEP  
EEVIPSRLDIRVGKIIITVEKHPDADSLYVEKIDVGEAEPRTVVSGLVQFVPEELQDRLV  
VVLGNLKPQKMRGVESQGMLLCASIEGINRQVEPLDPPAGSAPGEHVFVKGYEKGPDEE  
LKPKKKVFEEKLQADFKISEECIAQWKQTNFMTKLGSISCKSLKGGNIS

>P36421

MSSAATVDPNEAFGLITKNLQEVLPNPQI IKDVLEVQKRHLKLYWGTTAPTGRPHCGYFVPM  
TKLADFLKAGCEVTVLLADLHAFLDNMKAPLEVVNRYAKYYELTIKAILRSINVP IEKFK  
FVVGSSYQLTPDYTMDIFRLSNIVSQNDKAGADVVKQVANPLLSGLIYPLMQALDEQF  
LDVDCQFGVDQRKIFVLAEEENLPSLGYKKRAHLMNPMVPGLAQGGKMSASDPNSKIDLL  
EEPQVKKKINSAFCSPGNVEENGLLSFVQYVIAPIQELKFGTNHFEFFIDRPEKFGGPI  
TYKSFEEMKLAFKEEKLSPDLKIGVADAINELLEPIRQEFANNKEFQEASEKGYPVATP  
QKSKKAKKPKNGTKYPGATKTNEIATKLEETKL

>Q9Y2Z4

MAAPILRSFSWGRWSGTLNLSVLLPLGLRKAHSGAQGLLAAQKARGLFKDFFPETGKIE  
LPELFDRGTASFPQTIYCGFDPTADSLHVGHLALLLGLFHLQRAGHNVIALVGGATARLG  
DPSGRKTEREALETERRANARALRLGLEALAAHQQLFTDGRSWGSTVLDNSAWYQKQ  
HLVDFLAAVGGHFRMGTLRSQSVQLRLKSPEGMSLAEFFYQVLQAYDFYYLFQRYGCRV  
QLGGSDQLGNIMSGYEFINKLTGEDVFGITVPLITSTTGAKLGSAGNAVWLNDRDKTSPF  
ELYQFFVRQPDDSVRYLKLFTFLPLPEIDHIMQLHVKEPERRGPQKRLAAEVTKLVHGR  
EGLDSAKRCTQALYHSSIDALEVMSDQELKELFKEAPFSEFFLDPGTSVLDTCRKANAI  
DGPRGYRMITEGGVSINHQQVTNPESVLIVGQHILKNGLSLLKIGKRNFYI IKWLQL

>Q15714

MKSQWCRPVAMDVGYYQLRHFSISFLSSLLGTENASVRLDNSSSGASVVAIDNKIEQAMD  
LVKSHLMYAVREEVEVLKEQIKELIEKNSQLEQENLLKTLASPEQLAQFQAQLQTGSPP  
ATTQPQGTTPPAQPASQGSPTA

>P21643

MSGCPSGNSVGYTLKNLSMEDNEEDGAQTGVNRASKGGLIYGDYLQLEKILNAQELQSE  
IKGNKIHDEHLFIITHQAYELWFKQILWELDSVREIFQNGHVRDERNMLKVMTRMHRVVV  
IFKLLVQQFSVLEMTALDFNDFREYLSPASGFQSLQFRLLLENKIGVLQSLRVPYNRKHY  
RDNFEGDYNELLLKSEQEQTLQLVEAWLERTPGLEPHGFNFWGKFEKNILKGLEEEFLK  
IQAKKDSEEKQMAEFRKQKEVLLCLFDEKRHDYLLSKGERRLSYRALQGALMIYFYRE  
EPRFQVPFQLLTSMDIDTLMTKWRYNHVCMVHRMLGSKAGTGGSSGYYYLRSTVSDRYK  
VFVDLFLNLSYLVRHWIPKMNPIIHKFLYTAEYSDSSYFSSDES

>P33562

MTEGMHSNVKEAIKILKELGLPKGQQNERSALCLLSLMNITQDKTWSEAESPLIGITPMM  
EFCRINYGKEYAPNSRETFRFRFTMHQFVDAGIALYNPDKPTRPVNSPKAVYQIEAETLEL  
IKCYNTEEWESELLARYLSNRQTLVERYAKERQQNKIPVQIAEGKEIYITPGEHSELKAI  
IEEFAPRYVPGGRLIYAGDTGEEKMGYFDEELLRQLGVVIDSHGKMPDVVIYFPEKKWLLL  
IESVTSHGPDVHKRHEELAKLFNGSTAGIVYVTAFPNRSIMARYLNNISWETE VVWADAP  
SHLIHFNGVRFLGPYE

>P00642

MSNKKQSNRLTEQHKLSQLGVIGIFGDYAKAHD LAVGEVSKLVKKALSNEY PQLSFRYRDS  
IKKTEINEALKKIDPD LGGTLFVSNSSIKPDGGIVEVKDDYGEWRVVLVAEAKHQKDI I  
NIRNGLLVGKRGDQDLMAAGNAIERSHKNISEIANFMLSESHFPYVLFLEGSNFLTENIS  
ITRPDGRVVNLEYN SGILNRLDRLTAANYGMPINSNLCINKFVNHKDKSIMLQAASIYTO  
GDGREWDSKIMFEIMFDISTTSLRVLGRDLFEQLTSK

>P14633

MLMSVFHNWLLLEIACENYFVYIKRLSANDTGATGGHQVGLYIPSGIVEKLFPSINHREL  
NPSVFLTAHVSSHDCPDSEARAIYNSRHFGKTRNEKRITRWVEAAHFRILKITGALTLL  
AFKFLDEQGGDCKEVNIWVCASTDEEDVIETAIGEVIPGALISGPAGQILGGLSLQQAPVN  
HKYILPEDWHLRFP SGSEIIQYAASHYVKNSLDPDEQLLDRRRVEYDIFLLVEELHVLDI  
IRKGFSGVDEFIALANSVSNRRKSRAGKSLELHLEHLFIEHGLRHFATQAITEGNKKPDF  
LFPSAGAYHDTEFPVENLRMLAVKTTCKDRWRQILNEADKIHQVHLFTLQEGVSLAQYRE  
MRESGVRLVVPSSLHKKYPEAVRAELMTLGAFIAELTGLYADIP

>P00640

MKELKLKEAKEILKALGLPPQQYNDRSGWVLLALANIKPEDSWKEAKAPLLPTVSIMEFI  
RTEYGKDYKPNRETIRRQTLHQFEQARIVDRNRDLPSRATNSKDNYSLNQVIIDILHN  
YPNGNWKELIQQFLTHVPSLQELYERALARDRIKLLDGTQISLSPGEHNQLHADIVHE  
FCPRFVGMGKILYIGDTASSRNEGKLMVLDSEYLLKKGVP PMSHDKLPDVVYDEKRK  
WLFLIEAVTSHGPI SPKRWLELEAALSSCTVGKVYVTAFPTRTEFRKNAANIAWETE VVI  
ADNPDHMHVFNDRFLGPHDKKPELS

>P21763

MAGEVEFKGKQALRLGIQQELGGGPLSIFGAAAQKHDLSIREVTAGVLTCLKLAEDFPNLE  
FQLRTSLTKKAINKLRSDPRLGQALFVESASIRPDGGITEVKDRHGNWRVILVGESKH  
QGNDVEKILAGVLQ GKAKDQDFMAAGNAIERMHKNVLELRNYMLDEKHFYVVF LQGSNF  
ATESFEVTRPDGRVVKIVHDSGMLNRIDRV TASSLSREINQNYCENIVRAGSF DHMFQI  
ASLYCKAAPWTAGEMAEAMLAVAKTSLRIIADDLDQN

>P12364

MKKETIFSEVETANSKQLAVLKANFPQCFDKNGAFIQEKLEIIRASEVELSKESYSLNW  
LGKSYARLLANLPPKTLAEDKTHNQOEEKNKSQHLLIKGDNLEVLKHMVNAYAEKVMI

YIDPPYNTGKDGfVYNDDRKFTPEQLSELAGIDLDAQRILEFTTKGSSSHSAWLTFIYP  
RLYIARELMREDGTIFISIDHNEFSQLKLVCDIEIFGEQNHVGD LVWKNATDNNPSNIAVE  
HEYIIVYTKNKEQLISEWKSNISDVKNLLVNI GEEFASKYTGNELQEKYTQWFREHRSEL  
WPLDRYKYIDKDG IYTG SQSVHNPGKEGYRYDI IHPKTKKPKCKQQPLMGYRFPLDTMDRL  
LSEEKIIFGDDENKIIELKVYAKDYKQKLS SVIHL DGRVATNELKELFPEMTQPF TNAKT  
IKLVEDLISFACDGEIVLDF FAGSGTTAHTVFNLNKNKTSYQF ITVQLDEPKKDKSDA  
MKHGYN TIFDLTKERLIRASKKNRDQGFKVYQLMADFRAKDESELTLSNHTFFDDVVLTP  
EQYDTLLTTWCLYDGSLLTTP IEDVDLGGYKAHLCDGRLYLIAPNFTSEALKALLQKVDS  
DKDFAPNKVV FYGSNFESAKQME LNEALKSYANKKSI ELDLVVRN

>Q12634

MPAVTQPRGESKYDAIPGPLGPQSASLEGKVALVTGAGRGIGREMAMELGRRGCKVIVNY  
ANSTESAEEVVA AIKKNGS DAACVKANVGVVEDIVRMFEEAVKIFGKLDIVCSNSGVVSF  
GHVKDVTPEEFDRVFTINTRGQFFVAREAYKHLEIGGR LILMGSITGQAKAVPKHAVYSG  
SKGAIETFARCAIDMADKKITVNVVAPGGIKTDMYHAVCREYIPNGENLSNEEVDEYAA  
SAWSPLHRVGLPIDIARVVCF LASNDGGVWTGKVIGIDGGACM

>P40200

MEKKWKYCAVYYYIIQIHVFKGVWEKTVNTEENVYATLGSDVNLTCQTQTVGFFVQMOWSK  
VTNKIDLI AVYHPQYGFY CAYGRPCESLVTFTETPENGSKWTLHLRNMSCSVSGRYECML  
VLYPEGIQTKIYNLLIQTHVTADEWNSNHTIEIEINQ TLEIPCFQNSSSKISSEFTYAWS  
VENSSTDSWVLLSKGIKEDNGTQETLISQNH L ISNSTLLKDRVKLGT DYRLHLSPVQIFD  
DGRKFSCHIRVGNKILRSSTTVKVFAKPEIPVIVENNSTDV LVERRFTCLLKNVFPKAN  
ITWFIDGSFLHDEKEGIYITNEERKKGKDG FLELKSVLTRVHSNKPAQSDNLT IWCMA LSP  
VPGNKVWNISSEKITFLLGSEISS TDPPLSVTESTLDTQPSPASSVSPARYPATSSVTLV  
DVSALRPNTTTPQPSNSSMTTRGFNYPWTSSGTDTKKSVSRIPSETYSSSPSGAGSTLHDN  
VFTSTARAFSEVPTTANGSTKTNHVHITGIVVNKPKDGMSWPVIVAALLFCCMILFGLGV  
RKWCQYQKEIMERPPPFKPPPPPIKYTCIQEPNESDLPYHEMETL

>P68398

MSEVEFSHEYWMRHALTLAKRAWDEREVPVGAVLVHNNRVI GEGWNRPIGRHDPTAHAEI  
MALRQGG LVMQNYRLIDATLYVTLEPCVMCAGAMIHSRIGRVVFGARDAKTGAAGSLMDV  
LHHPGMNHRVEITEGILADECAALLSDFFRMRQE IKAQKKAQSSTD

>P15019

MSEPAQKKQKVANN SLEQLKASGTVVVADTGD FGSIAKFQPDSTTNP SLILAAAKQPTY  
AKLIDVAVEY GKKHGTTEE QVENAVDRLLVEFGKEILKIVPGRVSTEVDARLSFDTQAT  
IEKARHI IKLFEQEGVSKERVLIKIASTWEGIQAAKELEEKDGIHCNLTLLFSFVQAVAC  
AEAQVTLISPFVGRILDWYKSSTGKDYKGEADPGVISVKKIYN YKKG YKTI VMGASFR  
STDEIKNLAGVDYLTISPALLDKLMNSTEPPRVLDPVSAKKEAGDKISYISDESKFRFD  
LNEDAMATEKLSEGIRKFSADIVTLFDLIEKKVTA

>P0A870

MTDKLTS LRQYTTVVADTGDIAAMKLYQPQDAT TNP SLILNAAQIPEYRKLIDDAVAWAK  
QOSNDRAQQIV DATDKLAVNIGLEILKLV PGRISTEVDARLSYDTEASIAKAKRLIKLYN  
DAGISNDRILIKLASTWQGIRAAEQLEKEG INCNLTLLFSFAQARACAEAGVFLISPFVG  
RILDWYKANTDKKEYAPAEDPGVVS VSEIYQYYKEHGYETVVMGASFRNIGEILELAGCD  
RLTIAPALLKELAESEGAIERKLSYTG EVKARPARITESEFLWQHNQDPM AVDKLAEGIR  
KFAIDQEKLEKMIGDLL

>P37610

MSERLSITPLGPYIGAQISGADLTRPLSDNQFEQLYHAVLRHQVVFLRDQAITPQQQRAL  
AQRFGELHIHPVYPHAEGVDEIIVLDTHNDNPPDNDNWHTDVTFIETPPAGAILAAKELP  
STGGDTLWTSGIAAYEALSVPFRQLLSGLRAEHDFRKSFPPEYKVRKTEEEHQRWREAVAK  
NPPLLHPVVRTHPVSGKQALFVNEGFTTRIVDVSEKESEALLSFLFAHITKPEFQVRWRW  
QPNDIAIWDNRVTQHYANADYLPQRRIMHRATILGDKPFYRAG

>Q8SAS8

MAPAMEYSTQNGQEGGKCRASVLAIGTTNPEHFILQEDYPDFYFRNTNSEHMTLKEKFK  
RICVKSHIRKRHFYLTTEEILKENQGIATYGAGSLDARQRILETEVFKLQGEAALKAIAEW  
GQPIISKITHVVFATTSGFMMPGADYVITRLLGLNRTVRRVMLYNQGCFAAGTALRVAKDL  
AENNEGARVLVVCAENTAMTFHAPNESHLDVIVGQAMFSDGAAALIIGACPDVASGERAV  
FNILSASQTIIVPGSDGAI TAHFYEMGMSYFLKEDVIPLFRDNIAAVMEEAFSPLGVSDWN  
SLFYSIHPGGRGIIDGVAGNLGIKDENLVATRHLVGEYGNMGSACVMFILDDELKSSKVN  
GKPTTGDGKEFGCLIGLGPGLTVEAVVLQSVPIIQ

>P07913

MKALSKLKAEEGIWMTDVPVPELGHNDLLIKIRKTAICGTDVHIYNWDEWSQKTIPVPMV  
VGHEYVGEVVGIGQEVKGFKIGDRVSGEGHITCGHCRNCRGGRTHLCRNTIGVGVNRPGC  
FAEYLVIPAFNAFKIPDNI SDDLAAIFDPFGNAVHTALSFDLVGEDVLVSGAGPIGIMAA  
AVAKHVGARNVVI TDVNEYRLELARKMGITRAVNVAKENLNDVMAELGMTEGFDVGLEMS  
GAPPAFRTMLD TMNHGGRIAMLGIPPSDMSIDWTKVIFKGLFIKGIYGREMFETWYKMAA  
LIQSGLDLSPII THRF SIDDFQKGF DAMRSQSGKVILSWD

>Q9NYB0

MAEAMD LGKDPNGP THSSTL FVRDDGSSMSFYVRPSPAKRRLSTLILHGGGTVCRVQEPG  
AVLLAQPG EALAEASGDFISTQYILDCVERNERLELEAYRLGPASAADTGSEAKPGALAE  
GAAEPEPQRHAGRIAF TDADDVA I LTYVKENARSPSSVTGNALWKAMEKSSLTQHSWQSL  
KDRYLKHLRGQEHKYLLGDAPVSPSSQKLRKAEEDPEAADS GEPQNKRTPDLP EEEYVK  
EEIQENEEAVKMLVEATREFEEVVVDESPPDFEIHITMCDDDPPTPEEDSETQPDEEEE  
EEEEKVSQPEVGAAIKIIRQLMEKFNLDLSTVTQAF LKNSGELEATS AFLASGQRADGYP  
IWSRQDDIDLQK DDED TREALVKKF GAQNVARRIEFRKK

>Q9WTS4

MEQTDCKPYQPLSKVKHEMDLAYTSSSDESEDGRKPRQSFNSRETLHEYNQELRRNYNSQ  
SRKRKDVEKSTQEI EFCETPPTLCSGYHTDMHSVSRHGYQLEMGSVDVTE TE GAASPDHA  
LRMWIRGMKSEHSSCLSSRANSALSLTD DHERKSDGENGFKFS PVCCDMEAPADSAQDM  
QSSPHNQFTFRPLPPPPPPHACTCARKPPPTVDSLQRRSMTTRS QPSPAAPAPPTSTQD  
SVHLHNSWVLNSNIPL ETRHFLFKHSGSSAIFSAASQNYPLT SNTVYSPPPRPLPRSTF  
SRPAFTFNKPYRCCNWKCTALSATAITVTLALLLAVVIAVHLFGLTWQLQPVGQIYANGI  
SNGNPGTESMDDTTYSPIGGRVSDKSEKKVFQKGRAIDTGEVDIGA QVMQTI PPGLFWRFQ  
ITIHHP IYLFKFNISLAKD SLLGIYGRRNIPPTH TQFDFVKLMDGKQLVKQDSKSSDDIQH  
SPRNLILTSLQETGFI EYMDQGPWYLA FYNDGKKMEQVFLTTAIEIMDDCSTNCNGNGE  
CISGHCHCFPGFLGPD CARDSCPVL CGNGEY EKGHCVCRNGWKGP ECDVPEEQCIDPTC  
FGHGTCIMGVCICVPGYKGEICEEEDCLDPMCSSHGICVKGECHCSTGWGGVNCETPLPI  
CQEQCSGHGTFLLD TGVCSDPKWTGSDCSTELCTMECGSHGVCSR GICQCEGWVGPTC  
EERSCHSHCAEHGQCKDGKCECSPGWE GDHCTIAHYLDAVRDGC PGLCFGNRCTL DQNG  
WHCVCQVGWSGTGCNIVMEMLCGDNLNDGDGLTDCVDPDCCQQSN CYVSPLCQGS PDPL  
DLIQSQSPLFSQHTSRLFYDR IKFLIGK DSTHVVPQDISFDSRRACVIRGQVAVDGTPL  
VGVNVSFLHHSYDGF TISRQDGSFDLVAIGGISVVLIFDRSPFLSEKRTLWLPWNQFIVV

EKVIMQRIVADAPSCDISNFI SPNP I V L P S P L T S F G G S C P E R G T I V P E L Q V V Q E E I P I P S  
S F V R L S Y L S S R T P G Y K T L L R I L L T H S T I P V G M I K V H L T V S V E G R L T Q K W F P A A I N L V Y T F  
A W N K T D I Y G Q K V W G L A E A L V S V G Y E Y E M C P E F I L W E Q R T V V L Q G F E M D A S N L G G W S L N K H  
H I F N P Q S G I I H K G N G E N M F I S Q Q P P V I A T I M G N G H Q R S V A C T N C N G P A H N N K L F A P V A L A  
S G P D G S V Y V G D F N F V R R I F P S G N S V S I L E L R N R D T R H S T S P A H K Y Y L A M D P M S E S L Y L S D  
T N T R K V Y K L K S L V E T K D L S K N F E V V A G T G D Q C L P F D Q S H C G D G G K A S E A S L N S P R G I T V D  
R H G F I Y F V D G T M I R R I D E N A V I T T V I G S N G L T S T Q P L S C D S G M D I T Q V R L E W P T D L A V N P  
M D N S L Y V L D N N I V L Q I S E N R R V R I I A G R P I H C Q V P G I D H F L V S K V A I H S T L E S A R A I S V S  
H S G L L F I A E T D E R K V N R I Q Q V T T N G E I S I I A G A P T D C D C K I D P N C D C F S G D G G Y A K D A K M  
K A P S S L A V S P D G T L Y V A D L G N V R I R T I S K N Q A H L N D M N L Y E I A S P A D Q E L Y Q F T V N G T H L  
H T M N L I T R D Y V Y N F T Y N A E G D L G A I T S S N G N S V H I R R D A G G M P L W L V V P G G Q V Y W L T I S S  
N G V L K R V S A Q G Y N L A L M T Y P G N T G L L A T K S N E N G W T T V Y E Y D P E G H L T N A T F P T G E V S S F  
H S D L E K L T K V A L D T S N R E N V L M S T N L T A T S T I Y I L K Q E N T Q S T Y R V S P D G S L R V T F A S G M  
E I N L S S E P H I L A G A V N P T L G K C N I S L P G E H N A N L I E W R Q R K E Q N K G N V S A F E R R L R A H N R  
N L L S I D F D H M T R T G K I Y D D H R K F T L R I L Y D Q T G R P I L W S P V S R Y N E V N I T Y S P S G L V T F I  
Q R G T W N E K M E Y D Q S G K I I S R T W A D G K I W S Y T Y L E K S V M L L L H S Q R R Y I F E Y D Q S D C L L S V  
T M P S M V R H S L Q T M L S V G Y Y R N I Y T P P D S S T S F I Q D Y S R D G R L L Q T L H L G T G R R V L Y K Y T K  
Q A R L S E I L Y D T T Q V T L T Y E E S S G V I K T I H L M H D G F I C T I R Y R Q T G P L I G R Q I F R F S E E G L  
V N A R F D Y S Y N N F R V T S M Q A V I N E T P L P I D L Y R Y V D V S G R T E Q F G K F S V I N Y D L N Q V I T T T  
V M K H T K I F N A N G Q V I E V Q Y E I L K A I A Y W M T I Q Y D N M G R M V I C D I R V G V D A N I T R Y F Y E Y D  
A D G Q L Q T V S V N D K I Q W R Y S Y D L N G N I N L L S H G N S A R L T P L R Y D L R D R I T R L G E I Q Y K M D E  
D G F L R Q R G N D I F E Y N S N G L L Q K A Y N K V S G W T V Q Y Y Y D G L G R R V A S K S S L G Q H L Q F F Y A D L  
A N P I R V T H L Y N H T S A E I T S L Y Y D L Q G H L I A M E L S S G E E Y Y V A C D N M G T P L A V F S S R G Q V I  
K E I L Y T P Y G D I Y H D T Y P D F E V I I G F H G G L Y D F L T K L V H L G Q R D Y D V V A G R W T T P N H H I W K  
Q L N L L P K P F N L Y S F E N N Y P V G K I Q D V A K Y T T D I G T W L E L F G F Q L H N V L P G F P K P E L E N M E  
L T Y E L L Q L Q T K T Q E W D P G K M I L G I Q C E L Q K Q L R N F I S L D Q L P M T P Q Y N E G R C L E G G K Q P R  
F A A V P S V F G K G I K F A I K E G I V T A D I I G V A N E D S R R L A A I L N N A H Y L E N L H F T I E G R D T H Y  
F I K L G S L E E D L V L I G N T G G R R I L E N G V N V T V S Q M T S V L N G R T R R F A D I Q L Q H G A L C F N I R  
Y G T T V E E E K N H V L E M A R Q R A V A Q A W T Q E Q R R L Q E G E E G T R V W T E G E K Q Q L L G T G R V Q G Y D  
G Y F V L S V E Q Y L E L S D S A N N I H F M R Q S E I G R R

>P25052

M K F S E E C R S A A A E W W E G S F V H P F V Q G I G D G T L P I D R F K Y Y V L Q D S Y Y L T H F A K V Q S F G A A  
Y A K D L Y T T G R M A S H A Q G T Y E A E M A L H R E F A E L L E I S E E E R K A F K P S P T A Y S Y T S H M Y R S V  
L S G N F A E I L A A L L P C Y W L Y Y E V G E K L L H C D P G H P I Y Q K W I G T Y G G D W F R Q Q V E E Q I N R F D  
E L A E N S T E E V R A K M K E N F V I S S Y Y E Y Q F W G M A Y R K E G W S D S A I K E V E E C G A S R H N G

>P10039

M G L P S Q V L A C A I L G L L Y Q H A S G G L I K R I I R Q K R E T G L N V T L P E D N Q P V V F N H V Y N I K L P V  
G S L C S V D L D T A S G D A D L K A E I E P V K N Y E E H T V N E G N Q I V F T H R I N I P R R A C G C A A P D I K  
D L L S R L E E L E G L V S S L R E Q C A S G A G C C P N S Q T A E G R L D T A P Y C S G H G N Y S T E I C G C V C E P  
G W K G P N C S E P A C P R N C L N R G L C V R G K C I C E E G F T G E D C S Q A A C P S D C N D Q G K C V D G V C V C  
F E G Y T G P D C G E E L C P H G C G I H G R C V G G R C V C H E G F T G E D C N E P L C P N N C H N R G R C V D N E C  
V C D E G Y T G E D C G E L I C P N D C F D R G R C I N G T C F C E E G Y T G E D C G E L T C P N N C N G N G R C E N G  
L C V C H E G F V G D D C S Q K R C P K D C N N R G H C V D G R C V C H E G Y L G E D C G E L R C P N D C H N R G R C I  
N G Q C V C D E G F I G E D C G E L R C P N D C H N R G R C V N G Q C E C H E G F I G E D C G E L R C P N D C N S H G R  
C V N G Q C V C D E G Y T G E D C G E L R C P N D C H N R G R C V E G R C V C D N G F M G E D C G E L S C P N D C H Q H  
G R C V D G R C V C H E G F T G E D C R E R S C P N D C N N V G R C V E G R C V C E E G Y M G I D C S D V S P P T E L T  
V T N V T D K T V N L E W K H E N L V N E Y L V T Y V P T S S G G L D L Q F T V P G N Q T S A T I H E L E P G V E Y F I  
R V F A I L K N K S I P V S A R V A T Y L P A P E G L K F K S V R E T S V Q V E W D P L S I S F D G W E L V F R N M Q

KKDDNGDITSSLRPETSYPGLAPGQQYNVSLHIVKNNTRGPGLSRVITTKLDAPSQI  
EAKDVTDTTALITWSKPLAEIEGIELTYGPKDVPDRTTIDLSEDENQYSIGNLRPHTEY  
EVTLISRRGDMESDPAKEVFVTDLDAPRNLKRVSQTDNSITLWKNSHANIDNYRIKFAP  
ISGGDHTELTVPKGNQATTRATLTGLRPGTEYGIQVTAVRQDRESAPATINAGTDLDNPK  
DLEVSDPTETTLISLRWRRPVAKFDRYRLTYVSPSGKKNEMEI PVDSTSFILRGLDAGTEY  
TISLVAEKGRHKSPTTIKSTEEPELGNLSVSETGWDGFQLTWTAAADGAYENFVIQVQ  
QSDNPEETWNI TVPGGQHSVNVVTGLKANTPYNVVTLYGVIRGYRTKPLYVETTTGAHPEVG  
ELTVSDITPESFNLSWTTTNGDFDAFTIEIIDSNRLLLEPMEFNISGNSRTAHISGLSPST  
DFIVYLYGISHGFRTQAI SAAATTEAEPEVDNLLVSDATPDGFRLSWTADDGVFDSFVLK  
IRDTRKKS DPLELIVPGHERTHDITGLKEGTEYEIEELYGVSSGRRSQPINSVATTVVGSP  
KGISFSDITENSATVSWTPPRSRVDSYRVSYPITGGTPNVVTVDGSKTRTKLVKLVPGV  
DYNVNIISVKGFEESEPI SGILKTALDSPSGLVVMNITDSEALATWQPAIAAVDNYIVSY  
SSEDEPEVTQMVSGNTVEYDLNGLRPATEYTLRVHAVKDAQKSETLSTQFTTGLDAPKDL  
SATEVQSETAVITWRPPRAPVTDYLLTYESIDGRVKEVILDPETTSYTLTELSPSTQYTV  
KLQALSRSMRSKMIQTVFTTTGLLYPYPKDCSQALLNGEVTSGLYTIYLNDRDRTQPLQVF  
CDMAEDGGGWIVFLRRQNGKEDFYRNWKNYVAGFGDPKDEFWIGLENLHKISSQGQYELR  
VDLRDRGETAYAVYDKFSVGDAKTRYRLRVDGYSGTAGDSMTYHNRSFSTFDKDND SAI  
TNCALS YKGAFWYKNCHR VNL MGRYGDNNHSQGVNWFHWKGHEYSIQFAEMKLRPSSFRN  
LEGRKRA

>P24821

MGAMTQLLAGVFLAFLALATEGGVLKKVIRHKRQSGVNATLPEENQPVVFNHVYNIKLPV  
GSQCSVDLESASGEKDLAPPSESESFQEHTEVDGENQIVFTHRINIPRRACGCAAAPDVK  
ELLSRLEELENLVSSLREQCTAGAGCCLQPATGRLDTRPFCSGRGNFSTEGCGVCEPGW  
KGPNCSEPEPCPNCHLRGRCIDGQCICDDGFTGEDCSQLACPDCNDQGKCVNGVCICFE  
GYAGADCSREICPVPCSEEHGTCVDGLCVCHDGFAGDDCNKPLCLNNCYNRGRCVENECV  
CDEGFTGEDCSELICPNDCFDRGRCINGTCYCEEFTGEDCGKPTCPHACHTQGRCEEQ  
CVCDEGFAGLDCSEKRCPADCHNRGRCVDGRCECDDGFTGADCGELKCPNGCSGHGRCVN  
GQCVCDEGYTGEDCSQLRCPNDCHSRGRCVEGKCVCEQGFKYDCSDMSCPNDCHQHGR  
VNGMVCDDGYTGEDCRDRQCPRDCSNRGLCVDGQVCEDGFTGPDCAELSCPNDCHGQG  
RCVNGQVCHEGFMGKDCKEQRCPSDCHGQGRCDVGQCI CHEGFTGLDCGQHSCPSDCNN  
LGQCVSGRCCINEGYSGEDCSEVSPPKDLVVTEVTEETVNLAWDNEMRVTEYLVVYTPH  
EGGLEMQFRVPGDQTSTIIQELEPGVEYFIRVFAILENKKSI PVSARVATYLPAPGLKF  
KSIKETSVEVEWDPLDIAFETWEIIFRNMNKEDEGEITKSLRRPETS YRQTGLAPGQEYE  
ISLHIVKNNTRGPGLRVTTTTRLDAPSQIEVKDVTDTTALITWFKPLAEIDGIELTYGIK  
DVPDRTTIDLTE DENQYSIGNLKPDT EYEVSLISRRGDMSSNPAKETFTTGLDAPRNL  
RVSQTDNSITLWNRNGKAAIDSYRIKYAPISGGDHAEVDVPKSQQATTKTTLTGLRPGTE  
YGIQVSAVKEDKESNPATINAATELDTPKDLQVSETAETSLLWKTP LAKFDRYRLNYS  
LPTGQWVGVQLPRNTTSYVLRGLEPGQEYNVLLTAEKGRHKS KPARVKASTEQAPELENL  
TVTEVGDGLRLNWTAAADQAYEHFIIQVQEAANKVEAARNLTVPGSLRAVDIPGLKAATPY  
TVSIIYGVIIQGYRTPVLSAEASTGETPNLGEVVVAE VGDALKLNWTAPEGAYEYFFIQVQ  
EADTVEAAQNLTVPGLRSTDL PGLKAATHYTIITIRGVTQDFSTTPLSVEVLTEEVPDMG  
NLTVTEVSWDALRLNWTTPDGTYDQFTIQVQEAADQVEEAHNLTVPGSLRSMEIPGLRAGT  
PYTVTLHGEVRGHSTRPLAVEVVTEDLPQLGDLAVSEVGDGLRLNWTAAADNAYEHFVIQ  
VQEVNKVEAAQNLTLPGLSLRAVDIPGLEAATPYRVSIIYGVIRGYRTPVLSAEASTAKEPE  
IGNLVSDITPESFNLSWMATDGI FETFTIEIIDSNRLLLETV EYNI SGAERTAHISGLPP  
STDFIVYLSGLAPSIRTKTISATATTEALPLENLTISDINPYGFTVSWMA SENAFDSFL  
VTVDVSGKLLDPQEF TSLSGTQRKLELRGLITGIGYEMVSGFTQGHQTKPLRAEIVTEAE  
PEVDNLLVSDATPDGFRLSWTADG EGVDFN FVLKIRDTKKQSEPLEITLLAPERTRDLTGL  
REATEYEIEELYGISKRRSQTVSAIATTAMGSPKEVIFSDITENSATVSWRAPTAQVESF



RITYVPITGGTPSMVTVDGTQTRLVKLIPGVEYLVSI IAMKGFEESEPVSGSFTTALD  
GPSGLVTANITDSEALARWQPAIATVDSYVVISYTGKEKVEITRTRVSGNTVEYALTDLEPA  
TEYTLRIFAEEKGPQKSSTITAKFTTDLDSPRDLTATEVQSETALLTWRPPRASVTGYLLV  
YESVDGTVKEVIVGPDTTSSYSLADLSPSTHYTAKIQALNGPLRSNMIQTIFTTIGLLYPF  
PKDCSQAMLNGDTSGLYTIYLNKGDAQALEVFCDMTSDGGGWIVFLRRKNGRENFYQNW  
KAYAAGFGDRREEFWLGLDNLNKITAQQQYELRVDLRDHGETAFVYDKFSVGDATRYK  
LKVEGYSGTAGDSMAYHNGRSFSTFDKDTDSAITNCALSYKGAFWYRNCHRVNLMGRYGD  
NNHSQGVNWFHWKGHEHSIQFAEMKLRPSNFRNLEGRKRRA

>P22105

MMPAQYALTSSLVLLVLLSTARAGPFSSRSNVTLAPRPPPQPGGHTVGAGVGSPPSSQLY  
EHTVEGGEKQVVFTHRINLPPSTGCGCPPGTEPPVLASEVQALRVRLEILEELVKGLKEQ  
CTGGCCPASAQAGTQTDVRTLCSLHGVDLSRCTCSCEPGWGGPTCSDPTDAEIPSSP  
PSASGSCPDDCNDQGRVCVRGRCVCFPGYTGPSGWPSCP GDCQGRGRCVQVCVCRA GFS  
GPDCSQRSCPRGCSQRGRCEGGRCVCDPGYTGDDCGMRSCPRGCSQRGRCENGRCVCNPG  
YTGEDCGVRSRCPGCSQRGRCKDGRVCVDPGYTGEDCGTRSCPWDCGEGGRCVDGRVCW  
PGYTGEDCSTRTCP RDCRGRGRCEDEGECICDTGYSGDDCGVRSRCPGDCNQRGRCEDEGRCV  
CWPGYTGTDGCSRACPRDCRGRGRCENGVCVCNAGYSGEDCGVRSRCPGDCRGRGRCESGR  
CMCWPGYTG RDCGTRACPGDCRGRGRCV DGRVCVNP GFTGEDCGSRRCPGDCRHHGLCED  
GVCVCDAGYSGEDCSTRSCP GGCRGRGQCLDGRVCVEDGYSGEDCGVRQCPNDCSQH GVC  
QDGVCICWEGYVSEDCSIRTCPSNCHGRGRCEEGRCLCDPGYTGPTCATRMCPADCRGRG  
RCVQGVCLCHVGYGGEDCGQEPPASACPGGCGPRELCRAGQVCVVEGFRGPDCAIQTCP  
GDCRGRGECHDGSCVCKDGYAGEDCGEARVPSSASAYDQRGLAPGQEYQVTVRALRGT SW  
GLPASKTITTTMIDGPQDLRVVAVTPTTLELGLWRPQAEVDRFVVSYSV SAGNQRVRLEVPP  
EADGTLTLDLMPGVEYVVTVAERGRAVSYPASVRANTEEREEEESPPRPSLSQPPRRPWG  
NLTAELSRFRGTVDLERHLRAHGYP L RANQTYTTSVARHIHEYLRQVVLGSSADGALLVS  
LDGLRGQFERVVLRWRPQPPAEGPGGELTVPGTTRTVSLPDLRPGTTYHVEVHGV RAGQT  
SKSYAFITTTGPTTQGAQAPLLQQR PQELGELRVLGRDETGRLRVWVTAQPDTFAYFQL  
RMRVPEGPGAHEEVLPGDVRQALVPPPPGTPYELSLHGVP GPKPSDPIIYQGIMDKDE  
EKPGKSSGPPRLGELTVTDRTSDSLLLRWTVPEGEFDSFVIQYKDRDGQPQVVPVEGPQR  
SAVITSLDPGRKYKFVLYGFVGGKRHGPLVAEAKILPQSDPSPGTPPHLGNLWVTDPTPD  
SLHLSWTVPEGQFDTFMVQYRDRDGRPQVVPVEGPERSFVVSLLDPDHKYRFTLFGIANK  
KRYGPLTADGTTAPERKEEPPRPEFLEQPLL GELTVTGVT PDSLRLSWTVAQGPFDSFMV  
QYKDAQQPQAVPVAGDENEVTVPGLDPDRKYKMPLYGLRGRQRVGPESVVAKTAPQEDV  
DETPSPTELGTEAPESPEEPLL GELTVTGSSPDSLSLFWTVPQGSFDSFTVQYKDRDGRP  
RAVRVGGKESEVTVGGLEPGHKYKMPLYGLHEGQRVGPVSAVGTAPQQEETPPATESPL  
EPRLGELTVTDVTPNSVGLSWTVPEGQFDSFIVQYKDKDGQPQVVPVAADQREVTVYNLE  
PERKYKMNMYGLHDGQRMGPLSVVIVTAPATEASKPPLEPRLGELTVTDITPDSVGLSWT  
VPEGEFDSFVVQYKDRDGQPQVVPVAADQREVTIPDLEPSRKYKFLLFQIQDGKRRSPVS  
VEAKTVARGDASPGAPRLGELWVTDPTPDSLRLSWTVPEGQFDSFVQFKDKDGPQVVP  
VEGHERSVTVTPLDAGRKYRFLLYGLLGKKRHGPLTADGTT EARSAMDDTGTKRPPKPRL  
GEELQVTTVTQNSVGLSWTVPEGQFDSFVQYKDRDGQPQVVPVEGSLREVSVPGLDPAH  
RYKLLLYGLHHGKRVGPI SAVAITAGREETETETTAPTTPAPEPHLGELTVEEATSHTLH  
LSWVTEGEFDSFEIQYTD RDGQLQMVRI GGDRNDITLSGLESDHRYLVTLYGFSDGKHV  
GPVHVEALTVPEEEKPSEPPTATPEPP IKPRLGELTVTDATPDSLRLSWTVPEGQFDHFL  
VQYRNGDGQPKAVRVP GHEEGVTISGLEPDHKYKMPLYGFHGGQRMGPVSVVGVTEPSME  
APEPAEEPLL GELTVTGSSPDSLSLWTVPQGRFDSFTVQYKDRDGRPQVVRVGGEESEV  
TVGGLEPGRKYKMPLYGLHEGRRVGPVSAVGTAP EEE SPDAPLAKLRLGQMTVRDITSD  
SLSLSWTVPEGQFDHFLVQFKNGDGQPKAVRVP GHEDGVTISGLEPDHKYKMPLYGFHGG  
QRVGPVSAVGLTASTEPPTEPP IKPRLEELTVTDATPDSLRLSWTVPEGQFDHFLVQYK

NGDGQPKATRVPGHEDRVTISGLEPDNKYKMNLYGFHGGQRVGPVSAIGVTEEEETPSPTPE  
PSMEAPEPPEEPLLGELTVTGSSPDSLSLSWTVPQGRFDSFTVQYKDRDGRPQVVRVGGGE  
ESEVTVGGLEPGRKYKMHLYGLHEGRRVGPVSTVGVTAPEQEDVDETPSPTEPGTEAPEPP  
EEPLLGELTVTGSSPDSLSLSWTVPQGRFDSFTVQYKDRDGRPQAVRVGGQESKVTVRGL  
EPGRKYKMHLYGLHEGRRVGPVSAVGVTEDEAETTQAVPTMTPEPPIKPRLGELTMTDAT  
PDSLSLSWTVPEGQFDHFLVQYRNGDGQPKAVRVPGHEDGVTISGLEPDHKYKMNLYGFH  
GGQRVGPI SVIGVTEEEETPSPTTELSTEAREPPEEPLLGELTVTGSSPDSLSLSWTIPQGH  
FDSFTVQYKDRDGRPQVMRVRGEESEVTVGGLEPGRKYKMHLYGLHEGRRVGPVSTVGV  
VPTTTPEPPNKPRLGELTVTDATPDSLSLSWMPVEGQFDHFLVQYRNGDGQPKVVRVPGH  
EDGVTISGLEPDHKYKMNLYGFHGGQRVGPISVIGVTEEEETPAPTEPSTEAPPEPPEEPLL  
GELTVTGSSPDSLSLSWTIPQGRFDSFTVQYKDRDGRPQVVRVRGEESEVTVGGLEPGCK  
YKMHLYGLHEGQRVGPVSAVGVTAPEKDEAETTQAVPTMTPEPPIKPRLGELTVTDATPDS  
LSLSWMPVEGQFDHFLVQYRNGDGQPKAVRVPGHEDGVTISGLEPDHKYKMNLYGFHGGQ  
RVGPVSAIGVTEEEETPSPTPEPSTEAPPEEPLLGELTVTGSSPDSLSLSWTVPQGRFDS  
FTVQYKDRDGRPQVVRVRGEESEVTVGGLEPGRKYKMHLYGLHEGQRVGPVSTVGITAPL  
PTPLPVEPRLGELAVAAVTSDSVGLSWTVAQGPFDVFLVQYRDAQGPQAVPVSGDLRAV  
AVSGLDPARKYKFLFLFGLQNGKRHGPVPEARTAPDTKPSRPLGELTVTDATPDSVGLSW  
TVPEGEFDSFVQYKDKDGLQVVPVAANQREVTVQGLEPSRKYRFLLYGLSGRKRGLPI  
SADSTTAPLEKELPPHLGELTVAEETSSSLRLSWTVAQGPFDVFLVQYRDTDGQPRAVPV  
AADQRTVTVEDLEPGKYYKFLLYGLLGGKRLGPVSALGMTAPEEDTPAPELAPPEAPEPE  
EPRLGVLTVTDTPDSMRLSWSVAQGPFDVFLVQYEDTNGQPQALLVDGDQSKILISGLE  
PSTPYRFLLYGLHEGKRLGPLSAEGTTGLAPAGQTSSESRPRLSQLSVTDVTTSSLRLNW  
EAPPGAFDSFLLRFVPSSTLEPHPRPLLQRELMVPGTRHSAVLRDLRSGTLYSLTYG  
LRGPHKADSIQGTARTLSPVLESPRDLQFSEIRETSKVNWMPPPSRADSFKVSYQLADG  
GEPQSVQVDGQARTQKLQGLIPGARYEVTVVSVRGFESEPLTGFLLTVPDGPQQLRALN  
LTEGFAVLHWKPPQNPVDTYDVQVTAPGAPPLQAETPGSAVDYPLHDLVLHTNYTATVRG  
LRGPNLTSPASITFTTGLEAPRDLEAKEVTPTALLTWTEPPVRPAGYLLSFHTPGGQNQ  
EILLPGGITSHQLLGLFPSTSYNARLQAMWQSLLPVSTSFTTGGLRIPFPRDCGEMQ  
NGAGASRTSTIFLNGNRERPLNVFCDMETDGGGWLVFQRRMDGQTDVFRDWDYAHGFN  
ISGEFWLGNALHSLTQAGDYSMRVLDLRADEAVFAQYDSFHVDSAAEYRHLHLEGYHGT  
AGDSMSYHSGSVFSARDRDPNSLLISCAVSYRGAWWYRNCHYANLNGLYGSTVDHQVSW  
YHWKGFVSVFPFTEMKLRPRNFRSPAGGG

>P54274

MAEDVSSAAPSRRCADGRDADPTEEQMAETERNDEEQFECQELLECCVQVGAPEEEEEEE  
EEDAGLVAEAEVAAGWMLDFLCLSLCRAFRDGRSEDFRTRNSAEAI IHGLSSLTACQL  
RTIYICQFLTRIAAGKTLDAQFENDERITPLESALMIWGSIEKEHDKLHEEIQNLIKIQA  
IAVCMENGNFKEAEVFERIFGDPNSHMPFKSKLLMIISQKDTFHSFFQHFSYNHMEKI  
KSYVNYVLSEKSSFTLMAAAKVVESKRTRTITSQDKPSGNDVEMETEANLDTRKSVSDK  
QSAVTESEGTVSLLRSHKNLFLSKLQHGTTQQDLNKKERRVGTTPQSTKKKKESRRATES  
RIPVSKSQPVTPKHRARKRQAWLWEEDKNLRSVGRKYGEGNWSKILLHYKFNNRTSVML  
KDRWRTMKKLLKLISSDSED

>Q15554

MAGGGSSDGSRAAGRRASRSSGRARRGRHEPGLGGPAERGAGEARLEEAVNRWVLKFY  
FHEALRAFGRSRYGDFRQIRDIMQALLVRPLGKEHTVSRLLRVMQCLSRIEEENLDCSF  
DMEAELTPLESAINVLEMIKTEFTLLEAVVESRKLKVEAAVVICIKNKEFEKASKILKK  
HMSKDPTTQKLRNDLLNIREKNLAHPVIQNFSEYTFQKMLRFLESHLDDAEPYLLTMA  
KKALKSESAASSTGKEDKQPAPGPVEKPPREPARQLRNPPTTIGMMLKAAFKTLSGAQD  
SEAAFAKLDQKDLVLPQALPASPAKKNRPRKDENESSAPADGEGGSELQPKNKRMTIS

RLVLEEDSQSTEPSAGLNSSQEAAASAPPSKPTVLNQPLPGEKNPKVVKGKWNSSNGVEEK  
ETWVEEDELQVQVQAAAPDEDSTTNIITKKQKWTVEESEWVKAGVQKYGEGNWAAISKNYPFV  
NRTAVMIKDRWRMTMKRLGMN

>P0ACT4

MARLNRESVIDAAELELLNETGIDGLTTRKLAQKLGIEQPTLYWHVKNKRALLDALAVEIL  
ARHHDYSLPAAGESWQSFLRNNAMSFRRALLRYRDGAKVHLGTRPDEKQYDVTVETQLRFM  
TENGFSLRDGLYAIASVSHFTLGAVLEQQEHTAALTDRPAAPDENLPPLLREALQIMSDS  
DGEQAFHLGLESIRGFVQLTALLQIVGGDKLIIPFC

>Q01664

MEYFMVPTQKVPQLQHFRKTEKEVIGGLCSLANIPLTPETQRDQERRIRREIANSNERRR  
MQSINAGFQSLKTLIPHTDGEKLSKAAIILQQTAEYIFSLEQEKTRLLQONTQLKRFIQEL  
SGSSPKRRRAEDKDEGIGSPDIWEDEKAEDLRREMIELRQQLDKERSVRMMLEEQVRSLE  
AHMYPEKLVIAQVQVQLQQQQEQVRLHHEKLEREQQLRTQLLPPPPAPTHHPTVIVPAP  
PPPPSHHINVVTMGSSVINSVSTSRQNLDTIVQAIQHIEGTQEKQELEEEQRRRAVIVKP  
VRSCPEAPTSDTASDSEASDSDAMDQSREEPSGDGELP

>P27138

MALTIETDVLVVGTPAGASAGALLARYGVRTMLINKYNWTAPTPRAHITNQRTEILRD  
LGLEAEARLYAAPNDLMGENTICASLAGEEFGRIRTWGTDVRRRADIYDECSPTSMCDLPQ  
NYLEPILVKSAAALDCKVRFDETYLGHQDADGVSSRLRDLRDLNGEEFTVRSKYLIGADGA  
NSRVVSDLDLPLEGTMKSGSINLLFEADLDRYVAHRPSVLYWVIQPGSDIGGLGIGVVR  
MVRPWNKWLAIWGYDVEQGPPEISESFARRIVHNLIGDDSVPLKIEGISTWTVNDMYATR  
LQQGRVFCAGDAVHRHPPTNGLGSNTSIQDSFNLAWKIAMVLNGTADESLLDITYTIERAP  
IAKQVVCRAKNSLEDFPIAMALGLPQAKSADEMKSNMARRKEPGPEAQAQRTRLREAIA  
GTNYVYNAHGVEMNQRYDSPAIVADNSPDEVFRDVELYHQASTRPGAPMPHVWVYASGDG  
HRISTKDLCKGKNFTLFTGIGGAAWQAAAAVSRQLGVAVTVRIIGPGQAYEDHYGDFAR  
ISEIIDTGAILVRPDFHVAYRATSLPADAAGDLVSAMRRILGRQSERSSALRVTSRAI

>P02786

MMDQARSASFNSLFGGEP LSYTRFSLARQVDGDNHSHVEMKLAVDDEENADNNTKANVTKPK  
RCSGSICYGTIAVIVFFLIGFMIGYLG YCKGVPEPKTECERLAGTESPVREEPGEDEFPAAR  
RLYWDDLKRKLSEKLDSTDFGTIKLLNENSYPREAGSQKDENLALYVENQFREFKLSK  
VWRDQHFKVIQVKDSAQNSVIVVDKNRGLVYLVENPGGYVAYSKAATVTGKLVHANFGTK  
KDFEDLYTPVNGSIVIVRAGKITFAEKVANAESLNAIGVLIYMDQTKFPIVNAELSFFGH  
AHLGTGDPYTPGFPSFNHTQFPSPRS SGLPNI PVQTI SRAAAEKLFGNMEGDCPSDWKTD  
STCRMVTSESKNVKLTVSNVLKEIKILNIFGVIKGFVEPDHYVVVGAQRDAWGPGAAKSG  
VGTALLLKLQMFSDMVLKDGFPQRSIIFASWSAGDFGSV GATEWLEGYLSSLHLKAFT  
YINLDKAVLGTSNFKVSASPLLYTLIEKTMQNVKHPVTGQFLYQDSNWASKVEKLTLDNA  
AFPFLAYSIGIPAVSFCFCEDTDYPYLGTTMDTYKELIERIPELNKVARAAAEVAGQFVIK  
LTHDVELNLDYERYNSQLLSFVRDLNQYRADIKEMGLSLQWLYSARGDFFRATSRLTTDF  
GNAEKTDRFVMKKNDRVMRVEYHFLSPYVSPKESPFRRHVFWGSGSHTLPALLENLKLK  
QNNGAFNETLFRNQALALATWTIQGAANALSGDVWDIDNEF

>Q9UP52

MERLWGLFQRAQQLSPRSSQTVYQRVEGPRKGHLEEEEEEEDGEEGAETLAHFCEMELRGPE  
PLGSRPRQPNLIPWAAAGRRAAPYLVL TALLIFTGAFLLGYVAFRGSCQACGDSVLVSE  
DVNYEPDLDFHQGRLYWSDLQAMFLQFLGEGRLEDTIRQTS LRERVAGSAGMAALTQDIR  
AALSROKLDHVWTDTHYVGLQFPDPAHPNTLHWVDEAGKVGEQLPLEDPDVYCPYSAIGN

VTGELVYAHYGRPEDLQDLRARGVDPVGRLLLLVVRVGVISFAQKVTNAQDFGAQGVLIYPE  
PADFSQDPPKPSLSSQQAVYGHVHLGTGDPYTPGFPSFNQTQFPPVASSGLPSIPAQPIS  
ADIASRLLRKLKGPVAPQEWQGSLLGSPYHLGPGPRLRLVNNHRTSTP INNIFGCIEGR  
SEPDHYVVIGAQRDAWGPGAAKSAVGTAILLELVRTFSSMVSNGFRPRRSLLFISWDGGD  
FGSVGSTEWLEGYLSVLHLKAVVYVSLDNAVLGDDKFHAKTSPLLTSLIESVLKQVDSPN  
HSGQTLYEQVVF TNP SWDAEVIRPLPMDSSAYSFTA FVGVPAVEFSFMEDDQAYPFLHTK  
EDTYENLHKVLQGRLPAVAQAVAQLAGQLLIRLSHDRLLPLDFGRYGDVVRHIGNLNEF  
SGDLKARGLTLQWVYSARGDYIRAAEKLRQEIYSSEERDERLTRMYNVRIMRVEFYFLSQ  
YVSPADSPFRHIFMGRGDHTLGALLDHLRLLRSNSSGTPGATSSSTGFQESRFRRLALLT  
WTLQGAANALSGDVWNIDNNF

>P16176

MEVLWMLLVLLVHLHLSLAMSLSSTCKAVDMEEVRKRRIEAIRGQILSKLKLDKTPDVDSE  
KMTVPSEAIFLYNSTLEVIREKATREEEHVGHQNIQDYAKQVYRFESITELEDHEFKF  
KFNASHVRENVGMNSLLHHAELRMYKKQTDKNMDQRMELFWKYQENGTTHSRYLESKYIT  
PVTDDDEWMSFDVTKTVNEWLKRAEENEQFGLQPACKCPTPQAKDIDIEGFPALRGDLASL  
SSKENTKPYLMITSMIPAERIDTVTSSRKKRGVQGEYCFGNNGPNCCVKPLYINFRKDLGW  
KWIHEPKGYEANYCLGNCPYIWSMDTQYSKVLSLYNQNNPGASISPCCVPDVLEPLPIIY  
YVGR TAKVEQLSNMVVRSNCNS

>Q07257

MHYCVLRTFLLLHLVVALSLSTCSTLDMDQFMRKRIEAIRGQILSKLKLTSPPEDYPEP  
DEVPEVISIYNSTRDLLQEASRRAAAACERERSDEEYAKEVYKIDMPSHFPSETVCPV  
VTTSSGSVGSFCISIQSQVLCGYLDAIPPTFYRPFYFRIVRFDVSTMEKNASNLVKAEFRVF  
RLQNPKARVAEQRIELYQILKSKDLTSTPTQRYIDSKVVKTRAEGEWLSFDVTDVHEWLH  
HKDRNLGFKISLHPCCTFIPSNYIIPNKSQELEARFAGIDGTSTYASGDQKTIKSTRK  
KSSGKTPHLLMLLPSYRLESQQSSRRRKRALDAAYCFRNVDNCCLRPLYIDFKRDLGW  
KWIHEPKGYANANFCAGACPYLWSSDTQHTKVLSLYNTINPEASASPCCVSQDLEPLTILY  
YIGNTPKIEQLSNMIVKSCKCS

>P16047

MKMYAQRALVLLSLLSFATVSLALSSCTTLDLEHIKKRVEAIRGQILSKLRLTSPPEV  
GPAHVYQILALYNSTRELLEEMEEEEKEESCSQENTESEYAKEIHKFDMIQGLPEHNE  
GICPKGVTSNVFRFNVSSAEKNSTNLFRAEFRVLRVNPSSKRSEQRIELEFQILRPDEHI  
AKQRYLSGRNVQTRGSPWLSFDVTDTVREWLLHRESNLGLEISIHCPCHTFQPNGDILE  
NLHEVLEIKFKGIDSEDDYGRGDLGRLKKQKDLHNPHLILMMLPPHRLESPTLGGQRKKR  
ALDTNYCFRNLEENCCVRPLYIELPTDLGWKWVHEPKGYFANFCGPCPYLRSADTTHST  
VLGLYNTLNPEASASPCCVQDLEPLTILYVGRTPKVEQLSNMVVKSCKCS

>Q04513

MSETYVSEKSPGVMASGAELIRAADIQTAQARISSVIAPTPLQYCPRLSEETGAEIYLKR  
EDLQDVRYSYKIRGALNSGAQLTQEQRDAGIVAASAGNHAQGVAYVCKSLGVQGRIVVPVQ  
TPKQKRDRIMVHGGEFVSLVVTGMNFDEASAAAHEDAERTGATLIEPFDARNTVIGQGTV  
AAEILSQLTSMGKSADHVMVPVGGGGLLAGVVSYMADMAPRTAIVGIEPAGAASMQAALH  
NGGPITLETVDPFVDGAAVKRVGDLNYTIVEKNQGRVHMMSATEGAVCTEMLDLYQNEGI  
IAEPAGALSIAGLKEMSFAPGSVVVCIISGGNNDVLRVYAEIAERSLVHRGLKHYFLVNF  
QKPGQLRHFLEDILGPDDITLFEYLRNNRETGTALVGIHLSEASGLDSLLEERMEESAI  
DSRRLPEPGTPEYEYLT

>P04968

MADSQPLSGAPEGAEYLRAPVVEAAQVTPLQKMEKLSRRLDNVILVKREDRQPVHS  
FKLRGAYAMMAGLTEEQKAHVITASAGNHAQGVAFSSARLGVKALIVMPTATADIKVDA  
VRGFGGEVLLHGANFDEAKAKAIELSQQGGFTWVPPFDHPMVIAGQGTLLALELLQQDAHL  
DRVFPVPGGGGLAAGVAVLIKQLMPQIKVIAVEAEDSACLKAALDAGHPVDLPRVGLFAE  
GVAVKRIGDETFRLCQEYLLDDIITVDSDAICAAMKDLFEDVRAVAEPSGALALAGMKKYI  
ALHNIRGERLAHILSGANVNFHGLRYVSERCCELGEQREALLAVTIPEEKGSFLKFCQLLQ  
GRSVTEFNRYRFADAKNACIFVGVRLSRGLEERKEILQMLNDGGYSVVLDLSDDEMAKLHVR  
YMGGRPSHPLQERLYSFEFPESPGALLRFLNTLGTIYWNISLHFYRSHGTDYGRVLAAFE  
LGDHEPDFETRLNELGYDCHDETMNPAFRFFLAG

>P25306

MEFLCLAPTRSFSTNPKLTKSIPSDHTSTTSRIFTYQNMARGSTMRLALPLKMSPIVSV  
DITAPVENVPAILPKVVPGELIVNKPTGGDSDELQYLVLDILASPVYDVAIESPLELAEK  
LSDRLGVNFYIKREDKQRFVFSFKLRGAYNMMSNLSREELDKGVITASAGNHAQVALAGQ  
RLNCVAKIVMPTTTPQIKIDAVRALGGDVVLYGKTFDEAQTHALELSEKDGLKYIPPFDD  
PGVIKGGQGTIGTEINRQLKDIHAVFIPVGGGGLIAGVATFFKQIAPNTKIIGVEPYGAAS  
MTLSLHEGHRVKLSNVDTFADGVAVALVGEYTFKACQELIDGMVLVANDGISAAIKDVYD  
EGRNILETSGAVAIAGAAAYCEFYKIKNENIVAIASGANMDFSKLHKVTELAGLGSKEA  
LLATFMVEQQGSFKTFVGLVGLNFTELTYRFTSERKNALILYRVNVDKESDLEKMIEDM  
KSSNMTTLNLSHNELVVDHLKHLVGGSANISDEIFGEFIVPEKAETLKTFLDAFSPRWNI  
TLCRYRNQGDINASLLMGFQVPPQAEMDEFKNQADKLGYPYELDNYNEAFNLVVSE

>P00927

MSATLLKQPLCTVVRQGKQSKVSGLNLLRLKAHLHRQHLSPSLIKHLSELKLDLQTDNT  
PDYVRLVLRSSVYDVINESPISQGVGLSSRLNTNVILKREDLLPVFSFKLRGAYNMIAKL  
DDSQRNQGVIIACSAGNHAQGVAFAAKHLKIPATIVMPVCTPSIKYQNVSRGSGVVLVYGN  
DFDEAKAECAKLAEEERGLTNIIPFDHPYVIAGQGTVAMEILRQVRTANKIGAVFVPVGGG  
GLIAGIGAYLKRVAHIKIIGVETYDAATLHNSLQRNQRTPLPVVGTFADGTSVRMIGEE  
TFRVAQQVVDEVVLVNTDEICAAVKDIFEDTRSIVEPSGALSVAGMKKYISTVHPEIDHT  
KNTYVPIILSGANMNFDRLRVFSERAVLGEKGVFMLVTLDPVPGAFKMKQKIIHPRSVTE  
FSYRYNEHRHESSEVPKAYIYTSFSVVDREKEIKQVMQQLNALGFEAVDISDNEKAKSH  
GRYLVGGASKVNERIISFEFPERPGALTRFLGGLSDSWNLTLFHYRNHGADIGKVLGAI  
SVPPRENLTQKFLLEDLGYTYHDETDNTVYQKFLKY

>P07464

MNMPMTERIRAGKLFMDCEGLPEKRLRGKTLMYEFNHSHPSVEVEKRESLIKEMFATVGE  
NAWVEPPVYFSYGSNIHIGRNFIYANFNLTIVDDYTVTIGDNVLIAPNVTLVSTGHPVHHE  
LRKNGEMYSFPITIGNNVWIGSHVVINPGVTIGDNSVIGAGSIVTKDIPPNVVAAGVPCR  
VIREINDRDKHYFFKDYKVESSV

>P41835

MVFTKKEVDYSLYLVTDESTMLPPGTTLCSQVEAGLKNVTLVQIREKDIETKNFVAEAL  
VQKICKKYNVPLIINDRIDVAMAIDADGVHVGQDDMPIPMVRKLLGPSKILGWSVGKPS  
VETLAKWGPDMVDYIGVGTLPFTSTKKNPKKSPMGPQGAIAILLDALEEFKATWCRTVIGI  
GLHPDNIQRVLCQCVASNGKRSLDGLISLVSIDMAAPDACAATKRLRGLLDATRYQFVECE  
LNNTFPTTTSIQNVIISQVSNRPLVQHITNKVHQNFGANVTLALGSSPIMSEIESEVSEL  
ARIPNASLLLNTGSVAPIEMLKAAINAYNEVNRPIITFDVPGYSATETRLCLNNTLLTYGQ  
FACIKGNCSEILSLAKLNHMKMGVDSGKTNIDTLVRATQIVAFQYRTVAVCTGEFDC  
VADGTFGGYKLSGTEGITAEDLPCVIEEDGPIPIIMGDITASGCSLGSSTIASFIGGLDS  
TGKLFDAVVGAVLLYKSAGKLASTRCQSGSGSFHVELIDALYQLFHENKPEKWSASLKKFK

>P35202

MSEECIENPERIKIGTDLINIRNKMNLKELIHPNEDENSTLLIILNQKIDIPRPLFYKIWK  
LHDLKVCADGAANRLYDYLDDETLRIKYLPNYIIGDLDSLSEKVVYKYRKNKVTIIKQT  
TQYSTDFTKCVNLI SLHFNSPEFRSLISNKDNLQSNHGIELEKGIHTLYNTMTESLVFSK  
VTPISLLALGGIGGRFDQTVHSITQLYTLSENASYFKLCYMTPTDLIFLIKKNGTLIEYD  
PQFRNTCIGNCGLLPIGEATLVKETRGLKWDVKNWPTS VVTGRVSSSNRFVGDNCCFIDT  
KDDIILNVEIFVDKLIDFL

>Q9BWD1

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHV  
LAAGCGQNPVRQASVAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSSIVVAGGME  
NMSKAPHLAYLRTGVKIGEMPLTDSILCDGLTDAFHNCHMGITAENVAKKWQVSREDQDK  
VAVLSQNRTEANAQKAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHGSNIEAMSKLKPFLT  
DGTGTVTPANASGINDGAAAVVLMKKSEADKRGLTPLARIVSWSQVGVPEPSIMGIGPIPA  
IKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGC  
RILVTLHLTLERMGRSRGVAALCIGGGMGIAMCVQRE

>P55882

MQRINALTIAGTDPSSGAGIQADLKTFSALGAYGCSVITALVAQNTCGVQSVYRIEPDFV  
AAQLDSVFSVDRIDTTKIGMLAETDIVEAVAERLQRHHVRNVVLDTVMLAKSGDPLLSPS  
AIETLRVRLLPQVSLITPNLPEAAALLDAPHARTEQEMLAQGRALLAMGCEAVLMKGGHL  
EDAQSPDWLFTREGEQRF SAPRVNTKNTHGTGCTLSAALAALRPRHRSWGETVNEAKAWL  
SAALAQADTLEVKGKIGPVHHFHAWW

>Q46948

MSASALVCLAPGSEETEAVTTIDLLVRGGIKVTTASVASDGNLAITCSRGVKLLADAPLV  
EVADGEYDVIVLPGGIKGAECFRDSTLLVETVKQFHRSGRIVAAICAAPATVLPVPHDIFP  
IGNMTGFPTLKDKIPAEQWLDKRVVWDARVKLLTSQGPGT AIDFGLKIIDLLVGREKAHE  
VASQLVMAAGIYNYYE

>P09110

MQRLQVVVLGHLRGPADSGWMPQAAPCLSGAPQASAADV VVHGRRTAICRAGRGGFKDTT  
PDELLSAVMTAVLKDVNLRPEQLGDIVGNVLQPGAGAIMARIAQFLSDIPE'TVPLSTVN  
RQCSSGLQAVASIAGGIRNGSYDIGMACGVESMSLADRGNPGNITSRLMEKEKARDCLIP  
MGITSENVAERFGISREKQDTFALASQQAARAQSKGCFQAEIVPVTTTVHDDKGTKRSI  
TVTQDEGIRPSTTMEGLAKLKPAFKKDGSTTAGNSSQVSDGAAAILLARRSKAEELGLPI  
LGVLRSYAVVGVPPDIMGIGPAYAIPVALQKAGLTVSDVDIFEINEAFASQAAYC'VEKLR  
LPPEKVNPLGGAAVALGHPLGCTGARQVITLLNELKRRGKRAYGVVSMCIGTGMGAAAVFE  
YPGN

>Q05493

MDRLNNLATQLEQNPAKGLDAITSKNPDDVVITAAAYRTAHTKGGKGLFKDTSSSELLASL  
LEGLVKESKIDPKLIGDVVCGNVLAAGAGATEHRAACL'VAGIPE'TVPFVALNRQCSSGLM  
AVNDVANKIRAGQIDIGIGCGVESMSNQYGPNSVTPF'SNKFQNNEEAKKCLIPMGITSEN  
VAAKYNVSRKAQDAFAAKSYEKAAAAQAAGKFDQEILP'IKT'TVLD'DDDNEKEVTVNKDDG  
IRPGVTAEKLGKLPKPAFSAEGTTHAGNASQISDGAGAVLLMRRSVAEKL'GQPI'LLAKFVHC  
KTVGVPPPELMGIGPAYAIPAVLEDLGLTVNDVDVFEINEAFASQALF'SIQHCGIDESKVN  
PRGGAI'AI'GHPLGATGARQFATLLSELKESGKKVGV'TSMCIGTGMGAASLVVAE

>P27796

MSQRLQSIKDHLVESAMGKGESKRKNSLLEKRPEDVVIVAANRSAIGKGFKGAFKDVNTD  
YLLYNFLNEFIGRFPEPLRADLNLIIEEVACGNVLNVGAGATEHRAACLASGIPYSTPFVA  
LNRQCSSGLTAVNDIANKIKVGQIDIGLALGVESMTNNYKNVNPLGMISSEELQKNREAK  
KCLIPMGITNENVAANFKISRKDQDEFAANSYQKAYKAKNEGLFEDEILPIKLPDGSICQ  
SDEGPRPNVTAESLSSIRPAFIKDRGTTTASNASQVSDGVAGVLLARRSVANQLNLPVLG  
RYIDFQTVGVPPEIMGVGPAYAI PKVLEATGLQVQDIDIFEINEAFAAQALYCIHKLGLID  
LNKVNPRGGAIALGHPLGCTGARQVATILRELKDKQIGVSMCIGTGMGAAAIFIKE

>P45369

MSENIVIVDAGRSAIGTFGGSLSSLSATEIGTAVLKGLLARTGLAPEQIDEVILGQVLT  
GVGQNPARTTTLHAGLPHSVPAMTINKVCGSGLKAVHLAMQAIACGDADIVIAGGQESMS  
QSSHVLP RSRDGRMGDWSMKDTMIVDGLWDAFNMYHMGTTAENIAQKYGFTREQQDAFA  
AASQOKTEAAQKAGRFQDEIIP I EIPQRKGD PKVFDAD EFP RHGTTAESLGKLRPAFSK  
GSVTAGNASGINDGAAMVVVMKESKAKELGLKPMARLVAFASAGVDPAIMGTGPI PASTK  
CLEKAGWTPADLDLIEANEAFAAQAMSVNQDMGWDL SKVNVNGGAI AIGHPIGASGARVL  
VTLLEYEMQKRDAKKGLATLCIGGGQGV ALAVERM

>P24752

MAVLAALLRSGARSRSPLLRRLVQEIRYVERSIVSKPTLKEVVIVSATRTPIGSFLGSL  
LLPATKLGSI A IQGAI EKAGIPKEEVKEAYMGNVLQGGEGQAPTRQAVLGAGLP ISTPCT  
TINKVCASGMKAIMMASQSLMCGHQDVMVAGGMESMSNVPYVMNRGSTPYGGVKLEDLIV  
KDGLTDVYNKIHMGSCAENTAKKLN I ARNEQDAYA INSYTRSKAAWEAGKFGNEVIPVTV  
TVKGQPDVVVKEDEEYKRVDFSKVPKLT V FQKENGTVTAANASTLNDGAAALV LMTADA  
AKRLNVTPLARIVAFADAAVEPIDFP I APVYAASMV LKDVGLKKEDIAMWEVNEAFSLVV  
LANIKMLEIDPQKVNINGGAVSLGHP I GMSGARIVGHLTHALKQGEYGLASICNGGGGAS  
AMLIQKL

>P39593

MDAQSAAKCLTAVRRHSPLVHSITNNVVTNFTANGLLALGASPMAYAKEEVADMAKIAG  
ALVNLNIGTLSKESVEAMI IAGKSANEHGVPVILDPVGAGATPFRTESARDI IREVRLAAI  
RGNAEIAHTVGVTDWLIKGV DAGEGGDI IRLAQQAQKLN TVIAITGEVDVIADTSHV  
YTLHNGHKLLTKVTGAGCLLTSVVGAFCAVEENPLFAAIAA I SSYGVAQLAAQQTADKG  
PGSFQIELLNKLS TVTEQDVQEWATIERTVS

>P42765

MALLRGVFVVAAKRTPFGAYGGLLKDF TATDLSEFAAKAALSAGKVSPE TVD SVIMGNVL  
QSSSDAIYLARHVGLRVGIPKETPAL T INRLCGSGFQSIVNGCQEICVKEAEVVL CGGTE  
SMSQAPYCVRNVRFGTKLGS DIKLED SLVWSLTDQH VQLP MAMTAENLAVKHKI SREED  
KYALQSQRWKAANDAGYFNDEMAPIEVKTKKGKQTMQVDEHARPQT TLEQLQKLPVFK  
KDGTVTAGNASGVADGAGAVI IASEDAVKKHNF TPLARIVGYFVSGCDPSIMGIGVPAI  
SGALKKAGLSLKDMDLVEVNEAFAPQYLAVERSLDDL DI SKTNVNGGAI ALGHPLGGSGSR  
ITAHLVHELRRRGKYAVGSACIGGGQGI AVI IQSTA

>P21742

MGSKGLKGMVCLL I I LGLVLEHVQVEGKSCCRSTLGRNCYNLCRVRGAQKLCANACRCKL  
TSGLKCPSSFPK LALVNSNDEPDTIDYCNLGC RASMCDYMVNAAADDEEMKLYVEHCSDA  
CVNFCNGDVGLTSLTA

>P01267

MALALWVFGLLDLICLASANIFEYQVDAQPLRPECLEQRERAFKREDYVPQCAEDGSFQT  
VQCGKDGASCWCVDADGREVPGSRQPGRPAACL SFCQLKQKQILLSSYINSTATS YLPQC  
QDSGDYSPVQCDLRRRQCWCVDAEGMEVYGTROQGRPARCPRSC EIRNRLLHGVGDRSP  
PQCSPDGAFRPVQCKLVNTTDMMIFDLVHSYSRFPDAFVTFSSFRSRFPPEVSGYCYCADS  
QGRELAETGLELLLLDEIYDTIFAGL DLASTFAETTL YRILQRRFLAVQLVISGRFRCPTK  
CEVERFAATSFRHPYVPSCHPDGEYQAAQCQGGPCWCVDSRGQEIPGTRQRGEPPSCAE  
DQSCPSERRRAF SRLRFGPSGYFSRRSLLLAP EEGPVSQRFARFTASCPPSIKELFLDSG  
IFQPMLQGRDTRFVAPESLKEAIRGLFPSRELARLALQFTTNAKRLQQLNLF GGRFLVKVG  
QFNLSGALGTRGTFFNF SHFFQQLGLPGFQDGRALADLAKPLSVGLNSNPASEAPKASKID  
VALRKPVVGSFGFEVNLQENQNALQFLSSFLELPEFLFLQHAISVPEDIARDLGDV MEM  
VFSSQCGQAPGSLFVPACTAEGSYEEVQCFAGDCWCVDAQGRELAGSRVRGGRPRCPTE  
CEKQRARMQSLLGSQPAGSSLFVPACTSKGNFLPVQCFNSECYCVDTEGQPIPGTR SALG  
EPKKCPSPCQLQAERAFLGTVRTLVSNPSTLPALSS IYIPQCSASGQWSPVQCDGPPEQA  
FEWYERWEA QNSAGQALTPAELLMKIMSYREAASRNFR LFIQNLYEAGQQGIFPGLARYS  
SFQDVPVSVLEGNQTQPGGNVFLPEPYLFWQILNGQLDRYPGPYSDF SAPLAHF DLRSWC  
VDEAGQKLEGRNEPNKVPACPGSC EEVKLRVLQFIREAEEIVTYSNSSRFP LGESFLAA  
KGIRLTDEELAF PPLSPSRETTFLEKFLSGSDYAIRLAAQSTFD FYQRRLVTLAESPRAPS  
PVWSSAYLPQCDAFGGWEPVQCHAATGHCWCVDGKGEYVPTSLTARSRQIPQCPTSCERL  
RASGLSSWKQAGVQAEPSPKDLFIPTCLETGEFARLQASEAGTWCVDPASGEGVPPGTN  
SSAQCPSLCEVLQSGVPSRRTSPGYSPACRAEDGGFSPVQCDPAQGSCWCVLGSGEEVPG  
TRVAGSQPACESPQCPLPFSVADVAGGAILCERASGLGAAAGQRCQLRCSQGYRSAFPPE  
PLLCSVQRRRWE SRPPQPRACQRPQFWQTLQTQAQFQ LLLPLGKVC SADYSGLLLAFQVF  
LLDEL TARGFCQIQVKTAGTPVSI PVCDSSVKVECLSRERLGVNITWKLQLVDAPPASL  
PDLQDVEEALAGKYLAGRFADLIQSGTFQLHLDSKTF SADT SIRFLQGD RFGTSPRTQFG  
CLEGFGRVVAASDASQDALGCVKCEPGSYFQDEQCIPCPAGFYQE QAGSLACVPCPEGRT  
TVYAGAFSQTHCVTDCQKNEVGLQCDQDSQYRASQRDR TSGKAF CVDGEGRRLPWTEAEA  
PLVDAQCLVMRKFEKLPESKVI FSADVAVMVRSEVP GSESSLMQCLADCALDEACGFLTV  
STAGSEVSCDFYAWASDSIAC TTSGRSEDALGTSQATSFGSLQCQVKVRSREGDPLAVYL  
KKGQEFTITGQKRFEQTGFQSALSGMYSPTVFSAS GASLAEVHLFCLLACDHDS CCDGFI  
LVQVQGGPLL CGLLSSPDVLLCHVRDWRDPAEAQANASC PGVTYDQDSRQVTLRLGGQE I  
RGLTPLEGTQDTLTSFQQVYLWKDS DMGSRSESMGCRRDTEPRPASPSETDLTTGLFSPV  
DLIQVIVDGNVSLPSQQHWF LFKHLFSLQQANLWCLSRCAGEPSFCQLAEVTDSEPLYFTC  
TLYPEAQVCD DILESSPKGCR LILPRRPSALYRKKVVLQDRVKNFYNR LPPFQKLTGISIR  
NKVPMSDKS ISSGFFECERLCDMDPCCTGF GFLNVSQLKGGEVTCLTLNSLGLQTCSE EY  
GGVWRILDCGSPDTEVRTY PFGWYQKPVSPSDAPSFCPSVALPALTENVALDSWQSLALS  
SVIVDPSIRNFDVAHI STAAVGNFSAARDRCLWECSRHQDCLVTTLQTQPGAVRCMFYAD  
TQSC THSLQAQNCRLLLHEEATYIYRKPNIPLPGFGTSSPSVPIATHGQLLGRSQAIQVG  
TSWKPV DQFLGV PYAAPPLGEKRFRAPEHLNWTGSWEATKPRARCWQPGIRTPTPPGVSE  
DCLYLN VFVPQNM APNASVLVFFHNAAEGKGS GDRPAVDGSFLAAVGNLIVVTAS YRTGI  
FGFLSSGSSEL SGNWGLLDQVVALTWVQTHIQAFGGDPRRVTLAADRGGADIASIHLVTT  
RAANSRLFRRAVLMGGSALSPA AVIRPERARQQAALAKEVGC PSSSVQEMVSLRQEP A  
RILNDAQTKLLAVSGPFHYWGPVVDGQYLRETPARV LQRAPRVKVDLLIGSSQDDGLINR  
AKAVKQFEESQGR TSSKTA FYQALQNSLGG EAADAGVQAAATWYYSLEHDSDDYASF SRA  
LEQATR DYFII CPVIDMASHWARTVRGNV FMYHAPESYSHSLELLTDVLYAFGLPFYPA  
YEQFTLEEKSLSLKIMQYFSNFIRSGNPNYPHEFSRRAPEFAAPWPDFVPRDGAESYKE  
LSVLLPNRQGLKKADCSFWSKYIQSLKASADETKDGPSADSE EEDQPAGSGLTEDLLGLP  
ELASKTYSK

>O26061

MEVICKHYTPLDIASQAIRTCWQSFEYSDDGGCKDKELIHRVGNIFRHSSTLEHLYYNFE



IKGLSRGALQELSRHRIASLSVKSSRYTLRELKEVESFLPLNETNLERAKEFLVFDNEK  
VNAMSVLALLENLRILLSEHNKNDLAKYAMPESYKTHLAYSINARSLQNFLTLRSSNKAL  
KEMQDLAKALFDALPGEHQYLFEDCLKH

>Q9WYT0

MKIDILDKGFVELVDVMGNDLSAVRAARVSFDMGLKDEERDRHLIEYLMKHGHETPFHEHI  
VFTFHVKAPIFVARQWFRHRIASYNELSGRYSKLSYEFYIPSPERLEGYKTTIPPERVTE  
KISEIVDKAYRTYLELIESGVPREVARIVLPLNLYTRFFWTVNARSLMNFNLNRADSHAQ  
WEIQQYALAIARIFKEKCPWTFEAFKLYAYKGDILKEVQV

>Q96CG3

MTSFEDADTEETVTCLQMTVYHPGQLQCGIFQSI SFNREKLPSSSEVVKFGRNSNICHYTF  
QDKQVSRVQFSLQLFKKFNSSVLSFEIKNMSKKTNLIVDSRELGYLNKMDLPYRCMVRFG  
EYQFLMEKEDGESLEFFETQFILSPRSLLOENNWPPHRPIPEYGTYSLCSSQSSSPTEMD  
ENES

>Q9YJQ8

MANEPQEHEEGKPFPPPLGDSGEEGPPNIPQDPTPGTTPPGPINSKNEDYPPPLENPGPNK  
SEGPPDGSNGSSPPVTMLVKNNDRTKQDVSESGMNSAPNSVESKHTSSSSSAGNGNET  
KCPDEQNTQECITTIYIPWEDAKPKLMGLVKLDSSEERSPFNKYPKNYKCLRVDMGE  
NWPPGIPPPQLPPRPANLGQKQSATSKNGPQIILREATEVESQQATDGQLNHRVEKVEKK  
LTCVICLLIGILVLLILLFMLGFLFLMK

>P23254

MTQFTDIDKLAVSTIRILAVDTVSKANS GHPGAPLGMAPAHLVLSQMRMNP TNPDWINR  
DRFVLSNGHAVALLYSMLHLTG YDLSIEDLKQFRQLGSRTPGHPEFELPGVEVTG PLGQ  
GISNAVGMAMAQANLAATYNKPGFTLSDNYTYVFLGDGCLQEGISSEASSLAGHLKLGNL  
IAIYDDNKITIDGATSISFDEDVAKRYEAYGWEVLYVENGNEDLAGIAKAIQA KLSKDK  
PTLIKMTTTTIGYGLHAGSHSVHGAPLKADDVKQLKSKFGFNPDKSFVVPQEVYDHYQKT  
ILKPGVEANNKWNKLFSEYQKKFPELGAELARRLSGQLPANWESKLP TYTAKDSAVATRK  
LSETVLEDVYNQLPELIGGSADLTPSNLTRWKEALDFQPPSSGSGNYSGRYIRYGIREHA  
MGAIMNGISAFGANYKPYGGTFLNFVSYAAGAVRLSALS GHPIVWATHDSIGVGEDGPT  
HQPIETLAHFRSLPNIQVWRPADGNEVSAAYKNSLESKHTPSIIALS RQNL PQLEGSSIE  
SASKGGYVLQDVANPDIILVATGSEVSLSV EAAKTLAAKNIKARVVS LPDFFTFDKQPLE  
YRLSVLPDNPIMSVEVLATTCWGKYAHQSFGIDRFGASGKAPEVFKFFGFTPEGVAERA  
QKTIAFYKGDKLISPLKCAF

>P29401

MESYHKPDQKQLQALKDTANRLRISSIQATTAAGSGHPTSCCSAAEIMAVLFFHTMRYS  
QDPRNPHNDRFVLSKGHAAPILYAVWAEAGFLAEAE LLNLRKISSDLDGHPVPKQAF TDV  
ATGSLGQGLGAACGMAYTGKYFDKASYRVYCLLDGDELSEGSVWEAMAFASIYKLDNLVA  
ILDINRLGQSDPAPLQHQMIDIYQKRCEAFGWHAIIVDGHSVEELCKAFGQAKHQPTAIIA  
KTFKGRGITGVEDKESWHGKPLPKNMAEQIIQEIYSQIQSKKKILATPPQEDAPSVDIAN  
IRMPSLPSYKVGDKIATR KAYGQALAKLGHASDRIIALDGD TKNSTFSEIFKKEHPDRFI  
ECYIAEQNMVSI AVGCATRNRTPFCSTFAAFFTRAFDQIRMAAISESNINLCGSHCGVS  
IGEDGPSQMALEDLAMFRSVPTSTVFYPSDGVATEKAVELAANTKGICFIRTSR PENAI I  
YNNNEDFQVGQAKVVLKSKDDQVTVIGAGVTLHEALAAAELLKKEKINIRVLDPFTIKPL  
DRKILDSARATKGRILTVEDHYEYEGGIGEAVSSAVVGEPI TVTHLAVNRVPRSGKPAE  
LLKMFIDRDAIAQAVRGLITKA

>O20250

MAASSSLSTLSSHQTLSSHPKTHLPPTTPASSLLVPTTSSKVNGLLSTSSRRRLRVGSA  
SAVVRAAAVEALESTDIDQLVEKSVNTIRFLAIDAVEKANSHPGLPMGCAPMGHILYDE  
IMRYNPKNPYWFNRDRFVLSAGHGCMLQYALLHLAGYDSVLEEDLKTFRQWGSRI PGHPE  
NFETPGVEVTTGPLGQGIANAVGLALAEKHLAARFNKPD AEIVDHYTYVILGDGCQMEGI  
AQEACSLAGHWGLGKLI AFYDDNHISIDGDTAIAFTESVDLRFEALGWHVIWVKNNGTGY  
DEIRAAIKEAKTVTDKPTLIKVTTTTIGFGSPNKSNSYSVHGSALGSKEVEATRQNLGWPY  
EPFHVPEEVKHHWSRHTPEGASLEAEWNTKFAEYKYPEDATEFKSITTGEPFAGWEKA  
LPTYTPETPGDATRNLSQOCLNALAKVIPGLLGGADLASSNMTLLKMF GDFRRTHRKKE  
TFRFGVREHGMGAICNGICLHSPGFVPYCATFFVFTDYMRGAMRISALSEAGVIYVMTHD  
SIGLGEDGPTHQPIEALS KFPAMPNILMLRPADGNETAGSYKVAVENRKTPSILALS RKK  
LPNLPGTSIEGVEKGGYTTITDNSSGNKPDVILIGTGSELEIAAKAGDEL RKEGKAVRVVS  
FVSWELFEKQSDEYKESVLPDVTARVSI EAGSTFGWHKIVGSKGKAIGIDKFGASAPAG  
KIYQEYGITVEAVVEAAK SVC

>A5A6S6

MELLSALS LGELALSFSRVPLFPVFDLSYFIVSILYLKYEPGAVELSRRH PVASWLCAML  
HCFGSYILADLLLGEPLIDYFSMNSSILLASAVWYLIFFCPLDLFYKCVCF LPVKLIFVA  
MKEVVRVKIAVGIHHAHHHYHHGWFIM IATGWVKGSGVALLSNVEQLLRGVWK PETNEI  
LHMSFPTKASLYGAILFTLQQTRWLPVSKASLIFIFTMFMV SCKVFLTATHSHSSPFDVL  
EAYVCPVLFGTGSGGDHPQDNHGAWPGPPSGALATKSKEELSEGS RKKKTKKAD

>Q91ZW6

MWYHKLLHQQSRLQNL MKRGDIAHGLRLSGFKSLFPFSLHWCHTASKSVNCTWHQHEDHL  
ELQYASTVMRFDYVWLRDHCRSASCYNSKTHQRSLDTASVDLCIKPKTIRLDESTLFFTW  
PDGHVTRYDLDLWLVKNSYEGQKQEV IQPRVLWNAKLYQDAQLPSVDFQGFLETKEGLK KF  
LQNFLLYGI AFVENVPPTQEHETEKLARRVSLIRETIYGRMWFYF TSDFSRGDTAYTKLALD  
RHTDTTYFQEP CGIQVFHCLKHEGTGGRTLLVDGFYAAQQVLQRAPEEFDL LSQVPLKHE  
YIENVGQCHNHMIGVGPILNIYPWNKELYLIRYNNYDRAVIN TVPYDVVRRWYAAHRTL T  
TELRRPENELWVKLKP GKVLFDINWRVLHGRESFTGYRQLCGCYLTRDDV LNTARILGLH  
A

>Q9ESG4

MLWALFFLVTTIHAELCHPDAENAFKVRLSIRAALGDKAYVWDTDQEYLF RAMVAFSMRK  
VPNREATEISHVLLCNITQRVSFWFVVTDP SNNYTLPAAEVQSAIRKNRNRINSAFFLDD  
HTLEFLKIPSTLAPPEPSVPVWII VFGVIFCIVTVAIALLVLSGIRQRRRNK GPPGVE  
DAEDKCENIITIENGIPCDPLDMKGGHINDGFLTE DERLTPL

>Q9Y275

MDDSTEREQSRLT SCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC  
LTVVSFYQVAALQGD LASLRAELQGHHA EKLPAGAGAPKAGLEEAPAVTAGLKI FEPPAP  
GEGNSSQNSRNKRAVQGP EETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL EE  
KENKILVKETGYFFIYQVLYTDKTYAMGH LIQRKKVHVFGDEL SLVTLFRCIQNPETL  
PNNSCYSAGIAKLEEGDELQ LAIPRENAQISLDGDVTFFGALKLL

>Q9WU72

MDESAKTLPPPCLFCSEKGEDMKVGYDPI TPQKEEGAWFGICRDGRLLAATLLLALLSS  
SFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAA GAPELTAGVKLLTPAAPRPHNSSR  
GHRNRRAFQGP EETEQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNIIQDCLQLIADSDTP  
TIRKGTYTFVPWLLSFKRGNAL EEEKENKIVVRQTGYFFIYSQVLYTDP IFAMGHVIQRKK

VHVFGDELSLVTLFRCIQNMPKTLPNNSCYSAGIARLEEGDEIQLAIPRENAQISRNGDD  
TFFGALKLL

>P31015

MPKGEFPFKIKMVEPIRLIPREDREAAIKAAHYNPFLLRSSDVYIDLLTDSGTGAMSQFQW  
SAMMLGDESYAGASSYRLKEAVTDITGYEYVLPPTHQGRGAEKSAFAQLITRPGMYVLSN  
MFFDTRRGHVQLAGGRPIDLDDVPTEEYHPFKGNMDTARLEAFIQEHGAENIACIVMTV  
TNNAGGQPVSMANIRETSRIARKYGILLDFDVARYAENCHFIRMREEGYADKAPIDIAR  
EMFSYDGLMMSAKKDALVNIIGLLAFKDEELYTRVGGTVVPFEGFLTYGGLAGRDLEAM  
AVGLREALDPDYLAYRVGQVEYLGNNLRSAGIPIQWPVGGHAVFIDAAKFLPHIPWDQFP  
GHALTVALYQEGGVRTVEVGLVMGRDPETGENVRSPFEFTRLAIPRRVYTNLHLEDVAE  
TVINAFQKREQIRGVKFTREPVLRRHFTAHFDLV

>P0A853

MENFKHLPEPFRIRVIEPVKRTTRAYREEAIKSGMNPFLLDSEDFIDLLTDSGTGAVT  
QSMQAAMMRGDEAYSGRSYALAESVKNIIFYQYTIPTHQGRGAEQIYIPVLIKKREQE  
KGLDRSKMVAFSNYFFDTTQGHSQINGCTVRNVYIKEAFDTGVRDYDFKGNFDLEGLERGI  
EEVGNPNVPIVATITSNAGGQPVSLANLKAMYSIAKKYDIPVVMDSARFAENAYFIKQ  
REAEYKDWITIEQITRETYKYADMLAMSAKKDAMVPMGGLCMKDDSFVDVYTECRTLCVV  
QEGFPTYGGLLEGGAMERLAVGLYDGMNLDWLAYRIAQVQYLVLDGLEEIGVVCQQAGGHAA  
FVDAGKLLPHIPADQFPAQALACELYKVAGIRAVEIGSFLLGRDPKTGKQLPCPAELLRL  
TIPRATYTTQTHMDFIEAFKHVKENAANIKGLTFTYEPKVLRRHFTAHLKEV

>P28796

MAKRIVEPFRIKMVEKIRVPSREEREAAALKEAGYNPFLLPSSAVYIDLLTDSGTNAMS  
QWAAMITGDEAYAGSRNYDLKDKAKELFNVDYIIPAHQGRGAENILFPVLLKYKQKEGK  
AKNPVFI SNHFHDTTAAHVELNGCKAINIVTEKAFDSETYDDWKGFDIKKLKENIAQHG  
ADNIVAIVSTVTCNSAGGQPVSMNLKEVYIEIAKQHGI FVVMDSARFCENAYFIKARDPK  
YKNATIKEVIFDMYKYADALTMSAKKDPLLNIIGLVAIRDNEEIFTLARQRCVPMEGFVT  
YGGLAGRDMAAMVQGLEEGTEEEYLYHRIGQVKYLGDRLEAGIPIQYPTGGHAVFVDC  
KLVPQIPGDQFPAQAVINALYLESGVRAVEIGSFLLGRDPATGEQKHADMEFMRLTIARR  
VYTNDHMDYIADALIGLKEKFATLKGLEFEYEPVLRHFTAHLKPIE

>P21580

MAEQVLPQALYLSNMRKAVKIRERTPEDIFKPTNGI IHHFKTMHRYTLEMFRTCQFCPQF  
REI I HKALIDRNIQATLESQKKLNWCREVRKLVALKTNGDGNCLMHATSQYMWGVQDIDL  
VLRKALFSTLKETDTRNFKFRWQLESLSKSQEFVETGLCYDTRNWNDEWDNLIKMASTDP  
MARSGLQYNSLEEIHIFVLCNILRRPI I V I S D K M L R S L E S G S N F A P L K V G G I Y L P L H W P A  
QECYRYP I V L G Y D S H H F V P L V T L K D S G P E I R A V P L V N R D R G R F E D L K V H F L T D P E N E M K E  
KLLKEYLMVIEIPVQGDHGTTHLINA AKLDEANLPKEINLVDDYFELVQHEYYKKWQENS  
EQGRREGHAQNPMEPSVPLSLMDVKCETPNCPFFMSVNTQPLCHECSERRQKNQNKLPK  
LNSKPGPEGLPGMALGASRGEAYEPLAWNPEESTGGPHSAPPTAPSPFLFSETTAMKCRS  
PGCFPTLNQHNFCERCHNARQLHASHAPDHRHLDPGKQACLQDVTRTFNGICSTCF  
KRTTAEASSSLSTSLPPSCHQRSKSDPSRLVRSPPHSCHRAGNDAPAGCLSQAARTPGD  
RTGTSKCRKAGCVYFGTPENKGFCTLCFIEYRENKHFAAASGKVSPASRFQNTIPCLGR  
ECGTLGSTMFEGYCQKCFIEAQNRQFHEAKRTEEQLRSSQRRDVPRTTQSTSRPKCARAS  
CKNILACRSEELCMECQHPNQRMGPGAHRGEPAPEDPPKQRCRAPACDHFGNAKCNNGYCN  
ECFQFKQMYG

>O35235

MRRASRDYGKYLRSSSEEMSGPGVPHEGPLHPAPSAPAPAPPPAASRSMFLALLGLGLGQ  
VVCSIALFLYFRAQMDPNRI SEDSTHCFYRILRLHENAGLQDSTLESEDTLPDSCRMMKQ  
AFQGA VQKELQHIVGPQRFS GAPAMMEGSWLDVAQRGKPEAQPF AHLTINAASIPSGSHK  
VTLSSWYHDRGWAKISNM TLSNGKLRVNQDGFYLYANICFRHHETS GSVPTDY LQLMVY  
VVKTSIKIPSSHNL MKGGSTKNWSGNSEFHFYSINVGGFFKLRAGEEISIQVSNP SLLDP  
DQDATYFGAFKVQDID

>O43557

MEESVVRPSV FVVDGQTDIPFTRLGRSHRRQSCSVARVGLGLLLLLMGAGLAVQGWFLLO  
LHWRLGEMVTRLPDGPAGSWEQLIQERRSHEVNPA AHLTGANS SLTGS GGPLLWETQLGL  
AFLRGLSYHDGALVVTKAGYYYIYSKVQLGGVGCPLGLASTITHGLYKRTPRYPEELELL  
VSQQSPCGRATSSSRVWWDSSFLGGVVHLEAGEEVVVRVLDERLVRRLRDGTRSYFGAFMV

>P06804

MSTESMIRDVELAEALPQKMGGFQNSRRCLCLSLFSFLLVAGATTLC LLNFGVIGPQR  
DEKFPNGLPLISSMAQTLTRSSSQNSSDKPVAHV VANHQVEEQLEWLSQRANALLANGM  
DLKDNQLVVPADGLYLVSQVLFKQGQCPDYVLLTHTVSRFAISYQEKVNLLSAVKSPCP  
KDTPEGAELKPWYEP IYLGGVFQLEKGDQLSAEVNLPKYLDFAESGQVYFGVIAL

>Q93038

MEQRPRGCAAVAAALLLVLLGARAQGGTRSPRCD CAGDFHKKIGLFCCRGCPAGHYLKAP  
CTEPCGNSTCLVCPQD TFLAWENHHNSECARCQACDEQASQVALENC SAVADTRCGCKPG  
WFVEQCVSQC VSSSPFYCQPCLD CGALHRHTRLLCSRRD TDCGTCLPGFYE HGDGCVSCP  
TSTLGSCPERCAAVCGWRQMFVWVQLLAGLVVPLL LGATLT YTYRHCWPHKPLVTADEAG  
MEALTPPPATHLSPLDSAHTLLAPPDSSEKICTVQLVGN SWTPGYPETQEALCPQVTWSW  
DQLPSRALGPAAAP TLPESPAGSPAMMLQPGPQLYDVM DAVPARRWKEFVRTLGLREAE  
IEAVEVEIGRFRDQQYEM LKRWRQQQPAGLGAVYAALERMGLDGCVEDLRSRLQRGP

>Q45666

MTTEDHSYKDKKVISIGIVSEL TGLSVRQIRYYEERKLIYPQRSSRGTRKYSFADVERLM  
DIANKREDGVQTAEILKDMRKKEQMLKNDPQVRKKMLEGQLNAHFRYKNR

>P02930

MKKLLPILIGLSL SGFSSLSQAENLMQVYQQARLSNPELRKSAADRDAAFEKINEARSPL  
LPQLGLGADYTYSN GYRDANGINSNATSASLQLTQSIFDMSKWRALTLQEKAAGIQDVTY  
QTDQQTILINTATAYFNVLNAIDVLSYTAQKEAIYRQLDQTTQRFNVGLVAITDVQNR  
AQYDTVLANEVTARNNDNAVEQLRQITGNYYPELAALNVENFKTDKQPVNALLKEAEK  
RNL SLLQARLSQDLAREQIRQAQDGHLP TLDLTASTGISDTSYSGSKTRGAAGTQYDDSN  
MGQNKVGLSFSLP IYQGGMVNSQVKQAQYNFVGASEQLES AHRSVVQTVRSSFNNINASI  
SSINAYKQAVVSAQSSLDAMEAGYSVGTTRTIVDVLDATTTLYNAKQELANARYNYLINQL  
NIK SALGTLNEQDLLALNNALSKPVSTNPEN VAPQTPEQNAIADGYAPDSPAPVVQQTSA  
RTTTSNGHNPFNRN

>P08953

MSRLKAASELALLV IILQLLQWP GSEASFGRDACSEMSIDGLCQCAPIMSEYEIICPANA  
ENPTFRLLTIQPKDYVQIMCNLTD TTDYQQLPKKLRIGEVD RVQMRRCLMPGHTPIASILD  
YLGIVSPTTLIFESDNLGMNITRQHLDR LHGLKRFRFTTRRLTHIPANLLTDMRNL SHLE  
LRANIEEMP SHLFDDLENLESIEFGSNKLRQM PRGIFGKMPK LKQLNLWSNQLHNLTKHD  
FEGATSVLGIDIH DNGIEQLPHDVF AHLT NVTDINLSANLFRSLPQGLFDHNKHLNEVRL  
MNNRVPLATLPSRLFANQPELQILRLRAELQSLPGDLFEHSTQITNISLGDNLLKTLPAT

LLEHQVNLLSLDLSNNRLTHLPDSLFAHTTNLTDLRLEDNLLTGISGDIFSNLGNLVTLV  
MSRNRLRTIDSRAFVSTNGLRHLHLHDHNDIDLQQPLLDIMLQTQINSPFGYMHGLLTLNL  
RNNSIIFVYNDWKNTMLQLRELDLSYNNISSLGYEDLAFLSQNRHLVNMTHNKIRRIALP  
EDVHLGEGYNNNLVHVDLNDNPLVCDCTILWFIQLVRGVHKKPQYSRQFKLRTDRLVCSQP  
NVLEGTTPVRQIEPQTLICPLDFSDDRERKCPKRCNCHVRYDKALVINCHSGNLTHVPR  
LPNLHKNMQLMELHLENNTLLRLPSANTPGYESVTSLHLAGNNLTSIDVDQLPTNLTHLD  
ISWNHLQMLNATVLFGLNRTMKWRSVKLSGNPWCDCCTAKPLLLFTQDNFERIGDRNEMM  
CVNAEMPTRMVELSTNDICPAEKGVFIALAVVIALTGLLAGFTAALYYKFQTEIKIWLYA  
HNLLLWFVTEEDLDKDKKFDAFISYSHKDQSFIEDYLVPQLEHGPQKFQLCVHERDWLVG  
GHIPENIMRSVADSRRTIIVLSQNFIKSEWARLEFRAAHRSALENEGRSRIIVIIYSDIGD  
VEKLDEELKAYLKMNTYKLGWDPWFWDKLRFALPHRRPVGNIGNGALIKTALKGSTDDKL  
ELIKPSPVTPPLTTPPAEATKNPLVAQLNGVTPHQAIMIANGKNGLTNLYTPNGKSHGNG  
HINGAFIINTNAKQSDV

>P02929

MTLDDLPRRFPWPTLLSVCIHGAVVAGLLYTSVHVQVIELPAPAQPISVTMVT PADLEPPQA  
VQPPPEPVVEPEPEPEPIPEPPKEAPVVIKPKPKPKPKPKPKVKKVQEQPKRDVKPVESR  
PASPFENTAPARLTSSTATAATSKPVTSVASGPRALSRNQPYPARAQALRIEGQVKVKF  
DVTDPGRVDNVQILSAKPANMFEREVKNAMRRWRYEPGKPGSGIVVNILFKINGTTEIQ

>P30182

MATKLPQNSNAANVAKAPAKSRAAAGGKTI EEMYQKKSQLEHILLRPTYIGSIEKHTQ  
TLWVYEKDEMQRPVTVYVPGLYKIFDEILVNAADNKQRDAKMDSVQVVIDVEQNLSVCN  
SGAGVPVEIHQEEGIYVPEMIFGHLLTSSNYDDNVKKTGGRNGYGAKLTNIFSTEFIE  
TADGKRLKKYKQVFENNMGKKSEPVITKCNKSENWTKVTFKPKDLKKNMTELEDDVVALM  
SKRVFDIAGCLGKSVKVELNGKQIPVKSFTDYVDLYLSAANKSRTEDEPLRLTEKVNDRW  
EVCVSLSEGQFQQVSFVNSIATIKGGTHVDYVTSQITNHIVA AVNKKKNANVKAHNKVN  
HLWVFNALIDNPAFDSQTKETLTRQSSFGSKCELSEDFLKKVGVKSGVVENLLSWADFK  
QNKDLKKS DGAKTGRVLVEKLDAAEAGGKNSRLCTLILTEGDSAKSLALAGRSVLGNNY  
CGVFPLRGKLLNVREASTTQITNKEIENLKKILGLKQNMKYENVNSLRYGQMMIMTDQD  
HDGSHIKGLLINFIHSFWPSLLQVPSFLVEFITP IVKATRKGTKKVL SFYSMPEYEEWKE  
SLKGNATGWDIKYKGLGTSTAEEGKEYFSNLGLHKKDFVWEDEQDGEAIELAFSKKIE  
ARKNWLSSYVPGNHLDRQPKVYTSDFVNKELILFSMADLQRSIPSMVDGLKPGQRKILF  
VAFKKIARKEMKVAQLVGYSLLSAYHHGEQSLASAIIGMAQDYVGSNNINLLL PNGQFG  
TRTSGGKDSASARYIFTKLSPVTRILFPKDDDDLLLDYLNEDGQRIEPTWYMPIIPTVLVN  
GAEGIGTGWSTFIPNYNPREIVANVRLLNGESMVPMDPWYRGFKGTIEKTASKEGGCTY  
TITGLYEEVDETTIRITELPIRRWDDYKNFLQSLKTDNGAPFFQDVKAYNDEKSVDFDL  
ILSEENMLAARQEGFLKFKLTTTIIATSNMHLFDKKGVIKKYVTPEQILEEFFDLRFY  
EKRKETVVKMEIELLKENKARFILAVLSGEIVNKRKKADIVEDLRQKGFTPFPRKAE  
SVEAAIAGAVDDAAEEPEEILVDPESSSYIPGSEYDYLAMAIASLTIEKVEELLADR  
DKMIIAVADMKKTTPKSLWLSLESLDKELEKLDLKDQVQQAIEAAQKKIRAKSGAAVK  
VKRQAPKPKPAPKKTTKKASESETTEASYSAMD TDNNVAEVVVKPKARQGAKKKASESETTE  
ASHSAMTDNNVAEVVVKPKGRQGAKKKAPAAAKEVEEDEM LDLAQLAQYNFGSAPADSS  
KTAETS KAIAVDDDDDDVVVEVAPVKKGGRKPAATKAAKPPAAPRKRKQTVASTEV LAI  
GVSPEKKVRKMRSSPFNKSSSVMSRLADNKEEESSEN VAGNSSSEKSGGDVSAISR PQR  
ANRRKMTYVLS DSESESE SANDSEFDDIEDDEDE

>P27570

MTDASKYQKLTPI DHVLLRPEMYVGS IETQSIPMFVFDPAKGMVWESMQVNQGLL IVD  
EILLNAADNINNSVRGARMYISIKISDSGEIMVENDGAGLPIVKSKEHKMYIPEMVFGH

LLTSSNYNNDASSTTAGRHGYGAKLTNII LSTKFSVVCRTAGREFHMSWTDHMRMATTPRV  
SNVDPKEKNVTRVTFMPDYAHFGFPTAAI SLDMKRVLHKRIMDLAAMF SKIEVRLNNVFP  
GFQTFNDYARLYSLPGADGAMPEPFVHTGPNGSIAFVPLTQSPKRIVGVVNGVVTYNG  
GTHCTSAMEIILETGLDSLRSLSLKKDGKVIDTNRVARHFTVVLVFLIQSQPKFDSQSKARLV  
STVTMPRPVRTALDQYLAAMPFLEAHMNSMDDQLAAELNKEIGTGKRLSSRSLISSITKL  
VDATSSRSDGKNIRTLIVTEGDSAKALALNSLSSEQKKFCGVFPLRGKLLNVRNKNLKR  
KTCKELQDLFLALGLELGKTYKSPAELRYQRLLVMTDQDADGSHIKGLVINAFESLWPSL  
LQHNPGYISLFSSTPIVKIKVNGKAKEVVAFHSSFRDFHRWQRANPNARYSAKYKGLGTST  
TAEGKEYFADMERNVMRLVVEPKDHRLLDVSFDSAEVEWRKEWMSKANAFQGEVDIDRSK  
KLLTIGDFVHKEMVHFALVGNARAIPHCV DGLKPSQRKILWAMLKRHSSEAAKVAQLSGY  
ISEVSSFHHEASLQETIVKMAQNFTGGNNINLLVPEGQFGSRQQLGNDHAAPRYIFTKL  
SRFARLLFPEDDDPLLDYIDEEGTMVEPNHYVPIPLLLCNGAVGIGFGFATNIPSFHPL  
DVSAAVRAMINGESAKQVVRNLVWPVAVGFQGTVRRGPEKEYI AVGKYTAHRNRLHVSEL  
PWMTSIEAFRSHISSLASSDVVQRIADYSGANHIDIDLIVREGSMTTWAECE TDLALSQR  
IYINGTVFSPDGTLSPIDADLSPVLQWHYDRRLDLYKRRRTRQIGLLEMDLARLQSTRKF  
VEHFRQGHIDFLAATDDTLTKTCVKLGLVRVDDGYDYILKKPITFYTKTSTEKLQADIKK  
TQDSIAVLKQTPVKMWLTDLDKFDKTFQEYERVLIHSIQKEQRPASITGGEVPALRQP  
PLMLEAPAKGAASSYRVHICRYEPPASKRKPEDTYGGALSSGGSTRNVGKRLTGARGA  
KKKKVVRRTRTKMSLGTRVAEFAGAQLGRLLPQLPRLLF

>P15348

MENGNKALSIEQMYQKKSQLEHILLRPSYIGSVEFTKELMWVYDNSQNRMVQKEISFVP  
GLYKIFDEILVNAADNKQRDKSMNTIKIDIDPERNMVSVWNNGQGIPVTMHKEQKMYVPT  
MIFGHLLTSSNYNDDKVKVTGGRNGYGAKLCNIFSTSFVETATREYKKSFKQTWGNNMG  
KASDVQIKDFNGTDYTRITFSPDLAKFKMDRLDEDIVALMSRRAYDVAASSKGVSVFLNG  
NKLGVNRNFKDYIDLHIKNTDDDSGPPIKIVHEVANERWEVACCPSDRGFQQVSVFVNSIAT  
YKGRHVDHVVDNLIKQLEVLKKNKGGINIKPFQVRNHLWVFNCL IENPTFDSQTKE  
NMTLQQKGFSGKCTLSEKFINNMSKSGIVESVLAWAKFKAQNDIAKTGGRKSSKIKGIPK  
LEDANEAGGKNSIKCTLILTEGDSAKSLAVSGLGVI GRDLYGVFPLRGKLLNVREANFKQ  
LSENAEINNLCIKIIGLQYKKKYLTEDDLKTLRYGKVMIMTDQDQDGSHIKGLLINFIHTN  
WPELLRPLPFL EEFITPIVKATKKNEELSFYSLPEFEEWKNDTANHHTYNIKYYKGLGTST  
SKEAKEYFQDMDRHRILFKYDGSVDESIVMAFSKKHIESRKVWLTNHMDEVKRRKELGL  
PERYLYTKGTSITYADFINLELVLSNADNERSIPSLVDGLKPGQRKVMFTCFKRNDKR  
EVKVAQLSGSVAEMSAYHHGEVSLQMTIVNLAQNFGANNINLLEPRGQFGTRLSGGKDC  
ASARYIFTIMSPLTRLIYHPLDDPLLDYQVDDGQKIEPLWYLP IIPMVLVNGAEGIGTGW  
STKISNYNPREIMKNLRKMINGQEPSVMHPWYKNFLGRMEYVSDGRYIQTGNIQILSGNR  
LEISELPVGVWTQNYKENVLEPLSNGTEKVKGI ISEYREYHTDTTVRFVISFAPGEFERI  
HAEEGGFYRVFKLTTTLSTNQMHAFDQNNCLRRFPPTAIDILKEYYKLRREYYARRRDFLV  
GQLTAQADRLSDQARFILEKCEKKLVVENKQRKAMCDELLKRGYRDPVKEWQRRIKMED  
AEQADEEDEEEEEAAPSVSSKAKKEKEVDPEKAFKLLTDVKKFDYLLGMSMWMLTEEKK  
ELLKQRDTKLSELESLRKKTP EMLWLDLDALESKLNEVEEKERAEEQG INLKTAKALKG  
QKSASAKGRKVKSMGGGAGADVFPDPDGEVFEFKITEEI IKKMAAAKVAQA AKEPKKP  
KEPKPKVKKEPKGQ IKAEPDASGDEVDEFDAMVEGGSKTSPKAKKAVVKEPGEKKPR  
QKKENGGLKQSKIDFSKAKAKKSDDDVEEVT PRAERPGRRQASKKIDYSSLFSDEEEDG  
GNVGSDDDDGNASDDDSPKRPARGREDESSGAKKKAPPKRRRAVIESDDDDIEIDEDDD  
DDSDFN

>P08096

MSIDADFSYED EASGDENVLPNTTTTKR KASTTSSKSRAKKASTPDLRQTSLTSM TASEQ  
IPLVTNNGNSNVSTQYQRLTPREHVLRRPDTYIGSIEPTTSEMWFV DSEKNKLDYKAV

TYVPGLYKIFDEIIVNAADNKVRDPNMNTLKVTLDPANVISIYNNGKGIPIEIHDKKEKI  
YIPELIFGNLLTSSNYDDNQKKVTGGRNGYGAKLCNIFSTEFVVEETADKERMKKYKQTWY  
DNMSRKSEPVITSLKKPDEYTKITFKPDLAKFGMDKIDDDMVSIIKRRIIDMAGTVRETK  
VYLNNERISISGFKKYVEMYLASDTKPDEEPPRVIEHVNDRWDVAFVAVSDGQFKQVSFV  
NNISTIRGGTHVNYVANKIVDAIDEVVKKENKKAPVKAQIKNYVQVFNQCIEENPSFDS  
QTKETLTTKVSAFGSQCTLSDKFLKAIKSSVVEVLKFATAKADQQLSKGDGGLRSRIT  
GLTKLEDANKAGTKESHKCVLILTEGDSAKSLAVSGLSVVGRDYGVFPLRGKLLNVREA  
SHSQILNNKEIQAIKKIMGFTHKKTITDVKGLRYGHLMIMTDQDHDGSHIKGLIINYLES  
SYPSLLQIPGFLIQFITPIIKCTRGNQVQAFYTLPEYEWKEANNNGRGWKIKYYKGLGT  
SDHDDMKSIFYSDLRHMKYFHAMQEKDAELIEMAFAKKADVRKEWLRTRYRPGIYMDYTQ  
PQIPIDDFINRELIQFSMADNIRSIPSVVDGLKPGQRKVYVYCFKRNLVHETKVSRLAGY  
VASETAYHHGEVSMEQTIIVNLAQNFVGSNNINLLMPNGQFGTRSEGKNASASRYLNTAL  
SPLARVLFNSNDDQLLNYQNDEGQWIEPEYYVPIILPMVLVNGAEGIGTGWSTFIPNYNPK  
DITANLRHMLNGEPLIIMTPWYRGFRGSITKVAPDRYKISGIINQIGENKVEITELPIRF  
WTQDMKEYLEAGLVGTEKIRKFIVDYESHHGEGNVHFNVTLEAGMKEALNESLEVKFKL  
SRTQATSNMIAFDASGRIKKYDSVEDILTEFYEVRLRTYQRRKEHVMNELEKRFDRFSNQ  
ARFIHMIIEGELVVSKKKKKDLIVELKEKKFQPI SKPKKGHLVDLEVENALAEQSGDV  
SQDESDAYNYLLSMLWLSLTYERYVELLKKKDEVMAELDALIKKTPKELWLHDLDAFEH  
AWNKMDDIQREMLEEEQSSRDFVNRTKKKPRGKSTGTRKPRAIAGSSSSTAVKKEASSE  
SKPSTTNRKQQTLLLEFAASKEPEKSSDINIVKTEDNSHGLSVEENRISKSPGLDSSDSGK  
SRKRSQSVDESDAGSKKPVKKAASASGRGRKTNKPVATTIFSSDDEDDLPSLKPSTI  
TSTKASAKNKGKKASSVKKQSPEDDDDDFIIPGSSSTPKASSTNAEPPEDSDSPIRKRPT  
RRAAATVKTPYVDPSPFDSMDEPSMQDDSFIVDNDEDVDDYDESD

>P06786

MSTEPVSASDKYQKISQLEHILKRPPTYIGSVETQEQQLQWIYDEETDCMIEKNVTIVPGL  
FKIFDEILVNAADNKVRDPSMKRIDVNIHAEHEHTIEVKNDGKGIPIEIHKNENIYIPEMI  
FGHLLTSSNYDDDEKKVTGGRNGYGAKLCNIFSTEFILETADLNVGQKYVQKWENNMSIC  
HPPKITSYKKGPSYTKVTFKPDLTRFGMKELDNDILGVMRRRVYDINGSVRDINVYLNKG  
SLKIRNFKNYVELYLKSLKLEKQRQDNGEDGAAKSDIPTILYERINNREVAFAVSDISFQ  
QISFVNSIATTMGGTHVNYITDQIVKKISEILKSKKKKSVKSFQIKNNMFIINCLINP  
AFTSQTKEQLTTRVKDFGSRCEIPLYINKIMKTDLATTRMFEIADANEENALKKSDGTRK  
SRITNYPKLEDANKAGTKEGYKCTLVLTEGDSALSALAVAGLAVVGRDYGYCYPLRGKMLN  
VREASADQILKNAEIQAIKKIMGLQHRKKYEDTKSLRYGHLMIMTDQDHDGSHIKGLIIN  
FLESSFPGLLDIQGFLLFIFITPIIKVSITKPTKNTIAFYNMPDYEKWREEEESHKFTWKQK  
YYKGLGTSLAQEVREYFVSNLDRHLKIFHSLQGNKDYIDLAFSKKKADDRKEWLRQYEPG  
TVLDPTLKEIPISDFINKELILFSLADNIRSIPNVLDGFKPGQRKVLYGCFKKNLKSELK  
VAQLAPYVSECTAYHHGEQSLAQTIIGLAQNFVGSNNIYLLLPNGAFGTRATGGKDAAAA  
RYIYTELNLKTRKIFHPADDPLYKYIQEDEKTVPEPEWYLPILPMILVNGAEGIGTGWSTY  
IPPFNPLEIIKNIRHLMNDEELEQMHPWFRGWTGTIEEIEPLRYRMYGRIEQIGDNVLEI  
TELPARTWTSTIKEYLLLGLSGNDKIKPWIKDMEEQHDDNIKFIITLSPEEMAKTRKIGF  
YERFKLISPISLMNMVAFDPHGKIKKYNVNEILSEFYVVRLEYQYKQKRDHMSERLQWEV  
EKYSFQVKFIKMIIEKELTVTNKPRNAIQELENLGFPRFNKEGKPYGSPNDEIAEQIN  
DVKGATSDEEDEESSHEDTENVINGPEELYGTIEYLLGMRIWLSLTKERYQKLLKQKQKEKE  
TELENLLKLSAKDIWNTDLKAFEVGYQEFLQRDAEARGGNVFNKGSKTKGKGRKLVDDDE  
DYDPSKKNKKSTARKGKIKLEDKNFERILLEQKLVTKSKAPTKIKKEKTPSVSETKTEE  
EENAPSSTSSSIFDIKKEDKDEGELSKISNKFKKISTIFDKMGSTSATSSENTPEQDDV  
ATKKNQTTAKTAVKPKLAKKPVKQKQVVELSGESDLEILDSYTDREDSNKDEDDAIPQ  
RSRRQRSSRAASVPKKSIVETLELSDDSFIEDDEEENQGSVDVSFNEED

>Q02880

MAKSGGCGAGAGVGGGNGALTWVTLFDQNNAAKKEESETANKNDSSKKLSVERVYQKKTQ  
LEHILLRPDTYIGSVEPLTQFMWVYDEDVGMNCREVTFVPGLYKIFDEILVNAADNKQRD  
KNMTCIKVSI DPESNI I SIWNNGKGI PVVEHKVEKVYVPALIFGQLLTSSNYDDDEKKVT  
GGRNGYGAKLCNIFSTKFTVETACKEYKHSFKQTMNMMKTSEAKIKHFDGEDYTCITF  
QPDL SKFKMEKLDKDI VALMTRRAYDLAGSCRGVKVMFNGKKLPVNGFRSYVDLYVKDKL  
DETGVALKVIHELANERWDVCLTLSEKGFQQISFVNSIATTKGGRHVDYVVDQVVGKLI E  
VVKKKNKAGVSVKPFQVKNHIVWFINCL IENPTFDSQTKENMTLQPKSFGSKCQLSEKFF  
KAASNCGIVESILNWVKFAQTQLNKKCSSVKYSKIKGIPKLD DANDAGGKHSLECTLIL  
TEGDSA KSLAVSGLGVI GRDRYGVFPLRGKILNVREASHKQIMENAE INNI IKIVGLQYK  
KSYDDAESLKT LRYGKIMIMTDQDQD GSHIKGLLINF IHHNWP SLLKHGFLEEFITPIVK  
ASKNKQELSFYSIPEFDEWKKHIENQKAWKIKYKGLGTSTAKEAKEYFADMERHRILFR  
YAGPEDDAAITLAFSKKKIDDRKEWLTNFMEDRRQRRLHGLPEQFLYGTATKHLTYNDFI  
NKELILFSNSDNERSI PSLVDGFKPGQRKVLFTCFKRNDKREVKVAQLAGSVAEMSAYHH  
GEQALMMTIVNLAQNFVGSNNINLLQPIGQFGTRLHGKDAASPRYIFTMLSTLARLLFP  
AVDDNLLKFLYDDNQ RVEPEWYIPIIPMVLINGAEGIGTGWACKLPNYDAREIVNNVRRM  
LDGLDPHPMLPNYKNFKGTIQELGQNQYAVSGEIFVVD RNTVEITELPVRTWTQVYKEQV  
LEPMLNGTDKTPALISDYKEYHTDTTVKFVVKMTEEKLAQAEAAAGLHKVFKLQTTLTCNS  
MVLFDHMGCLKKYETVQDILKEFFDLRLSYGLRKEWLVGMLGAESTKLNQARF ILEKI  
QGKITIENRSKDLIQMLVQRGYESDPVKAWKEAQEKAAEEDETQNHDDSSSDSGTPSG  
PDFNYILNMSLWSLTKEKVEELIKQRDAKGREVN DLKRKSPSDLWKEDLAAFVEELDKVE  
SQEREDVLAGMSGKAIKGVGKPKVKKLQLEETMPSPYGRR IPEITAMKADASKLLKK  
KKGDLDTAAVKVEFDEEFSGAPVEGAGEEALTPSVP INKGP KPKREKKEPGTRVRKTPTS  
SGKPSAKKVKKRNPWSDESSESLEETE PVV IPRDSL LRRAAAERPKYTFDFSEEDD  
DADDDDDNNDLEELKVKASPI TNDGEDEFVPSDGLDKDEYTFSPGKSKATPEKSLHDKK  
SQDFGNLFSFPSYSQKSEDDSAKFDSNEEDSASVFSFGLKQTDKVP SKTVAACKGKPS  
SDTVPKPKRAPKQKKVVEAVNSDSSEFGIPKKT TTPKGKGRGAKKRKASGENEGDYNP  
GRKTSKTTSKPKKTSFDQSDVDIFPSDFPTEPPSLPRTGRARKEVKYFAESDEEEDDV  
DFAMFN

>P32600

MNKYINKYTPPNLLSLRQRAEGKHRTRKKLTHKSHSHDDEMSTTSNTDSNHNGPNDSGR  
VITGSAGHIGKISFVDS ELDTTFSTLNLIFDKLKS DVPQERASGANELSTTLTSLAREVS  
AEQFQRF SNSLNKIFELIHGFTSSEKIGGILAVDTLISFYLS TEELPNQTSRLANYLRV  
LIPSSDIEVMRLAANTLGR LTVPGGTLTSD FVEFEVRTCIDWLTLTADNNSSSSKLEYRR  
HAALLIIKALADNSPYLLYPVNSILDNIWVPLRDAKLIIRLDAAVALGKCLTI IQDRDP  
ALGKQWFQRLFQGCTHGLSLNTNDSVHATLLV FRELLSLKAPYLRDKYDDIYKSTMKYKE  
YKFDVIRREVYAILPLLA AFDPAIFTKKYLDRI MVHYLRYLKNIDMNAANNSDKPFI LVS  
IGDIAFEVGS SISP YMTLILDNI REGLRTKFKVRKQFEKDLFYCIGKLACALGPAFAKHL  
NKDLLNLMLNCPMSDHMQETLMILNEKIPSLESTVNSRILNLLSISLSG EKFIQSNQYDF  
NNQFSIEKARKSRNQSFMKKTGESNDDITDAQILIQCFKMLQLIHHQYSLTEFVRLITIS  
YIEHEDSSVRKLAAL TSCDLFIKDDICKQTSVHALHSVSEVLSKLLMIAITDPVAEIRLE  
ILQHLGSNFD PQLAQPDNLRLLFMALNDEIFGIQLEAIKIIGRLSSVNPAYVVP SLRRTL  
LELLTQLKFSNMPKKKEESATLLCTLINSSDEVAKPYIDPILDVILPKCQDASSAVASTA  
LKVLGELS VVGGKEMTRYL KELMPLIINTFQDQSNSFKRDAAL TTLGQLAASSGYVVGPL  
LDYPELLGILINILKTENNP HIRRGTVRLIGILGALDPYKHREIEVTSNSKSSVEQNAPS  
IDIALLMQGVSPSNDEYYPTVVIHNL MKILNDPSLSIHHTAAIQAIMHIFQNLGLRCVSF  
LDQIIPGIILVMRSCPPS QLDFYFQQLGSLISIVKQHIRPHVEKIYGVIREFFPIIKLQI  
TIISVIESISKALEGEFKRFPETLTFFLDILENDQSNKRIVP IRIKSLVTFGPNLEDY  
SHLIMPIVVRMTEYSAGSLKKISII TLGRLAKNINLSEMSRIVQALVRI LNNGDRELTK



ATMNTLSLLLLQLGTDFVVFVPVINKALLRNR IQHSVYDQLVKNLLNNECLPTNI IFDKE  
NEVPERKNEYEDEMQVTKLPVNQNILKNAWYCSQQKTKEDWQEWIRRLSIQLLKESPSACL  
RSCSSLVSVYYPLARELFNASFSSCWVELQTSYQEDLIQALCKALSSSENPPETIYQMLLN  
LVEFMEHDDKPLPIPIHTLGKYAQKCHAFKALHYKEVEFLEEPKNSTIEALISINNQLH  
QTDSAIGILKHAQQHNELQLKETWYEKLRQWEDALAAAYNEKEAAGEDSVEVMMGKLRSLY  
ALGEWEELSKLASEKWGTAKPEVKKAMAPLAAGAAWGLEQWDEIAQYTSVMKSQSPDKEF  
YDAILCLHRNNFKKAEVHIFNARDLLVTELSALVNESYNRAYNVVVRAQIIAELEEIIKY  
KKLPQNSDKRLTMRRETWNTRLLGCQKNIDVWQRILRVRSLVIKPKEDAQVR IKFANLCRK  
SGRMALAKKVLNTLLEETDDPDHPNTAKASPPVVYAQLKYLWATGLQDEALKQLINFTSR  
MAHDLGLDPNNMIAQSVPQQSKRVPRHVEDYTKLLARCFKQGEWRVCLQPKWRLSNPDS  
ILGSYLLATHFDNTWYKAWHNWALANFEVISMLTSSVSKKKQEGSDASSVTDINEFDNGMI  
GVNTFDAKEVHYSSNLIHRHVI PAIKGFFHSISLSESSSLQDALRLLTLWF'TFGGIPEAT  
QAMHEGFNLIQIGTWLEVLPLQLISRIHQPNQIVSRSLLSLLSDLGKAHPQALVYPLMVAI  
KSESLSRQKAALSII EKMRIHSPVLVDQAEVLSHELIRMAVLWHEQWYEGLDASRQFFG  
EHNTEKMFAALEPLYEMLKRGPETLREISFQNSFGRDLNDAYEWMNYKKSKDVSNLNQA  
WDIYYNVFRKIGKQLPQLQTLLELQHVSPKLLSAHDLELAVPGTRASGGKPIVKISKFEFV  
FSVSISSQRPRKFCIKGSDGKDYKYLKGHEDIRQDSLVMQLFGLVNTLLQNDAECFRRH  
LDIQQYPAIPLSPKSGLLGWVNSDTFHVLI REHREAKKIPLNIEHWMLQMAPDYDNL  
LLQKVEVFTYALNNTTEGQDLYKVLWLKSRSSSETWLERRTTYTRSLAVMSMTGYILGLGDR  
HPSNMLDRITGKVIHIDFGDCFEAAILREKFPPEKVPFRLTRMLTYAMEVSGIEGSFRIT  
CENVMKVL RDNKGSLMAILEAFADFPLINWGFDLPTKKIEEETGIQLPVMNANELLSNGA  
ITEEEVQRVENEHKNAIRNARAMLVLRITDKLTGNDIRRFNDLDVPEQVDKLIQQATSV  
ENLCQHYIGWCPFW

>Q16890

MEAQAQGLLETEPLQGTDEDAVASADFFSSMLSEEEKEELKAELVQLEDEITTLRQVLSAK  
ERHLVEIKQKLGMLNMNELKQNFSSKSWHDMQTTTAYKKTHE TL SHAGQKATAAFSNVGT  
ISKKFGDMSYSIRHSISMPAMRNSPTFKSFEERVETTVTSLKTKVGGTNPNGGSFEEVLS  
STAHASAOQLAGGSRRRTKEEELQC

>P07383

EIIPVPDQAAWNASKKSIQINDAIKMRYVEWGNPSGDPVLLLLHGYTDT SRAFFSSLAPFLS  
KDKRYLALDLRGHGGSIPKCCYYVSDFAEDVSDFDKMGHLHNTTVIGHSMGSMTAGVLA  
SIHPDKVSRLVLISTALKTGPVLEWVYD TVLQKDFPLDDPSEFAKEWVAAPGKHDNGMAK  
NLKTEELAVPKHVWLSAARGFSIINWTAASKYLTAKTLILWGNQNPMTESMQNDIRAAAL  
PKAKFIQYNGFGHSMFWEDPEMVAKDLNEFLK

>P00943

MRKPIIAGNWKMHKTLAEAVQFVEDVKGHVPPADEVISVVCAPFLFLDRLVQAADGTDLK  
IGAQTMHFADQGAYTGEVSPVMLKDLGVTYVILGHSERRQMF AETDETVNKKVLA AFTRG  
LIPIIICGESLEEREAGQTNVAVASQVEKALAGLTPEQVKQAVIAYEPIWAIGTGKSSTP  
EDANSVCGHIRSVVSRLFGPEAAEAIRIQYGGSVKPDNIRDFLAQQQIDGPLVGGASLEP  
ASFLQLVEAGRHE

>Q10657

MTRKFFVGGNWKMGNDYASVDGIVTFLNASADNSSVDVVVAPPAPYLAYAKSKLKAGVLV  
AAQNCYKVPKGAFTGEISPAMIKDLGLEWVILGHSERRHVFGE SDALIAEKTVHALEAGI  
KVVFCIGEKLEEREAGHTKDVNFRQLQAI VDKGVSWENIV IAYEPVWAIGTGKTASGEQA  
QEVHEWIRAFLEKVKSPAVADATR I IYGGSVTADNAAELGKKPDIDGFLVGGASLKPDFV  
KIINARS

>P21820

MGRKFFVGGNWKCNNGTSEEVKKIVTLLNEAEVPSSEVVEVVVSPYPVFLPFVKNLLRADF  
HVAAQNCWVKKGGGAFTGEVSAEMLVNLGIPWVILGHSERRALLNESNEFVGDKTAYALSQ  
GLKVIACVGETLEQREAGSTISVVAAQTKAIAEKVSDWTNIVVAYEPVWAI GTGKVASPA  
QAQEVHFELRKWIKENVGADVAGSVRIIYGGSVNGANSKELAGQPDIDGFLVGGASLKPE  
FVDIIKSATVKSS

>P19583

MARKPLIAGNWKMNLDHQQAIGTVQKLAFALPKEYFEKVDVAVTVPF'DIRSVQTLVEGD  
KLEVTFGAQDVSQHESGAYTGEVSASMLAKLNCSSWVVVGHSERREYHNESDELVAAKAKA  
ALSNGISPIVCVGEPLEREAGTHVEYVVEQTRKSLAGLDAAELANTVIAIYEPVWAI GTG  
KVASAADAQEVCKAIRGLIVELAGDEVAEGLRILYGGSVKAETVAEIVGQPDVDGGLVGG  
ASLDGEAFAKLAANAASVA

>P04828

MPRKFFVGGNFKMNNGNAESTTSIIKKNLNSANLTKSVEVVVSPPALYLLQAREVANKEIGV  
AAQNVFDKPNGAFTGEISVQQLREANIDWTILGHSERRVILKETDEFIARKTKAAIEGGL  
QVIFCIGETLEEREANKTIDVVTRQLNAAAKELSKEQWAKVVIAYEPVWAI GTGKVA TE  
QAQEVHSAIRKWLKDAISAEAAENTRIIYGGSVSEKNCKDLAKEADIDGFLVGGASLKPA  
FVDIVNARL

>O02611

MGAGKFVGGNWKCNGLASIEITLTKGVAASVDAELAKKVEVIVGVPFYIYIPKVQQILAG  
EANGANILVSAENAWTKSGAYTGEVHVGMVLDVCQVPYVILGHSERRQIFHESNEQVAEKV  
KVAIDAGLKVIACIGETEQRIANQTEEVVAAQLKAINNAISKEAWKNIILAYEPVWAI G  
TGKTATPDQAQEVHQYIRKWMTENISKEVAEATRIQYGGSVNPANCNELAKKADIDGFLV  
GGASLDAAKFKTIINSVSEKL

>P48499

MSAKPQPIAAANWKCNNGTTASIEKLVQVFNEHTISHDVQC'VVAPT'FVHIPLVQAKLRNPK  
YVISAENAIKSGAFTGEVSMPIKLDIGVHWVILGHSERRTYGETDEIVAQKVSEACKQ  
GFMVIACIGETLQOREANQTAKVVLSTSAIAAKLTKDAWNQVVLAYEPVWAI GTGKVA T  
PEQAQEVHLLLRKWVSENI GTDVAAKLRILYGGSVNAANAATLYAKPDINGFLVGGASLK  
PEFRDIIDATR

>Q07412

MARKYFVAANWKCNGLTESIKSLTNSFMNLD'FDPSKLDVVVFPVSVHYDHTRKLQSKFS  
TGIQNVSKFGNGSYTGEVSAEIAKDLNIEYVIGHFERRKYFHETDEDVREKLQASLKNN  
LKAVVCFGESLEQREQNKTIEVITKQVKAFVDLIDNFDNVILAYEPLWAI GTGKTATPEQ  
AQLVHKEIRKIVKDT'CGEKQANQIRILYGGSVNTENCSSLIQ'QEDIDGFLVGNASLKESF  
VDIISAM

>P62003

MAKLKEPIIAINFKTYIEATGKRALEIAKAAEKVYKETGVTIVVAPQLVDLRMIAESVEI  
PVFAQHIDPIKPGSHTGHVLP'EAUVKEAGAVGTLNHSNRMILADLEAAIRRAEEVGLMT  
MVCSNPAVSAAVAALNPDYVAVEPPELIGTGIPVSKAKPEVITNTVELVKKVNPEVKVL  
CGAGISTGEDVKKAI'ELGTGVLLASGVTKAKDPEKAIWDLVSGI'IKE

>P48501

MSGSRKFFVGGNWKMNNGSRDDNDKLLKLLSEAHFDDNTEVLIAPPSVFLHEIRKSLKKEI  
HVAAQNCYKVSCKGAFTGEISPAMIRDIGCDWVILGHSERRNIFGESDELIAEKVQHALAE  
GLSVIACIGETLSERESNKTEEVCRQLKAIANKIKSADEWKRVVVAYEPVWAI GTGKVA  
TPQQAQEVHNFLRKWFKTNPNGVDEKIRIIYGGSVTAANCKELAQQHDVDGFLVGGASL  
KPEFTEICKARQR

>Q8NKN9

MRLPILIIINFKAYGEAAGKRAVELAKAAERAARELGVNI VVAPNHLELGLVSQSVDPVY  
AQGADVEAGGAHTAHVSLNIKEAGGSGVILNHSEAPLKLNDLARLVAKAKSLGLDVVVC  
APDPRTSLAAAALGPHAVAVEPPELIGTGRAVSRYKPEAIVETVGLVSRHFPEVSVITGA  
GIESGDDVAAALRLGTRGVLLASAAVKAKDPYAKIVELAKPLSELR

>P50921

MRHPVVMGNWKLNGSKEMVVDLLNGLNAELEGVTVGDVAVAPPALFVDLAERTLTEAGSA  
IILGAQNTDLNNSGAFTGDMSPAMLKEFGATHIIIGHSERREYHAESDEFVAKKFAFLKE  
NGLTPVLCIGESDAQNEAGETMAV CARQLDAVINTQGV EALEGAI IAYEP IWAIGTGKAA  
TAEDAQRIHAQIRAHIAEKSEAVAKNVVIQYGGSVKPENAAAYFAQPDIDGALVGGAAALD  
AKSFAAIAKAAAEAKA

>P00942

MARTFFVGGNFKLNGSKQSIKEIVERLNTASIPENVEVVICPPATYLDYSVSLVKKPQVT  
VGAQNAYLKASGAFTGENSV DQIKDVGAKWVILGHSERRSYFHEDDKFIADKTKFALGQG  
VGVILCIGETLEEKKAGKTL DVVERQLNAVLEEVKDWTNVVAYEPVWAI GTGLAATPED  
AQDIHASIRKFLASKLGDKAASELRILYGG SANGSNAVTFKDKADVDGFLVGGASLKPEF  
VDIINSRN

>Q9H3S4

MEHAFTPLEPLLSTGNLKYCLVILNQPLDNYFRHLWNKALLRACADGGANRLYDITEGER  
ESFLPEFINGDFDSIRPEVREYYATKGC ELISTPDQDHTDFTKCLKMLQKKIEEKDLKVD  
VIVTLGGLAGRFDQIMASVNTL FQATHITPFP I I I I QEESLIYLLQPGKHLHVDTGMEG  
DWCGLIPVGQPCMQVTTTGLKWNLTNDVLAFGTLVSTSN TYDGSVVTVETDHP LLWTMA  
IKS

>Q08897

MQRPWAEPYKIKAVEPIRMTTREYREQAIREAGYNTFFLLRSEDVYIDLLTDSGTNAMS DR  
QWGALMMGDEAYAGARSFFRLEEAVREIYGFKYVVP THQGRGAEHLISRILIKPGDYIPG  
NMYFTTTRTHQELQGGTFVDVIIDEAHDPQASHPFKGNVDIAKFEALIDRVGADKIPYIN  
VALTVNMAGGQPVSMANLREVRKVC DRHGIRMWSDATRAVENAYFIKERE EGYQDKPVRE  
ILKEMMSYFDGCTMSGKKDCLVNI GGFLAMNEEWILQKAREQVVI FEGMPYGGLAGRDM  
EAIAQGIYEMVDDDYIAHRIHQVRYLGEQLLEAGIPIVQPIGGHAVFLDARAFLPHIPQD  
QFPAQALAAALYVDSGVRAMERGI VSAGRNPQTGEHNYPKLELVRLTIPRRVYTD RHMDV  
VAYSVKHLWKERDTIRGLRMVYEPPTLRFFFTARFEPIS

>Q07068

MEAIKKMTMLKLDKENAIDRAEQAE TDKKS AEDKATGLEEELQGLQKRLKATEDELDTS  
QEKLRTAIENLENAEKKAADAEQEVASLNRRITLVEEELDRAQERL TISLSKLEEA EKAA  
DESERGRKVIENRSLKDEERLEVQEIQLTEAKNIAEDADRKYVEVARKLVMVEAE LERGE  
ERAELAESKAI ELEEELKIVANNLKSLEASAEKYAAKEGIFEEEIKT LSDKLKDSETRAE  
FAEKSVVKLEKNIDELEDSLYAEKCKIKAI SEDMDVTLQGI GDL

>Q9V6K1

MFNRFRLVHKQLRLYKNFGLLGQKASVGLTLP I I SL SR PY MAY MG TERS V V M I T A P A T K E  
FAESSERSNSSKKT TNKEQSDKSAESRMATSGIVESFPTGALVPKAETGVLNFLQKYPEY  
DGRDVTIAIFDSGVDPRATGLETLCDGKTVKVIERYDCSGCGDVMKKKVTDPDENGNIKG  
LSGNSLKLSPELMALNTDPEKAVRVGLKSFSDLLPSKVRNNIVAQA KLKHWDPHK TATA  
NASRKIVEFESQNPGEASKLPWDKKILKENLDFELEM LNSYEK VYGD I K T S Y D C I L F P T A  
DGWLTIVDTTEQGDLDQALRIGEYSRTHETRNVD DFLSISVNVHDEGNVLEVVGMSSPHG  
THVSSIASGNHSSRDVDGVAPNAKIVSMTIGDGR LGSMETGTALVRAMTKVMELCRDGRR  
IDVINMSYGEHANWSNSGRIGELMNEVVNKYGVVWVASAGNHGPALCTVGT PPDISQPSL  
IGVGAYVSPQMMEAEYAMREKLPGNVYTWT SRDPCIDGGQGVTVCPAGGAIASVPQFTMS  
KSQLMNGTSMAAPHVAGAVALLISGLKQQNIEYSPYSIKRAISVTATKLG YVDPFAQGHG  
LLNVEKA FEHLTEHRQSKDNMLRF SVRVGN NADKGIHLRQGVQRNSIDY NVYIEPIFYND  
KEADPKDKFNFNRLNLIASQPWVQC GAFLDLSYGTRSI AVRVDPTGLQPGVHSAVIRAY  
DTDCVQKGS LFEIPVTVVQPHVLES DQNTPVFEPASSKGDNSVEFQPNTIQRDFILVPER  
ATWAELRMRIITDPNRGEDI G K F F V H T N Q L L P K Q S C R K L E T M K I V S V G S E N E S I M A F K V K S  
GRILELCIAKYWSNYGQSHLKYSLRFRGVEAHNPNAVVMHAGRGIHKLEIEALVAEDVQP  
QLQLKNAEVVLKPT EAKISPLSATRDV I PDGRQVYQNL LAFNLNVAKAADVSIYAPIFND  
LLYEAEFESQM WMLFDANKALVATGDAHSHTSFTKLDKGEY TIRLQVRHEKRD LLEKISE  
ANLVASFKLTSPLTLDFYENYNQCI V GGRKYVSSPLRLSTRVLYIAPITQERLTKANLPA  
QCAWLSGNLVFPQDEVGRRVAQHPFTYIILNPAEKKSH TNGSSNGSSAAGSTATAAAVTTA  
NGAKPKAPATPQAATSVTNPAAGDGISVQNDPPVDSSGSPASPKKGANADDYAESFRDF  
QCSQIVKCELEMAEKIYNDVVAAPKHLQANLLL I QNIESNQLKSQLPLTFVNAQKTSPP  
EAGESADKQKEDQKKVRSALERIVKLADKVIQETDSEALLSYGLKNDTRADA AKIKTNM  
DKQKNTLIEALS KKGIAVAKLAVLDDCIKDSLAEINELYTEI IKFVDANDSKAIQFALWH  
AYAHGHYGRMYKYVVKLIIEEKRT RDHFVELAAINGALGHEHIRTVINRMMITAF P S S F R L  
F

>P49133

MSALGTL SGG AAGV SGLLR LRRRAAPAPAIAAPSHLPAGTVKCAA AV P D A A P I V W G R Q L R  
PALLLPAALLPSLQPARRH TLQPPAAAAESAGEAKSVGFLEKYPALVTGFFFFM WYFLNV  
IFNILNKKIYNYFPYPYFVSLIHLVVG VYCLISWSVGLPKRAPINGTLLKLLFPVALCH  
GIGHITSNVSFAAVAVSFAHTIKALEPFFSAAATQFILGQQV P F S L W L S L A P V V I G V S M A  
SLTELSFNWTFINAMISNISFTYRSIYSKKAMTMDSTNVYAYISIALIVCIPPALIF  
EGPKLMQHGFSDAIKVG LTKFVSDLFLVGLFYHLYNQIATNTLERVAPLTHAVGNVLKR  
V F V I G F S I I V F G N K I S T Q T G I G T S I A I A G V A M Y S Y I K A K I E E E K R K K S A

>O14763

MEQRGQNAPAASGARKRHGPGPREARGARPGPRVPKTLVLVVA AV L L L V S A E S A L I T Q Q D  
LAPQQRAAPQQKRSSPSEGLCPPGHHSI SEDGRDCISCKYGDYSTHWNDLLFCLRCTRCD  
SGEVELSPCTTTRNTVCQCEEGTFREEDSPEMCRKCRGTGCP RGMVKVGDCTPWSDIECVH  
KESGTKHSGEAPAVEETVTSSPGTPASPCSLSGI I I G V T V A A V V L I V A V F V C K S L L W K K V  
LPYLK G I C S G G G D P E R V D R S S Q R P G A E D N V L N E I V S I L Q P T Q V P E Q E M E V Q E P A E P T G V  
NMLSPGESEHLLPEAEASQRRLLPANEGDPTETLRQCFDDFADLV P F D S W E P L M R K  
LGLMDNEIKVAKAEAGHRDTLYTMLIKWVNKTGRDASVHTLLDALET LGERLAKQKIED  
HLLSSGKFMYLEGNADSAMS

>O00300

MNKLCCALVFLDISIKWTTQETFPKYLHYDEETSHQLLCDKCPPGTYLKQHCTAKWKT  
VCAPCPDHYTDSWHTSDECLYCSPVCKELQYVKQECNRTHNRVCECKEGRYLEIEFCLK  
HRSCPPGFVQAGTPERN TVCKRC PDGFFSNETS SKAPCRKHTNCSVFG L L L L T Q K G N A T

HDNICSGNSESTQKCGIDVTLCEEAFRFAVPTKFTPNWLSVLVDNLPGTKVNAESVERI  
KRQHSSQEQTFLQLLKLWKHQNKDQDIVKKIIQDIDLCENSVQRHIGHANLTFEQLRSLME  
SLPGKKGVAEDIEKTIKACKPSDQILKLLSLWRKNGDQDTLKGMLHALKHSKTYHFPKT  
VTQSLKKTIRFLHSFTMYKLYQKLFLEMIGNQVQSVKISCL

>Q6Q0C0

MSSGKSARYNRFSGGPSNLPTPDVTTGTRMETTFGPAFSAVTTITKADGTSTYKQHCRTP  
SSSSTLAYSPRDEEDSMPPISTPRRSDSAISVRSLHSESSMSLRSTFSLPEEEEEPEPLV  
FAEQPSVKLCCQLCCSVFKDPVITTCGHTFCRRCALKSEKCPVDNVKLTVVVNNIAVAEQ  
IGELFIHCRHGCVRVAGSGKPPIFEVDPRGCPFTIKLSARKDHEGSCDYRVPVRCPNPSCP  
PLLRMNLEAHLKECEHIKCPHSKYGCTFIGNQDTYETHLETCTRFEGLEFLQQTDDRFHE  
MHVALAQKDQEI AFLRSMLGKLSKIDQLEKSLELKFVDLNDENQSKLSEDLMEFRRDASM  
LNDELSHINARLNMGILGSYDPQQIFKCKGTFVGHQGPVWCLCVYSMGDLLFSGSSDKTI  
KVWDTCTTYKCKQKTLEGHGIVLALCIQGCKLYSGSADCTIIVWDIQNLQKVNTIRAHDN  
PVCTLVSSHNVLFSGSLKAIKVWDIVGTELKLLKELTGLNHWVRALVAAQSYLYSGSYQT  
IKIWDIRTLDCHVLQTSGGSVYSIAVTNHHIVCGTYENLIHVWDIESKEQVRTLTGHVG  
TVYALAVISTPDQTKVFSASYSRSLRVWSDNMICTQTLLRHQGSVTALAVSRGRLFSGA  
VDSTVKVWTC

>P19813

MPGSTWELHLLLLLGLGLGSEQALPPPCESQIYCHGELLHQVQMARLYPDDKQFVDMPLS  
TAPDQVLQSF AELAATYNNTVPREQLEKFFVQEHFQAVGQELSWTPGDWKESPQFLQKIS  
DPKLRAWAEQLHLLWKKLGKKIKPEVLSQPERFSLIYSQHPFIVPGGRFVEFYWDSYVW  
MEGLLLSEMAETVKGMLQNFLDLVTAYGHI PNGGRVYYLQRSQPPLLTLMMDRYVAHTGD  
LAFLRENIETLALALELDFWAENRTISVSSGGNSHTLNRYHVPYGGPRPESYSKDTELAHTL  
PEGSWETLWAEKAGAESGWDFFFFSRWLVGSPNPDLSGIRTSKLVVVDLNAFLCQAEELL  
SGFY SRLGNESQATKYRNLRAQR IAALTALLWDEDEKGAWFYDLENQKKNHEFYPSNLTP  
LWAGCFSDPAIADKALQYLQDSQILNHRHGIP TSLQNTGQQWDFPNAWAPLQDLVIRGLA  
KSPSARTQEVAFQLAQNWIRTNFVVSQRSAMYEKYDISNAQPGGGGEYEVQEGFGWTNG  
VALMLLDRYGDRLLSSGTQLALLEPHCLAAALLLSFLTR

>P32356

MSQVNTSQGPVAQGRQRRLSSLSEFNDFPSNAEVVYGPPTDPRKQKQAKPAKINRTRTMS  
VFDNVSPFKKTGFGLKQQTRRGSEDDTYSSSQGNRRFFIEDVDKTLNELLAEDTDKNYQ  
ITIEDTGPKVLKVG TANSYGYKHINIRGTMYLSNLLQELTIAKSFGRHQIFLDEARINEN  
PVNRLSRLINTQFWNSLTRRVDLNMVGEIAKDTKIDTPGAKNPR IYVPYDCPEQYEFYVQ  
ASQMHP SLKLEVEYLPKKITAEYVKS VNDTPGLLALAMEEHFNPSTGEKTLIGYPYAVPG  
GRFNELYGWDSYMMALGLLEANKTDVARGMVEHFIFEINHYGKILNANRSYYLCRSQPPF  
LTEMALVVFKKLGGRSNPDAVDLLKRAFQAS IKEYKTVWTASPRLDPE TGLSRYPNGLG  
IPPETESDHFDTVLLPYASKHGVTLDEFKQLYNDGKIKEPKLDEFFLHDRGVRESGHDTT  
YRFEGVCAYLATIDLNSLLYKYEIDIADFIKEFCDDKYEDPLDHSITTSAMWKEMAKIRQ  
EKITKYMWDESGFFFFDYNTKIKHRTSYESATTFWALWAGLATKEQAQKMVEKALPKLEM  
LGGLAACTERSRGPISISRP IRQWDYPFGWAPHQILAWEGLRSYGYLTVTNRLAYRWLFM  
MTKAFVDYNGIVVEKYDVTRGTDPHRVEAEYGNQGADFKGAATEGFGWVNASYILGLKYM  
NSHARRALGACIPPI SFFSRLRPQERNLYGL

>P36673

MQNRLTIKDIARLSGVGKSTVSRVLMNESGVSQLTRERVEAVMNQHGFSPSR SARAMRGQ  
SDKVVAIIVTRLDSLSENLA VQTMLPAFYEQGYDPIMMESQFSPQLVAEHLGVLKRRNID  
GVVLFGFTGITEEMLAHWQSSLVLLARDAKGFASVCYDDEGAIKILMQRLYDQGHRNISY

LGVPHSDVTTGKRRHEAYLAFCKAHKLHPVAALPGLAMKQGYENVAKVITPETTALLCAT  
DTLALGASKYLQEQRIDTLQLASVGNTPLMKFLHPEIVTVDPGYAEAGRQAACQLIAQVT  
GRSEPQQIIIPATLS

>Q9NSU2

MGP GARRQGRIVQGRPEMCFPPPTPLPPLRILTLGTHPTPCSSPGSAAGTYPTMGSQA  
LPPGPMQTLIFFDMEATGLPFSQPKVTELCLLAVHRCALLESPPPTSQGPPTVPPPPRVVD  
KLSLCVAPGKACSPAASEITGLSTAVLAAHGRQCFFDDNLANLLLAFLRRQPQPWCLVAHN  
GDRYDFPLLQAEAMLGLTSALDGAFCVDSITALKALERASSPSEHGPRKSYSLGSIYTR  
LYGQSPDSHTAEGDVLALLSICQWRPQALLRWVDAHARPFGTIRPMYGV TASARTKPRP  
SAVTTTAHLATTRNTSPSLGESRGTKDLPPVKDPGALSREGLLAPLGLLAILTLAVATLY  
GLSLATPGE

>Q10836

MGEDDAALRASGRGLSDPWADSVGVRPRTTERHIAVHKRLVLAFAVSIVALLAVTMLAVL  
LSLRFDECGASAMPPTDGGGGFFPERGGNSSYPGSARRNHAGEESSQREIGEVGTAGT  
PSAHPPEEEEEQEQWQPWTQLRLSGHLKPLHYNLMLTAFMENFTFSGEVNVEIACQNATRY  
VVLHASRVAVEKQVAEDRAFGAVPVAGFFLYPQTQVLVVVLRNLTLDAQRHYNLKIIYNA  
LIENELLGFFRSSYVIHGERRFLGVTQFSPHARKAFPCFDEPIYKATFKISIKHQATYL  
SLSNMPVETS VFEEEDGWVTDHFSQTPMLSTYYLAWAICNFTYRETTTKSGVVRLYARPD  
AIRRGS GDYALHITKRLIEFYEDYFKVPYSLPKLDLLAVPKHPYAAMENWGLSIFVEQRI  
LLDPSVSSISYLLDVTMVI VHEICHQWFGDLVTPVWVEDVWLKEGF AHYFEFVGT DYLYP  
SWNMEKQRFLTDVLHEVMLLDGLASSHPVSQEVLRATDIDKVFWDIAYKKGAALIRMLAN  
FMGHSV FQRGLQDYLT I HKYGNAARNDLWNTLSEALKRNGKYVNIQEVMDQWTLQMGYPV  
ITILGNMTAENRILITQOHFIYDIGAKTKALQLQNSSYLWQIPLTIVVGNRSHVSSEAI I  
WVSNKSEHHRITYL DKG SWILGNINQTYFRVNYDLRNWRLRIDQLIRNHEVLSVSNRAG  
LIDDAFSLARAGYLPQNIPL E IIRYLSEEKDFLPWHAASRALYPLDKLLDRMENYNI FNE  
YILKQVATTYSKLGWPKNNFNGSVVQASYQHEELRREVIMLACSFGNKHCHQQASTLISD  
WISSNRNRIPLNVRDIVYCTGVSLLEDVWEF IWMKFHSTTAVSEKKILLEALTCSDDRN  
LLSRLNLNLSLNSEVVL DQDAIDVI IHVARNPHGRDLAWKFFRDKWKILNTRYGEALFMNS  
KLISGVTEFLNTEGELKELKNFMKSYDGVASASFSRAVETVEANVRWKRLYQDELFWLW  
KAMRH

>Q99PJ2

MAENWKNCFEEELICPICLHV FVEPVQLPCKHNFCRGCIGEA WAKDSGLVRCPECNQAYN  
QKPGLEKNLKL TNIVEKFNALHVEKPPTALHCVF CRRGPPPLPAQKVCLRCEAPCCQSHVQ  
THLQQPSTARGHLLVEADDVRAWSCPQHNA YRLYHCEAEQVAVCQYCCYSGAHQGH SVC  
DVEIRRNEIRKMLMQQERLEEREQDIEDQLYKLESDMRLVEEKVSQLKEEVRLQYEK L H  
QLLDEDLRQTVEVL DKAQAKFCSENAQAHLGERMQEAKKLLGSLQRLFDKTEDVGF MK  
NTKSVKILMDRTQTCTGSSLSPPKIGHLNSKLF LNEVAKKEKQLRKMLEGPFSTPVPFLQ  
SVPLYPCGVNSSGAEK RKHSTAFPEAS FLETSSGPVGGQYGAAGTASSEGQSGQPLGPCS  
STQHLVALPGGTQPVHSSPVFPSPYQPNGSTTQQPMLPQYGRKILVCSVDNCYCSSVAN  
HGGHQPYPRSGHFPWTVPSQEYSHPLPPTSPVPQSLPGLAVRDWLDASQQPGHQDFYRVY  
GQPSTKHVYVTS

>O67463

MSSNPLRFFVLTIFPHIISCYSEYGI V KQAIKKGKVEVYPIDLREFAPKGQVDDVPYGG L  
PGMVLKPEPIYEAYDYVVENY G KPFVLTITEPWGEKLNQKLVNELSKKERIMIICGRYEGV  
DERVKKIVDMEISLGD F ILSGGEIVALAVIDAVSRVLPGLVLEPQS IQEDSFQNRWLGY P  
VYTRPREYRGMKVPEELLSGHHKLI ELWKLWHRIENTVKKRPDLIPKDLTELEKDILNSI

LSGKSFKEWLKEHKHLL

>P0A873

MWIGIISLFPFEMFRAITDYGVGTGRAVKNGLLSIQSWSPRDFTHDRHRTVDDRPHYGGGPGM  
LMMVQPLRDAIHAAKAAAGGAKVIYLSPOGRKLDQAGVSELATNQKLILVCGRYEGIDE  
RVIQTEIDEEWSIGDYVLSGGELPAMTLIDSVSRFIPGVLGHEASATEDSFAEGLLDLCPH  
YTRPEVLEGMVPPVLLSGNHAEIRRWRKQSLGRTWLRPELLENLALTEEQARLLAEF  
KTEHAQQQHKHDGMA

>Q8GBB2

MAWPGPLLLKDRKGRAYLVFPKEGGVFHHHKGSPHEALLEAGPGGVVRTHLGEELSVHR  
PTLEEYLLHMKRSATPTYPKDASAMVTLDDLAPGMRVLEAGTGSGLTLFLARAVGEKGL  
VESYEARPHHLAQAERNVRAFVQVENVRFHGLKLEEALEEAAYDGVALLDMEPWKMLEK  
AALALKPDRFLVAYLPNITQVLELVRAAEAHFRLERVLVGVREWEVRLPVAHPRFQQV  
GHTAFLVALRRWKAS

>P50162

MEEKSVSMNMCNNEGRWSLKGTTALVTGGSKGIGYAIVEELAGLGARVYTCSRNEKELDE  
CLEIWRKGLNVEGSVCDLLSRTERDKLMQTVAHVFDGKLNILVNNAGVVIHKEAKDFTE  
KDYNIMGTNFEEAAYHLSQIAYPLLKASQNGNVIIFLSSIAGFSALPSVSLYSASKGAINQ  
MTKSLACEWAKDNIRVNSVAPGVILTPLVETAIKKNPHQKEEIDNFIVKTPMGRAGKPQE  
VSALIAFLCFPAASYITGQIIWADGGFTANGGF

>P50384

MNINEILKKLINKSDLEINEAEELAKAIRGEVPEILVSAILVALRMKGESKNEIVGFAR  
AMRELAIKIDVNAIDTAGTGGDGLGTVNVSTASAILLSLVNVPVAKHGNRAVSGKSGSAD  
VLEALGYNIVPPERAKELVNKTNFVFLFAQYHPAMKNVANVRKTLGIRTIFFNILGPLT  
NAPANAKYQLMGVFSKDHLDLLSKSAYELDFNKIILVYGEPEGIDEVSPIGNTFMKIVSKRG  
IEEVKLNVTDFGISPIPIEKLIVNSAEDSAIKIVRAFLGKDEHVAEFIKINTAVALFALD  
RVGDFREGYAYADHLIEKSLDKLNEIISMNGDVTKLKTIVVKSSG

>Q56320

MVRVKICGITNLEDALFSVESGADAVGVFVFPKSKRYISPEDARRISVELPPFVFRVGVF  
VNEEPEKILDVASVYQLNAVQLHGEEPIELCRKIAERILVIKAVGVSNERDMERALNYRE  
FPILLDTKTPEYGGSGKTFDWSLILPYRDRFRYLVLSGGLNPNENRSAIDVVRPFVAVDVS  
SGVEAFP GKGDHDSIKMFIKNAKGL

>O35433

MEQRASLDSESESPQENSCLDPPDRDPNCKPPPVKPHIFTTTRSRTRLFGKGDSEESP  
LDCPYEEGGLASCPITVSSVLTIQRPGDGPASVRPSSQDSVSAGEKPPRLYDRRSIFDA  
VAQSNCOELESLLPFLQRSKKRLTDSEFKDPETGKTCLLKAMLNHNGQNDTIALLLDVA  
RKTDSLKQFVNASYTDSYKGTALHIAIERRNMTLVTLVENGADVQAAANGDFFKTK  
GRPGFYFGELPLSLAACTNQLAIVKFLQNSWQPADISARDSVGNLHALVEVADNTVD  
NTKFVTSMYNEILILGAKLHPTLKLEEITNRKGLTPLALAASSGKIGVLAYILQREIHEP  
ECRHLRSKFTEWAYGPVHSSLYDLSCIDTCEKNSVLEVIAYSSSETPNRHDMLLVEPLNR  
LLQDKWDRFVKRIFYFNFFVYCLYMIIFTAAAYRPPVEGLPPYKLNKNTVGDYFRVTGELL  
SVSGGVYFFFYRGIQYFLQRRPSLKSFLVDSYSEILFFVQSLFMLVSVVLYFSQRKEYVAS  
MVFSLAMGWTNMLYYTRGFQQMGIYAVMIEKMILRDLCRFMFVYLVFLFGFSTAVVTLIE  
DGKNNSLPMESTPHKCRGSACKPGNSYNSLYSTCLELKFKTIGMGDLEFTENYDFKAVFI  
ILLLAYVILTYILLNMLIALMGETVNKIAQESKNIWKLQRAITILDTEKSF LKCMRKA

RS GKLLQVGF TPDGKDDYRWC FRVDEVNWT TWTN VGI INEDPGNCEGVKRTL SFSLRSG  
RVSGRNWKNFALVPLLRDASTRDRHATQQEEVQLKHYTGSLKPEDAEVFKDSMVPGEK

>Q39242

MCWISMSQSRFI IKS L FSTAGGFLLGSALS NPPSLATAFSSSSSSSSAAAAVDMETHKTK  
VCIVGSGPAAHTAAIYASRAELKPLLFEGWMANDIAPGGQLTTTTDVENFPGFPEGILGI  
DIVEKFRKQSERFGTTIF TETV NKVDFSSKPFKLF TDSRTVLADSVIISTGAVAKRLSFT  
GS GEGNGGFWRNGISACAVCDGAAPIFRNKPLVVI GGGDSAMEEANFLTKY GSKVYI IHR  
RDTFRASKIMQORALS NPKIEVIWNSAVVEAYGDENGRVLGGLKVKNVVTGDVSDLKVS G  
LFFAIGHEPATKFLDGLQLELDEDGYVVTKPGTTKTSVVG VFAAGDVQDKKYRQAITAAGT  
GCMAALDAEHYLQEIGSQEGKSD

>P38816

MIKHIVSPFR TNFVGI SKSVLSRMIH HKVTIIGSGPAAHTAAIYLARAEMKPTLYEGMMA  
NGIAAGGQLTTTTDIENFPGFPELSGSELMERMRKQSAKFGTNIITETVSKVDLSSKPF  
RLWTEFNEDAEPVTTDAIILATGASAKRMHLPG EETYWQQGISACAVCDGAVP IFRNKPL  
AVI GGGDSACEEAEFLTKYASKVYILVRKDHFRASVIMQRRIEKNPNIIVLFNTVALEAK  
GDGKLLNMLRIKNTKSNVENDLEVNGLFYAIGHSPATDIVKGQVDEEETGYIKTVPGSS L  
TSVPGFFAAGDVQDSRYRQAVTSAGSGCIAALDAERYLSAQE

>P0A9P4

MGTTKH SKLLILGSGPAGYTA AVYAARANLQPVLITGMEKGGQLTTTTTEVENWPGDPNDL  
TGPLLMERMHEHATKFETE IIFDHINKVDLQNRPFRLNGDNGEYTCDALI IATGASARYL  
GLPSEEAFKGRGVSACATCDGFFYRNQKVAVI GGGNTAVEEALYLSNIASEVHLIHR RDG  
FRAEKILIKRLMDKVENGNIILHTNRTLEEV TGDQMGVTGVRLRDTQNSDNIESLDVAGL  
FVAIGHSPNTAIFEGQLELENGYIKVQSGI HG NATQTSIPGVFAAGDVM DHIYRQAITSA  
GTGCMAALDAERYLDGLADAK

>Q05741

MSDVRNVI IIGSGPAGYTAALY TARASLQPLVFEGAVTAGGALMNTTDVENFPGF FRD GIM  
GPDLMDNMRAQAERFGAELIPDDVVSVDLTGDIKTVTDSAGTVHRAKAVIVTTGSQHRKL  
GLPREDALSGRGVSWCATCDGFFFFKDQDIVVVG GDTAMEEATFLSRFAKSVTI VHR RDS  
LRASKAMQDRAFADPKISFAWNSEVATI HGEQKLTGLTLRDTKTGETRELAATGLF IAVG  
HDPRT ELFKGQLDLDEGYLKVASPSTRTNLTGVFAAGDVVDHTYRQAIT AAGTGCSAAL  
DAERYLAALADSEQIAEPAPAV

>Q25861

MCKDKNEKKNYEHVNANEKNGYLASEKNELTKNKVEEHTYDYDYVVIGGGPGGMASAKEA  
AAHGARVLLFDYVKPSSQGTKWGI GGT CVNVGCVPKKLMHYAGHMGSIFKLD SKAYGWKF  
DNLKHDWKKLVTTVQSHIRSLNFSYMTGLRSSKVKYINGLAKLKDKNTVSYYLKGDLSKE  
ETVTGKYIL IATGCRPHI PDDVEGAKELSITSDDIFSLKKDPGKTLVVGAS YVALECSGF  
LNSLGYDVTVAVRSIVLRGFQQCAVKVKLYMEEQGMFKNGILPKKLT KMDDKILVEFS  
DKTSELYD TVLYAIGRKGIDGLNLESLNMNVNKSNNKI IADHLSCTNIPSI FAVGDVAE  
NVPELAPVAIKAGEILARRLFKDSDEIMDYSYIPTSIYTPIEYGACGYSEEKAYELYGKS  
NVEVFLQEFNNLEISAVHRQKH IRAQKDEYDL DVSSSTCLAKLVCLKNEDNRVIGFHYVGP  
NAGEVTQGMALALRLKVKKKDFDNCIGIHP TDAESFMNLFVTISSGLSYAAKGGCGGGKC  
G

>P0A3V4

MQAQVFRVPMSPADVSGVAKLIDEGVIRAEVVCVLGKTEGNGCVNDFTRGYTTLAFKV



YFSEKLGVSREQVERIAFIMSGGTEGVMAPHCTIFTVQKTDNKQKTAAEGKRLAVQQIF  
TREFLPEEIGRMPQVTETADAVRRAMREAGIADASDVHFVQVKCPLLTAGRMHDAVERGH  
TVATEDTYESMGYSRGASALGIALALGEVEKANLSDEVITADYSLYSSVASTSAGIELMN  
NEIIVMGNSRAWGGDLVIGHAEMKDAIDGAAVRQALRDVGCCENDLPTVDELGRVVNVFA  
KAEASPDGEVRNRRHTMLDDSDINSTRHARAVVNAVIASIVGDPMVYVSGGSEHQGPAGG  
GPVAVIARTA

>P40061

MSIPHSAKQSSPLSSRRRSVTNTTPLLTPRHSRDNSSSTQISSAKNITSSSPSTITNESSK  
RNKQNLVLSSTSFISTKRENSAPSPTSPLMARRTRSTMTKALLNLKAEINNQYQELARLR  
KKKDDIEHLRDSTISDIYSGSYSTNHLQKHSRIRANTQLREIDNSIKRVEKHIFDLKQQ  
FDKQRSLTSSSIKADVGSIRNDDGQNNDEELGDHDSLTDQVTLDDDEYLTPTPTSGTE  
RNSQQNLNRNSTVNSRNENHSTLSIPDLDDGSNKVNLTDGTEKDLGDLENENQIFTSTTT  
EAATWLVS DYMQSFQEKVNPDFIAQKANGLVTLLEHSEIRKDLVLTFSMSSIQNLLLN  
GNKLI AASAYRVCRYLINSSIFIDELLELRDAFIIISLAKDNSFQIEREQALKMVRRFI  
EYNNQVGTQGIMQAIISCVKEKPEDSLRHMALETLLLELCFVAPEMVKECRGMRVIEGFLQDY  
TSFSLASVILDITILQLMATHKTRQHFLDFNVSVLTTVFSDTNTKSNVVEKMQNASTLI  
SITLNSYNGFMLFSNNNFKPLKQLVSFFQIPICAYLIDIFLDVLKIKPLPYKPRGRHSH  
SFKPIPSQYYKECMSVNQRLALIVLILENSEFVPHLLELLNEEDRDDHLVAKGRYLLTEY  
FNLRMNLVDKKYTSVSKPIYKENFTYVNETFQFKKIAYKMNRNRNTIGMSGIDYAQNIKS  
FSKNIKENTLLREVDDFRFRMVYDSKVLQTKDFTRWNWNIINELLEGPLLNKKQLEELV  
KSTKFI RRRLLVFYRPLRLRFSNVNKGAKLSQKYVQVGCQFFKTLTATPEGMKILMDDTKI  
IPQLASLMFRAMEGNISGNIFNKNKLRKIFGYFKFIGILTQSKNGVHILTRWNFFTVI  
YKMFQFESKLGLEFLLLTIPELDLKYSSHCRVIGKALVVANEKVRIEATKHIGDKLKL  
LSTKESDLKLLKANKVKLQQFKMEMLTRQLYDLSPSVVAVADQALYECIVAGNGSEELGTS  
FRMFLNQMVFI RSPILFELLSRPYGFQLLNEINFVKEERDSWLSKKNIEYVHIVEEFK  
NESINAKSLTFQOKSRLPLHFYESLTKTEDGILLLSQTDGLVTFMNVIKKYVNGNMMATV  
ENAKEILDKAALWCVGFIGSTELGIGLLDNYSLVEDIEVAYNASVTSVRFTAFYVLGL  
ISM TREGCEILDEMGNCCVSVQDEPIGIALPNRLDRFLSYNEHKWSAFGEYSDEMIVFN  
KSDGDLIEKCLPIEFDLKLLKEKDTAENPLNEKIIITNKYDNDITSQITITVSGENSSLFA  
NEGLSSPYVTQYRNDDDSIESKVLHIVSQLGNHILSNHAVKEITEINNKYGPRLFENEKM  
FFKVFNMMSKYRFKPHVRKFLCGLFINNRALENVIRHDNKRDKRPANFTR

>P35440

MLQRSRLWLAVFITLWVSSDAQDDAKEEENTFDLLQISNINRKTIGAKLFRGPDPAIPA  
YRFIRFDHI PPFKPEKLLKIVKLI RQNEGFILSATLRQDRQSRGTILALEGPGISERQFE  
IISNGRANTLDLIYVWDGFQNVISLEDVDLADSQWKNLTVQVTGENYNLYVGCDLIDFSI  
LEEPFYEQKAENSRMYVAKGSIRENHFRLQNIHLIFDTSIEDVLRKKGCQRSQSTEV  
NTINESTEILHLSPAVTTEYVGEKTEKKAEFCDRSCHEELGTMFTLTLGLRIVVNNLADNL  
QKVSEENQIMWELIGPNKTLKNQSVQDGRVVFADSESWIVDSCTKCTCQDSKIVCHQIT  
CPPVSCADPSFIEGECPCVSHSDDSEEGWSPWSDWTKCSVTGSGTQMRGRSCDVTRSA  
CTGPHIQTRMCSFKKCDHRIRQDGGWSHSPWSSCSVTGCGVNI TRIRL CNSPI P QMGGK  
NCVGNGRETEKCEKAPCPVNGQWGPWSPWSACTVTCGGGIRERSRLCNSPEPQYGGKPCV  
GDTKQHDMCNKRDCPIDGCLSNPCFPGAECNSYPDGSWSCGFCPAGFLNGTVCEDLDEC  
IAVSDVCFKVNQVHRCVNTNPGFHCPCPPRYKGSQPYGVGLEVAKTEKQVCEPENPKD  
KTHSCHKSAECIYLGHFSDPMYKCECRTGYAGDGRICGEDSDLGWPNNNLVCAANATYH  
CVKDNCP LLPNSGQEDFDKDGKGDACDEDDNDGVEDDKDNCP LLFNPRQFDYDKDEVGD  
RCDNCPYVHNPAQIDTDNNGEGDSCAVDIDGDDIFNERDNCPYVYNTDQSDTDGDGVGDQ  
CDNCP LMHNPDQTDADNDLVGDQCDNNEIDEDGHQNNQDNCPYIPNANQADHDKDGKGD  
ACDPDDNDGIPDDRDNCRRLRYNPEQEDSDGDGRGDI CKDDFDDDNVPIFDVCPENNAI

SETDFRKFQMVPLDPKGTAQIDPNWVIRHQKELVQTANSDFGIAVGYDEFSSVDFSGTF  
YVNTDRDDDDYAGFVFGYQSSSRFYVLMWKQVTQTYWEDKPTRAYGYSVSLKVVNSTGT  
GEHLRNALWHTGNTPGQVRTLWHDPKNIGWKDYTAYRWHLIHRPKTGLIKVLVYEGKQVM  
VDSGPIYDTTFAGGRLGLFVFSQEMVYFSDLKYECRDA

>P35443

MLAPRGAAVLLLHLVLQRWLAAGAQAATPQVFDLLPSSSQRLNPGALLPVLTDPALNDLYV  
ISTFKLQTKSSATIFGLYSSTDNSKYFEFTVMGRNLKAILRYLKNDGKVHLVVFNNLQLA  
DGRRHRIILLRLSNLQRGAGSLELYLDCIQVDSVHNLPRAFAGPSQKPETIELRTFQRKPQ  
DFLEELKLVVRGSLFQVASLQDCFLQQSEPLAATGTGDFNRQFLGQMTQLNQLLGEVKDL  
LRQQVKETSFLRNTIAECQACGPLKFQSPTPSTVVPAPPAPPTRPPRRCDSSNPCFRGVQ  
CTDSRDGFQCGPCPEGYTGNGITCIDVDECKYHPCYPGVHCINLSPGFRCDACPVGFTGP  
MVQGVGISFAKSNKQVCTDIDECRNGACVPNSICVNTLGSYRCGPCKPGYTGQDIRGCKA  
ERNCRNPELNPCSVNAQCI EERQGDVTCVCGVGWAGDGYICGKDVIDSYDPDEELPC SAR  
NCKKDNCKYVPNSGQEDADRDGIGDACEDEDADGDGILNEQDNCVLIHNVQDRNSDKDIFG  
DACDNCLSVLNNDQKDTDGDGRGDACDDMDGDGKINILDNCPKFPNRDQRDKDGDGVGD  
ACDSCP DVSNPNQSDVDNDLVGDSCDTNQSDGDGHQDSTDNCP TVINSAQLD TDKDGIG  
DECDDDDNDGIPDLVPPGPDNCRLLVPNPAQEDSNSDGVGDICESDFDQDQVIDRIDVCP  
ENAEVTLTDFRAYQTVVLDPEDAQIDPNWVVLNQGMEIVQTMNSDPGLAVGYTAFNGVD  
FEGTFHVNTQTDDDYAGFIFGYQDSSSFYVMWKQTEQTYWQATPFRAVAEPIQLKAVK  
SKTGPGHELRNSLWHTGDTSDQVRLWLKDSRNVGWKDKVSYRWFLQHRPQVGYIRVRFYE  
GSELVADSGVTIDTTMRGGRLGVFCFSQENI IWSNLKYRCNDTIPEDFQEFQTQNFDRFD  
N

>P12528

MTDITANVVVSNRP IFTESRSFKAVANGKIYIGQIDTDPVNPANQIPVYIENEDGSHVQ  
ITQPLIINAAGKIVYNGQLVKIVTVQGHSMAYDANGSQVDYIANVLKYDPDQYSIEADK  
KFKYSVKLSDYPTLQDAASAAVDGLLIDRDYNFYGGETVDFGGKVLTI ECKAKF IGDGNL  
IFTKLGKGSRIAGVFMESTTTPWVIKPWTDNQLWTDAAA VVATLQSKTDGYQPTVSDY  
VKFPGIETLLPNAKGNITSTLEIRECIGVEVHRASGLMAGFLFRGCHFCKMVDANNPS  
GGKDGIITFENLSGDWKGNYVIGGRTSYGSVSSAQFLRNNGGFERDGGVIGFTSYRAGE  
SGVKTWQGTVGSTTSRNYNLQFRDSVVIYPVWDGFDLGADTDMNPELDRPGDYPI TQYPL  
HQLPLNHLIDNLLVRGALGVGFMGDKGMYVSNITVEDCAGSGAYLLTHE SVFTNIAIID  
TNTKDFQANQIYISGACRVNGLRLIGIRSTDGQGLTIDAPNSTVSGITGMVDP SRINVAN  
LAE EGLNIRANSFGYDSAAIKLR IHKLSKTLDSGALYSHINGGAGSGSAYTQLTAISGS  
TPDAVSLKVNHKDCRGAEIPFVPDIASDDFIKSSCFLPYWENNSTSLKALVKKPNGELV  
RLTLATL

>Q9XJP3

MTDIIITNVVIGMPSQLFTMARSFKAVANGKIYIGKIDTDPVNPENQIQVYVENEDGSHVP  
ASQPIVINAAGYPVYNGQIVKFVTEQGHSMAYDAYGSQQFYFQNVLKYDPDQFGPDLIE  
QLAQSGKYSQDNTKGDAMIGVKQPLPKAVLRTQHDKNKEAISILDFGVIDDGVTDNQAI  
QNAIDAVASLPSGGELFIPASNQAVGYIVGSTLLIPGGVNIRGVGKASQLRAKSGLTGSV  
LRLSYSDTIGRYLRNIRVTGNNTCNGIDTNI TAEDSVIRQVYGVVFDNVMVNEVETAYL  
MQGLWHSKFIACQAGTCRVGLHFLGQCVSVSVSSCHF SRGNYSADESFGIRIQPQTYAWS  
SEAVRSEAIILDSETMCI GFKNAVYVHDCLDLHMEQLDLDYCGSTGVV IENVNGGFSFSN  
SWIAADADGTEQFTGIYFRTPSTQSHKIVSGVHINTANKNTAANNQSI AIEQSAIFVVFV  
SGCTLTGDEWAVNIVDINECVSFDKCIFNKPLRYLRSGGVSVTDCYLAGITEVQKPEGRY  
NTYRGC SGVPSVNGI INVPVAVGATSGSAAIPNPGNLTYRVRSLFGDPASSGDKVSVSGV  
TINVTRPSPVGVALPSMVEYLAI

>Q9LVM5

MAMEIGEDEWKVCCGSSEFAKQ MSTSGPLTSQEAIYTARDIWFNQVNVTDWLEAFSAHPQ  
IGNTSPSPSINSDFARRSVSEQSTAFATTSASALQELAEWNVLYKKKFGFIF I ICASGRTH  
AEMLHALKERYENRPIVELEIAAMEQMKITELRMAKLFSDKAKVISETDSSSSPVSTKPQ  
DRLRIIGGHLNVAEAKAPKRSRPPITTHVLDVSRGAPAAAGVEVHLEVWSGTTGPSFVHG  
GGGVWSSVGT SATDRDGRSGPLMDLVDALNPGTYRISFDTAKYSPGCFPPYVSIVFQVTE  
SQKWEHFHVPLLLAPFSFSTYRGS

>P27731

MAFHSTLLVFLAGLVFLSEAAPLVSHGVS DSKCPLMVKVLDAVRGSPAANVAVKVFKAA  
DGTWQDFATGKTTEFG EIH E L T T E E Q F V E G V Y R V E F D T S S Y W K G L G L S P F H E Y A D V V F T A  
NDSGHRHYTIAALLSPFSYSTTAVVSDPQE

>P31779

MAYYNTLALLTIFIFSGAFHRAQGT HGEADSKCPLMVKVLDAVRGIPAAKLPVKVFKQNE  
DKSWDLISSGTTSSDGEIHNLATEEQFVEGIYKLEFATKRFWSKLGLTPFHEYVDVVF TA  
NDAGHRHYTTAVLLTPYSFSTTAVVSDVKEAHV

>Q11094

MVARRKGERVVRKNEVENVQQRACANRRERQRTKELNDAFTLLRKLIPSMPSDKMSKIHT  
LRIATDYISFLDEM QKNGCKLYGHSIFDEKRGYNLQSAFNMWRGNNGYTP IAGPSQLPPL  
QSAHI PPPAPSSIPPHCLMPQPWYQTCPPPQEFHELCP I STPNPNSNPQNLTPIHWQ

>P10627

MMSARSVSPKVLDDISYKPTLPNIMELQNNVIKLIQVEQQAYMQSGYQLQHQQHHLHSHQ  
HHQQHHQQQHAQYAPLPSEYAAYGITELEDTDYNIP SNEVLSTSSNQSAQSTSL ELN N N N  
TSSNTNSSGNP SGFDGQASSGSSWNEHGKRARSSGDYDCQTGGSLVMQPEHKKLIHQQQ  
QQQQQHQQQIYVDYLP TTVDEVASAQSCPGVQSTCTSPQSHFDFPDEELPEHKAQVFLPL  
YNNQQQQSQQLQQQPHQQSHAQMHFQNA YRQSFEGYEPANSLNGSAYSSSDRDDMEYAR  
HNALSSVSDLNGGVMPACLADDGSAGSLLDGSDAGGKA FRKPRRRLKRKPSKTEETDEF  
SNQRVMANVRERQRTQSLNDAFKSLQQI I P T L P S D K L S K I Q T L K L A T R Y I D F L C R M L S S S  
DISLLKALEAQGSPSAYGSASSLLSAAANGAEADLKCLRKANGAPI IPPEKLSYLFVWR  
MEGDAQHQKA

>P26687

MMQDVSSSPVSPADDSLSNSEEE PDRQQPASGKRGARKRRSSRRSAGGSAGPGGATGGGI  
GGGDEPGSPAQKRGKKSAGGGGGGAGGGGGGGSSSGGSPQSYEELQTQRVMANVR  
ERQRTQSLNEAFAALRKI I P T L P S D K L S K I Q T L K L A A R Y I D F L Y Q V L Q S D E L D S K M A S C S  
YVAHERLSYAFSVWRMEGAWSMSASH

>Q90X24

MAAYLLAVAILFCIQGWPLGTVQGVMPFMEVYRHSVCQTR ETLVSI LEEHPDEVSHIFR  
PSCVTALRCGGCCTDESLKCTATGKRSVGREIMRVDPHKGT SKTEVMQFTEHTDCECRPR  
SASGVNSRKHKRNPEEGEPRAKFPFV

>P07650

MFLAQEIIRKKRDGHALSDEEIRFFINGIRDNTISEGQIAALAMTIFFFHDMTMPERVSLT  
MAMRDSGTVLDWKS LHLNGPIVDKHSTGGVGDVTSMLLGP MVAACGGYIPMISGRGLGHT  
GGTLDKLESIPGFDIFPDDNRFREI IKDVGVAIIGQTSS LAPADKRFYATRDITATVDSI

PLITASILAKKLAEGLDALVMDVKVSGAFMPTYELSEALAEAIVGVANGAGVVRTTALLT  
DMNQVLASSAGNAVEVREAVQFLTGEYRNPRLFVDTMALCVEMLISGKLAKDDAEARAKL  
QAVLDNGKAAEVFGRMVAAQKGPDTDFVENYAKYLP TAMLTKAVYADTEGFVSEMDTRALG  
MAVVAMGGGRRQASDTIDYSVGFTDMARLGDQVDGQRPLAVIHAKDENNWQEAAKAVKAA  
IKLADKAPESTPTVYRRISE

>P19971

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPPEPKQLPELIRMKRDGGRLSEADIRGFVAA  
VVNGSAQGAQIGAMLMAIRLRGMDLEETSVLTQALAQSGQQLEWPEAWRQQLVDKHSTGG  
VGDKVSLVLPALAAACGCKVPMISGRGLGHTGGTLDKLESIPGFNVIQSPQMQVLLDQA  
GCCIVGQSEQLVPADGILYAARDVTATVDSLPLITASILSKKLVEGLSALVVDVKFGGAA  
VFPNQEQAARELAKTLVGVGASLGLRVAAAL TAMDKPLGRCVGHAEVEEALLCMDGAGPP  
DLRDLVTTLLGALLWLSGHAGTQAQGAARVAAALDDGSALGRFERMLAAQGVDPGLARAL  
CSGSPAERRQLLPRAREQEELLAPADGTVELVRALPLALVLHEL GAGRSRAGEPLRLGVG  
AELLVDVGQRLRRGTPWLRVHRDGPALSQPSRALQEALVLSDRAPFAAPSPFAELVLP  
QQ

>Q04983

MTVFKHIAIIGLGLIGSSAARATKAYCPDVTVSLYDKSEFVRDRARALNLGDNVTDDIQD  
AVREADLVLLCVPVRAMGIVAAAMAPALKKDVIIICDTGSKVSVIKTLQDNLPHIIVPS  
HPLAGTENNGPDAGFAELFQDHPVILTPDAHTPAQAIAYIADYWEEIGGRINLMSAEHHD  
HVLALTSHLPHVIAYQLIGMVSGYEKKSRTPIMRYSAGSFRDATRVAASEPRLWQDIMLE  
NAPALLPVLDFHIADLKKLRTAIASQDGDYLLLEHFKEKSKARLALKTDHDIRP

>P07604

MRLEVFCEDRGLTRELLDLLVLRGIDLRGIEIDPIGRYLNFAELEFESFSSLMAEIRR  
IAGVTDVRTVPWMP SEREHLALSALLEALPEPVLSDVMKSKVDMANPASCQLFGQKLDRL  
RNHTAAQLINGFNFLRWLESEPQDSHNEHVINGQNFLMEITPVYLDQENDQHVL TGAVV  
MLRSTIRMGRQLQNVAAQDVSAFSQIVAVSPKMKHVVEQAQKLAMLSAPLLITGDTGTGK  
DLFAYACHQASPRAGKPYLALNCASIPEDAVESELFGHAPEGKKGFFEQANGGSVLLDEI  
GEMSPRMQAKLLRFLNDGTFRRVGEDHEVHV DVRVICATQKNLVELVQKGMFREDLYRL  
NVLTNLNPLRDCPQDIMPLTELFVARFADEQGVPRPKLAADLNTVLTTRYAWPGNVRQLK  
NAIYRALTQLDGYELRPQDILLPDYDAATVAVGEDAMEGSLDEITSRFERSVLTQLYRNY  
PSTRKLAKRLGVSHTAIANKLREYGLSQKKNEE

>P11044

MKQYKDFCRHVLEHGEKKGDRTGTGTISTFGYQMRFNLRREGFPMLTTKKLHFKSIAHELL  
WFLKGD TNVRYLQENGVRIWNEWADENGELGPVYGSQWRSWRGADGETIDQISRLIEDIK  
TNPNSRRLIVSAWNVGEIDKMALPPCHCLFQFYVSDGKLSQQLYQRSADVFLGVPFNIA  
YALLTMIIAHV TGLEPGEFIHTFGDVHIYQNHIEQVNLQLERDVRPLPQLRFARKVDSIF  
NFAFEDFIIEDYDPHPHIKGA VSV

>P39051

MSKIFDLVVI GAGSGGLEAGWNAATLYKKRVAVIDVQTHHGPPHYAALGGTCVNVGCVPK  
KLMVTGAQYMDHLRESAGFGWEFDGSSVKANWKKLIAAKNEAVLDINKSYEGMFNDTEGL  
DFFLGWGSLESKNVVVVRETADPKSAVKERLQADHILLATGSWPQMPAIPGVEHCISSNE  
AFYLPPEPPRRVLT VGGGFISVEFAGIFNAYKPPGGKVTLCYRNNLILRGFDETIREEVTK  
QLTANGIEIMTNENPAKVS LNTDGSKHVTFESGKTLDVDVMMMAIGRI PR TNDLQLGNVG  
VKLTPKGGVQVDEF SRTNVPNIYAIGDITDRLMLTPVAINEGAALVDTVFGNKPRKTDHT  
RVASAVFSIPPIGTCGLIEEVAAKEFEKVAVYMSSFTPLMHNISGSKYKFKFVAKIVTNHS

DGTVLGVHLLGDGAPEIIQAVGVCLRLNAKISDFYNTIGVHPTSAEELCSMRTPSYYYLK  
GEKMETLPESL

>P25976

MNGEADCPTDLEMAAPKQDRWSQEDMLTLLCEMKNLPSNDSKFKTTESHMDWEKVAF  
KDFSGDMCKLKWVEISNEVRKFRTLTTELILDAQEHVKNPYKGGKLLKHPDFPKKPLTPYF  
RFFMEKRAKYAKLHPMSNLDLTKILSKKYKELPEKMMKYIQDFQREKQEFERNLARFR  
EDHPDLIQNAKSDIPEKPKTPQQLWYTHEKKVYLKVRPDATTKVKDSLKGQWSQLSDK  
KTLKWIHKALEQRKEYEEMRDYIQKHPELNISEEGITKSTLTKAERQLKDKFDGRPTK  
PPNSYSLYCAELMANMKDVPSTERMVLCSQQWKLSSQKEKDAYHKKCDQKKKDYEVELLR  
FLESLEPEEQQRVLGEEKMLNINKKQTTSPASKKPSQEGGKGGSEKPKRPVSAMFIFSEE  
KRRQLQEERPELSESELTRLLARMWNDLTKKKKAKYKAREAAKQSERKPGGEREDRGR  
LPESPKRAEIIWQSVIGDYLARFKNDRVKALKAMEMTWNMEKKEKLMWIKKAAEDQKR  
YERELSEMRAAPATNSSKMMKFQGEPPKPPMNGYQKFSQELLSNGELNHLPLKERMVEI  
GSRWQRIISQSQKEHYKLAEEQQRQYKVLHDLVWVSLSPQDRAAYKEYISNKRKNMTKLR  
GPNPKSSRTTLQSKSESEEDDEEEEDDEEEEDDEEDDENGDSSEGGDSSESSESESE  
DGDENDDDDDEDEDDEDEDNESEGSSSSSSSSGSDSSDSGSN

>P57075

MAAGETQLYAKVSNKLSRSSPALLEPLLAMGFVHTALKALAAATGRKTAEEALAWLHDH  
CNDPSLDDPIPQEYALFLCPTGPLEKLQEFWRESKRQCAKNRAHEVFPHTVLCDFFTCE  
DQKVECLYEALKRAGDRLLGSFPTAVPLALHSSISYLGFFVSGSPADVIREFAMTFATEA  
SLLAGTSVSRFWIFSQVPGHGNLRLSNLTRASVSHYILQKYCSVKPCTKQLHLTLAHL  
FYPHHQRTLEQLARAIPLGHSCQWTAALYSRDMRFVHYQTLRALFQYKPNVDELTLSPG  
DYIFVDPTQQDEASEGWVIGISQRTGCRGFLPENYTDRASES DTWVKHRMYTFLATDLN  
SRKDGEASSRCSGEFLPQTARSLSSLQALQATVARKSVLVVRHGERVDQIFGKAWLQQCS  
TPDGKYRPNLNFPCSLPRRSRGIKDFENDPPLSSCGIFQSR IAGDALLDGIRISSVFA  
SPALRCVQTAKLILEELKLEKIKIRVEPGIFEWTKWEAGKTTPTLMSLEELKEANFNID  
TDYRPAFPLSALMPAESYQEYMDRCTASMVQIVNTCPQDTGVILIVSHGSTLDSCTRPLL  
GLPPRECGDFAQLVRKIPSLGCMCFCEENKEEGKWELVNPVKTTLTHGANAAFNRNWI  
SGN

>P08067

MLGIRSSVKTCFKPMSLTSKRLISQSLASKSTYRTPNFDDVLKENNDADKGRSYAYFMV  
GAMGLLSSAGAKSTVETFISSMTATADVLAMAKVEVNLAAIPLGKNVVVKWQKPVFIRH  
RTPHEIQEANSVDMSALKDPQTDADRVDKQWLIMLGICTHLGCVPIGEAGDFGGWFCPC  
HGSYHDISGRIRKGPAPLNLEIPAYEFDGDKVIVG

>P12758

MSKSDVFLGLTKNDLQGATLAIVPGDPDRVEKIAALMDKPVKLASHREFTTWRAELD  
PVIVCSTGIGGPSTSIAVEELAQLGIRTFRLRIGTTGAIQPHINVGDLVTTASVRLDGAS  
LHFAPLEFPVAVADFECTTALVEAAKSIGATTHVGV TASSDTFYPGQERYDTYSGRVVRHF  
KGSMEEWQAMGMNYEMESATLLTMCASQGLRAGMVAGVIVNRTQQEIPNAETMKQTESH  
AVKIVVEAARRLL

>Q8IX04

MEFDCEGLRRLGLKYKFRDLTVEELRNVNVPFFPHFKYSMDTYVFKDSSQKDLLNFTGTIP  
VMYQGNNTYNIPIRFWILDSPHFAPPICFLKPTANMGIILVGKHVDAQGR IYLPYLQNW  
KSVIVGLIKEMIAKFQEELPMYSLSSSDEARQVDLLAYIAKITEGVSDTNSKSWANHENK  
TVNKITVVGGEGLGIACTLAISAKGIADRLVLLDLSEGTGATMDLEIFNLPNVEISKDL

SASAHSKVVIFTVNSLGSQSYLDVVQSNVDMFRALVPALGHYSQHSVLLVASQPVEIMT  
YVTWKLSTFPANRVIGIGCNLDSQRLQYIITNVLKAQTSKGKEVWVIGEQQEDKVLTSWGSQ  
EEVVSHTSQVQLSNRAMELLRVKGRSWSVGLSVADMVDSIVNNKKKVHVSALAKGYD  
INSEVFLSLPCILGTNGVSEVIKTTLKEDTVTEKLOSSASSIHSLOQQQLKL

>P12378

MFEIKKICCIAGYVGGPTCSVIAHMCPEIRVTVVDINESRINAWNSPTLPYEPGLKEV  
VESCRGKNLFFSTNIDDAIKEADLVFISVNTPTKTYGMKGRAADLKYIEACARRIVQNS  
HGYKIVTEKSTVPVRAAESIRRIFDANTKPNLNLQVLSNPEFLAEGTAIKDLKNPDRVLI  
GGDETPEGQRAVQALCAVYEHVWPREKILTTNTWSSEL SKLTANAFLAQR ISSINSISAL  
CEATGADVEEVATAIGMDQRIGNKFLKASVGFSGFCQKDVNLVYLCEALNLPEVARYW  
QQVIDMNDYQRRRFASRIIDSLFNTVTDKKAIALGFAFKKDTGDTRESSSIYISKYLMDE  
GAHLHIYDPKVPREQIVVDLSHPGVSKDDQVARLVITISKDPYEACDGAHAVVICTEWDMF  
KELDYERIHKKMLKPAFIFDGRRLVDGLHNELOQTIGFQIETIGKKVSSKRIPYAPSGEIP  
KFSLOQDMPNKKPRV

>P80601

MSSLVRRRIISTAKAPAAIGPYSQAVLVDRTIYISGQLGMDPASGQLVPGGVVEEAKQALT  
NIGEILKAAGCDFTNVVKATVLLADINDFSAVNDVYKQYFQSSFPARAAYQVAALPKGGR  
VEIEAIAVQGPLTTASL

>P39304

MSLPLQVALDNQTMDSAYETTRLIAEEVDIIEVGTILCVGEGVRAVRDLKALYPHKIVL  
ADAKIADAGKILSRMCFEANADWVTVICCADINTAKGALDVAKEFNGDVQIELTGYWTWE  
QAQQWRDAGIGQVVYHRSDAQAAGVAWGEADITAIKRLSDMGFKVTVTGGLALEDLPLF  
KGIPIHVFIAGRSIRDAASPVEAARQFKRSIAELWG

>P60472

MMLSATQPLSEKLPAGHCRHVAIIMDGNRWAKKQGKIRAFGHKAGAKSVRRAVSFAANN  
GIEALTYAFSSENWNRPAQEVSALEMELFWALDSEVKSLSHRHNVRRLRIGDTSRFRNSRL  
QERIRKSEALTAGNTGLTLNIAANYGGRWDIVQGVRLAEKVQQGNLQPDQIDEEMLNQH  
VCMHELAPVDLVIRTGGEHRISNFWLLWQIAYAELYFTDVLWPDFDEQDFEGALNAFANRE  
RRFGGTEPGDETA

>Q88VJ8

MFAFFNKNDPADNTDVQLDPERIPAHVAIIMDGNRWAKARHLPRVAGHKEGMNTVKKIT  
IAASDLGVKVLTYAFSTENWKRPTDEVNYLMQLPVSSFFDTFVVDLIKNNVRVQVMGYVD  
HLPEATQKAVQNAIADTKDCDGMVLNFALNYGSRAEIVTGVQKIAQQVQDGLAVGDIID  
ATIDAALMTAPLAPYNDPDLIRTSGEERISNFWLMWQIAYSELVFTDVKWPDFTAATLQA  
CIADFQSRDRRFGLSDHK

>P28274

MKYVVVSGGVISGIGKGLASSTGMLMKTGLKVTSIKIDPYMNIDAGTMSPLEHGEFCV  
LDDGGETDLDLGNYERYLGVTLTKDHNIITGKIYSHVIAKERKGDYLGKTVQIVPHLTNA  
IQDWIERVAKIPVDDTGMEDVCIIEELGGTVGDIESAPFVEALRQFQFKVKGKFNALIHV  
SLVPVIHGEQKTKPTQAAIKGLRSLGLVPMIACRCSETLDKPTIDKIAMFCHVGPEQVV  
NVHDVNSTYHVPLLLLEQKMIDYHLARLKLDEISLTEEEKQRGLELLSKWKATTGNFDES  
METVKIALVGKYTNLKDSYLSVIKALEHSSMKCRRKLDIKWEATDLEPEAQESNKTKFH  
EAWN MVSTADGILIPGGFGVGRTEGMVLAARWARENHIPFLGVCLGLQIATIEFTRSVLG  
RKDSHSAEFYDPIDEKNHVVFMPPEIDKETMGGSMRLGLRPTFFQNETEWSQIKKLYGDV

SEVHERHRHRYEINPKMVDELENNGLIFVKGDDTGKRCEILELKNHPYYIATQYHPEYTS  
KVLDPSPKFLGLVAASAGILQDVIEGKYDLEAGENKFNF

>A1L259

MDINVVNALAYEDFVKLFGNVVEKCP LISAAIWSYRPFKDLADIEARISEFIHSLPDSGK  
EGILRCHPDLAGRDLQSGTLTPESQEEQSQAGMTTLD SAEIVHMYRLNSEYKERFGFPFV  
ICARLNNKADIVRQLSERLKNRRTAELECAIEEVKKICSLRLHSIVLSDIQTKL

>P07374

MKLSPREVEKLGHLNAGYLAQKRLARGVRLNYTEAVALIASQIMEYARDGEKTV AQLMCL  
GQHLLGRRQVLP AVPHLLNAVQVEATFPDGT KLVTVHDPISRENGELQEALFGSLLPVPS  
LDKFAETKEDNRIPGEILCEDECLTLNIGRKAVILKVT SKGDRPIQVGSYHYHFIEVNPYL  
TFDRRKAYGMRLNIAAGTAVRFEPGDCKSVTLV SIEGNKVIRGGNAIADGPVNETNLEAA  
MHA VR SKGFGHEEEKDASEGFTKEDPNC PFNTFIHRKEYANKYGP TTGDKIRLGD TNLLA  
EIEKDYALYGDECVFGGGKVIRDGMGQSCGHPPAISLDTVITNAVIDYTGIIKADIGIK  
DGLIASIGKAGNPDIMNGVFSNMIIGANTEVIAGEGLIVTAGAIDCHVHYICPQLVYEAI  
SSGITTLVGGGTGPAAGTRATTCTPSPTQMRLMLQSTDDLPLNFGFTGKGSSSKPDELHE  
I IKAGAMGLKLHEDWGSTPAAIDNCLTIAEHHDIQINIHTDTLNEAGFVEHSIAAFKGR T  
IHTYHSEGAGGGHAPDI IKVCGIKNVLPSSTNPT RPLTSNTIDEHLDMLMVCHHLDREIP  
EDLAF AHSRIRKKTIAAEDVLNDIG AISI ISSDSQAMGRVGEVISR TWQTADKMK AQ TGP  
LKC DSSDNDNFRIRRYIAKYTINPAIANGFSQYVGSVEVGKLADLVMWKPSFFGTKPEMV  
IKGGMVAWADIGDPNASIPTPEPVKMRPMYGT LGKAGGALSIAFVSKAALDQRVNVLYGL  
NKRVEAVSNVRKLT KLDMKLN DALPEITVDPE SYTVKADGKLLCVSEATTVP LSRNYFLF

>P50049

MLITKIVGHIDDYESSDKKVDWLEVEWEDLNKRILRKETENGTDIAIKLENSGTLRYGDV  
LYESDDTLIAIRTKLEKVYVIK PQTMQEMGKMAFEIGNRH TMCIIE DDEILVRYDKTLEK  
LIDEVGVSYEQSERRFK EPFKYRGHQH

>P18317

MLYLTQRLEIPAAATASVTLPIDVRVKSRVKVTLNDGRDAGLLLPRGLLLRGGDVLSNEE  
GTEFVQVIAADEEVS VVRCD DPFMLAKACYHLGNRHVPLQIMP GELRYHHDHVLDDMLRQ  
FGLTVTFGQLPFEPEAGAYASESHGHHHAHHDHHAHSH

>P04670

MAQQEVVEGFKFEQRHGKERVRVARVWKTRQGQHFIVEWRVGITLFSDCVNSYL RDDNSD  
IVATDTMKNTVYAKAKECSDILSAEEFAILLAKHFVSFYQKV TGAI VNI VEK PWERVTVD  
GQPHEHGFKLGSEKHTTEAIVQKSGSLQLTSGIEGLSVLKT TQSGFVNFIRDKYTALPDT  
RERMVATEVTALWRYSYESLYSLPQKPLYFTEKYQEVKKVLADTFFGPPKGGVYSPSVQN  
TLYLMAKATLNRFPDIA YVSLKLPNLHFIPVNI SNQDGP IVKFE DDVYLP TDEPHGSIQA  
SLSRLWSKL

>Q00511

MSAVKAARYGKDNVRVYKVHKDEKTGVQTVYEMTVCV LLEGEIETS YTKADNSVIVATDS  
IKNTIYITAKQNPVTPPELFGSILGTHFIEKYNHIAAAHVNI VCHRWRMDIDGKPHPHS  
FIRDSEEKRNQVDVVEGKGIDIKSSLSGLTVLKSTNSQFWGFLRDEYTTLKETWDRILS  
TDVDATWQWKNFSGLQEVRSHPKFDATWATAREVTLKTF AEDNSASVQATMYKMAEQIIL  
ARQQLIETVEYSLPNKH YFEIDLSWHKGLQNTGKNAEVFAPQSDPNGLIKCTVGRSSLKS  
KL

>P16164

MAHYRNDYKKNDEVEFVRTGYGKDMIKVLHIQRDGYHSIKEVATSVQLTLSSKKDYLHG  
DNSDVIPTDTIKNTVNVLAKFKGIKSIETFAVTICEHFLSSFKHVIRAQVYVEEVPWKR  
EKNVGVKHVHAFIYTPGTGTHFCEVEQIRNGPPVIHSGIKDLKVLKTTQSGFEGFIKDQFTT  
LPEVKDRCFATQVYCKWRYHQGRDVFDEATWDTVRSIVLQKFAGPYDKGEYSPSVQKTLY  
DIQVLTGLQVPEIEDMEISLPNIHYLNIDMSKMGLINKEEVLLPLDNPYGRITGTVKRKL  
TSRL

>P22415

MKGQQKTAETEEGTVQIQEGAVATGEDPTSVAIASIQSAATFPDPNVKYVFRTEGGQVM  
YRVIQVSEGLDQTEGTGAISGYPATQSMQAVIQGAFTSDDAVDTEGTAAETHYTYFP  
STAVGDGAGGTTSGSTAAVVTTQGSEALLGQATPPGTGQFFVMMSPQEVLLQGGSQRSIAP  
RTHPYSPKSEAPRTTRDEKRRAQHNEVERRRRDKINNWIQVLSKIIPDCSMESTKSGQSK  
GGILSKACDYIQELRQSNHRLSEELQGLDQLQLDNDVLRQQVEDLKNKNLLLRAQLRHHG  
LEVVIKNSDN

>P41541

MNFLRGVMGGQSAGPQHTAETIQKLCDRVASSTLLDDRRNAVRALKSLSKKYRLEVGIQ  
AMEHLIHVLQTDSDSEIIGYALDTLYNII SNDEEEVEENSTRQSEDLGSQFTEIFIKQ  
QENVTLTLLSLLEEFDFHVRWPGVKLLTSLKQLGPGVQQIILVSPMGVSRLMDLLADSRE  
VIRNDGVLLQALTRSNGAIQKIVAFENAFERLLDIITEEGNSDGGIVVEDCLILLQNL  
KNNNSNQNFKEGSIYIQRMKPWFEVGDENSGWSAQKVTNLHLMLQLVRLVSPNNPPGAT  
SSCQKAMFQCGLLQQLCTILMATGVPADILTETINTVSEVIRGCQVNQDYFASVNAPSNP  
PRPAIVVLLMSMVNERQPFVLRCAVLYCFQCFLYKNQKQGEIVSTLLPSTIDATGNTVS  
AGQLLCGGLFSTDSLNSWCAVALAHALQENATQKEQLLRVQLATSIGNPPVSLQQCTN  
ILSQGSKIQTRVGLMLLCTWLSNCP IAVTHFLHNSANVPFLTGQIAENLGEEQLVQGL  
CALLLGISIYFNDNSLETYMKEKQLIEKRIGKENFIEKLGFIKHELYSRASQKQP  
FPSPEYMIQDFHEFTKLVKELEGVITKAIYKSSEEDKKEEEVKKTLEQHDSIVTHYKNMIR  
EQDLQLEELKQOISTLKCQNEQLQTAVTQQVSQIQQHKDQYNLLKVQLGKDSQHQP  
YTDGAQMNGVQPEEISRLREEIEELKSNRELLQSQAELKDSL IENLKSSQLSPGTNEQSSATA  
GDSEQIAELKQELATLKSQNSQSVEITKLQTEKQELLQKTEAFKSAVPVGESETVIAT  
KTTDVEGRLSALLQETKELKNEIKALSEERTAIKEQLDSSNSTIAILLQNEKNKLEVDITD  
SKKEQDDLLVLLADQDQKIFSLKNKLELGHVVEEEDLESGDQDDEDEDEDDGKEQGH  
I

>P44880

MYKHILVAVDLSEESPILLKKAAGIAKRHDAKLSIIHVDVNFSDLYTGLIDVNMSSMQDR  
ISTETQKALLDLAESVDYPISEKLSGSGDLGQVLSDAIEQYDVDLLVTGHHQDFWSK  
LMSSTRQVMNTIKIDMLVVPLRDE

>Q8LGG8

MGSEPTKVMVAVNASTIKDYPNPSISCKRAFEWTLKIVRSNTSDFKILLLHVQVDE  
DGDFFDDVDSIYASPEDFRDMRQSNKAKGLHLLLEFFVNKCHEIGVGCEAWIKTGDPK  
DVICQEVKRVRPDFLVVGSRGLGRFQKVFGTVSAFCVKHAECVMTIKRNADETPSDP  
ADD

>Q9TS45

EICPTFLRVIESLFLDTPSSFEAMGFFSPDQDMSEAGAQLKKVLDTLPAKARDSI  
IKLMEKIDKSLLCN

>P21373



MKENDMNGVDKVVNEEDGRNDHHNNNNLMMKAMMNEQIDRTQDIDNAKEMLRKISSE  
SSSRSSLLNKDSSLVNNGNANSGGGTSINGTRGSSKSSNTHFYASTAYGVRMLSKDISN  
TKVELDVENLMIIVTKLNDVSLYFLTRELVEWVLVHFPRVTVYVDSELKNSKKFAAGELCE  
DSKRESRIKYWTKDFIREHDVFFDLVVTLGGDGTVLFVSSIFQRHVPPVMSFSLGSLGF  
LTNFKFEHFREDLPRIMNHKIKTNLRLRLECTIYRRHRPEVDPNTGKKICVVEKLSSTHHI  
LNEVTIDRGPSPFLSMLELYGDGSLMTVAQADGLIAATPTGSTAYSLSAGGSLVCPVNA  
IALTPICPHALSFRPIILPESINLKVKVSMKSRAPAWAAFDGKDRIELQKGFITICASP  
YAFPTVEASPDEFINSISRQLNWNVREQQKSFTHILSQKNQEKYAHEANKVRNQAEPLEV  
IRDKYSLEADATKENNNGSDDESDESVNCEACKLKPSVVPKPSQARFSV

>P56216

MSKTQEFRPLTLPPKLSLSDFNFIQDIIRIVGSENVVIVSSKDQIVDGSYMKPTHTHDP  
HHVMDQDYFLASAIIVAPRNVADVQSIVGLANKFSFPLWPISIGRNSGYGGAAPRVSGSVV  
LDMGKNMNRVLEVNVEGAYCVVEPGVTYHDLHNYLEANLNRDKLWLDVDPDLGGGSLVGN  
VERGVGYTPYGDHMMHSGMEVVLANGELLRTGMGALPDPKRPETMGLKPEDQPWSKIAH  
LFPYGFPGPYIDGLFSQSNMGIIVTKIGIWLMPNPRGYQSYLITLTKDGLKQAVDIIRPLR  
LGMALQNVPTIRHILLDAAVLGDKRSYSSRTEPLSDEELDKIAKQLNLGRWNFYGALYGP  
EPIRRVLWETIKDAFSAIPGVKIFYFPEDTPENSVLRVRDKTMQGIPTYDELKVIDWLPNG  
AHLFFSPIAKVSGEDAMMAYAVTKKRCQEAGLDFIGTFTVGMREMHHCIVFNKKDLIQ  
KRKVQWLMRTLIDDCANGWGEYRTHLAFMDQIMETYNNWNSFLRFNEVLKNAVDPNGI  
IAPGKSGVWPSQYSHVTWKL

>O05209

MESNNGIILRVAEANSTDPGMSRVRLDESSRLLDAEIGDVVEIEKVRKTVGRVYRARPE  
DENKGIVRIDSVMRNNCGASIGDKVKVRKVRTEIAKKVTLAPIIRKDQRLKFGEGIEEYV  
QRALIRRPMLQDNISVPGLTLAQGTGLLFKVVKTLPSKVPVEIGEETKIEIREEPASEV  
LEEVSRISEYEDIGGLSEQLGKIREMIELPLKHPELFFERLGITPPKGVILYGGPGTGKTLI  
ARAVANESGANFLSINGPEIMSKYQGQSEQLREIFSKAEETAPSIIFIDEIDSIAPKRE  
EVQGEVERRVVAQLLTLMDGMKERGHVIVIGATNRIDAIDPALRRPGRFDREIEIGVPDR  
NGRKEILMIHTRNMPLGMSEEEKNFLEEMADYTYGFVGADLAALVRESAMNALRRYLPE  
IDLDKPIPTTEILEKMVVTEDDFKNALKSIEPSSLREVMVEVPNVHDDIGGLEDVKREIK  
ETVELPLLKPDVFKRLGIRPSKGFLLYGGPGVGTLLAKAVATESNANFISIKGPEVLSK  
WVGESEKAIREIFKKAKQVAPAIVFLDEIDSIAPRRGTTSDSGVTERIVNQLLTSLDGIE  
VMNGVVVIGATNRPDIMPALLRAGRFDKLIYIPPPDKEARLSILKVHTKNMPLAPDVL  
NDIAQRTEGYVGADLENLCREAGMNAYRENPDATSVSQKNFLDALKTIRPSVDEEVIKFY  
RTLSETMSKSVSERRKQLQDQGLYL

>P50870

MGNPNMKMYPIEGNKSVQFIKPILEKLENVEVGEYSYDSSKNGETFDKQILYHYPII LNDK  
LKIGKFCSIGPGVTIIMNGANHRMDGSTYPFNLFNGWEKHMPKLDQLPIKGDTIIGNDV  
WIGKDVVIMPGVKIGDGAIVAANSVVVKDIAPYMLAGGNPANEIKQRFQDTINQLLDIK  
WNNWPIDIINENIDKILDNSIIREVIWKK

>P49767

MHLGLGFFSVACSLLAALLPGPREAPAAAAAFESGLDLSDAEPDAGEATAYASKDLEEQL  
RSVSSVDELMTVLYPEYWKMYKCLRKGGWQHNRQANLNSRTEETIKFAAAHYNTEILK  
SIDNEWKRKTQCMPREVCIDVGKEFGVATNTFFKPPCVSVYRCGCCNSEGLQCMNTSTSY  
LSKTLFEITVPLSQGPKPVTISFANHTSCRMSKLDVYRQVHSIIRRSIPATLPQCQAAN  
KTCPTNYMWNHICRCLAQEDFMFSSDAGDDSTDGFHDICGPNKELDEETCQCVCRAGLR  
PASCOPHKELDRNSQCVCCKNKLFPSCGANREFDENTCQCVCCKRTCPRNQPLNPGKAC

ECTESPQKCLLKGGKFFHHQTCSCYRRPCTNRQKACEPGFSYSEEVCRVCVPSYWKRPQMS

>P97946

MYGEWGMGNILMMFHVYLVQGFSEHGPKDFSFERSRSMLERSEQQIRAASSLEELLQ  
IAHSEDWKLWRCRLKLSLASMDSRSASHRSTRFAATFYDTETLKVIDEEWQRTQCSPRE  
TCVEVASELGKTTNTFFKPPCVNVFRCGGCCNEEGVMCMNTSTSYISKQLFEISVPLTSV  
PELVVKIANHTGCKCLPTGPRHPYSIIRRSIQTPPEDECPHSHKLLCPIDMLWDNTKCKC  
VLQDETPLPGTEDHSYLQEP TLCGPHMTFDEDRCECVCKAPCPGDLIQHPENCSCFECKE  
SLESACCQKHKIFHPDTCSCEDRCPFHTRTCASRKPACGKHWRFPKETRAQGLYSQENP

>P26312

MLEFFRPPRARSPRELVQLLPEAWTTSRSSTGSANPSASRKPARYPRIHAPELQSGEARW  
PLWSRIRPLEDPLKQRLTNLEKKITNVTTKFEQIEKCKCRNDEVLFRLNHAETLRAAMI  
SLAKKIDVQTGRRPYE

>P33816

MDGTLFPGDDDLAIPATEFFSTKAAKKPEAKREAIVKADGDNNEETLKQRLTNLEKKITN  
VTTKFEQIEKCKCRNDDVLFRLNHAETLRAAMISLAKKIDVQTGRRPYE

>P17313

MSEVQQLPIRAVGEYVILVSEPAQAGDEEVTEGLIIGKRVQGEVPEL CVVH SVGPDPVPE  
GFCEVGDLTSLPVGQIRNVPHPFVALGLKQPKKIKQKFVTCHYKAIPCLYK

>P21442

MAVRKDTKNGKWLAEVYVNGNASRKWFLTKGDALRFYNQAKEQTTSADVSVQVLESSDLP  
ALSFYVQEWFDLHGKTLSDGKARLAKLKNLCSNLGDPANEFNAKIFADYRKRRLDGEFS  
VNKNPPKEATVNREHAYLRAVFNELKSLRKWTTENPLDGVRLFKERETEFLAFLYERDIY  
RLLAECDNSRNPDLGLIVRICLATGARWSEAETLTQSQVMPYKIFTNTKSKKNRTVPIS  
KELFDMLPKKRGRFLFNDAYESFENAVALRAEIELPKGQLTHVLRHTFASHFMMNGNILLV  
KEILGHSTIEMTMRYAHFAPSHLESVAVKFNPLSNPAQ

>P17798

MKGSEYALLVARETLAEHYKEVEAFQTARAKSARRLSKVIAAVATIAVLGNVAQAF'IAT  
MVPLIRLVVYLVWIRPDGTVDSEVSVSRPATQEEAVVNASLWEYVRLRESYDADTAQYA  
YDLVSNFSAPMVRQNYQQFFNYPNPTSPQVILGKHGRLEVEHIASNDVTPGVQQIRYKRT  
LIVDGKMPMASTWTATVRYEKVTSLPGRLRLTNPGLVVT'SYQTS'EDTVSNAGHSEP

>P36325

MDAIAARALS VVRACVTVTDARVSLDPGVMETLGIAINRYNGLTNHSVSMRPQTQAERNE  
MFFMCTDMVLAALNVQIGNISPDYDQALATVGALATTEIPYNVQAMNDIVRITGQMOTFG  
PSKVQTPYAGAVEVQQSGRYVVPQGRTRGGYINSNIAEVCMDAGAAGQVNALLAPRRGD  
AVMIYFVWRPLRIFCDPQGASLESAPGTFVTVDGVNVAAGDVVAWNTIAPVNVGNPGARR  
SILQFEVLWYTSLDRSLDTPPELAPTLTRCYAYVSP'W'HALRAVIFQQMNMQPINPPIFP  
PTERNEIVAYLLL'V'ASLADVYAALRPDFRMNGVVAPVGQINRALVLAAYH

>P69361

MDTIAARALTVMRACATLQEARIVLEANVMEILGIAINRYNGLTLRGV'TMRPT'SLAQRNE  
MFFMCLDMMLSAAGINVGPI SPDYTQHMATIGVLATPEIPFTTEAANEIARVTGETSTWG  
PARQPYGFFLETEETFQPGRWFMRAAQAVTAVVCGPDMIQVSLNAGARGDVQQIFQGRND  
PMMIYLVWRR'IENFAMAQGNSQQTQAGVTVSVGGVDMRAGRI IAWDGQAALHVNPTQQN

AMVQIQVVFYISMDKTLNQYPALTAEIFNVYSFRDHTWHGLRTAILNRTTLPNMLPPIFP  
PNDRDSILTLTLLSTLADVYTVLRPEFAIHGVNPMPGPLTRAIARAAYV

>P10265

WASQVSENRPVCKAIIQ GKQFEGLVDTGADVSI IALNQWPKNWPQKAVTGLVIGITASE  
VYQSMEILHCLGPDNQESTVQPMITSIPLNLWGRDLLQQWGAEITMPAPLYSPTSQKIMT  
KMGYIPGKGLGKNEDGIKVPVEAKINQEREGIGYPPF

>P10271

KFKKLVKQGSPSPAQKGDGVKSGSLNPEAPPFTIHDLP RGT PGSAGLDLSSQKDLILSLE  
DGVSLVPTLVKGTLP EGT TGLI IGRSSNYKKGLEVLPGVIDSDFQGEIKVMVKAANKNAVI  
IHKGERIAQLLLLPYLKL PNPVIKEERGSEGFSTSHVHWVQEISDSRPM LHIYLNRRF  
LGLLDTGADKTCIAGRDPANWPIHQTESSLQGLGMACGVARSSQPLRWQHEDKSGI IHP  
FVIPTLPFTLWGRDIMKDIKVRMLTDSRDDSDQL

>P54787

MTDDEKREILKEFPFSQLEQANGNPKDKVFKKDDPNRAAAEETNRDISAQDKGDEEPP  
YDFQIFIKQLQTPGADPLVKYTKSFLRNFLAQRLLWTVSEEIKLISDFKTFIYDKFTLYE  
PFRSLDNSKMRNAKEGMEKLIMGKLYSRCFSPSLYEILQKPLDDEHMKDLTNDTLLLEKI  
RHRYFISPIMLDIPDTMPNARLNK FVHLASKELGKINRFKSPRDKMVCVLNASKVIFGLL  
KHTKLEQNGADSFIPVLIYCILKGQVRYLVSNVNYIERFRSPDFIRGEEYYLSSLQAAL  
NFIMSLTERS LTIDHDHEDFEEAYQRNLKQLAEKEKEKEKQLEVPDELQPNGTLLKPLD  
EVTNIVISKFNELFSPIGEPTQEEALKSEQSNKEEDVSSLIKKIEENERKDTLNTLQNMF  
PMDPSLIEDVCIAKKSRIGPCVDALLSLSE

>P04512

MEKLTDLNYT LSVITLMNNTLHTILEDPGMAYFPYIASVLTGLFALNKASIP TMKIALKT  
SKCSYKVVKYCIVTIFNTLLKLAGYKEQITTKDEIEKQMDRVVKEMRRQLEMIDKLTRE  
IEQVELLKRIYDKLTVQTTGEIDMTKEINQKNVRTLEEWESGKNPYEPREVTAA M

>P26332

MPSNQEARLFLAVLVLAQVLPILVDSAAEKGFQAFWQPLCQVSEELDDQPKGALFTLQA  
AASKIQKMRDAALRASIIYAEINHGTNRAKAAVIVANHYAMKADSGLEALKQTLSSQEVTA  
TATASYLKGRIDEYLNLLQTKESGTS GCMMDTSGTNTVTKAGGTIGGVPCKLQLSPIQP  
KRPAATYLGKAGYVGLTRQADAANNFHDNDAECRLASGHNTNGLGKSGQLSAAVTMAAGY  
VTVANSQTAVTVQALDALQEASGAHQPWIDAWKAKKALTGAETAEFRNETAGIAGKTGV  
TKLV E EALLKKK DSEASEIQTELKKYFSGHENEQWTAIEKLISEQPVAQNLVGDNQPTKL  
GELEGNAKLT TILAYYRMETAGKFEVLTQKHKPAESQQQAAE TEGSCNKKDQNECKSPCK  
WHNDAENKKCTLDKEEAKKVADE TAKDGKTGNTNTTGSNSFVISK TPLWLAVLLF

>Q8R2Z5

MLFWTAFSMALSLRLALARSSIERGSTASDPQGDLLFLLDSSASVSHYEF SRVREFVQQL  
VATMSFGPGALRASLVHVGSQPHTFTFDQYSSGQAIQDAIRVAPQRMGDTNTGLALAYA  
KEQLFAEEAGARPGVPKVLVWVTDGGSSDPVGPMPQELKDLGVTIFIVSTGRGNLLELLA  
AASAPAEKHLHFVDVDDLPIIARELRGSITDAMQPQQLHASEVLSSGFRLSWPPLLTADS  
GYVLELVPSGKLATRRQQLPGNATSWTWTDLDPD TDYEVSLLPESNVHLLRPQHVRVR  
TLQEEAGPERIVISHARPRSLRVSWAPALGPD SALGYHVQLGPLQGGSLERVEVPAGQNS  
TTVQGLTPCTTYLVTVTAAFRSGRQRALS AKACTASGARTRAPQSMRPEAGPREP

>O44342

MMHILVTLVLLVAIHSIPTTAVTCTGCVLDLDELSEKTVRFPPYSVVKFDIAYPYGEKHE  
AFTAFSKSAHKATKDLLIATVGVKDYGELENKALGDRYKVDKDFPSIFLFLKGNADYVQ  
LPSHVDVTLVTLKAFVVSANTPLYIGRDGCIKEFNEVLKNYANIPDAEQLKLEKQAKQE  
QLTDPEQQONARAYLIYMRKIHVGYDFLEETKRLRLKAGKVTEAKKEELLRKLNI  
LLEVFRVHKVTKTAPEKEEL

>P27828

MKVLTVFGTRPEAIKMAPLVHALAKDPFFFEAKVCVTAQHREMLDQVLKLF SIVPDYDLNI  
MQPGQGLTEITCRILEGLKPI LAEFKPDVVLVHGDTTTTLATSLAAFYQRIPVGHVEAGL  
RTGDLVSPWPEEANRTLTGHLAMYHFSPTETSRQNLLRENVADSRIFITGNTVIDALLWV  
RDQVMSDKLRSELAANYPFIDPKKMILVTGHRRESFGRGFEEICHALADIATTHQDIQ  
IVYPVHLNPNVREPVNRI LGHVKNVILIDPQEYLPFVWLMNHAWLILTDSSGQIEEAPSL  
GKPVLMRDTTERPEAVTAGTVRLVGTDKQRIVEEVTRLLK DENEYQAMSRAHNPYGDGQ  
ACSRILEALKNNRISL

>P0A8G6

MAKVLVLYYSMYGHIETMARAVAEGASKVDGAEVVVKRVPETMPPQLFEKAGGKTQTAPV  
ATPQELADYDAIIFGTPTRFGNMMSGQMRFTFLDQTGGLWASGALYKGLASVFSSTGTGGGQ  
EQTITSTWTTLAHGMVIVPIGYAAQELFDVSVQVRGGTPYGATTIAGGDGSRQPSQEELS  
IARYQGEYVAGLAVKLN

>Q9V576

MPAVKIIMSTETSASETTPLRSENETPDHKELAQSNNSRQTTVNSNNNYSNSVQVRL  
QEQRDSDSEQQOHTATITMDTNKRILCRVGLDVLILLCAGFPILLFFLLGEPYKRGFFC  
DDESLKHPFHDSTVRNWMLYF IGAVIPVGVIFIVEV IISQNKAKQDNGNATSRRYVFMNY  
ELPDWMI ECKYKIGIYAFGAVLSQLTTDIAKYSIGRLRPHFIAVCQPQMADGSTCDDAIN  
AGKYIQEFTCKGVGSSARMLKEMRLSFP SGHSSFTFFAMVYLALYLQARMTWRGSKLLRH  
LLQFLFIMVAWYALSRSVSDYKHHWSDVLAGSLIGSISALVVANYVSDLFQKPNTPYLA  
RTVQDMNASPAQAITITTN

>P76372

MRVENNNVSGQNHDPEDIDLIDLLVQLWRGKMTIIISVIVAIALAIGYLAVAKEKWTSTA  
IITQPDVQIAGYNNAMNVIYQAAKPVSDLQETLIGRFSSAFSALAEITLDNQEEREKLT  
IEPSVKNQQLPLTVSYVGQTAEGAQMKLAQYIQQVDDKVNQELEKDLKDNIALGRKNLQD  
SLRTQEVVAQE QKDLRIRQIQEALQYANQAQVTKPQIQQTGEDITQDTLFLGSEALESM  
IKHEATRPLVFSFNYYQTRQNLLDIESLKVDDLDIHAYRYVMKPLP IRRDSPKKAITLI  
LAVLLGGMVAGIVLGRNALRNYNAK

>P47990

MAPPETGDELVFFVNGKVKVEKDVDPETTLTYLRRKLGCGTKLGC GEGGCGACTVMIS  
KYDPFQKKILHHTANACLFPICALHHVAVTTVEGIGNTKSRLHPAQERIAKSHGSQCGFC  
TPGIVMSMYTLLRNKPKPKMEDI EDAFQGNLCRCRTGYRPILEGYRTFAVDSNCCGKAANG  
TGCHSKGENSMNGCCGGKANGPGCCMNEKENVTMMSSSLFDSSEFQPLDPTQEP IFPP  
ELMTQRNKEQKQVCFKGERVMWIQPTTLQELVALKSQYPNAKLVVGNTEVGIEMRLKNML  
YPVILAPAWIPEMNAVQQTETGITFGAACTLSSVEEVLKAVAE LPSYKTEIFQAALEQL  
RWFAGPQIRNVAALGGNIMTASPI SDLNPVLMASGSKLT LISMEGKRTVMMDEKFFTGYR  
KTIVKPEEVLLSVEIPYSKEGEYFSAFKQAYRREDDIAIVTCGMRVLFQHGTSRVQEVKL  
SYGGMAPTTILALKTCRELGRDWNELKLLQDACRLLAGEMDLSPSAPGGMVEFRRTLTL  
SFFFKPYLTVLQKLSKDQNGPNNLCEPVPNNYISATELFHKDPIASTQLFQEVPRGQLVED  
TVGRPLVHLSAAKQACGEAVYCDDIPHYENELYLTLVTSTQAHAKILSIDASEAQSVPGF

VCFVSAKDVPGSNITGIANDETVFAEDVVTCVGHII GAVIADTQEHSRRAAKAVKIKYEE  
LKPIVTIQEAIEQQSFIKPIKRICKGDVKNKGFEESDHILEGEMHIGGQEHFYLETHCTLA  
VPKGEDGEMELFVSTQNLMKTQEF TASA LGVPSNRIVVRVKRMGGGFGGKETRNTILTTV  
VAVAAFKTGRPVRCMLDRDEDMLISGGRHPFLGRYKVGFMKNGKIKSLEVSYYSNNGNSA  
DLSHGVMDRALLHLDNSYNI PNVSIMGFICKTNLSSNTAFRFGFGGPQMMIAECWMSDLA  
RKCGLPPEEVKINLYHEGLDTHFNQKLEGF TLRRCWDECLSSSNYHARKKLI EEFNKQN  
RWKKRGMCI IPTKFGISFTVPFLNQAGALVHVYTDG SVLLTHGGTEMGQGLHTKMIQVAS  
RSLGIPTSKIYISETSTNTVPNTSPTAASVSADINGMAVHNACQTILKRLEPIKQSNLKG  
SWEDWIKTAYENCISLSATGFYRIPDVGYNFETNKGKPFHYFSYGVACSEVEIDCLTGDH  
KNIRTDIVMDVGTSLNPAIDIGQIEGAFVQIGLFTMEELRYSPEGNLYTRGPGMYKIPA  
FGDIPTFEFVSLLRDCPNKAIYSSKAVGEPPLFLSASVFYAIKDAIYSAREDSGVTEPF  
RLDSPATPERIRNACVDTF TKMCP SAEPGTFKPWSVRA

>Q56837

MLIRGEDVTIPTSMVGNYPNPRWDAQFARTWTGDQEPDALIQESLEDAVAAIARDQER  
AGLDIISDGRVHGDNYAEQALYYYYRRLGYDLKGGYLGFP IYSRLHAGTLTGEVRRHGAI  
MVEQAKALKKATGKPTKVQYTG VQAL TQATNDLHYKSSRDRAMA IAKAINEDIREVDALG  
VDFIQIDEFTWPYFFEDWAI EAFNAAVDGVKNAK IIAHVCWGNWGGTPAYYPDETAASGE  
IFDLTKRKA EATKATATGSIVPKAYEARLDVNLNLESCGRRSDDL SGLHVMKNHPLPDNVS  
FWAGVIDVKSTITETADEVANRIRRLLEIVPADRLGVT TDCGLILLQRYIAQDKLHALVE  
GTKIVRAELAKAKQAA

>Q56839

MKVWNARNDHLTINQWATRIDEILEAPDGGEVIYNVDENDPREYDAIFIGGGAAGRFGSA  
YLRAMGGRQLIVDRWPFLGGSCPHNACVPHHLFSDCAAELMLARTFSGQYWFPMTEKVV  
GIKEVVDLFRAGRNGPHGIMNFQSKEQLNLEYILNCPAKVIDNHTVEAAGKVF KAKNLIL  
AVGAGPGTLDVPGVNAKGVFDHATLVEELDYEPGSTV VVVGGSKTAVEYGCFFNATGRRT  
VMLVRTEPLKLIKDNETRAYVLDRMKEQGM EII SGNVTRIEEDANGRVQAVVAMTPNGE  
MRIETDFVFLGLGEQPRSAELAKILGLDLGPKGEVLVNEYLQTSV PNVYAVGDLIGPME  
MFKARKSGCYAARNVMGEKISYTPKNYPDFLHTHYEV SF LGMGEEEEARAAGHEIVTIKMP  
PDTENGLNVALPASDR TMLYAFGKGTAHMSGFQKIVIDAKTRKVLGAHHVGYGAKDAFQY  
LNVLIKQGLTVDELGDMDLFLNPTHFIQLSRLRAGSKNLVSL

>O43895

MARAHWGCCPWLVL L CACA WGH TKPVDLGGQDVRNCSTNPPYLPVTVVNTTMSLTALRQQ  
MQTQNL SAYIIPGTD AHMNEYI GQHDERRAWITGFTGSAGTAVVTM KKA AVWTD SRYWTQ  
AERQMDCNWELHKEVGTTPIVTWLLTEIPAGGRVGFDPFLLSIDTWESYDLALQGSNRQL  
VSITTNLVDLVWGSERPPVPNPQPIYALQEAFTGSTWQEKVSGVRSQM QKHQKVP TAVLLS  
ALEETA WLFNLRASDIPYNPFFYSYTLTLDSSIRL FANKSRFSSETLSYLNSSCTGPMCV  
QIEDYSQVRDSIQAYS LGDVR IWIWIGTSYTYGIYEMIPKEKLVTD TYSPVMMTKAVKNSK  
EQALLKASHVRDAVAVIRYL VWLEKNVPKGTVDEFSGAEIVDKFRGEEQFSSGPSFETIS  
ASGLNAALAHYSPTKELNRKLSSEMYLLDSSGGQYWDGT TDI TRTVHWGTPSAFQKEAYT  
RVLIGNIDL SRLIFPAATSGRMVEAFARRALWDAGLNYGHGTGHGIGNFLCVHEWPVGFQ  
SNNIAMAKGMFTSIEPGYYKDGEFGIRLEDVALVVEAKTKYPGSYLTFEVVSFVPYDRNL  
IDVSLLSPEHLQYLNRYYQTIREKVGPELQRRQLLEEFEWLQQHTEPLAARAPDTASWAS  
VLVVSTLAILGWSV

>P18887

MPEIRLRHVVSCSSQDSTHCAENLLKADTYRKWRAAKAGEKTI SVVLQLEKEEQIHSVDI  
GNDGSAFVEVLVGS SAGGAGEQDYEVLLVTSSFMSPSESRSGSNPNRVRMFGPDKLVRAA

AEKRWDRVKIVCSQPYSKDSFGLSFVRFHSPDPKDEAEAPSQKVTVTKLGQFRVKEEDE  
SANSRLRPGALFFSRINKTSPVTASDPAGPSYAAATLQASSAASSASPVSRRAIGSTSKPQE  
SPKGKRKLDLNLQEEKKTSPKPPAQLSPSPVPRPKLPAPTRTPATAPVPARAQGAVTGKPR  
GEGTEPRRPRAGPEELGKILQGVVVVLSGFQNPFRSELRDKALELGAKYRPDWTRDSTHL  
ICAFANTPKYSQVLGLGGRIVRKEWVLDCHRMRRRLPSRRYLMAGPGSSSEDEASHSGG  
SGDEAPKLPQKQPQTKTKPTQAAGPSSPQKPPTPEETKAASPVLQEDIDIEGVQSEGQDN  
GAEDSGDTEDELRRVAEQKEHRLPPGQEENGEDPYAGSTDENTDSEEHQEPDLPVPELP  
DFFQKGHFFLYGEFFPGDERRKLIRYVTAFNGELEDYMSDRVQFVITAQEWDPSEFEALMD  
NPSLAFVVRPRWIYSCNEKQKLLPHQLYGVVPPQA

>Q13426

MERKISRIHLVSEPSITHFLQVSWEKTLESGFVITLTDGHSAWTGTVSESEISQEADDMA  
MEKGKYVGELRKALLSAGAPADVYTFNFSKESCYFFFEKNLKDVSFRLGSGFNLEKVENPA  
EVIRELICCYCLDTIAENQAKNEHLQKENERLLRDWNDVQGRFEKCVSAKEALETDLYKRF  
ILVLNEKKTIRSLHNKLLNAAQEREKDIKQEGETAICSEMTADRDPVYDESTDEESENQ  
TDLGLASAAVSKDDSIISLSDVTDIAPSRKRRQRMQRNLGTEPKMAPQENQLQEKENSR  
PDSLSPETSKKEHISAENMSLETLRNSSPEDLDFDEI

>Q84H41

MAATDNRKVVVEGVHMKTPSEAFVETCVANGVSEMFGIMGSFAFMDAMDI FAPAGIRLIPV  
HEQGAAHMADGYARVSGRHGVVIGQNGPGISNCVTGIAAAAYWAHSPVIVTPETGTMGMG  
LGGFQEANQLPMFQEFTKYQGHVCNPKRMAEFTGRVFD RAMSEMGPQLNIPRDYFYGEI  
ECEIPKPMRVDRGHGGEASLQAAVELLKTAKFPVILAGGGVVMGDAVEEAKQLAERLGAP  
VATGYLRNDAFPAKHPLWAGPLGYQGSKAAMKLI AQADVVI ALGSRMGPFGLPQHGM DY  
WPKAAKIIQIEADHTNLGLVKKIAVGINGDAKAVAAELSRRLADVTLGCDATKAARADTI  
ATEKAAWEKELDGWOTHERDPYSLDMIEEAKGERTPTGGSYLHPRQVLRLEKAMPARVMV  
STDIGNINSVANSYLRFDEPRSFAPMSFGNCGYALPTIIGAKCAAPDRPAIAYAGDGAW  
GMSMMEIMTAVRHDIPVTA VVFHNRQWGAEKKNQVDFYNRRFVAGELESESFSDIAKAMG  
AEGIVVDHIEDVGPALQKAIDMQMKEGKTCVIEIMCTRELGDPFRRDALSKPVRMLDKYK  
DYV

>Q93PS3

MAVKMTPSEAMTEVLVNEGVTHTVTGILGSFAFMDMLDLWPTAGIEFIAVRHEQTAGHMQD  
AYCRITGKASVCIGQNGPGVTNLVTCVAAAANQAHTPMVVLGFSAGTPTVGWDGFQECDQV  
SIFRSITKQVLQVPHPSRAGDVLRTAFRIAYAERGPVYVDIPRNYFYGEVYEEILRPDQY  
RAMNVRGAGDATELARATEILAAAKNPV IISGRGVVDADAFAEVKEIAHMLTAPVAMSYL  
HNDTYPADDELWVGPIGYMGAKSAMYSLQDADVILAIGSRLSVFGTLPQYDINYFPENAK  
IIQIEVNPKQIGRRHPVTVP IIGDAKLATAELIKLLKAKGDVKPNAERLAKIQERRNDWF  
KEIEEMAMMPGNP INPRRVLFEVAKLMPEDAILTTDIGNVASTANSYFKFTKPKKHIAAL  
TFGNTGFAYQAGLGAQMAEPDSPVVAIVGDGAWGQSLHEISTAVQYKLPVIACVFRNMAW  
CAEKKNQIDFYNNRFVGT EIPNPISFIPAAEAFGAKGIRVEKPEDIADAFKQGLAWRAEG  
HPVVLEFVVDGTILAPPFRKDALALPTRYLPKYEHLDAKYFPKN

>P12070

MSVQPTPADHFTFGLWTVGWTGADPFVATRKNLDPVEAVHKLAE LGAYGITFHDNDLIP  
FDATEAEREKILGDFNQALKD TGLKVPMTTNLFSHPVFKDGGFTSNDRSIRRFALAKVL  
HNIDLAAEMGAETFMWGGREGSEYDGSKD LAAALDRMREGVDTAAGYIKDKGYNLRIAL  
EPKPNEPRGDI FLPTVGHGLAFIEQLEHGDIVGLNPETGHEQMAGLNFTHGIAQALWAEK  
LFHIDLNGQRGIKYDQDLVFGHGLDLSAFFTVDLLENGFPNGGPKYTGPRHFYKPSRTD  
GYDGVWDSAKANMSMYLLKRALAFRADPEVQEAMKTSGVFELGETTLNAGESAADLMN

DSASFAGFDAEAAAERNFAFIRLNQLAIEHLLGSR

>P04788

MAQSHSSSINYFGSANKVVYEGKDSTNPLAFKYYPQEVIGGKTLKEHLRFSIAYWHTFT  
ADGTDVFGAATMQRPWDHYKGMDLAKMRVEAAFEMFEKLDAPFFAFHDRDIAPEGSTLKE  
TNQNLDMIMGMIKDYMRNSGVKLLWNTANMFTNPRFVHGAATSCNADVFAAYAAAQVKKGL  
ETAKELGAENYVFWGGREGYETLLNTDLKFELDDLARFMHMAVDYAKEIGYTGQFLIEPK  
PKEPTAHQYDTPDAATTIAFLKQYGLDNHFKNLNEANHATLAGHTFEHELRLMARVHGLLGS  
VDANQGHPLLGWDTDFEPTDLYSTTLAMYELQNGGLGSGGLNFDAKVRSSFPDDLIY  
AHIAGMDAFARGLKVAHKLIEDRVFEDVIQHRYSFTEGIGLEIEGRANFHTEQYALN  
HKSINKNESGRQEKLKAILNQYILEV

>P48790

MRKQRFNPYLPSEYIPDAEPYVFNQGRVYIYGSHDRFNGHAFCLNDYVCWSAPVDDLSEW  
RYEGVIYRKTDDPLNPDGRMCLYAPDVTLGPDGRYYLYYVLDKVPVVSVAVCDTPAGKYE  
FYGYVRYADGTRLGEREGDWPQFDPAVLTEGERTYLYTGFCKPKGDKSRKGAMATVLPDPM  
LTVVEEPVIVPSEPYSRGSGFEGHEFFEAPSIRKKGDTYYFIYSSVVMHELICYATSKHP  
TKGFKYGGVIVSNCDLHIDSYKPAEKPMYYGGMNHGSIVEINGEWYIFYHRHTNGTSFSR  
QGCMEKIKILEDGSIPQVEMTSCGSADEPLPGRGEYPAYIACNLFCEESVYTDLTGAWM  
NNQFPKITQDGKDGDEEPGYIANMKDSATAGFKYFDCKGIKSVKIKVRGYCRGVFEVKT  
WNGEVLGKIPVEFSNIWTEFSASIPIDGIIHALYFTYRGSASLKSFTLCTD

>P00944

MQAYFDQLDRVRYEGSKSSNPLAFRHYNPDELVLGKRMEEHLRFAACYWHTFCWNGADM  
GVGAFNRPWQQPGEALALAKRKADVAFFHKLHVPFYCFHDVDVSPGASLKEYINNFA  
QMVDVLAGKQEEGSKLLWGTANCFNTNPRYAGAAATNPDEVFVSWAATQVVTAMEATHKL  
GGENYVLWGGREGYETLLNTDLRQEREQLGRFMQMVVEHKHKIGFQGTLLIEPKPQEPK  
HQYDYDAATVYGFQKQFQGLEKEIKLNI EANHATLAGHSFHHEIATAIALGLFGSVDANR  
DAQLGWDTDQFPNSVEENALVMEYILKAGGF'TTGGLNFDAKVRROSTDKYDLFYGHIGAM  
DTMALALKIAARMI EDGELDKRIAQRYSGWNSLGGQILKQMSLADLAKYAQEHHLSPV  
HQSGRQEQLLENLVNHLYLFDK

>Q40082

MKGGELLVLLASSLCLSAAVAAQETCPADIGAKCTDAASDDWEGEFFPGIDKINYEGPT  
SKKPLSYKWNAAEEVILGKKMKDWFRFSVAFWHTFRGTGGDFGAPTKNWPWEDGTNSLA  
MAKRRMKAHFEMEKLGVERWCFHDRDIAPDGKTLAETNANLDEIVELAKQLQSETNIKP  
LWGTAQLFMHPRYMGAATSPEVKVYAYAAAQVKKALEVTHYLGGENYVFWGGREGYQTL  
LNTDMKRELEHLANFLQAAVNHHKKIGFNGLTLLIEPKPQEPKQYDWDVATTFSLQKF  
GLTGEFKINVECENHATLSGHSCHHELETARINDILGNIDANTGDPQVGDWDTDFLTDISE  
ATLIMSSVVKNDGLAPGGFNFYAKLRRESTDVEDLFAHISGMDTMARGRRNVVKLIEDG  
SLDELVRKRYQSFDEIGAMIEAGKGFETLEKKALEWGEPTVPSGKQELAEMLFQSAL

>P22857

MSFQPTPEDKFTFGLWTVGWQGRDPFGDATRPLDPEVTVQRLAELGAYGVTFHDDDLNP  
FGSSDTERESHIKRFRQALDATGMTVPMATTNLFTHPVFKDRFTANDRDVRAVVRKTIR  
NIDLAAELGAKTYVAWGGREGAESGGAKDVRDALDRMKEAFDILLGEYVTAQGYDLRFAIE  
PKPNEPRGDILLPTVGHALAFIERLERPELYGVNPEVGHQEMAGLNFPHGIAQALWAGKL  
FHIDLNGQSGIKYDQDCGSRRRPAGGVLVVDLLESAGYEGPRHFDKPPRTEDFDGVWAS  
AEGCMRNYLILKQPRPPSAPTRRCRRRASAPRVWTSWPSRPLADGLEALLADR TAFEDFD  
VEAAAARGMVRTPRPAGDGPPAGRARLTVAPRKR

>P56681

MYEPKPEHRFTFGLWTVGNVGRDPFGDAVRERLDPVYVGHKLAELGVHGVNLHDEDLIPR  
GTPPAERDQIVRRFKRALDEETGLKVPMTGNLFSDFGFKDGGFTSRDPWVRAYAFRKSLE  
TMDLGAELGAEIYVWVPGREGAEVEATGKARKVVDWVREPLNFMAAYAEDQGYGYRFALE  
PKPNEPRGDIYFATVGSMLALIHTLERPERFGLNPEFAHETMAGLNFVHAVAQALDAGKL  
LHIDLNGQRMNRFDQDLRFSGENLKAAFLLVLDLLESSGYQGPRHFDAHALRTEDEEGVWA  
FARGCMRTYLILKERAEAFREDPEVKELLAAYYQEDPAALPLMDPYSHKAEALKRAELP  
LEAKRHRGYALERLDQLAVEYLLGVRG

>P43503

MRETKEQPIWYGKVFSSNWVEARGGVANVVDPSNGDILGITGVANGEDVDAAVNAAKRAQ  
KEWAAIPFSERAAIVRKAEEKLKEREYEFADWNVRECGAIRPKGLWEAGIAYEQMHQAAG  
LASLPNGTLFPSAVPGRMNLQORVPVGVVGVIAFWNFPLFLAMRSVAPALALGNAVILKP  
DLQTAVTGGALIAEIFSDAGMPDGVHLHVLPGGADVGESMVANSGINMISFTGSTQVGRLI  
GEKCGRMLKKVALELGGNNVHIVLPDADLEGAVSCAAWGTFLHQGQVCMAAGRHLVHRDV  
AQQYAEKLALRAKNLVVGDPNSDQVHLGPLINEKQVVRVHALVESAQRAGAQVLAGGTYQ  
DRYYQATVIMDVKPEMEVFKSEIFGPVAPITVFDSEIEEAIELANCSEYGLAASIHTRALA  
TGLDIAKRLNTGMVHINDQPINCEPHVFPFGMGASGSGGRFGGPASIEEFTQSQWISMVE  
KPANYPF

>P23105

MKEIKHFISGELVGSASGKLFDNVSPANGQVIGRVHEAGRAEVDAAVRAARAALKGPWGK  
MTVAERAEILHRVADGITARFGEFLEARMPPGHRQAEVAGQPHRHSARRANFKVVFADLLKN  
VANEAFEMATPDGAGALNYGVRPVGIVISPWNLPLLLMTWKVGPALACGNCVVVKPS  
EETPLTATLLGEVMQAAGVPAGVYNVHGFGGDSAGAFLTEHPDVAFTFTGETGTGETI  
MRAAAKGVQRVLSLELGGKNAGIVFADCDMDKAIEGTLRSANFCGQVCLGTERVYVERPI  
FDAFVARLKAGAEALKIGEPNDPEANFGPLISHKPREKVPSSYYQAVDDGATVVTGGGVP  
EMPAHLAGGAWVQPTIWTGLADDSAVVTEEIFGPCCHIRPFDSEEEAIELANSLPYGLAS  
AIWTENVRRAHRVAGQIEAGIVWVNSWFLRDLRTAFGGSKQSGIGREGGVHSLEFYTELK  
NICVKL

>P07129

MKITNPVLKGFNPDPISICRAGEDYYMAVSTFEWFPGVQIYHSKDLIHWRLAARPLQKTSQ  
LDMKGNPDSGGVWAPCLSYADGQFWLIYSDIKVVDGPFKDGHNLYVTADAVDGEWSDPVR  
LNSSGFDP SLFHDPSGKKYVLNMLWDHREKHHSFAGIALQEYSVSEKKLVGERKVIKGT  
PIKLTEAPHLYYINDVYYLLTAEGGTRYEHAATIARSSRIDGPYEVHPDNPILTAFHAPS  
HPLQKCGHASIVQHTNEWYLAHLTGRPIHSSKESIFQQRGWCPLGRETAIQKLEWKDGW  
PYVVGKKEGLLEVEAPAMSVKEFSPTYHIVDEFKDSNLNRHFQTLRIPFTDQIGSVTENP  
HHLRLYGQESLTSKFTQAFVARRWQSFYFEAETAVSFFPKNFQQAAGLVNYYNTENWTAL  
QVTYDDALGRILELSVCENLAFSQPLIKKIIIPDEIPYVYLKVTVQRETYTYSYSFDQQE  
WEKIDVPLESTHLSDDFIRGGGFFTGAFVGMQCQDTSGERLPADFKYFRYEETTE

>O27255

MITAELTVIPLGTCSTSLSSYVAAAVEALKKLNRYEISGMGTLLEAEDLDELMEAVKAA  
HEAVLQAGSDRVYTTLKIDRRRDADRGLRDKVESVKEKI

>Q99T13

MIKRYLQFVKPYKIRIFATIIVGIIKFGIPMLIPLLIKYAIIDGVINNHALT'TDEKVHHLT  
IAIGIALFIFVIVRPIEFIRQYLAQWTSNKILYDIRKKLYNHLQALSARFYANNQVGVQV



ISRVINDVEQTKDFILTGLMNIWLDCITII IALSIMFFLDVKLTLAALFIFPFYILTVYV  
FFGRLRKLTRERSQALAEVQGF LHERVQGISVVKSF AIEDNEAKNF DKKNTNFLTRALKH  
TRWNAYSFAAINTVTDIGPIIVIGVGAYLAISGSITVGT LAAFVGYLELLFGPLRRLVAS  
FTTLTQSFASMDRVFQLIDEDYDIKNGVGAQPIEIKQGRIDIDHVSFQYNDNEAPILKDI  
NLSIEKGETVAVFGMSGGGKSTLINLI PRFYDVTSGQILIDGHNIKDFLTGSLRNQIGLV  
QQDNILFSDTVKENILLGRPTATDEEVVEAAKMANAHDFIMNLPQGYDTEVGERGVKLSG  
GQKQRLSIARIFLNNPPIILILDEATSALDLESESI IQEALDVL SKDR'TTLIVAHRLSTIT  
HADKIVVIENGHIVETGTHRELI AKQGAYEHLYSIQNL

>P67382

MKAIITVVGKDKSGIVAGVSGKIAELGLNIDDISQTVLDEYFTMMAVVSSDEKQDFTYLR  
NEFEAFGQTLNVKINIQSAAIFEAMYNI

>P44711

MFGKGGGLGGLMKQAQQMQEKMQKMQEEIAQLEVTGEGSAGLVKITINGAHNCRRIDIDPS  
LMEDDKEMLEDLIAAAFNDAVRRAEELQKEKMASVTAGMPLPPGMKFPF

>Q9FK81

MATSGFKHLVVVKFKEDTKVDEILKGLENLVSQIDTVKSF EWGEDKESHMLRQGFTHAF  
SMTFENKDG YVAFTSHPLHVEFSAAFTAVIDKIVLLDFPVA AVKSSV VATP

>Q57997

MSVMYKKILYPTDFSETAEIALKHVKAFKTLKAEVILLHVIDEREIKKRDIFSLLLGVA  
GLNKSVEEFENELKNKLTEEAKNKMENIKKELEDVGFVKVDIIVVGIPHEEIVKIAE DEG  
VDI IIMGSHGKTNLKEILLGSVTENVIKKSNKPVLLVVKR KNS

>P37552

MTKAVHTKHAPAAIGPYSQGIIVNMFYSSGQIPLTPSGEMVNGDIKEQTHQVFSNLKAV  
LEEAGASFETVVKATVFIADMEQFAEVNEVYGYFDTHKPARSCVEVARLPKDALVEIEV  
IALVK

>P31489

MTKDFKISVSAALISALFSSPYAFADDYDGIPNL TAVQISPNADPALGLEYPVRPPVPGA  
GGLNASAKGIHSIAIGATAEAAKGA AVAVGAGSIATGVNSVAIGPLSKALGDSAVTYGAA  
STAQKDGVAIGARASTSDTGVA VGFNSKADAKNSVAIGHSSHVA ANHGYSIAIGDRSKTD  
RENSV SIGHESLNRQLTHLAAGTKD TDAVNVAQLKKEIEKTQENTNKRSAEL LANANAYA  
DNKSSSVLGIANNYTDSKSAETLENARKEAFAQSKDVLNMAKAHSNSVARTTLETAEEHA  
NSVARTTLETAEEHANKKSAEALAS ANVYADSKSSHTLKTANSYTDVTVSNSTKKA IRES  
NQYTDHKFRQLDNRLDKLDTRVDKGLASSAALNSLFQPYGVGKVNFTAGVGGYRSSQALA  
IGSGYRVNENVALKAGVAYAGSSDVMYNASFNIEW

>P10858

MTKDFKISVSAALISALFSSPYAF AEPEPEDGNDGIPRLSAVQISPNVDPKLGVLGYP A KP  
ILRQENPKLPPRGPQGPEKKRARLAEAIQPQVLGGLDARAKGIHSIAIGATAEAAK PAAV  
AVGAGSIATGVNSVAIGPLSKALGDSAVTYGASSTAQKDGVAIGARASASDTGVA VGFNS  
KVDAQNSVAIGHSSHVAADHGYSIAIGDLSKTDRENSV SIGHESLNRQLTHLAAGTKDND  
AVNVAQLKKE MAETLENARKETLAQSNVDLDAAKKHSNSVARTTLETAEEHANKKSAEAL  
VSAKVYADSNSSHTLKTANSYTDVTVSSSTKKAISESNQYTDHKFSQLDNRLDKLDKRVD  
KGLASSAALNSLFQPYGVGKVNFTAGVGGYRSSQALAI GSGYRVNESVALKAGVAYAGSS  
NVMYNASFNIEW

>P0AAA1

MNIFEQTPPNRRRYGLAAFIGLIAGVVSFAVKWGAEVPLPPRSPVDMFNAACGPESLIRA  
AGQIDCSRNFNPPYIFLRDWLGLTDPNAAVYTFAGHVFNWVGVTHIIFSIVFAVGYCVV  
AEVFPKIKLWQGLLAGALAQLFVHMISSFPLMGLTPPLFDLPWYENVSEIFGHLVWFWSIE  
IIRDLRNRITHEPDPEIPLGSNR

>P77712

MQTQIKVGRGYHLDVYQHVNARYLEFLEEARDWGLENSDSFQWMTAHNIAFVVVNININY  
RRPAVLSDLLTITSQLQQLNGKSGILSQVITILEPEGQVVADALITFVCIDLKTKALALE  
GELREKLEQMVK

>P77368

MKTLIVSTVLAFITFSAQAAAFQVTSNEIKTGEQLTTSHVFSGFGCEGGNTSPSLTWSGV  
PEGTKSFAVTVYDPDAPTGSWWHTVNNIPATVTYLPVDAGRRTGKLPFGAVQGRNDF  
GYAGFGGACPPKGDKPHHYQFKVWALKTEKIPVDSNSSGALVGYMLNANKIATAEITPVY  
EIK

>P77806

MTNNPLIPQSKLPQLGTTIFTQMSALAQHQAINLSQGFPDFDGPYRLQERLAHHVAQGA  
NQYAPMTGVQALREAIQKTERLYGYQPDADSDITVVTAGATEALYAAITALVRNGDEVIC  
FDPSYDSYAPAIASGGIVKRMALQPPHFRVDWQEFALLSERTRLVILNTPHNPSATVW  
QQADFAALWQAIAGHEIFVISDEVYEHINFSQQGHASVLAHPQLRERAVAVSSFGKTYHM  
TGWKVGYCVAPAPISAEIRKVHQYLTFVNTPAQLALADMLRAEPEHYLALPDFYRQKRD  
ILVNALNESRLEILPCEGTYFLLVDYSAVSTLDDVEFCQWLTQEHGVAAIPLSVFCADPF  
PHKLIRLCFAKKESTLLAAAERLRQL

>P0AFP6

MKNTELEQLINEKLNAAISDYAPNGLQVEGKETVQKIVTGVTASQALLDEAVRLGADAV  
IVHHGYFWKGESPVIRGMKRNRLKTLANDINLYGWHLPLDAHPELGNNAQLAALLGITV  
MGEIEPLVPWGELTMPVPGLELASWIEARLGRKPLWCGDTGPEVVQRVAWCTGGGQSFID  
SAARFGVDAFITGEVSEQTIHSAREQGLHFYAAGHHATERGGIRALSEWLNENTDLDDVTF  
IDIPNPA

>P21367

MTKPYVRLDKNDAAVLLVDHQAGLLSLVRDIEPDKFKNNVLALGDLAKYFNLPTILTTSF  
ETGPNGLVPELKAQFPDTPYIARPGNINAWDNEDFVKAVKATGKKQLIAGVVTEVCVA  
FPALSAIEEGFDVFTDASGTFNEITRHSAWDRLSQAGAQLMTWFGVACELHRDWRNDI  
EGLATLFSNHIPDYRNLMTSYDTLTKQK

>P75914

MYPVDLHMHTVASTHAYSTLSDYIAQAKQKGIKLFAITDHGPDMEDAPHHWHFINMRIWP  
RVVDGVLIRGIEANIKNVDGEIDCSGKMFDSLDLIAGFHEPVFAPHDKATNTQAMIAT  
IASGNVHIISHPGNPKYEIDVKAVAEAAKHQVALEINNSFLHSRKGSEDNCREVAAA  
RDAGGWALGSDSHTAFTMGFEFECLKILDVDFPPERILNVSPRRLLNFLESRGMAPIA  
EFADL

>P31992

MPHIDIKCFPRELDEQQAALAADITDVIIRHLNSKDSSISIALQQIQPESWQAIWDAEI  
APQMEALIKKPGYSMNA

>P37757

MKPQVYHVDAFTSQPFRGNSAGVVPADNLSEAQMQLIARELGHSETAFLLHSDDSDVRI  
RYFTPTVEVPICGHATVAAHYVRAKVLGLGNCTIWQTSLAGKHRVTIEKHNDYRISLEQ  
GTPGFEPPELEGETRAAIINALHLTEDDILPGLPIQVATTGHSKVMIPLKPEVDIDALSPD  
LNALTAISKKIGCNFFFPQIRPGKNETDGRMFSPAIGIVEDPVTGNANGPMGAWLVHHN  
VLPHDGNVLRVKGHQGRALGRDGMIEVTVTIRDNQPEKVTISGTAVILFHAEWAIEL

>P39831

MIVLVTGATAGFGECITRRFIQQGHKVIATGRRQERLQELKDELGDNLYIAQLDVRNRAA  
IEEMLASLPAEWCNIDILVNNAGLALGMEPAHKASVEDWETMIDTNNKGLVYMTRAVLPG  
MVERNHGHIINIGSTAGSWPYAGGNVYGATKAFVRQFSLNLRITDLHGTAVRVTDIEPGLV  
GGTEFSNVRFKGDDGKAEKTYQNTVALTPEDVSEAVVWVSTLPAHVNINTLEMPVTQSY  
AGLNVHRQ

>P77804

MNKSLVAVGVIVALGVVWTGGAWYTGKKIETHLEDMVAQANAQLKLTAPESNLEVSQNY  
HRGVFSSQLQLLVKPIAGKENPWIKSGQSVIFNESVDHGFPLAQLKKNLIPSMASIQT  
TLVNNEVSKPLFDMAKGETPFEINSRIGYSGDSSSDISLKPLNYEQKDEKVAFSGGEFQL  
NADRDKAISLSGEAQSGRIDAVNEYNQKVQLTFNNLKTGSSSTLASFGERVGNQKLSLE  
KMTISVEGKELALLEGMEISGKSDLVNDGKTINSQLDYSLSLSLKVQNQDLGSGKLTCLKVG  
QIDGEAWHQFSQQYNAQTQALLAQPEIANNPELYQEKVTEAFFSALPLMLKGDVITTIAP  
LSWKN SQESALNLSLFLKDPATTKEAPQTLAQEVDRSVKSLDAKLTIPVDMATEFMTQV  
AKLEGYQEDQAKKLAKQOVEGASAMGQMFRLTTLQDNTITTSLOYANGQITLNGQKMSLE  
DFVGMFAMPALNVPVPAIPQQ

>Q99315

MSFMDQIPGGGNYPKLPVECLPNFPIQPSLTFRGRNDSHKLKNFISEIMLNMSMISWPND  
ASRIVYCRRHLLNPAAQWANDFVQEQGILEITFDTFIQGLYQHFKPPDINKIFNAITQL  
SEAKLGIERLNQRFRKIWDRMPDFMTEKAAIMTYTRLLTKETYNIVRMHKPETLKDAME  
EAYQTTALTERFFPGFELDADGDTIIGATTHLQEEYDSYDSEDNLTQNGYVHTVTRRS  
YNKPMNSHRNRNRRNNP SREECIKNRLCFYCKKEGHRLENECRARKAVLTDLELESKDQQT  
FIKTLPIVHYIAIPEMDNTAEKTIKIQNTKVKTFLFDSGSPSTSFIRRDIVELLKYEIYETP  
PLRFRGFVATKSAVTSEAVTIDLKINDLHITLAAAYILDNMDYQLLIGNPILRRYPKILHT  
VLNTRRESPDSLKPKTYRSETVNNVRTYSAGNRGNPRNIKLSFAPTILEATDPKSAGNRGD  
SRTKTL SLATTTTAAIDPLTTLDNPGSTQSTFAQFPPEEASILEEDGKYSNVVSTIQSV  
EPNATDHSNKDTFCTLVWVWVQKYREIRNDLPPRPADINNIPVKHDIKIPGARLPRLQ  
PYHVTEKNEQEINKIVQKLLDNKFIVPSKSPCSSPVVLPKKGDTFRLCVDYRTLKATI  
SDPFPLPRIDNLLSRIGNAQIFTTLDLHSGYHQIPMEPKDRYKTAFTVTPSGKYEYTVMPF  
GLVNAPSTFARYMADTFRDLRFVNVYLDLILIFSESPEEHWKHLDTVLERLKNENLIVKK  
KKCKFASEETEFLGYSIGIQKIAPLQHKCAAIRDFTPKTVKQAQRFLGMINYRRFIPN  
CSKIAQPIQLFICDKSQWTEKQDKAIDKLDALCNSPVLVPPFNKANYRLTTDASKDGIG  
AVLEEVDNKNKLVGVVGYFSKSLESAQKNYPAGELELLGIKALHHFRYMLHGKHFTLRT  
DHISLLSLQNKNEPARRVQRWLDLDTYDFTEYLAGPKNVVADAI SRAVYTTITPETS  
IDTESWKSYYKSDPLCSAVLIHMKELTQHNVTPEMDSAFRSYQKLELSETFRKNYSLED  
EMIYYQDRLVVPIKQONAVMRLYHDHTLFGGHFGVTVTLAKISPYYWPKLQHSIQYIR  
TCVQCQLIKSHRPRHLGLLQPLPIAEGRWLDISMDFVTGLPPTSNNLNMILVVVDRFSKR  
AHFIATRKTLDATQLIDLLFRYIFSYHGFPRTITSDRDVRMTADKYQELTKRLGIKSTMS  
SANHPQTDGQSERTIQTLNRLRAYASTNIQNWVYLPQIEFVYNSTPRTLKSPFEID  
LGYLPNTPAIKSDDEVNARSFTAVELAKHLKALTITQTKEQLEHAQIEMETNNNQRRKPLL

LNIGDHVLVHRDAYFKKGAYMKVQQIYVGPFRVVKINDNAYELDLNSHKKKHRVINVQF  
LKKFVYRPDAYPKNKPISSTERIKRAHEVTALIGIDTTHKTYLCHMQDVPDTPLSVEYSEA  
EFCQIPERTRRSILANFRQLYETQDNPEREEDVVSQNEICQYDNTSP

>P42589

METVAYADFARLEMVRGKIVEVKRHENADKLYIVQVDVGQKTLQTVTSLVPYYSEEELMG  
KTVVVL CNLQKAKMRGETSECMLLCAETDDGSESVLLTPERMMPAGVRVV

>P45470

MSKKIAVLITDEFEDSEFTSPADEFKRKAGHEVITIEKQAGKTVKGGKGEASVTIDKSID  
VTPAEFDALLLPGGHSPDYLRGDNRFVTFTRDFVNSGKPVFAICHGPQLLISADVIRGRK  
LTAVKPIIIDVKNAGAEFYDQEVVVDKDLVTSRTPDDLPAFNREALRLLGA

>P0AF93

MSKTIATENAPAAIGPYVQGVLDLGNMIITSGQIPVNPKTGEVPADVAAQARQSLDNVKAI  
VEAAGLKVGDIVKTTVFVKDLNDFATVNATYEAFFTEHNATFPARSCVEVARLPKDVKIE  
IEAIAVRR

>P17778

MFINPRNVSNTFLQEPLRHSSNLTEMPVEAENVKSKTEYYNAWSEWERNAPPGNGEQREM  
AVSRLRDCLDRQAHELELNNLGLSSLPPELPHLESVASCNSLTPELPELPQSLKSLLDVN  
NNLKALSDLPPLLEYLGVSNQLEKLPQLQNSSFLKIIDVDNNSLKKLPDLPPSLEFIAA  
GNNQLEELPELQNLPLFTAIYADNNSLKKLPDLPLSLESIVAGNNILEELPELQNLPLFT  
TIYADNNSLKKLPDLPPSLEALNVRDNYLTDLPPELQSLTFLDVSENI FSGLSELPPNLY  
YLNASSNEIRSLCDLPPSLEELNVSNNKLIELPALPPRLERLIASFNHLAEVPELPQNLK  
QLHVEYNPLREFPDIPESVEDLRMNSERVVDPYEFAHETTCKLEDDVFE

>Q46856

MNNFNLHTPTRILFGKGAIAGLREQIPHDARVLITYGGGSVKKTGVLQVLDALKGMDVL  
EFGGIEPNPAYETLMNAVKLVRQKVTFLLAVGGGSVLDGTFIAAAAANYPENIDPWHIL  
QTGGKEIKSAIPMGCVLTLPATGSESNAGAVISRKTGTGDKQAFHSAHVQPVFAVLDPVYT  
YTLPPRQVANGVVDAFVHTVEQYVTKPVDKIQDRFAEGILLTLIEDGPKALKEPENYDV  
RANVMWAATQALNGLIGAGVPQDWATHMLGHELTAMHGLDHAQTLAIVLPALWNEKRDTK  
RAKLLQYAERVWNITEGSDDERIDAAIAATRNFQEQLGVPTHLSDYGLDGSSIPALLKKL  
EEHGMTQLGENHDITLDVSRRIYEAAR

>P82292

DSTDGLLVKDKYLCGDLYGEEYGVIFPYLGLKTECLWTIKMDPLYRILLTVRDVHENCNK  
ESLEIEGPPSSNSRKICDTSHAETYSCTNTMTVKYTRKPNHPAPDFFLIFRRVL

>P42856

MSSEKEAALRRLDSDPTIFDKI IKKEIPSTVVYEDEKVLAFRDINPQAPTHILIPKVKD  
GLTGLAKAEERHIEILGYLLYVAKVVAKQEGLEDGYRVVINDGPGSCQSVYHIHVHLLGG  
RQMNWPPG

>P0ACS5

MYRIGELAKMAEVPDPTIRYYEKQOMMEHEVRTEGGFRLYTESDLQRLKFI RHARQLGFS  
LESIRELLSIRIDPEHHTCQESKGI VQERLQEV EARIAELQSMQRSLQRLNDACCGTAHS  
SVYCSILEALEQGASGVKSGC

>Q23529

MLDLTNKESESSDNGNSKYEDSIDGREVGTSKPFKEERSLEDLQADLADMVWMEGLDAT  
KLPLNDPQLLCNGRAFSEVLHNVDKNFFTDGWLETMPENRRTTNIMVFRSCTRKLWRKMF  
YVNHINRTVVSSRWTDIHERIDGIYESDLPAMVNLGMAVVTLAHIGKNAKRFVDYSKALT  
STHKSMMSNVAKMVTTVIDEMPENPCFHEISELHGSQSELNSLSESSGKLNNGSSERRS  
NADQILVDAELEIERLRTETENQRKEIERLTKSFETAQHDMSSNSESGDISILEKQNEEL  
RQKRRELEEKNELELDAAVDQFKGIVFELTNENDVLRSDKERQRLQTVLDAAQSDLDEWK  
TVANQYQKEAELSKQQDKEIKELLSQNKALKSRLDHHVKSATLEDANKNGIAQLRTQVGG  
LTALNTELKASLDSKKRCVEQLEIQLIQHKEKVKELEDKDELIEERNRLENQLIFKEAV  
TPRSLHESMFEAGNLSFEPFSEKNTLPLEIENKRLTERIQELESLEPLKGELITLKSNG  
VLEEEKLFATKQIEELQQQIEDLQENLLKNQEHASGDVVGLKIQLEKAEVEAQQMREAKM  
RAETNQAQVDEILKKRTAELEVNATALQKAKAVIDELEYSRPFVSEDSMTSVQAFKEMKE  
ENEKLRQKVEKLEIELNTVTQGFQENRLLTSASHQQVLNRSIDEVMSMRAHAGSEEPQT  
LLDTQKMSGALPWRSLASETRRELPTAMASILVGLFLVFIAMWFININSALNAPPNA

>Q8GBW6

MAENNNLKLASTMEGRVEQLAEQRQVIEAGGGERRVEKQHSQKQTARERLNNLLDPHSF  
DEVGAFRKHRTTLFGMDKAVVPADGVVTGRGTILGRPVHAASQDFTVMGGSAGETQSTKV  
VETMEQALLTGTPFLFFYDSGGARIQEGIDSLSGYGKMFANVKLSGVVPQIAIIAGPCA  
GGASYSPALTDIFIIMTKAHMFITGFPQVIKSVTGEDVTADELGGAEAHMAISGNIHFVAE  
DDDAELIAKKLLSFLPQNNTTEASFVNPNNDVSPNTELRDIPIDGKKGYDVRDVIKVI  
VDWGDYLEVKAGYATNLVTAFAFARVNGRSVGIVANQPSVMSGCLDINASDKAAEFVNFCD  
FNIPLVQLVDVPGFLPGVQQEYGGIRHGAKMLYAYSEATVPKITTVLVRKAYGGSYLAMC  
NRDLGADAVYAWPSAEIAVMGAEGAANVIFRKEIKAADDPDAMRAEKIEEYQNAFNTPYV  
AAARGQVDDVIDPADTRRKIASALEMYATKRQTRPAKKPWKLPLLSEEEIMADEEEKDLM  
IATLNKRVASLESELGSLQSDTQGVTEEDVLTASAVAAYLGNDSAEVVFHAPSPNWVRE  
GRRALQNH SIR

>A2XLL2

MVSQVVAEEKPQLLSKKKAGCNSHGQDSSYFLGWQEYKPNPFDVSNPSGIIQMGLAENQL  
SFDLLEEWLEKNPHALGLRREGGASVFRELALFQDYHGLPAFKNALARFMSEQRGYKVV  
FDPSNIVLTAGATSANEALMFCLADHGDAFLIPTPYYPGFRDLKWRGTGAEIVPVHCASA  
NGFRVTRPALDDAYRRAQKRRLRVKGVLIITNPSNPLGTASPRADLETIVDFVAAKGIHLI  
SDEIYAGTAFAPAGFVSALEVVAGRDGGADVSDRVHVYVYSLSKDLGLPGFRVGAIS  
ANAAVVAATKMSFGLVSSQTQYLLAALLGDRDFTRSVAENKRRIKERHDQLVDGLRE  
IGIGCLPSNAGLFCWVDMSHLMRSRSFAGEMELWKKVVFVGLNISPSSCHCREPGWFR  
VCFANMSAKTLDVAMQRLRSFVDSATGGGDNAALRRAAVPVRVSVSCPLAIKWALRLTPSI  
ADRKAER

>Q00379

MGFHQIDERNQALLSKIAIDDGHGENSAYFDGWKAYDNNPFHPENNPLGVIQMGLAENQL  
SFGMIVDWIRKHPEASICTPEGLEKFKSIANFQDYHGLQEFRKAMASFMGKVRGGRVKFD  
PSRIVMGGGATGASETVIFCLADPGDAFLVPSPIYAAAFDRDLKWRTRAQIIPVHCNSSNN  
FQVTEAALEIAYKKAQEANMKVKGVIIITNPSNPLGTTYDRD'TLKT'LVTFVNQHDHILICD  
EIYSATVFKAPTFTSIAEIVEQMEHCKKELIHILYSLSKDMGLPGFRVGIISYNDVVVR  
RARQMSFGLVSSQTQHLLAAMLSDDEFVDFKFLAENSKRLGERHARFTKELDKMGITCLN  
SNAGVFWMDLRLLKQTFKAEMELWRVINEVKLVNVPSSSFHVTEPGWFRVCFANMD  
DNTVDVALNRIHSFVENIDKKEDNTVAMPSKTRHRDNKLRSLFSFSGRRYDKGNVLSPH  
TMSPHSPLVRARTY

>P27486

MGSYKGVYDREILSKIATNDGHGENLEYFDGWKAYDRDPYHSTKNSNGVIQMGLAENQLC  
FDLVTEWLLKNPQASICTNEGVNKFMDIAIFQDYHGLPEFRSAVAKFMGKARDEKVIIFNP  
DRIVMSGGASASETLFLCLANPGDAFLIPSPYPAFNRDLRWRTGVNLIPTCSSSNNFK  
ITKEALQSAYEDALKKNIKVKGIIVTNPNSNPLGTVLDKDTLKMLLTFVNAKNIHLVCEI  
YATTVFNSPSFISVAEVIKDMPHVNQDLVHILYSLSKDMGMPGFRVGI IYSYNDRVVSTA  
RRMSSFGLVSSQTQFMIAALLSDDDFVRRFLVESRDRLFRRHQHFTSELAKIGIGCLQGN  
AALFVWMDLRHLLDEATVERELKLWRVIINEVKINVSPGSSFLCSEPGWFRVCFANMDNA  
TLDVALNRIRSFVTRGRVDNSTMTTTSARAAATTTTTTTTTTTTTTTTTTIKKKRGQME  
RLSFNNRRFEDGLMSPHSILLSPHSPMPQSPLVKART

>Q7M523

SGVAKFAKYPLTFGSPISNLNRLSQHLGSKVNVYAKREDCNSGLAFGGNKLKLEIVP  
DIVEGDYTHLVSIGGRQSNQTRMVAALAAKLGKCKVLIQEDWVPIPEAEKDVYNRVGNIE  
LSRIMGADVRIEDGFDIGMRKSFANALQELEDAGHKPYPPIAGCSEHKYGGGLGFVGFAD  
EVINQEVELGIKFDKIVVCCVTGSTTAGILAGMAQYGRQDDVIAIDASFTEKTKEQTLR  
IANNTAKLIGVEHEFKDFTLDTRFAYPCYGVNEGTEAIRTCAEQEGVLTDPVYEGKSM  
QGLIALIKEDYFKPGANVLYVHLGGAPALSAYSSFFPTKTA

>P81593

STLSSNDKVVVDGKATPLGSFPHVKRAGDFLYVSGTSSRRPDNTIAGAEILDSTS

>Q01284

MHFPGHSSKKEESAQAALTKLNSWFPTTKNPV IISAPMYLIANGTLAAEVSKAGGIGFVA  
GGSDFRPGSSHLTALSTELASARSRLGLTDRPLTPLPGIGVGLIILTHTISVPYVTDVLP  
ILIEHSPQAVWLFANDPDFEASSEPGAKGTAKQIEALHASGFVFFFQVGTVKDARKAAA  
DGADVIVAQGIDAGGHQLATGSGIVSLVPEVRDMLDREFKEREVVVVAAGGVADGRGVVG  
ALGLGAEGVVLGTRFTVAVEASTPEFRKVILETNDGGLNTVKSHFHDQINCNTIWHNVY  
DGRAVRNASYDDHAAGVPFEENHKKFKEAASSGDNSRAVTWSGTAVGLIKDQRPAGDIVR  
ELREEAKERIKKIQAFAA

>P19871

MTNRLQGKVALVTGGASGVGLEVVKLLLGEKAVAFSDINEAAGQQLAAELGERSMFVRH  
DVSSEADWTLVMAAVQRRGLTNVLVNNAGILLPGDMETGRLEDFSRLLKINTESVFIGC  
QQGIAAMKETGSSIINMASVSSWLP IEQYAGYSASKAAVSALTRAAALSCRKQGYAIRVN  
SIHPDGIYTPMMQASLPKGVSKEMVLHDPKLN RAGRAYMPERIAQLVLF LASDESSVMSG  
SELHADNSILGMGL

>Q1LCS4

MLTYGAPFNFPRWIDEHAHLLKPPVGNRQVWQSDSDFIVTVVGGPNHRTDYHDDPLEEFFY  
QLRGNAYLNLWVDGRRERADLKEGDI FLLPPHVRHSPQRPEAGSACLVI ERQRPAGMLDG  
FEWYCDACGHLVHRVEVQLKSIVTDL PPLFESFYASEDKRRCPHCGQVHPGRAA

>P47096

MFNTTPINIDKWLKENEGLLKPPVNNYCLHKGGFTVMIVGGPNERTGYHINPTPEWFYQK  
KGSMLLKVVDETD AEPKFI D I I INEGDSYLLPGNVPHSPVRFADTVGIVVEQDRPGGEND  
KIRWYCSHCRQVVHESELQMLDLGTQVKEAILDFENDVEKRTCFHCKTLNYARPQSN

>Q9LEL5

MAFHGKDDVLDIKAQAHVWK I IYGFADSLVLRCAVELGIVDI IDNNNQPMALADLASKLP

VSDVNCNLYRILRYLVKMEILRVEKSDDGQKKYALEPIATLLSRNAKRSMVPMILGMTQ  
KDFMTPWHSMKDGLSDNGTAFEKAMGMTIWEYLEGHPDQSQLFNEGMAGETRLLTSSLIS  
GSRDMFQGIDSLVDVGGGNGTTVKAISDAFPHIKCTLFDLPHVIANSYDLPNIERIGGDM  
FKSVPSAQAIILKLILHDWNEDESIKILKQCRNAVPKDGGKVIIVDVALDEESDHELSS  
RLILDIDMLVNTGGKERTKEVWEKIVKSAGFSGCKIRHIAAIQSVIEVFP

>Q9LEL6

MEVKKDNLSSQAKLWNFIYGFAESLVLKCAVQLDLANI IHNSGTSMTLSELSSRLPSQPV  
NEDALYRVMRYLVHMKLFTKASIDGELRYGLAPPAKYLVKGDWCMVGSILAITDKDFMA  
PWHYLKDGLSGESGTAFEKALGTNIWGYMAEHPEKNQLFNEAMANDSRLIMSALVKECGN  
IFNGITTLVDVGGGTGTAVRNIANAFPHIKCTVYDLPVIADSPGYSEVHCVAGDMFKFI  
PKADAIMMKCILHDWDDKECIEILKRCKEAVPVKGGKVIIVDIVLNVQSEHPYTKMRLTL  
DLDMMLNTGGKERTEEEWKLIHDAGYKGHKITQITAVQSVIEAYPY

>O22308

MASSINGRKPSEIFKAQALLYKHIYAFIDSMSLKWAVEMNIPNIIQNHGKPI SLSNLVSI  
LQVPSSKIGNVRRMLRYLAHNGFFFEIITKEEESYALTVASELLVRGSDLCLAPMVECVLD  
PTLSGSYHELKKWIYEEDLTLFGVTLGSGFWDFLDKNPEYNTSFNDAMASDKLINLALR  
DCDFVFDGLESIVDVGGGTGTTAKIICETFPKLKCIVFDRPQVVENLSGSNNLTYVGGDM  
FTSIPNADAVLLKYILHNWTDKCLRILKCKEAVTNDGKRGKVTIIDMVIDEKKDENQV  
TQIKLLMDVNMAACLNKERNEEWKKLFI EAGFQHYKISPLTGFLSLIEIYP

>Q64602

MNYSRFLTATSLARKTSPIRATVEIMSRAPKDIISLAPGSPNPKVFPFKSAVFTVENGST  
IRFEGEMFQRALQYSSSYGIPELLSWLKQLQIKLHNPPTVNYSPNEGQMDLCITSGCQDG  
LCKVFEMLINPGDTVLVNEPLYSGALFAMKPLGCFISVPSDDCGI IPEGLKKVLSQWKP  
EDSKDPTKRTPKFLYTI PNGNNPTGNSLTGDRKKEIYELARKYDFLI IEDDPYYFLQFTK  
PWEPTFLSMDVDGRVIRADSLSKVIVSSGLRVGFITGPKSLIQRIVLHTQISSLHPCTLSQ  
LMISELLYQWGEEGFLAHVDRAIDFYKNQRDFILAAADKWLRLGLAEWHVPKAGMFLWIKV  
NGISDAKKLIEEKAIEREILLVPGNSFFVDNSAPSSFFFRASFSQVTPAQMDLVFQRLAQL  
IKDVS

>P28011

MASQNIPTSPASSDSVFAHLVRAPEDPILGVTVAYNKDPSPIKLNLGVGAYRTEEGKPL  
VLDVVRVERQLLNDMSRNEYIPIVGLADFNKLSAKLIFGADSPAIQENRVTTVQGLSG  
TGSLRVGGEFLAKHYHQRIIYLPPTWGNHTKVFNLAGLTVKTYRYYPATRGLDFQGLL  
EDLGSAPSGSVLLHACAHNPTGVDPTLEQWEQIRQLIRSKSLLPFFDSAYQGFASGLD  
ADAQPVRLFVADGGELLVAQSYAKNMGLYGERVGALSIVSKSADVSSRVESQLKLVIRPM  
YSSPPIHGASIVAAILKDRDLYNDWTIELKAMADRIINMRQQLFDALRARGTPGDWSHII  
KQIGMFTFTGLNPEQVSILTKEYHIYLTSDGRISMAGLSSKTVPHLAHAIHAVVTRVA

>P23034

MKELLANRVKTLTPSTTLAITAKAKEMKAQGIDVIGLGAGEPDFNTPQNIMDAAIDSMQQ  
GYTKYTPSGGLPALKQAIIEKFKRDNQLEYKPNEIIVGVGAKHVLYTLFQVILNEGDEVI  
IPIPYWVSYPEQVKLAGGVPVYIEATSEQNYKITAELKNAITDKTKAVIINSPSNPTGM  
VYTREELEDIAKIALENNILIVSDEIYEKLLYNGAEHFSIAQISEEVKAQTIVINGVSKS  
HSMTGWIRIGYAAGNADIINAMTDLASHSTSNPTTASQYAAIEAYNGPQDSVEEMRKAFES  
RLETIYPKLSAIPGFKVVKPQGAFFYLLPDVSEAAQKTGFASVDEFASALLTEANVAVIPG  
SGFGAPSTIRISYATSLNLIIEEAIERIDRFVK

>P14909

MVSLLDFFNGNMSQVTGETTLLYKEIARNVEKTKKIKIIDFGIGQPDLPFVKRIRDAAKEA  
LDQGFTFYTSAFGIDELREKIAQYLNTRYGTDVKKEEVIVTPGAKPALFLVFLIYINPSD  
EVILPDPSFYSYAEVVKLLGGKPIYANLKWSREEGFSIDVDDLQSKISKRTKMIVFNNPH  
NPTGTLFSPNDVKKIVDISRDNKIILLSDIYDNFVYEGKMRSTLEDSWRDFLIYVNGF  
SKTFSMTGWRLGYIVAKREIIQKMGILAAENVYTAPTSFVQKAAVKAFDTFDEVNQMVSLF  
KKRRDVMYDELTKVKGVEVSKPNGAFYMFVSKILKTSGFVKSLSLAIKLIEEKGVVTIP  
GEVFPNLIGKEFLRLSFAVNEEVIKEGIQKIREFAEQMMSR

>Q9X0Y2

MVSRRRISEIPISKTMELDAKAKALIKKGEDVINLTAGEPDFPTPEPVVEEAVRFLQKGEV  
KYTDPRGIYELREGIAKRIGERYKKDISPDQVVVTNGAKQALFNAMALLDPGDEVIVFS  
PVVWSYIPQIILAGGTVNVVETFMKSNFQPSLEEVEGLLVGKTKAVLINSNNPTGVVYR  
REFLEGLVRLAKKRNFIISDEVYDSLVTDEFTSILDVSEGFDRIVYINGFSKSHSMTG  
WRVGYLISSEKVATAVSKIQSHTTSCINTVAQYAALKALEVDNSYMQTFKERKNFVVER  
LKKMGVKFVEPEGAFYLFVKVRGDDVKFCERLLEKKVALVPGSAFLKPGFVRLSFATSI  
ERLTEALDRIEDFLNSR

>P33097

MAPPSIFAQVPAQPVLVFKLTADFREDPDRKVNLVGVGAYRTDDSQPWVLPVVRKVEQR  
IANDSSINHEYLPIGLAEFRTCASRLALGDDSPALQEKRVGGVQCLGGTGALRIGAEFL  
ARWYNGTNNKDTPVVYSSPTWENHNGVFIAGFKDIRSYHYWDAKRGLDLQGF LNDLEK  
APEFSIFVLHACAHNPTGTDPTPEQWKQIASVMKRRFLFPFFDSAYQGFASGSLEKDAWA  
IRYFVSEGFELFCAQSFSKNFGLYNERVGNLTVVAKEPDSILRVLSQMEKIVRITWSNPP  
AQGARIVARTLSDPELFWNEWTVGNVKTMDRILTMSELRARLEALKTPGTWNHITTEQIGM  
FSFTGLNPKQVEYLINEXHIYLLPSGRINMCGLTTKNLEYVATSIHEAVTKIQ

>P23542

MSATLFNNIELLPPDALFGIKQRYGQDQRATKVDLIGAYRDDNGKPWVLPVSVKAAEKLI  
HNDSSYNHEYLGITGLPSLTSNAAKIIFGTQSDAFQEDRVISVQSLSGTGALHISAKFFS  
KFFPDKLVYLSKPTWANHMAIFENQGLKTATYPYWANETKSLDLNGFLNAIQKAPEGSIF  
VLHSCAHNPTGLDPTSEQVWQIVDAIASKNHIALFDTAYQGFATGDLKDAYAVRLGVEK  
LSTVSPVFCQSFQAKNAGMYGERVGCFFHLALTKQAQNKTIKPAVTSQLAKIRSEVSNPP  
AYGAKIVAKLLETPELTEQWHKDMVTMSRITKMRHALRDHLVKGTPGNWDHIVNQCGM  
FSFTGLTPQMVKRLEETHAVYLVASGRASIAGLNQGNVEYVAKAIDEVVRFYTIEAKL

>Q01802

MLRTRLTNCSLWRPYYTSSLSRVPRAPDPKVLGLSEHFKKVKNVKNIDLTVGIYKDGWVK  
VTTFPVSAKAQKLIESHLELNKNLSYLPITGSKEFQENVMKFLFKESCPQFGPFYLAHDR  
ISFVQTLSGTGALAVAQFLALFISRDIWIPDPSWANHKNIFQNNGFENIYRYSYKDGQ  
IDIDGWIEQLKTFAYNNQOENKNPPCIILHACCHNPTGLDPTKEQWEKIIDTIYELKMV  
PIVDMAYQGLESGNLLKDAYLLRLCLNVNKPNSNGIFLCQSFQAKNMGLYGERVGSLSV  
ITPATANNGKFNPLQKNSLQKNIDSQKIVRGMYSPPGYGSRVVNVVLSDFKQKQW  
FKDVDFMVQRLHHVRQEMFDRLGWPDLVNFQAQHGMYFYTRFSPKQVEILRNMYFVYLTG  
DGRSLSLSGVNDNSVDYLCESLEAVSKMDKLA

>Q0VD83

MDFLRLYLPLGHQALRGALDSLGTFFVSYLLGDAVPTVEREAQAAEELGVVAVGKTGKIVE  
EEAQEDLEGLRGSQNEGAGRLRGPDDRRHEVGS SAVEQTWGWDGSSHGSQAERQDSGA  
GETAKAARCEPSAHLEARKKSKAGSGACQDRSGQAQERQESHEQEVNREERLRSWEQEE



EEEEVRAREPGMARGAESEWTWHGETEGKAGAVGPKAAGDNREMEQGVREADAGETEPEPG  
AEGAGKGEEVVVVEKACESTRAWGTWGPGAEPEDWGILGREEARTTPGREEARAILDGE  
ARTISGEEAETASGGEEAETASGGEEAGTASGGEEAGIASGGEAGTASGGEEAGTASGG  
DEAWTTSGKEEADLLGVRQTEYGAVPGERLLEATGKVVWLEEEGDEEREAEVSPFPKQAQ  
VLGTERTEEAASQTAGREAVGGQEAGESFEGQVDLRGKEAEMRQDLGIRADRARMEELV  
QAEAAQEERGSSRDPVAELPSDGEAEGTADLEATPEARPEEELTGESEAAQTSCGLLV  
EWGGLTHSVTKGQGPPELMGGAQTPTKQPEEREAGEVELMGVLLALSKEEQERSLEAGPRHA  
GSVKPEASEAFPGAWENRTRKDMERGNTQEDAADGEQREEEETAGGQTLAAEAEGDRESE  
LSEVPEAGGGLTTQDAGCGTEEGEASVSENQELDGSTGADAGPCPSLGEAYARETEDEE  
AEADRTSRRGWRLQAVAVGLPDREDAQTGSVAAGIMGGDVVPHISAAGAGEALEGALGQG  
WDSKEKEEAAAGEHAGGQEFGLGSAEEVTVGRGSQVEAFESREGGPWGRVEAEESAGA  
EDSCGLDPAGSQTARAEGMGAMVEAGLLEKWTLLLEEEAVGWQEREQREDSEGRCDYHP  
EGEAPRLLDAEGLMVTGRRRAEAKETEPELESLEHVRGQEEQPTHQAPAEAAPEVGEAETA  
EAMGSARGGAANSWSEAPLPGSLLDVSVPRSRVHLSRSSSQRRSRPSFRRTPAWEQQEEP  
PAPNPPEEELSAPQRPLQLEEPLEPSPLRHDGTPVPARRRPLGHGFLAHPGMMQELQA  
RLGRPKPQ

>Q00022

MTYTTISIRVYQTTPKGFFRPVERTNWKYANGGTWDEVREGEYVLTMGSGTSGSLRFVSSD  
TDES FVATFGVHNYKRWCDIVTNTLTNEQTALVINQEYYGVPIRDQARENQLTSYNVANAK  
GRRFAIEYTVTEGDNLKANLIIG

>P07140

MAISCRQSRVLPMSLPLPLTIPLPLVLVLSLHLSGVCGVIDRLVVQTSSGPVVRGRSVTVQ  
GREVHVYTGIPYAKPPVEDLRFKRPVPAEPWHGVLDATGLSATCVQERYEYFPGFSGEEI  
WNPNTNVSEDCLYINVWAPAKARLRHGRGANGGEHPNGKQADTDHLIHNGNPQNTNGLP  
ILIIWYGGGFMGTGSATLDIYNADIMAAVGNVIVASFQYRVGAFGFLHLAPEMPSEFAEEA  
PGNVGLWDQALAIRWLKDNAHAFGGNPEWMTLFGESAGSSSVNAQLMSPVTRGLVKRGM  
QSGTMNAPWSHMTSEKAVEIGKALINDCNCNASMLKTNPAHVMSCMRSVDAKTI SVQQWN  
SYSGILSFPSAPTIDGAFLPADPMTLMKTADLKDYDILMGNVRDEGTYFLLYDFIDYFDK  
DDATALPRDKYLEIMNIFGKATQAEREAII FQYTSWEGNPGYQNNQQIGRAVGDHFFTC  
PTNEYAQUALAERGASVHYFFTHRTSTSLWGEWVGVLHGDEIEYFFGQPLNNSLQYRPVE  
RELGKRMLSAVIEFAKTGNPAQDGEWPNFSKEDPVYIFSTDDKIEKLARGPLAARCSF  
WNDYLPKVRSWAGTCDGSGSASISPRLQLLGIAALIYICAAALRTRKRVF

>P07692

MREMNLVLTSSLGVLLHLVVLVLCQADDDSELLVNTKSGKVMRTRIPVLSSSHISAFGLGIPFA  
EPPVGNMFRFRPEPKPWGVMNASTYPNCCQQYVDEQFPFGFPGSEMWNPNREMSDCLY  
LNIWVPSRPKSATVMLWIYGGGFYSGSSTLDVYNGKYLAYTEEVVLVSLSYRVGAFGFL  
ALHGSQEAPGNMGLLDQRMALQWVHDNIQFFGGDPKTVTLFGESAGRASVGMHILSPGSR  
DLFRRAILQSGSPNCPWASVSVAEGRRAVELRRNLNCLNSDEDLIQCLREKKPQELID  
VEWNVLPFDSIFRFSFVPVIDGEFFPTSLESMLNAGNFKKTQILLGVNKDEGSFFLLYGA  
PGFSKDSESKISREDFMSGVKLSVPHANDLGLDAVTLQYTDWMDNNGIKNRDGLDDIVG  
DHNVICPLMHFVNKYTKFNGTYLYFFNHASNLVWPEWVGVIHGVEIEFVFGPLPLVKEL  
NYTAEAAALSRRIMHYWATFAKTGNPNPHSQQESKWPLFTTKEQKFIDLNTEPIKVHQR  
RVQMCVFWNQFLPKLLNATA CDGELSSSGTSSSKGIIFYVLFSLIYLIFY

>P35903

MLLLNSALFILCLVCWLPPTSSSRVLTTRREGPQCSRSVDVAVVGAGPSGTYSAYKLRNKG  
QTVELFEYSNRIGRFLFTTHLPNVPDLNLES GGMRYFKNHKIFGVLVKELNLSNKEFTE

GFGKPGRTRFFARGKSLTLEEMTSGDVPYNLSTEEKANQANLAGYYLKKLTGFDGEVLT  
PQANKLEVDDGRKLYQLTVDEALDKVGTPEGKEFLKAFSTGNTEFIEGVS AVNYFLVELG  
EREEELTLTDGMSALPQALADAF LKSSTSHALTLNRKLQSLSKTDNGLYLLEFLETNTH  
EGYTEESNITDLVCARKVILAI PQSALIHLDWKPLRSETVNEAFNAVKFIPTSKVFLTFP  
TAWWLSDAVKNPAFVVKSTSPFNQMYDWKSSNVGTGDAAMIASYADTSDTKFQENLNSKGE  
LIPGSAPGANRVTV ALKEELLSQLSQAYGIERSDIPEPKSGTSQFWSSYPFEGDWTVWKA  
GYHCEYTQYIIERP SLIDDVVVGSDHVNCIENAWTESAFLSVENVFEKYF

>P53396

MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPD TDWARLLQDHPWLLSQNLVVKPD  
QLIKRRGKLGVLGVNLTLDGVKSWLKPRLGQEATVGKATGFLKNFLIEPFVPHSQAE E FY  
VCIYATREGDYVLFHHEGGVDVGDVDAKAQKLLVGVDEKLN PEDIKKHLLVHAPEDKKEI  
LASFISGLFNFYEDLYFTYLEINPLVVTKDGVYVLDLAAKVDATADYICKVKWGDIEFPP  
PFGREAYPEEAYIADLDAKSGASLKLTLNPKGRIWTMVAGGGASVVYSDTICDLGGVNE  
LANYG EYSGAPSEQQTYDYAKTILSLMTREKHPDGKILIIIGGSIANFTNVAATFKGIVRA  
IRDYQGPLKEHEVTIFVRRGGPNYQEGLRVMGEVGTGIP IHVFGTETHMTAIVGMALG  
HRPIPNQPPTAAHTANFLLNASGSTSTPAPSRTASFSESRAD E VAPAKKAKPAMPQDSVP  
SPRSLQ GKSTTLFSRHTKAI VWGMQTRAVQGM LDFDYVCSRDEPSVAAMVYPFTGDHKQK  
FYWGHEKILIPVFKNMADAMRKHP EVDVLIINFASLR SAYDSTMETMNYAQIR TIA IIAEG  
IPEALTRKLIK KADQKGVTIIGPATVGGIKPGCFKIGNTGMLDNILASKLYRPGSVAYV  
SRSGGMSNELNNIISRTTDGVYEGVAIGGDRYPGSTFMDHVLRYQDTPGVKMIVVLGEIG  
GTEEYKICRGIKEGRLTKPIVCWCIGTCATMFSSEVQFGHAGACANQASETAVAKNQALK  
EAGVFVPRSFDELGEIIQSVYEDLVANGVIVPAQEVPPPTVPM DYSWARELGLIRKPASF  
MTSICDERGQELIYAGMPITEVFKEEMGIGGV LGLLWFQKRLPKYSCQFIEMCLMVTADH  
GPAVSGAHNTIICARAGKDLVSSLTSGLLTIGDRFGGALDAAAKMFSKAFDSGIIPMEFV  
NKMKKEGKLIMGIGHRVK SINPNDMRVQILKDYVRQHFPATPLLDYALEVEKITTSKKN  
LILNVDGLIGVAFVDM LRNCGSFTREEADEYIDIGALNGIFVLGRSMGFIGHYLDQKRLK  
QGLYRHPWDDISYVLP EHMMSM

>O65201

MESRREKNPMTEEESDGLIAARRIQRLSLHLSPSLTPSPSLPLVQTE TCSARSKKLDVNG  
EALS LYMRGKHIDIQEKIFDFFNSRPDLQTP IEISKDDHREL CMNQLIGLVREAGVRPFR  
YVADDPEKYFAIMEAVGSVDMSLGIKMGVQYSLWGGSVINLGTKKHRDKYFDGIDNLDYT  
GCFAMTELHHGSNVQGLQTTATFDPLKDEFVIDTPNDGAIKWWIGNAAVHGKFATV FARL  
ILPTHDSKGVSDMGVHAFIVPIRDMKTHQTLPGVEIQDCGHKVLNGVDNGALRFRSVRI  
PRDNLNLRFGDVSRDGYTSSLP TINKRFGATLGELVGGRVGLAYASVGV LKISATIAIR  
YSLLRQQFGPPKQPEVSILDYQSQQHKLMPMLASTYAYHFATVYLVEKYSEMKKTHDEQL  
VADVHALSAGLKS YVTSY TAKALSVCREACGGHG YAAVNRFGSLRNDHDIFQTFEGDNTV  
LLQQVAADLLKRYKEKFQGGTLTVTWSYLR ES MNTYLSQPNPV TARWEGEDHLRDPKFQL  
DAFRYRTSRL LQNV AARLQKHSKTLGGFGAWNRC LNHLTLAESH IETVILAKFIEAVKN  
CPDPSAKAALKLACDLYALDR IWKDIGTYRNV D YVAPNKAKAIHKLTEYLSFQVRNVAKE  
LVDAFELPDHVTRAPIAMQSDAYSQYTQVVGF

>P13798

MERQVLLSEPEEAAAALYRGLSRQPALSAACLGP EVTTQYGGQYRTVHTEWTQRDLERMEN  
IRFCRQYL VFHDGDSVVFAGPAGNSVETR GELLSRESPSGTMKAVLRKAGGTGPGE EKQF  
LEVWEKNRKLKSFNLSALEKHGPVYEDDCFGCLSWSHSETHLLYVAEKKRPAESFFQTK  
ALDVSASDDEIARLKKPDQAIKGDQFVFYEDWGENMVSKSIPVLCVLDVESGNISVLEGV  
PENVSPGQAFWAPGDAGVVFVGGWWHEPFR LGIRFCTNRRSALYYVDLIGGKCELLSDDSL  
AVSSPRLSPDQCRIVYLQYPSLIPHHQCSQLCLYDWYTKVTSVVVDV VPRQLGENFSGIY

CSSLPLGCWSADSQRVVFDQAQRSRQDLFAVDTQVGTVTSLTAGGSGGSWKLLTIDQDLM  
VAQFSTPSPPTLKVGFPLPSAGKEQSVLWVSLLEEAEPIPDHGWGIRVLQPPPEQENVQYA  
GLDFEAILLQPGSPDKTQVPMVMPHGGPHSSFTAWMLFPAMLCKMGFAVLLVNYRGS  
TGFGQDSILSLPGNVGHQDVKDVQFAVEQVLQEEHFDASHVALMGGSHGGFISCHLIGQY  
PETYRACVARNPVINIASMLGSTDIPDWCVVVEAGFPFSSDCLPDLVWAEMLDKSPIRYI  
PQVKTPLLLMLGQEDRRVPFKQGMYYRALKTRNVPVRLLLYPKSTHALSEVEVESDSFM  
NAVLWLRTHLGS

>P96618

MIYGIGLDITELKRIASMAQRKRFAERILTRSELDQYYELSEKRKNEFLAGRFAAKEAF  
SKAFGTGIGRQLSFQDIEIRKQNGKPYIICTKLSQAAVHVSITHTKEYAAAQVVIERS  
S

>P24224

MAILGLGTDIVEIARIEAVIARSGDRLARRVLSDNEWAIWKTHHQVPRFLAKRFVKEAA  
AKAFGTGIRNGLAFNQFEVFNDELGKPRRLRWGEALKLAEKLGVANMHVTLADERHYACA  
TVIIES

>P0A2W6

MIVGHGIDIEELASIESAVTRHEGFVAKRVLTAQEMERFTSLKGRRQIEYLAGRWSAKEAF  
SKAMGTGISKLGFDLEVLNNERGAPYFSQAPFSGKIWLSISHTDQFVTASVILEENHES

>P27095

MLKLAGKEDKKLKTTFVQDETRIFNPPKELVEKSIVMQWMKKKGFKTEKEMRAWCSSDEH  
YLEFWDMAKTYVDWHKPYTKVMDSEMPYFHWFTGGEINITYNAVDRHAKGAKKDKVAY  
IWIPEPTDQPVQKITYGDLYEKVNKFANGLKSLGLKKGDRVSIYMPMIPQLPIAMLACAK  
LGVSHIVVFSGFSSKGLMDRAAHCGSRAIITVDGFYRRGKPVPLKPNADAEAGGAPSVEK  
IIVYKRAGVDVSMKEGRDVVWHDLVKQGQSECEPVWVDEPHRLYLITYSGTTGKPKGIEH  
ATGGNAVGAQTLHWVFDLKDDDVWVCTADIGWVTGHSYIVYAPLILGMTSLMYEGAADY  
PDFGRWWKNIQDHKVTVLYTAPTAVRMFMKQGAEWPDKYDLSLRLGSGVGEPIINPEAWM  
WYREHIGRGELQIMDTWWQTETGTFLNSPLPITPLKPGSCTFPPLPGYDISILDEEGNEVP  
LGSNGNIVALKPYPMSLRAFVWGDKERFMKEYWQFYWDVPGRRGVYLAGDKAQRDKDGYFF  
IQGRIDVLSVAGHRIANAEEVESALVAHPKIAEAAVVGKPDVEKGESIVAFVILRVGNP  
SPELAKDAIAFVRKTLGPVAAPTEVHFVNDLPKTRSGKIMRRVVKARALGNPVGDI STL  
M NPEAVDGPVKIV

>P31638

MSAIESVMQEHVFNPPPEGFASQAAIPSMAYQALCDEAERDYEGFWARHARELLHWTKP  
FTKVLQDQSNAPFYKWFEDGELNASYNCLDRNLQNGNADKVAIVFEADDGSVTRVITYRELH  
GKVCRFANGLKALGIRKGDVVIIYMPMSVEGVVAMQACARLGATHSVVFGGFSKSLQER  
LVDVGAVALITADEQMRGGKALPLKAIADDALALGGCEAVRNVIYRRTGGKVAWTEGRD  
RWMEDVSAGQPDTCFAEPVSAEHLPLFVLYTSGSTGKPKGVQHSTGGYLLWALMTMKWTFD  
IKPDDLFWCTADIGWVTGHTYIAYGPLAAGATQVVFEGVPTYPNAGRFDWMIARHKVSI  
YTAPTAIRSLIKAAEADEKIHPKQYDLSLRLGTVGEPINPEAWMYYKNIIGNERCPIV  
DTFWQTETGGHMITPLPGATPLVPGSCTPLPLPGIMAAIVDETGHDPNGNGGILVVKRPW  
PAMIRTIWGDPERFRKSYFPEELGGKLYLAGDGSIRDKDTGYFTIMGRIDVNLVSGHRM  
GTMEIESALVSNPLVAEAAVVGPRDDMTGEAICAFVVLKRSRPTGEEAVKIATELRNWVG  
KEIGPIAKPKDIRFGDNLPKTRSGKIMRRLRLSLAKGEEITQDTSTLENPAILEQLKQAQ

>P48815

MGLSGKNVIFVGGGLGFIGYEACKQLMAKNMASFFVFDVLDKPENIKALQALNPKTKVYYT  
KFDITSKQSIKSALADVAKVKYIDALINGAGILTDPNVELTMNINLIGLINTTLEGLPL  
MDKNKQGRGGVIVNIASVLEPCPPAAVYCASKFGVMGFSRSIGDPYYNITGVAVVTF  
CPGLTETPLKNNIGSKYTFEYSKKISEELNSTKTQKPEVCGAHLAQVVEESHENGGIYISN  
QGTLAKVTPTVYWQPTYH

>P28483

MAFTLTNKNVIFVAGLGGIGLDTSKELVKRDLKKNLVILDRLENPAAIAELKAINPKVTVT  
FYPPYDVTVPPIAETSLLKTIFAKLTTVDVLINGAGILDDYQIERTIAVNYTGLVNTTTAI  
LDFWDKRKGPGGIICNIGSVTFNAIYQVPVYSGTKAAVVNFTSSLAKLAPITGVTAYT  
VNPGITRRTTLVHKFNWLDVEPQVAEKLLAHPQTQTSLSAENFVKAIELNENGAIWKLDL  
GTLEAIQWSKHWDSCI

>Q93K97

MLKPDNLVPTVFGKNDVEIIARETLYRGFFSLDLYRFRHRLFNGQMSHEVRREIFERGHAA  
VLLPFPDVRDEVVLEIQIRIAAYDTSETPWLLLEMVAGMIEEGESVEDVARREAEAGLI  
VKRTKPVLSFLASPGGTSERSSIMVGEVDATTASGIHGLADENEDIRVHVVSREQAYQWV  
EEGKIDNAASVIALQWLQLHHQALKNEWA

>P23872

MKPENKLPVLDLISAEMKTVVNTLQPDLPWPATGTIAEQRYTLERRFWNAGAPEMAT  
RAYMVPTKYGQVETRLFCPPQDSPAFLFYLHGGGFI LGNLDTHDRIMRLLASYSQCTVIG  
IDYTLSPPEARFPQAIIEEIVAACCYFHQQAEDYQINMSRIGFAGDSAGAMLALASALWLRD  
KQIDCGKVAGVLLWYGLYGLRDSVTRRLLGGVWDGLTQQDLQMYEEAYLSNDADRESPYY  
CLFNNDLTREVPPCFIAGAEFDPLDDSRLLYQTLAAHQQPCEFKLYPGTLHAFHLYSRM  
MKTADEALRDGAQFFTAQL

>Q9F234

MLEDTSFAIQPEQDDKTQETHRIDIGNMHTFSHTEHVFSFHC DTGIVKIRFYREDIVRIA  
FNPFGETSLSSTSVAVVKEPEKVDASVHETEEEEVTLTSKQTVVLQKRPFVRVRYDNHGRL  
LVAEGKKGMAFTYQGEVCCFKMMDEADHFYGFGEKTGFLDKRGETMTMWNTDVYAPHNPE  
TDPLYQSHPHYFMTVRNGSAHGIFFDNTYKTTFFDFQATATDEYCFSAEGGAIDYVVFAGPTP  
KDVLEQYTDLTGRMPLPPKWALGYHQSRYSETEQEVREIAQTFIEKDIPLDVIYLDIHY  
MNGYRVFTFDRNRFPNLKQLIADLKQKGI R VVP IVDPGVKEDPEYVIYQEGIRHDYFCKY  
IEGNVYFGEVWPGKSAFPDFTNKKVRKWWGEKHQFYTDLGI EGIWDMNEPSVFNETKTM  
DVKVIHDNDGDPKTHRELHNVYGFMMGEATYKGMKLLNGKRPFLTRAGFSGIQRVAAV  
WTGDNRSFWEHLQMSLPMCMNLGLSGVAFCGPDVGGFAHNTNGELLTRWMQVGAFTPYFR  
NHCAIGFRRQEPWAFGEKYEI IKKYIRLRYQWLP HLYTLFAEAHETGAPVMRPLFFEYF  
DDENTYNLYDEFLVGANVLIAPIMTPSTTRRVAYFPKGNWVDYWTGEVLEGGQYHLISAD  
LETLPFIKQGSALALGDVKRSTEMPDEHRTVHIYKANGGKATYVLYDDDGQTF SYEKGD  
YLRMYIEVEYGENSVHIVTKSEGTYQPSWKL SFAIHHATEQTKVTIDGNEQNAIFDPHQ  
ILLIQSE

>P19926

MNKTLIAAAVAGIVLLASNAQAQTVPEGYQLQQVLMMSRHNLRAPLANNGSVLEQSTPNK  
WPEWDVPGGQLTTKGGVLEVYMGHYMREWLAEQGMVKS GECPPPYTVYAYANSLQRTVAT  
AQFFITGAFPGCDIPVHHQEKMGTM DPTFNPVITDSSAAFSEQAVAAMEKELSKLQLTDS  
YQLLEKIVNYKDSPACKEKQQCSLVDGKNTFS AKYQQEPGVSGLKVGNSLVD AFTLQYY  
EGFPMDQVAWGEIKSDQQWVLSKLNKYQDSLFTSPEVARNVAKPLVSYIDKALVTDRT  
SAPKITVLVGHDSNIASLLTALDFKPYQLHDQNERTPIGGKIVFQRWHD SKANRDLMKIE

VVYQSAEQLRNADALTLQAPAQRVTLELSGCPIDADGFCPMDKFDSVLNEAVK

>Q64565

MSLAWRTLQKAFYLETSLRILQMRPSLSCASRIYVPKLTLLHTKHNMPPCDFSPEKYQSLA  
YNHVLEIHKQHLSPVNTAYFQKPLLLHQGHMEWLFDFSEGNRYLDFFSGIVTVGVGHCHPK  
VTAVAKKQMDRLWHTSSVFFHSPMHEYAERLSALLPEPLKVIIFLVNSGSEANDLAMVMAR  
AYSNHTDIIISFRGAYHGCSPYTLGLTNVGIYKMKVPSTIACQSTMCPDVFRGPWGGSHCR  
DSPVQTVRKCSCAPDGCQAKERYIEQFKDTLNTSVATS IAGFFAEP IQGVNNGVQYPKEF  
LKEAFALVRRERGGVCIADDEVQTFGRLGSHFWGFQTHDTMPDIVTMAKGIGNGFMAAVV  
TTPEIASSLAKHLHHFSTFGGSPLACAIGSAVLEVIEEENLQRNSQEVGTYMLLKFAKLR  
DEFDIVGDVVRGKGLMVGIEMVQDKISRQPLPKTEVNIHEDCKDMGLLVGRGGNFSQTFR  
IAPPMRVTKLEVDFAFEVFRSALTQHMERRAK

>P38013

MSDLVNKKFPAGDYKFQYIAISQSDADSESCMPQTVESKLI SENKKVIITGAPAAFSP  
TCTVSHIPGYINYLDLVKEKEVDQVIVVTVDNPFANQAWAKSLGVKDTTHIKFASDPGC  
AFTK SIGFELAVGDGVYWSGRWAMVVENGIVTYAAKETNPGTDVTVSSVESVLAHL

>P0A251

MSLINTKIKPFKNQAFKNGEFIEVTEKDTEGRWSVFFFYPADFTFVCPTELGDVADHYEE  
LQKLGVDVYSVSTDTHTFKAWHSSSETIAKIKYAMIGDPTGALTRNFDNMREDEGLADR  
ATFVVDPQGI IQAIEVTAEGIGRDASDLLRKIKAAQYVAAHPGEVCPAKWKEGEATLAPS  
LDLVGKI

>Q801X7

MDFVEVKNLIMKSGMELKVNQVFNANPERFSINVGHSTEEI AVHVDVRF SYLSDKRQLII  
NHKTGDAWQEEQRDARFPFTAGQAFQVSVVFNFDTFDIYLPDGQVAHF'TNHLGAQEYKYI  
FFVGDATVKNISVNVADKPTKR

>P24298

MASSTGDRSQAVRHGLRAKVLTLDGMPNPRVRRVEYAVRGP IVQRALELEQELRQGVKKPF  
TEVIRANIGDAQAMGQRPITFRLRQVLALCVNPDLLSSPNFPDDAKKRAERILQACGGHSL  
GAYSVSSGIQLIREDVARYIERRDGGIPADPNVFLSTGASDAIVTVLKL VAGEGHTRT  
GVLIPIPQYPLYSATLAELGAVQVDYYLDEERAWALDVAELHRALGQARDHCRPRALCVI  
NPGNPTGQVQTRECIEAVIRFAFEERLFLLADEVYQDNVYAAGSQFHSFKKVLMMGPPY  
AGQQELASFHSTSKGYMGECGFRGGYVEVNM DAAVQQQMLKLSVRLC PVPVPGQALLDL  
VVSPPAPTDP SFAQFQAEKQAVLAELA AKAKL TEQVFNEAPGIS CNP VQGAMYSFPRVQL  
PPRAVERAQELGLAPDMFFCLRLLEETGICVVPVGSFGQREGTYHFRMTILPPELKLRL  
LEKLSRFHAKFTLEYS

>P60848

MSSGTPTPSNVVLI GK KPVMMNYVLAAL TLLNQGVSEIVIKARGRAISKAVDTVEIVRNRF  
LPDKIEIKEIRVGSQVVT SQDGRQSRVSTIEIAIRKK

>P0A991

MTDIAQLLGKDADNLLQHR CMTIPSDQLYLP GHDYVDRVMIDNRRPPAVLRNMQTYNTG  
RLAGTG YLSILPVDQGV EHSAGASFAANPLYFDPKNIVELAI EAGCNCVASTYGV LASVS  
RRYAHRI PFLVKLNHNETLSYPNTYDQ TLYASVEQAFNMGAVAVGATI YFGSEESRRQIE  
EISAAFERAHELGMVTVLWAYLRNSAFKKDGV D YHVSADLTGQANHLAATIGADIVKQKM  
AENNGGYKAINYGYTDDRVS KL TSENPIDLVRYQLANCYMGRAGLINSGGAAGGETDLS

DAVRTAVINKRAGGMGLILGRKAFKKS MADGVK LINAVQDVYLD SKITIA

>P58314

MEAPQNVGIKRRLLKRFFRRDGRALIFAMDHGFEGHPTDFEPVWEHVNPRVIIRKVVVRAIGI  
DGVMMPLPGLARIAGDEVKPEVGLMIKLTSTKTNLRPKPEQLLQSQQLGFVDDAIKLGADAI  
ATVYWGSPQEDVMMRQFAEIVSYAHDLGYPVVFAYPRGPYIDEKYGKKEDYRVVMYGAR  
AAAESGADMIKTYWTGSKETF AKVVEAAAGVPVLLSGGAKTENPVDFLKVVWEVIEAGGA  
GAVVGRNIFQRENPEPMIKALIRVIHRNEDPEEAAKAEGLI

>P77671

MSFDLIIKNGTVILENEARVVDIAVKGGKIAAIGQDLGDAKEVMDASGLVVSPGMVDAHT  
HISEPRSHWEGYETGTRAAKGGITTTMIEMPLNQLPATVDRASIELKFDAKGLTIDA  
AQLGGLVSYNIDRLHELDEVGVVGFKCFVATCGDRGIDNDFRDVNDWQFFKGAQKLGELG  
QPVLVHCENALICDELGEEAKREGRVTAHDYVASRPVFTEVEAIRRVLYLAKVAGCRLHV  
CHVSSPEGVEEVTRARQEGQDVTCESECPHYFVLDTDQFEEIGTLAKCSPPIRDLENQKGM  
WEKLFNGEIDCLVSDHSPCPPEMKAGNIMKAWGGIAGLQSCMDVMFDEAVQKRGMSLPMF  
GKLMATNAADIFGLQKGR IAPGKDADFVFIQPNSSYVLTNDDLEYRHKVSPYVGR TIGA  
RITKTILRGDVIYDIEQGFVPAPKQGQFILKHQQ

>P0A6B6

MQAATVVINRRALRHNLQRLRELAPASKMVAVVKANAYGHG LLETARTLPDADAFGVARL  
EEALRLRAGGITKPVLLLLLEGFFDARDLPTISAQHFTAVHNEEQLAAL EEA SLDEPVTW  
MKLDTGMHRLGVRPEQAEAFYHRLTQCKNVRQPVNIVSHFARADEPKCGATEKQLAIFNT  
FCEGKPGQRSIAASGGILLWPQSHFDWVRPGIILYGVSPLEDRSTGADFGCQPVM SLTSS  
LIAVREHKAGEPVGYGGTWWSERDTRLGVVAMGYGDGYPRAAPSGTPVLVNGREVPVGR  
VAMDMICVDLGPQAQDKAGDPVILWGEGLPVERIAEMTKVSAYELITRLTSRVAMKYVD

>Q9S5V6

MTLQNFYRDTWAEINLDAIFENAANMKKHLPP EITLFAVVKANAYGHGDVEVAETAIQAG  
AGYLAVAFLEALALRKKGITAPILVLGASRPEDAQIAARESITLTVFQAGWLEAAQSFL  
EGTVLTIHLKCDSGMGRIGIRKQEE MNEIERFLQKTKCFVLEGI FTHFATADQLDTEYFS  
KQLARFEEMLTWLKEKPKYVHAANSAALLRFPNAVFN SVRMGISLYGLSPSMEMKEVLPF  
ALRPAFSLKTKLVHVKNISKGQSVSYGATYTA EEDTWIGTLP IGYADGWIRMLQGQEVLL  
EGGRSPLVGRICMDQCMVKLSREFPVGTEVTLIGKNGTECITVDDIAEKLNTINYEVTM  
ISSRVPRMYLKDGRITGVVNQLI

>P10724

MNDFHRDTWAEVDLDAIYDNVENLRLLLPDDTHIMAVVKANAYGHGDVQVARTALEAGAS  
RLAVAFLEALALREK GIEAPILVLGASRPADAALAAQQR IALTVFRSDWLEEASALYSG  
PFPIHFHLKMDTGMGR LGVKDEEETKRIVALIERHPHFVLEGLYTHFATADEVNTDYFSY  
QYTRFLHMLEWLP SRPPLVHCANSAASLRFPDRTFNMVRFGIAMYGLAPSPGIKPLLPYP  
LKEAFSLHSRLVHVKKLQPG EKVSYGATYTAQTEEWIGTIP IGYADGWLRRLQHFHVLVD  
GQKAPIVGRICMDQCMIRLPGLPVGT KVTLI GRQGDEVISIDDVARHLETINYEVPCTI  
SYRVPRIFFRHKRIMEVRNAIGRESSA

>P83944

QPAFSVVTRPTFYKLLKAGRDI GYDGT YTTSEDEWIANFTTGWSDQLSRRLSTRLPRLYT  
RNGKIVRICPSLEYLFLEA SEPF TSRGITRHAATTGCVQDLGTDLDFIRPGGAITGLCS

>P79085

MQFTTIIASLFAAAGLAAAAPLESRQDTASCPVTTEGDYVWKISEFYGRKPEGTYYNLSLGF  
NIKATNGGTLDFTCQAQADKLEDHKWYSCGENSFMDFSFDSDRSGLLLKQKVSDDITYVA  
TATLPPNYCRAGGNPKDFVCQGVADAYITLVTLPKSS

>P27017

MGSHQERPLIGLLFSETGVTADIERSQRYGALLAVEQLNREGGVGGRPIETLSQDPGGDP  
DRYRLCAEDFIRNRGVRFLVGCYMSHTRKAVMPVVERADALLCYPTPYEGFEYSPNIVYG  
GPAPNQNSAPLAAYLIRHYGERVVFIGSDYIYPRESNHVMRHLRQHGGTVLEEIYIPLY  
PSDDDVQRAVERIYQARADVVFSTVVGTTGTAELYRAIARRYGDGRRPPIASLTTSEAEVA  
KMESDVAEQVVVAPYFSSIDTAASRAFVQACHGFFPENATITAWAEAAWQTLTLLGRAA  
QAAGSWRVEDVQRHLYDICIDAPQGPVVRVERQMNHSRLSSRIAEIDARGVFQVRWQSPEP  
IRPDPYVVVHNLDDWSASMGGGALP

>P22984

MATIRPDDKAIDAAARHYGITLDKTKARLEWPALIDGALGSYDVVDQLYADEATPPTTSRE  
HAVPSASENPLSAWYVTTSSIPPTSDBGVLTGRRVAIKDNVTVAGVPMNGSRTVEGFTPSR  
DATVVTRLLAAGATVAGKAVCEDLCFSGSSFTPASGPVRNPWDRQREAGSSSGSAALVA  
NGDVDFAIIGDQGGSSIRIPAAFCGVVGHKPTFGLVPYTGAFPIERTIDHLGPIRTRVHDA  
ALMLSVIAGRDGNDPRQADSVEAGDYLSLTDSDVDGLRIGIVREGFGHAVSQPEVDDAVR  
AAAHSLTEIGCTVEEVNIPWHLHAFHIWNVIATDGGAYQMLDNGYGMNAEGLYDPELMA  
HFASRRIQHADALSETVKLVALTGHHGITTLGGASYGKARNLVPLARAAAYDTALRQFDVL  
VMPTLPYVASELPAKDVDRATFITKALGMIANAPFDVTGHPSLSVPAGLVNGLPVGMMI  
TGRHFDDATVLRVGRAFEKLRGAFPTPAERASNSAPQLSPA

>P80695

HGGEAHMVPMDKTLQDFGADDKQLWVTRYHPTERFPEGKYPNRSIHDTGLGQYAKD

>P24828

MNRWEKELDKYAELAVKVGVNIQPGQTLFVNAPLEAAPLVRKIAKTAYETGAKHVYFEWN  
DEALTYIKFHHAPEEAFSEYPMRLRAMEELAEQGAFLSIHAPNPDLLKDVDPKRIATA  
NKTAQAALANYRSAIMADRNCWSLISVPTPAWAQKVFGLRDEEAIDKLWEAIFRITRID  
QDDPIAAWREHNDRLARIVDYLNKQYKQLVYEAPGPIFTVELVDGHVWHGGAATSQSGV  
RFNPNIPTEEVFTMPHKDGVNGTVRNTKPLNYNGNVIDGFTLTFKDGQVVDVSAEQGYET  
LKHLLDTDDGARRLGEVALVPHQSPVSLSNLIFYNTLFDENAACHLALGKAYPTNIENGA  
SLSKEELDRRGVNDLSLVHVFMIQSADLNIDGVTKDGKREPIFRSGNWAFELA

>P25404

MAKVPIAFLKFVIVLILFIAMSGMIEACIGNGGRCNENVGPPYCCSGFCLRQPNQGYGVC  
RNR

>P23341

MDAFTENLNKLAELAIRVGLNLEEGQEIVATAPIEAVDFVRLLAEKAYENGASLFTVLYG  
DNLIAARKRLALVPEAHLDRAPAWLYEGMAKAFHEGAARLAVSGNDPKALEGLPPERVGRA  
QQAQSRAYRPTLSAITEFVTNWTIVPFAHPGWAKAVFPGLPEEEAVQRLWQAIHQATRVD  
QEDPVAWEAHNRVLHAKVAFLNEKRFHALHFQGPGLDGLTVGLAEGHLWQGGATPTKKGR  
LCNPNLPTEEVFTAPHREVEGVVRASRPLALSGQLVEGLWARFEGGVAVEVGAEKGEEV  
LKKLLDDEGARRLGEVALVPADNPIAKTGLVFFDGLFDENAASHIAFGQAYAENLEGRP  
SGEEFRRRGGNESMVHVDWMIIGSEEVVDVGLLEDGTRVPLMRRGRWVI

>P69681

MKIATIKTGLASLAMPLGLVMAAPAVADKADNAFMMICTALVLFMTIPGIALFYGGLIRG  
KNVLSMLTQVTVTFALVCILWVVYGYSLAFGEGNNFFGNINWLMLKNIELTAVMGSIIYQY  
IHVAFQGSFACITVGLIVGALAERIRFSAVLIFVVVWLTLSYIPIAHMVWGGLLASHGA  
LDFAGGTVVHINAAIAGLVGAYLIGKRVGFGKEAFKPHNLPVFTGTAILYIGWFGFNAG  
SAGTANEIAALAFVNTVVATAAAAILGWIIFGEWALRGKPSLLGACSGAIAGLVGVT PACGY  
IGVGGALIIGVVAGLAGLVGVTMLKRLLRVDDPCDVFGVHGVCGIVGCIMTGIFAASSLG  
GVGFAEGVTMGHQLLVQLESIAITIVWSGVVAFIGYKLADLTVGLRVPEEQEREGLDVNS  
HGENAYNA

>P49067

MGDKINFIFGIHNSHQLGNFGWVFEEAYEKCYWPFLETLEEYPNMKVAIHTSGPLIEWLQ  
DNRPEYIDLLRSLVKRGQVEIVVAGFYEPVLASIPKEDRIEQIRLMKEWAKSIGFDARGV  
WLTERVWQPELVKTLKESGIDYVIVDDYHFMSAGLSKEELYWPPYTEDGGEVIAVFPIDE  
KLRYLIPFRPVDKVLEYLHSLIDGDESKVAVFHDDGEKFGIWPPTYEWVYKGLREFFD  
RISSEKINLMLEYEYLEKYKPRGLVYLP IASYFEMSEWSLPAKQARLFVEFVNELKVKG  
IFEKYRVFVRGGIWKNFYKYPESNYMHKRMLMVSKLVRNNPEARKYLLRAQCNDAYWHG  
LFGGVYLPHLRRAIWNLIKANSYVSLGKVIRDIDYDGFEEVLIENDNFYAVFKPSYGG  
LVEFSSKNRLVNYVDVLAARWEHYHGYVESQFDGVASIHELEKKIPDEIRKEVAYDKYRR  
FMLQDHVVPLGTTLED FMSRQQEIGEFPRVPYSYELLDGGIRLKRHLGIEVEKTVKLV  
NDGFVEYIVNNKTGNPVLFAVELNVAVQSIMESPGVLRGKEIVVDDKYAVGKFKALKFED  
EMEVWKYPVKTLQSSESGWDLIQQGVSYIVPIRLEDKIRFKLKFEEASG

>Q08617

MVKLFVIVILALIAVAFGQHGHHGGQDQHG YGHGQQAVYKGGHEGHGVNNLGQDGHGQHG  
AHGHSQHGHHGGQHGQHDGYKNRGY

>P26256

MVVQGTVKPHASFNREDAETLRKAMKIGTDEKSIITHILATRSNAQRQQIKTDYTTLFG  
KHLEDELKSELSENYEAAAALALLRKPDEF LAEQLHAAMKGLGTDENALIDILCTQSNAQI  
HAIKAAFKLLYKEDLEKEIISSETSGNFQRLLVSM LQGGRKEDEPVNAAHAAEDAAAIYQA  
GEGQIGTDES RFNAVLATRSYPQLHQIFHEYSKISNKTILQAIENEFSGDIKNGLLAIVK  
SVENRFAYFAERLHHAMKGLGTS DKTLRILVSRSEIDLANIKET FQAMYGKSLYEF IAD  
DCSGDYKDLLLQITGH

>P04083

MAMVSEFLKQAWFIENEEQEYVQTVKSSKGGPGSAVSPYPTFNPSSDVAALHKAIMVKGV  
DEATIIDILTKRNNAQRQQIKAAYLQETGKPLDETLK KALTGHLEEVVLALLKTPAQFDA  
DELRAAMKGLGTDEDTLIEILASRTNKEIRDINRVYREELKRD LAKDITSDTSGDFRNAL  
LSLAKGDRSEDFGVNEDLADSDARALYEAGERRKGT DVNVFNTILTTRSYPQLRRVFQKY  
TKYSKHD MNKVL DLELKGDI EKCLTAIVKCATSKPAFFAEK LHQAMKGVGTRHKALIRIM  
VSRSEIDMNDIKAFYQKMYGISL CQAILDETKGDY EKILVALCGGN

>O76027

MSVTGGKMAPSLTQEILSHLGLASKTAAWGT LGTLR TFLNFSVDKDAQRLLRRAITGQGV  
RSAIVDVL TNRSREQRQLISRNFQERTQQDLMKSLQAALS GNLERIVMALLQPTAQFDAQ  
ELRTALKASDSAVDVAIEILATRTPPQLQECLAVYKHN FQVEAVDDITSETSGILQD LLL  
ALAKGGRDSYSGIIDYNLAEQDVQALQRAEGPSREETWVPVFTQRNPEHLIRVFDQYQRS  
TGQEELEAVQNRFHGDAQVALLGLASVIKNTPLYFADKLHQALQETEPNYQVLIRILISR  
CETDLLSIRAEFRKKFGKSLYSSLDQAVKGD CQSALLALCRAEDM



>Q48935

MRVIFSEDHKLNRNAKTELYGGELVPPFEAPFRAEWILAAVKEAGFDDVVAPARHGLETVL  
KVHDAGYLNFLLETAWDRWKAAGYKGEAIATSFPVRRTSRIPRTDIEGQIGYYCNAAEATAI  
SPGTWEAALSSMASAIDGADLIAAGHKAAFSLCRPPGHHAGIDMFGGYCFINNAAVAAQR  
LLDKGAKKIAILDVDFHHNGTQDIFYERGDVFFASLHGDPAEAFPHFLGYAEETGKGAG  
AGTTANYPMGRGTPYSVWGEALTDLSLKRIAAFGAEAIIVVSLGVDTFEQDPISFFKLTSPD  
YITMGRITIAASGVPLLVVMEGGYGVPEIGLNVANVLKGVAG

>Q17043

MAVRFLALGLLI FVTSCSRRVCESQQSCDDEQCDETLNIAIVGAGPSGAYSAYKMRHS  
KDVGLFEYCNRVGGRLTYQLPNTPDVNLELGGMRYITGAHNILQEVTKELGLKSVLFTE  
GFGRPGRTRYFLRGQSLTHEEVQSGDVYPYNTTIEKLNQGR IYEYYLKELTGFDIGNGSI  
SREQLLKL RVSDGRLLYQLTFDEALDLVASPEGKEFARDVHVHFTEVTS DANAVSVFDDH  
LGEDGAGDAILTVEEGMQKVPKELIKEFKKTSASNQVQLNKYLQAIRSKSDHSFVLYFRP  
TSTVDGKTTILDYRPLQRVCARQVILALPVFALRRLDWPPLHEGRAETAYAAVRNMAASK  
VFMTFDQAWWLDNRFTDNTAFVTKGDTPFQMYDWKKSNSVSGDYILIASYADGNNTLYQK  
VLRDQGESINGSEPGANRVSEPLKNNILDHLSEAYGVDRSTIPEPKTAVSQFWDYDFGC  
GWITWRAGYHFDDVMSTMRRPSLKDEVYVVGADYSWGLMSSWTEGALETADAVLKDYFKG  
ECAKPPSVDHLDSHMA

>P02659

MVQYRALVIAVILLSTTVPEVHKSII DRERRDWLVIPDAAAAYIYEAVNKVSPRAGQF  
LLDVSQTTVVSGIRNFLINETARLTKLAEQLMEKIKNLCTYTKVLGY

>P49435

MSIASYAQELKLALHQYPNFPSEGI L FEDFLPIFRNPGLFQKLIDAFKHLHLEAFPEVKI  
DYIVGLESRGFLFGPTLALALGVGFVVRKAGKLPGEFCFKATYEKEYGSDLFEIQKNAIP  
AGSNV IIVDDIIATGGSAAAAGELVEQLEANLLEYNFVMELDFLKGRSKLNAPVFTLLNA  
QKEALKK

>P47952

MAESELQLVAQRIRSFDFPIPGVLF RD ISPLLKDPASFRASIRLLASHLKSTHGKIDY  
IAGLDSRGFLFGPSLAQELGLGCVLIRKRGKLPGPTVSASAYALEYGKAELEIQKDALEPG  
QKVVVVDDLLATGGTMCAACELLGQLQAEVVECVSLVELTSLKGREKLGSVPPFFSLLQYE

>P12426

MSPSISAEDKLDYVKSIGEYPNFPKEGILFRDIFGALTDPKACVYL RDLLVDHIRE SAP  
EAEVIVGLDSRGFLFNLLIATELG LGCAPIRKKGKLAGEVVSVEYKLEYGIDTFELQKSA  
IKPGQKVVVVDDLLATGGS LVAATELIGKVGGVVVE SLVVMELVGLGRKRLDGKVHSLI  
KY

>P69503

MTATAQQLEYLKNSIKSIQDY PKGILFRDVTSLLEDPKAYALSIDLLVERYKNAGITKV  
VGTEARGFLFGAPVALGLGVGFVVRKPGKLPRETISETYDLEYGTDQLEIHVDAIKPGD  
KVLVVDLLATGGTIEATVKLIRRLGGEVADAAFIINLFDLGGEQRLEKQGITSYSLVFP  
PGH

>P08202

MTIFDNYEVWFVIGSQHLYGPETLRQVTQHAHEHVNALNTEAKLPCKLV LKPLGTTPEI  
TAICRDANYDDRCAGLVVWLHTFSPAKMWINGL TMLNKPLLQFHTQFNAAALPWDSIDMDF

MNLNQTAHGGREFGFI GARMRQQHAVVTGHWQDKQAHERIGSWMRQAVSKQDTRHLKVCR  
FGDNMREVAVTDGDKVAAQIKFGFSVNTWAVGDLVQVNSISDGDVNALVDEYESCYTMT  
PATQIHGKKRQNVLEAARIELGMRKFLEQGGFHAF'TTTTFEDLHGLKQLPGLAVQRLMQQG  
YGFAGEGDWKTAALLRIMKVMSTGLQGGTSFMEDYTYHFEKGNDLVLGSHMLEVCPSIAA  
EEKPILDVQHLGIGGKDDPARLIFNTQTGPAIVASLIDLGDYRLLVNCIDTVKTPHSLP  
KLPVANALWKAQPDLP TASEAWILAGGAHHTVFSHALNLNMDRQFAEMHDIEITVIDNDT  
RLPAFKDALRWNEVYYGFRR

>P19329

MASSNLLTLALFLVLLTHANSSNDASFNVE'FNKTNLILQGDATVSSEGHLLLTNVKGNE  
EDSMGRAFYSAPIQINDRTIDNLAASFSTNFTFRINAKNIENSAYGLAFALVPVGSRPKPK  
GRYLGLFN'NTNYDRDAHTVAVVFDTVSNRIEIDVNSIRPIATESCNFGHNNGEKA'EVRI  
YDSPKNDLRVSLLYPSSEEKCHVSATVPLEKEVEDWVSVGFSATSGSKKET'TETHNVLSW  
SFSSNFINFKGGKKSERSNILLNKIL

>P23793

MSVFDKFKGIHVYSEIGELESVLVHEPGREIDYITPARLDEL'LSAILESHDARKEHKQ  
FVAELKANDINVVELIDLVAETYDLASQEA'KDKLIEEFLE'EDSEPVLSEEHKV'VRNFKL  
KKTRELVEIMMAGITKYDLGIEADHELIVDPMPNLYFTRDPFASVGN'GVTIHYMRYKVR  
QRETLFSRFVFSNHPKLINTPWYYDPSLKLSIEGGDVF'YNNDTLVVGVSE'RTDLQTVTL  
LAKNIVANKECEFKRIVAINVPKWTNLMHLDTWL'TMLDKDKFLYSP'IAN'VFKFWDYDLV  
NGGAEPQPVENGLPLEGLLQSI INKKPVLIPIAGEGASQMEIERETHFDG'TNYLAIRPGV  
VIGYSRNEKTNAALEAAGIKVLPFHGNQLSLGMGNARCMSMPLSRKDVKW

>P41142

MSAEKQKYGVHSEAGKLRKVMVCSPGLAHKRLTPSN'CELLFDDVIWVDQAKRDHFD'FVT  
KMRERGV'DVLEMHNLLTDIVQQPEALKWILDRKITSDTVGVGLTNEVRSWLEGLEPRHLA  
EFLIGGVAGQDLPVSEGA'EVIKMYNKYLGHSSFILPPLPNTQFTRD'TTCWIYGGVTLNPM  
YWPARRQETLLTTAIYKFHKEFTGAD'FQVWYGDPDKDHGNATLEGGDVMPV'GKIVLIGM  
GERTSRHAIGQLAQNLF'EKGA'AEKIIVAGLPKSRAAMHLDTVF'SFCDRDLVTVFPEV'VKE  
IKPFIITPDSSKPYGMNIAPQDASFL'EVVSEQLL'GKKDKLRV'VETGGNSFAAEREQ'WDDG  
NNVVALEPGVVIGYDRNTYTNTLLRKAGIEVITISAGELGRGRGGGHCMTCP'IVRDPIDY

>P58827

MTAQTPIHVYSEIGKLLKVL'LRHPGKEIENLMPDYLERLLFDDIPFLEDAQKEHDAFAQA  
LRDEGIEVLYLET'LA'ESLVTPEIREAFIDEY'YLSEANIRGRATKKAIRELLMAIEDNQEL  
IEKTMAGVQKSELPEIPASEKGLTDLV'ESNYPFAIDPMPNLYFTRDPFATIGTGVSLNHM  
FSETRNRETLYGKYIF'THHP'YGGGKVP'MVYDRNETTRIEGGDELVLSKDV'LVAVGISQRT  
DAASIEKLLVNI'FKQNLGFKKVLAFEFANNRKFMHLDTVF'TMVDYDKF'TIHPEIEGDLRV  
YSVTYDNEELHIIEEKGDLAELLAANL'GVEKVDLIRCGGDNLVAAGREQW'NDGSNTLTIA  
PGVVVVYNRNTITNAILES'KGLKLIKIHGSELV'RG'GGPRC'MSMPFEREDI

>Q9X5C9

MNDSILLGLIGQLDL'SRTPAMHEAEGLAQGRATVYRRIDTLGSRASGQDLK'TLLDAALY  
LGFNGLNITHPYKQAVL'PLLDE'VSEQATQLGAVNTVVIDATGHTTGHNTDVS'GFGRGMEE  
GLPNAKLD'SVVQVGAGGVGN'AVAYALVTHGVQKLVADLDT'SRAQALADV'INNAVGREAV  
VGVDARGIEDVIAAADGVVNAT'PMGMPAHPGTA'FDV'SCLTKDHWVGDV'VYMPIETELLKA  
ARALGCETLDGTRMAIHQAVDAFRLFT'GLEPDVSRMRETF'LSL

>P80574

MTVNAKTSPSAGNTWRDLPAQQPEYDPTEALRAVIADLESYPPLVVFAGECDQLRARMAA  
VAKGEAFLLQGGDCAEAFDAVSADHIRNKLKTLQMGAVLTYAASVPVVKVGR IAGQYSK  
PRSKPTETRDGVTLPTYRGDSVNGFDFTEAARIPDPERLKRMYPHASASTLNLVRAFFTGG  
YADLRQVHAWNQDFVKSSPSGQRYEQLARE IDNALNFMFRACGTDPAEFQTVFEFFSSHEAL  
LLDYESALTRVDSRTGQLYDVSGHMVWIGERTRQLDHAHIEFASRIRNPIGKLG PSTTA  
EEALQYIERLDPEREPGR LTFIVRMGADKIRDKLPPELVEKVTASGATVAWITDPMHGNTY  
EAASGHKTRRFDDVLDEVKGF FEVHKS LGTHPGGIHVELTGDDVTECVGGGDEIFVDDLH  
QRYETACDPRLNRSQSLDLAFLVAEMYRDQ

>P17870

MGDKGTRVFKKASPNGKLTVYLGKRDFVDHIDLVEPVDGVVLVDPEYLKERRVYVTLTCA  
FRYGREDLDVGLGTLFRKDLFVANVQSFPPAPEDKKPLTRLQERLIKKLGEHAYPFTFEIP  
PNLPCSVTLQPGPEDTGKACGV DYEKAFCAENLEEKIHKRNSVRLVIRKVQYAPERPGP  
QPTAETTRQFLMSDKPLHLEASLDKEIYYHGEPISVNVHVTNNTNKTVKKIKISVRQYAD  
ICLFNTAQYKCPVAMEEADDTVAPSSTFCKVYTLTPFLANNREKRGLALD GKLK HEDTNL  
ASSTLLREGANREILGIIVSYKVKV KLVVSRGGLLGD LASSDVAVELPFTLMHPKPKEEP  
PHREVPEHETPVDTNLIELDTNDDDIVFEDFARQLKGMKDDKEEEEDGTGSPRLNDR

>P15289

MGAPRSLLLALALAAGLAVARPPNIVLIFADDLGYGDLGCYGHPSSTTPNLDQLAAGGLRFT  
DFYVPVSLCTPSRAALLTGRLPVRMGMPGVLPSSRGGLPLEEVTVAEVLAAARGYLTGM  
AGKWHLGVGPEGAFLLPHHQGFHRFLGIPYSHDQGPCQNLTCFPPATPCDGGCDQGLVIP  
LLANLSVEAQPPWLPGLEARYMAFAHDLMADAQRQDRPFFLYYASHHHTHPQFSGQSF AE  
RSGRGPFGDSLME L DAAVGTLMTAIGDLGLLEETLVI FTADNGPETMRMSRGGCSGLLRC  
GKGTTEYEGGVREPALAFWPGH IAPGVTHELASSDL LPTLAALAGAPLPNVTL DGF DLSP  
LLLGTGKSPRQSLFFYPSYPDEVRGVFAVRTGKYKAHFFTQGSAHSDTTADPACHASSL  
TAHEPPLLYDL SKDPGENYNLLGGVAGATPEVLQALKQLQLLKAQLDAAVTFGPSQVARG  
EDPALQICCHPGCTPRPACCHCPDPHA

>P33727

MGRGAASLPRGSPRRPLLPGLVPLLLLRLLLLPSRPGAGAGADRPPHLVFLADDLGWN  
DVSFHGSNIRTPHLDELAAGGVLLDNYYTQPLCTPSRSQLLTG RYQIHTGLQHQI IWPCQ  
PSCVPLDEKLLPQLLKEAGYTTMVGKWHLGMYRKECLPTRRGFDTYFGYLLGSEDYYSH  
ERCALIDSLNVTRCALDFRDGEQVATGYKNMYSTNIFTERATALITSHPEKPLFLYLAL  
QSVHEPLQVPEEYLPYDFIQDKNRHYAGMVSLMDEAVGNVTAALKSHGLWNNTVFIFS  
TDNGGQTLAGGNWPLRGRKWSLWEGGIRGVGFVASPLLKQKGVKNRELIHISDWLPTLV  
KLARGSTKGTKPLDGFVDVWKTISEGSPSPRKE LLHNIDPNFVDISPCPGKSLAPAKDDSS  
HPAYLAFNTSLHAAIRHGNWKL LTGYPGCGWFPPPSPYNDSAIPSSDPPTKTLWPF DID  
QDPEERHDL SRDYPHIVEQLLSRLQFYHKHSVPVHFPAQDPRCDPKGTGAWGPWV

>P00963

MKTAYIAKQRQISFVKSHFSRQLEERLGLIEVQAPILSRVGDGTQDNLSGCEKAVQVKVK  
ALPDAQFEVVHSLAKWKRQTLGQHDF SAGEGLYTHMKALRPDEDRLSPLHSVYVDQWDWE  
RVMGDGERQFSTL KSTVEAIWAGIKATEAAVSEEFGLAPFLPDQIHFVHSQELLSRYPDL  
DAKGRERAI AKDLGAVFLVGI GGKLSDGHRHDV RAPDYDDWSTPSELGHAGLNGDILVWN  
PVLEDAFELSSM GIRVDADTLKHQLALTGDEDRL E LEWHQALLRGEMPQTIGGGIGQSRL  
TMLLLQLPHIGQVQCGVWPAAVRESVPSLL

>P50286

MAKPQVTILATGGTIAGSGESSVKSSYSAGAVTVDKLLAAVPAINDLATIKGEQISSIGS

QEMTGKVLKLAQRVNELLAQKETEAVI I THGTDMEETAFFLNLTVKSQKPVVLVGAMR  
SGSSMSADGPMNLYNAVNVAINKASTNKGVVIVMNDIHAAREATKLNTTAVNAFASPNT  
GKIGTVYYGKVEYFTQSVRPHTLASEFDISKIEELPRVDILYAHPDDTDVLVNAALQAGA  
KGI IHAGMGNGNPFPLTQNALEKAAKSGVVVARSSRVGSGSTTQEAQVDDKKLGFVATES  
LNPQKARVLLMLALTKTSDREAIQKIFSTY

>Q03168

MLIKSIIALVCLAVLSQADFVRVQLHKTESARQHFRNVDTEIKQLRLKYNAVSGPVPEPL  
SNYLDAYQYGAITIGTPPQSFVKVFDTGSSNLWVPSKECSFTNIACLMHNKYNAKKSSTF  
EKNGTAFHIQYSGSLSGYLSTDTVGLGGVSVTKQTFAEAINEPGLVVFVAAKFDGILGLG  
YSSISVDGVVPVFNMFNQGLIDAPVFSFYLNRPDSAAEGGEIIFGGSDSNKYTGDFTYL  
SVDRKAYWQFKMDSVKVGDTEFCNNGCEAIADTGTSLIAGPVSEVTAINKAIGGTPIMNG  
EYMVDCSLIPKLPKISFVLGGKSFDFLEGADYVLRVAQMGTICLSGFMGIDIPPPNGPLW  
ILGDVFIGKYYTEFDMGNDRVGFATAV

>P76216

MNAWEVNFGLVGLTHHYAGLSFGNEASTRHRFQVSNPRLAAKQGLLKMALADAGFPQA  
VIPPPERPFIPVLRQLGFGSDEQVLEKVARQAPHWLSVSSASPMWANAATIAPSADT  
LDGKVHLTVANLNNKFHRSLEAPVTESSLKAI FNDEEKFSVHSALPQVALLGDEGAANHN  
RLGGHYGEPGMQLFVYGREEGNDTRPSRYPARQTREASEAVARLNQVNPQQVIFAQQNPD  
VIDQGVFHNDVIAVSNRQVLFCHQQAFARQSQLLANLRARVNGFMAIEVPATQVSVSDTV  
STYLFNSQLLSRDDGSMMLVLPQECREHAGVWGYLNELLAADNP ISELKVFDLRESMANG  
GGPACLRRLRVLTEEERRAVNPAVMMNDTLFNALNDWDRYYRDRLTAADLADPQLLREG  
REALDVLSQLLNLGSVYPFQREGGGNG

>P0A951

MPSAHSVKLRLEREDLRYVHQLDNNASVMRYWFEEPYEAFVELSDLYDKHIHDQSERRF  
VVECDGEKAGLVELVEINHVRRAEFQIIISPEYQKGLATRAAKLAMDYGFVNLNLYKL  
YLIVDKENEKAIHIYRKLGFVVEGELMHEFFINGQYRNAIRMCIFQHQYLAEHKTPGQTL  
LKPTAQ

>Q12527

MADADEYSTAPTQOEITPLQTTATI INAISGECITTNVDFVSLDKFKQFIARKWKIPPD  
QLLILLPYGNKLPKSMFKELLINRSFTLNDFYVYDRRLFSLVSKPTPTNLLTSKDSNPMN  
SPNSNDLTETLEYLIKNSHISQYQGSDTIMIKPMPSPLEDADVDLSRLNYHSVTSLLTTN  
LGWLSALEIDVHYFKSLIPDIIAHIKRIFDGLTVCSQYLKLYCFDVESLYNSNVQFLNQL  
VDNGMTSKWEKCFNDTSLKLTALEGDSLQKFINIESLLENEKSVKILNHSINGKLNKIKR  
EIDENASFRDIITVNIDRLRQMFTPNESKFELEDQMAESFEVLVSEMRTRSRNVLDKEEE  
EFNSQEFKSMNVMLEKDKKESVKTLFTISQALYSQIGELIDLKKSQKHAVAILGNIAF  
TQMEILGIKRLLLNECNKDLELYKKEVEFAQVEDLPLIYGLYLIIEKYRRLSWFQQILSF  
ISNFNQDLELFKQNELRTRNKWVKNFSGSIATVFCEDLLSSSDFKRLNEYHSHTSPPNEDE  
EDENENSIANYRQDLVKVSAIDNYMTQIKETDVSEPIIDLKSKTLFETKRFHI IYSNFK  
NNNNNSNGNSISPEGSIALKSDDVVKGYKTRIKKLESLLHEFQYSDIGHWPQGVNLTHL  
KPFRRSATSINKKKFLGASVLEPANI SEVNIDSVSQANNHQIQELESNVDDLHLHQLQLL  
KEENNRKSMQISEMGKKISDLEVEKTAYRETLTNLNQELARLTNEEQSHRTEIFTLNASF  
KKQLNDIISQDNEKIEKLTGDYDDVSKSRERLQMDLDESNNKHEQEVNLLKADIERLGKQ  
IVTSEKSYAETNSSMEKGEKFETIPLAEDPGRENQISAYTQTLQDRIFDIISTNIFILE  
NIGLLLTFDNNNNIQIRRVKGLKKGTAQSNILDESTQMLDAHNSLIKSPVFQKLDKDEYE  
LIKSVANGSEKDTQQSIFLGNITQLYDNKLYEVAVIRRFKDIETLAKKLTENKIKRLL  
ERFQREKVTLRNFQIGDLALFLPTRENVNSVSGSMSSTSSLSSSFSSVDLSTPPPLDAMS

IQSSPSVIHSNVINQASISGRDKNKLMRPWAAFTAFFEESTRYFLKDEKGLTKGKEWFVGR  
IVTLEHFVADSPSNPFRLPKGSVWFQVTAVVVSQGV

>P38862

MSSSERVLSYAPAFKSFLDTSFFQELSRLLKLDVLLKLDSTCQPLTVNLDLHNI PKSADQVPL  
FLTNRSEFEKHNNKRTNEVPLQGSIFNFNVLDEFKNLKDQLFLHQRALECWEDGIKDINKC  
VSFVIIISFADLKKYRFYYWLVGVPFCFQRPSSSTVLHVRPEPSLKGLFSKCQKWFVDVNYSKWV  
CILDADDEIVNYDKCIIRKTKVLAIRDSTSTMENVP SALTKNFLSVLQYDVPDLIDFKLLI  
IRQNEGSFALNATFASIDPQSSSNPDMKVSGWERNVQGKLAPRVVDLSSLLDPLK IADQ  
SVDLNLKLMKWRILPDLNLDI IKNTKVLLL GAGTLGCYVSRALIAWGVRKITFVDNGTVS  
YSNPVRQALYNFEDCGKPKAELAAASLKRIFPLMDATGVKLSIPMIGHKLVNEEAQHKDF  
DRLRALIKEHDIIFLLVDSRESRWLPSLLSNIENKTVINAALGFDSYLVMRHGNRDEQSS  
KQLGCYFCHDVVAPTDSLTDRTLDQMCTVTRPGVAMMASSLAVELMTSLLQTKYSGSETT  
VLGDIPHQIRGFLHNFSILKLETPAYEHCPACSPKVI EAF'TDLGWEFVKKALEHPLYLEE  
ISGLSVIKQEVERLGNDFVEWEDDESDEIA

>O58843

MSRGDKMLKFEIKARDGAGRIGKLEVNKGIETPAIMPVVNPKQMVVEPKLEKMGFEII  
ITNSYIIYKDEELRRKALELGIHRMLDYNGIIEVDSGSFQLMKYGSIEVSNREIIEFQHR  
IGVDIGTFLDIPTPPDAPREQAVKELEITLSRAREAEI KEIPMNATIQQSTYTDLRRYA  
ARRLSSMNFIEHPIGGVVPLLESYRFRDVVDIVISSKMALRPDRPVHLFGAGHP IVFALA  
VAMGVDLFDSASALYAKDDRYMTPEGTKRLELDYFPCSCPVC SKYTPQELREMPKEER  
TRLLALHNLWVIKEEIKRVKQAIKEGELWRLVDERARSHPKLYSAYKRLL EHYTFLEEF  
PITKKSALFKISNESLRWPVVRRAKERAKSINERFGELVEHP IFGRVSRYLSTYPFAQS  
EAEDDFKIEKPTKEDAIKYVMAIAEYQFGE GASRAFDDAKVELSKTGMPRQVKVNGKRLA  
TVRADDGLLTLGIEGAKRLHRVLPYPRMRVVVNKEAEPFARKGKDVFAKFVIFADPGIRP  
YDEVLVVNEDELATGQALLSGREMIVFYGRAVKVRKGVE

>Q6WY08

QGVNIYNISAGTSVDLAAPVTTGDIVTFFSSALNLNAGAGNPNTTLNLF AENGAYLLHI  
AFRLQENVIIIFNSRQPDGPWLVEQRVSDVANQFAGIDGKAMVTVFDHGDKYQV VINEKTV  
IQYTKQISGLTSLSYNATEETSIFSTVVEAVTYTGLA

>P33447

MSSWDVSMNSNHAGLVFNPIRTVSDNAKPSPSPKPIIKLSVGDPTLDKNLLTSAAQIKKLLK  
EAIDSQECNGYFPTVGSPEAREAVATWWRNSFVHKEELKSTIVKDNVVLCSGGSHGILMA  
ITAICDAGDYALVPQPGFPHYETVCKAYGIGMHFYNCRPENDWEADLDEIRRLKDDKTKL  
LIVTNPSNPGSNFSRKHVEDIVRLAEELRLPLFSDEIYAGMVFKGKDPNATFTSVADFE  
TTVPRVILGGTAKNLVVPGWRLGWLLYVDPHGNGPSFLEGLKRVGMLVCGPCTVVQAALG  
EALLNTPQEHLDQIVAKIEESAMYLYNHIGECIGLAPTMPRGAMYLMSRIDLEKYRDIKT  
DVEFFEKLLEENVQVLPGTIFHAPGFTRLTTTRPVEVYREAVERIKAF CQRHAAV

>P72156

MQTL SIQHGTLV TMDQYRRVLGDSWVHVQDGRIVALGVHAESVPPPADRVIDARGKV VLP  
GFINAHTHVNQILLRGGP SHGRQFYDWLFNVVYPGQKAMRPEDVAVAVRLYCAEAVRSGI  
TTINENADSAIYPGNI EAAMAVYGEVGVVVYARMFFDRMDGRIQGYVDALKARSPQVEL  
CSIMEETAVAKDRITALSDQYHG TAGGRISVWPAPATTTAVTVEGMRWAQAFARDRAVMW  
TLHMAESDHDERIHGMSPAEYMECYGLLDERLQVAHCVYFDRKDVRL LHRHNKVASQVV  
SNAYLGSVAPVPEMVERGMAVIGITDNGNSNDSVNMI GDMKFM AHIHRAVHRDADVLT P  
EKILEMATIDGARSLGMDHEIGSIETGKRADLILLDLRHPQTPHHLAATIVFQAYGNE

VDTVLIIDGNVVMENRRLSFLPPERELAFLEEAQSRATAILQRANMVANPAWRSL

>Q08236

MDTVTVLNLRAQFLRVCPEKDQMKRI IKPYIPVDEFNTEQCLDSSIRELYMNSDGVSL  
PELESPPVSKDFMENYASLGKMRIMRENEGQKGGKANQNLIGA EKTERDEEETRNLQDKSA  
KNTLIVEENGLRYNPLNSSASNSLLNDDHTSGKHHKTSKEDSYLNSMEMQKSSKR  
SSLPFVRIFKSRRDHSNTSGNKNVMNTTNTRAKSSTLHPPGARHNKKGSKFDMNFD DEN  
LEEEEDDDDDDEEGDDIHSQFFQLDDDFDAKSGGASPAHKGINGMSNNKNNTYTNNRNSI  
SILDDRESSNGNIGSASRLKSHFPTSQKGI FLTDNKNDGQKSDSLNANKGIHGDGSSAS  
GNGSVSRDGLTETESNNISDMESYINEKDLDDLNFDTVTSNINKTVSDLGGHESTNDGTA  
VMNRDSKDSRSNSNEFNAQNRDRITPGSSYGKSLLGSEYSEERYSNNDSSTMESGEMSLD  
SDMQTNTIPSHSIPMSMQKYGIYHGDDSTLNNVFDKAVLTMNSSRHPKERRDTVISGKE  
PTSLTSSNRKFSVSSNLTSTRSPLLRGHGRTSSTASSEHMKAPKVS DSVLHRARKSTLTL  
KQDHSQPSVPSSVHKSSKEGNILIEKTTDYLVSKPKASQLSNMFKKKKRTNTNSVDVLE  
YFSFVCGDKVPNYESMGLEIYIQASKKYKRSFTTKVRKSSTIFEVIGFALFLYSTEKKP  
DNFEEDGLTVEDISNPNFSLKIVDEDEGEFEDNFGLDRKSTIQSISDSEVVLCKVDDA  
EKSQNEIETPLPFETGGGLMDASTLDANSSHDTTDGTINQLSFYKPIIGNEDDIDKTNGS  
KIIDVTVYLYPNVNPKFNYTTISVLVTSHINDILVKYCKMKNMDPNEYALKVLGKNYILD  
LNDTVLRDLGINKVELISKKDARELHLEKMKPDLKPKVLPPTIQSNDLTPLTLEPLNSYLK  
ADAGGAVAAIPENTKVTSKAKKISTKYKLG LAKQHSSSSVASGSVSTAGGLANGNGFFKN  
KNSSKSSLHGTLQFHNINRSQSTMEHTPDTPNGVGNFQDLFTGAYHKYKVVRRQQMSFI  
NKHERTLAIDGYIYIVPEGRHWHDNVKTSLHISQVVLVKKSKRVPEHFKIFVRREG  
QDDIKRYFFEAVSGQECTEIVTRLQNLLSAYRMNHK

>P14727

MDPIRSRTPSPARELLPGPQPDGVQPTADRGVSPAGGPLDGLPARRTMSRTRLPSPAP  
SPAFSAGSFSDLRQFDP SLFN TSLFDSLPPFGAHHTEAATGEWDEVQSGLRAADAPPPT  
MRVAVTAARPPRAKPAARRRAAQPSDASPAQVDLRTLGYSSQQQEKIKPKVRS TVAQHH  
EALVGHGFTHAHIVALSQHPAALGTVAVKYQDMIAALPEATHEAIVGVGKQWSGARALEA  
LLTVAGELRGPPLQLDTGQLLKI AKRGGVTAVEAVHAWRNALTGAPLNLTP EQVVAIASH  
DGGKQALETVQRLLPVLCQAHLTPQQVVAIASNNGGKQALETVQRLLPVLCQAHLTPQ  
QVVAIASNSGGKQALETVQRLLPVLCQAHLTP EQVVAIASNNGGKQALETVQRLLPVLC  
QAHLTP EQVVAIASNIGGKQALETVQALLPVLCQAHLTP EQVVAIASNIGGKQALETV  
QALLPVLCQAHLTP EQVVAIASNIGGKQALETVQALLPVLCQAHLTP EQVVAIASHDG  
GKQALETVQRLLPVLCQAHLTP EQVVAIASHDGGKQALETVQRLLPVLCQAHLTPQQV  
VAIASNNGGKQALETVQRLLPVLCQAHLTP EQVVAIASNSGGKQALETVQALLPVLCQA  
HGLTP EQVVAIASNSGGKQALETVQRLLPVLCQAHLTP EQVVAIASHDGGKQALETVQR  
LLPVLCQAHLTP EQVVAIASHDGGKQALETVQRLLPVLCQAHLTP EQVVAIASHDGGK  
QALETVQRLLPVLCQAHLTPQQVVAIASNNGGKQALETVQRLLPVLCQAHLTP EQVVA  
IASHDGGKQALETVQRLLPVLCQAHLTPQQVVAIASNNGGKQALETVQRLLPVLCQAHLTP  
ALTNDHLVALACLGGRPALDAVKKGLPHAPALIKRTNRRIPERTSHRVADHAQVVRVLGF  
FQCHSHPAQAFDDAMTQFGMSRHGLLQLFRRVGVTELEARSGLPPASQRWDRILQASGM  
KRAKPSPTSTQTPDQASLHAFADSLERDL DAPSPMHEGDQTRASSRKRSDRAVTGPSA  
QQSFVVRVPEQRDALHLPLSWRVKRPRTSIGGGLPDPGTPTAADLAASSTVMREQDEDPF  
AGAADDFFPAFNEEELAWLMELLPQ

>Q50H63

MKGLIIIGSAQVNSHTSALARYLTEHFKTHDIEAEIFDLAEKPLNQLDFSGTTPSIDEIK  
QNMKDLKEKAMAADFLILGTPNYHGSYSGILKNALDHLNMDYFKMKPVGLIGNSSGIVSS  
EPLSHLRVIVRSLGLIAVPTQIATHSDSFAKNEDGSYYLNDSEFQLRARLFDVQIVSVFN

NSPYEHLK

>P41407

MSKVLVLKSSILAGYSQSNQLSDYFVEQWREKHSAD EITVRDLAANPIPVLDGELV GALR  
PSDAPLTPRQQEALALSDELIAELKAHDVIVIAAPMYNFNISTQLKNYFDLVARAGVTFR  
YTENGPEGLVTGKKAIVITSRGGIHKDGPTDLVTPYLPSTFLGFIGITDVKFVFAEG IAYG  
PEMAAKAQSDAKAAIDSIVSA

>P68831

MPSKLALIQELPDRIQTAVEAAMGMSYQDAPNNVRRDLNLHACLNKAKLTVSRMVTSL L  
EKPSVVAYLEGKAPEEAKPTLEERLRKLELSHSLPPTTGSDPPPAKL

>P04252

MLDQQTINIIKATVPVLKEHGVTTTTTFYKNLFAKHPEVRPLFDMGRQESLEQP KALAMT  
VLAAAQNIENLPAILPAVKKIAVKHCQAGVAAAHYPIVGQELLGAIKEVLGDAATDDILD  
AWGKAYGVIADVFIQVEADLYAQAVE

>P19409

MHKKSACEREGKELKRDFFNKFNLTGTSNFBVTPGKQLEYVSECKPDSTAVICLDKEQNCSV  
ITWHQLHVYSSQLAWYLIENEIGPGSIVLTMFPNSIEHIIAVFAIWKAGACYMPMSYKAA  
ESEIREACDTIHPNAAFAECKIPGLKFCLSADEIYEAMEGRSKEMPSDRLANPNMISLSG  
GTSGKMKFIRQNLPCGLDDETI RSWSLSMSGMGFEQRQLLVGPLFHGAPHSAAFNGLFMGN  
TLVLTRNLCPGNILNMIKKYKIEF IQMVPTLMNRLAKLEGVKGEDFASLKALCHTGGVCS  
PWLKQIWIWDLGPEKIYEMYSMTECIGLTCIRGDEWVKHPGSI GRPVGDSKVSIRDENGK  
EVAPFEIGEIYMTAPASYLVTEYINWEPLEVKEGGFRSVGDIGYVDEQGYLYFSDRRSDM  
LVSGGENVFATEVETALLRYKDILDVAVVVGIPDEDLGRRLHAVIETGKEIPAEELKTF LR  
KYLTPYKIPKTFEFVRSIRRGDNGKADRKRILEDCIARGG

>P19412

MTLEERVEALEKELQEMKDIEAIKELKGKYFRCLDGKMWDELETTLSPNIVTSY SNGKLV  
FHSPKEVTDYLNKSSMPKEEISMHMGHTPEITIDSETTATGRWYLEDRLIFTDGKYKDVGI  
NGGAFYTDKYEKIDGQWYILETGYVRIYEEHFMRDPKIHITMNMHK

>P36556

MKILIVEDDTLLLQGLLILAAQTEGYACDGVSTARAAEHSLES GHYSMLVLDLGLPDEDGL  
HFLTRIRQKKYTLPVLIILTAHDTLNDRITGLDVGADDYLVKPFAL EELHARIRALLRRHN  
NQGESELTVGNLTLNIGRHQAWRDGQELTLTPKEYALLSRLMLKAGSPVHREILYNDIYN  
WDNEPSTNTLEVHIHNL RDKVKGSRIRTVRGGFYMLVATEES

>P09464

MQYLIVLALVAAA SANVYHDGACPEVKPVDNFDWSNYHGKWWEVAKYPNSVEKYGKCGWA  
EYTPEGKSVKVSNYHV IHGKEYFIEGTAYPVGDSKIGKIYHKLT YGGVTKENVFNVLSTD  
NKNYIIGYCKYDEDDKKGHQDFVWVLSRSKVL TGEAKTAVENYLIGSPVVD SQKLVYSDF  
SEAACKVNN

>P0ABD8

MDIRKIKKLIELVEESGISELEISEGEE SVRISRAAPAASFVPMQQAYAAPMMQPAQSN  
AAAPATVPSMEAPAAA EISGHIVRSPMVGTFFYRTPSPDAKAFIEV GQKVNVDGTL CIVEA  
MKMMNQIEADKSGTVKAILVESGQPVEFDEPLVVIE

>Q46393

MALFGSNDVTTAHS DY EIVLEGGSSSWGKVKARAKVNAPPASPLLPADCDVKLNVKPLDP  
AKGFVRISAVFESIVDSTKNKLTIEADIANETKERRISVGEGMVSVGDFSHTFSEGSVV  
NLFYYRSDAVRRNVPNPIYMQRQFHDILMKVPLDNNDLIDTWEGTVKAI GSTGAFNDWI  
RDFWF IGPAFTALNEGGQRISR IEVNGLNTESGPKGPVGVSRWRF SHGGSGMVDSISRWA  
ELFPSDKLNRPAQVEAGFRSDSQGIEVKVDGEFPVSV DAGGGLRRILNHPLIPLVHHGM  
VGKFNNFNVD AQLKVVLPKGYKIRYAAPQYRSQNL E EYRWSGGAYARWVEHVCKGGVGQF  
EILYAQ

>Q9BUT1

MGRLDGKVIIL TAAAQIGQAAALAFAREGAKVIATDINESK LQELEKYPGIQTRVLDVT  
KKKQIDQFANEVERLDVLFNVAGFVHHGTVLDCEEKDWDFSMNLNVRSMYLMIKAF LPKM  
LAQKSGNIINMSSVASSVKGVNRCVYSTTKAAVIGLTKSVAADF IQQGIRCNCVCPGTV  
DTPSLQERIQARGNPEEARNDFLKRQKTGRFATAEEIAMLCVYLASDESAYVTGNPVIID  
GGWSL

>Q02337

MLTARLSRPLSQLPRKTLNFS DRENGTRGSLLLYSAPFVPVGRRTYAASVDPVGSKAVLI  
TGCDSGFGFSLAKHLHSEGF L VFAGCLMKDKGSDGVKELDSMKSDRLRTVQLNVCKSEEV  
DKAAEVIRSSLEDEPKGLWGLVNNAGISTFGDVEFTSMETYKEVAEVLWGTVRVTKAFL  
PLIRRAKGRVVNISSMMGRMANVARSPYCI TKFGVEAFSDCLRYEMHPLGVKVS VVEPGN  
FIAATSLYGGTERIQAIANKMWEELPEVVRQDYGRKYFDEKVARMESYCTSGSTDTSPVI  
KAVTHALTATTPYTRYHPMDYYWWRMQIMTHFPGAI SDR IYIH

>P14353

MDSYEKEESVASTSGIQDLQTLSELVGPENAGEGELTIAEPEENPRRPRRYTKREV KCV  
SYHAYKEIEDKHPQH IKLQDWIPTPEEMSKSLCKRLILCGLYSAEKASEILRMPFTVSWE  
QSDTDPDCFIVSYTCIFCDAVIHDPMP IRWDPEVGIWVKYKPLRGIVGSAVF IMHKHQ RN  
CSLVK PSTSCSEGPKPRRHDPVLRCDMFEKHHKPRQKRPRRRSIDNES CASSSDTMANE  
PGSLCTNPLWNPGLLSGLLEESSNLPNLEVHMSGGPFWE EYVGD SILGPPSGSGEHSVL

>P14355

MEIGVMQLCNMLIRLKGAVKQGAWHHL YLTTKLCSFIEPLWQTSPILGLEKDILLMVT KQ  
LWKLMDLREEVTRRGCGGMSLETRENKEESITGKEVKNLITQILL LLLIDVPGMRDTRFLN  
CPHSLPLPTSNAELLKHCLMAGKWSPKAEMIILAAERSEH

>P00722

MTMITDSLAVVLQRRDWENPGVTQLNRLAAHPPFASWRNSEEARTDRPSQQLRSLNGEWR  
FAWFPAPEAVPESWLECDLPEADTVVVP SNWQMHGYDAP IYTNVTYPITVNPFFVPTENP  
TGCYSLTFNVDES WLQEGQTRIIFDGVNSAFHLWCN GRWVGYGQDSRLPSEFDLSAFLRA  
GENRLAVMVL RWS DGSYLEDQDMWRMSGIFRDVSL LHKPTTQISDFHVATRFNDDFSRAV  
LEAEVQMC GELRDYLRVTVSLWQGETQVASGTAPFGGEI IDERGGYADRVTLRNLNVENPK  
LWSAEIPNLYRAVVELHTADGTLIEAEACDVG FREVRIENGLLLLNGKPLLIRGVNRHEH  
HPLHGQVMDEQTMVQDILLMKQNNFN AVRCSHYPNHPLWYTLCDRYGLYVVDEANIE THG  
MVP MNR LTDDPRWL PAMSERVTRMVQRDRNHPSV I IWSLGNESGHGANHDALYR WIKSVD  
PSRPVQYEGGGADTTATDII CPMYARVDEDQFPFAVPKWSIKKWL SLPGETRPLI LCEYA  
HAMGNSLGGFAKYWQAFRQYPR LQGGFVWDWVDQSLIKYDENG NPWSAYGGDFGDTPNDR  
QFCMNLV FADRTPHPALTEAKHQQFFQFRLSGQTIEVTSEYLF RHSDNELLHWMVALD  
GKPLASGEVPLDVAPQ GKQLIELPELPQPE SAGQLWLTVRV VQPNATAWSEAGHISAWQQ  
WRLAENLSVTLPAASHAIPHLLTSEMDFCIELGNKRWQFNRQSGFLSQMWIGDKKQLLTP



LRDQFTRAPLDNDIGVSEATRIDPNAWVERWKAAGHYQAEAAALLQCTADTLADAVLITTA  
HAWQHOGKTLFISRKTYRIDGSGQMAITVDVEVASDTPHPARIGLNCQLAQVAERVNWLG  
LGPQENYPDRLLTAACFDRWDLPLSDMYTPYVFPSENGLRCTRELNYPHQRGDFQFNI  
SRYSQQQLMETSHRHLLHAEEGTWNIDGFHMGIGGDDSWSPSVSAEFQLSAGRHYHYQLV  
WCQK

>P06219

MQISDTGRSHTPDFHAVLAREDDHNTIITHLNRLPAHPVFASWRDELAARDNLPSRRRQ  
LDGSGSSSLTPAARLPSMRVVTQDLPCRGTPVPSNWQMEGYDAP IYTNVRYPIDTTPRV  
PEDNPTGCYSLHFTVEDTWTRENGQTQIIFDGVNSAFHLWCNGVWVGYSQDSRLPAAFDL  
PFLRPGDNRLCVMVMRWSAGSWLEDQDMWRMSGIFRSVWLLNKPQQRLCDVQLTPALDAL  
YRDGTLQVQATIEATEAALAGLSVGVSLWRGEEQFAAGRQPLGTPVDERGHYAERVDFS  
LAVATPAHWSAETPNCYRAVVTLWRGDELLEAEAWDIGFRRIE IADGLLRNLNGKPLLIRG  
VNRHEHHHLRGQVVTEADMVQDILLMKQNNFNAVRCSHYPNAPRWYELCNRYGLYVVDEA  
NIETHGMVPMNRLSDDPAWLPAFSARVTRMVQSNRNHPCII IWSLGNESGGGGNHEALYH  
WLKRNDPSRPVQYEGGGADTTATDIIICPMYARVERDQPIPAVPKWGIKKWISLPGEQRPL  
ILCEYAHAMGNSLGNFADYWQAFREYPRQLQGGFIWDWADQAIRKTFADGSGVWAYGGDFG  
DKPNDRQFCMNLVFPDRTPHPSLVEAKHAQQYFQFTLLSTSPLRVRI ISEYLFRTDNE  
VVRWVQQAAGEPLYHGDLTLALPPEGSDEITLLDSLILPEGARAVWLTLEVTQPQATAWS  
EAHRVAWQQFPLPAPLGCRRPPCLPALPDLIVSDEVWQIRAGSQCWITDRRTGLLSRWS  
VGGQEQLLTPLRDQFIRAPLDNDIGVSEVERIDPNAWVERWRSAGLYDLEAHCVCDAQR  
LANETLVDCRWHYLRGEEVVIVSHWRMHFTADGTLRLAVDGERAETLPPPLRVGLHFQVA  
DQQAPVSWLGLGPHENYPDRSSACFARWEQPLAAMTPYIFPTENGLRCDTQALDWGRW  
HISGHFHFVQPWSTRQLMETDHWKMQAEDGVWITLDGLHMGVGGDDSWTPSVLPQWLL  
SQTRWQYEVSLRSL

>P50388

MYSFPKNFRFGWSQAGFQSEMGTGSEDPNTDWYKWHDPENISAGLVSGDLPENGPY  
GNYKTFHDNAQMKGLKIARLNVEWSRIFPNQLPKPQNFDDSKQDVTEVEINQNELRRLDE  
HANKDALNHREIFKDLKSRGIYFILNMYHWPLPLWLHDP IRVRRGDLSGPTGWLSTRTV  
YEFARFSAYIAWKFDLVDVEYSTMNENPVVGGGLGYVGVKSGFPPGYLSFELSRKAMYNII  
QAHARAYDGIKSVSKKPIGIYANSSSQPLTEKDVEAVEMA EYDNRWAFDAIIRGEIMR  
GSEKVVRRDDLGRDLWIGVNYTRTVVKKTEKGYTSLGGYGHGCERNVSVSLAGLPTSDFG  
WEFFPEGLYDVLTKYWNRYHLYMYVTENGIADDADYQRPYYLVSHVYQVHRAINSADVR  
GYLHWSLADNYEWASGFSMRFGLLKVDYGTKRLYWRPSALVYREIATNGGITDEIEHLNT  
VPPIRPLRH

>P26257

MRKIIPINNNWYFKADYEEGYEKVDDLRSFENVNLPHTNIELPYNFYFDEKMYQIKSCYKY  
PLHISEKYRDKVIYIHFEGVMAYAQVYLNGLYIGECHKGGYTPFDIRIDEVYDWWKELNML  
TVVVDSTERSDIPPKGGQIDYLTGGIYREVSLGIYDDVFIKNIKVETHGIYDNEKSLNL  
IVHLENLNHQSGNVKFKVKINDKNGKEVFYKEFNLYLDAVKDVYSFNIENLKD IKLWDVD  
NPNLYEIKVGMKINNFSDEYDNKFGFREAVFKPDGFYLNKRKLLRGLNRHQSYYPVGYA  
MPRRVQEKDAEILKNELHLNIVRTSHYPQSKHFLNKCEDELGLLVFEEIPGWQYIGNSEWK  
KVAEQNLREMITRDWNHPSIILWGV RINESQDDDAFYKNMNKIAHEIDPTRQTGGVRYIT  
NSSFLEDVYTFNDFIHDGINKPLRKQQEVTGLEHNVPYLVTEYNGHMYPTKRFDNEERQM  
EHCLRHLRIQNASYLDDSI SGAIGWCAFDYNTHKDFGSGDRICYHGVMDFRLPKFASYV  
YKSQVSPDIEPILEPVTFWARGERSIGGVIPLIIFTNCDYIELQYGNKTKIDNIYPNRDA  
YKGIPYPPPIIIDYDIVKPEMIGAWGMVWEDLTLKGFYKGNKVI ERKFSREPIPTYLYVVP  
DDTILSATQKDATRIVVKILDQYGNLLPFINEVIKIEIEGPAKLQGPNEVALIGGA

>P22073

MTIFQFPQDFMWTATAAYQIEGAYQEDGRGLSIWDTFAHTPGKVFNGDNGNVACDSYHR  
YEEDIRLMKELGIRTYRFSVSWPRI FPNGDGEVNOEGLDYYHRVVDLLNDNGIEPFCTLY  
HWDLPQALQDAGGWGNRRTIQAFVQFAETMFRFHFHGKIQHWTTFNEPWCIAFLSNMLGVH  
APGLTNLQTAIDVGHLLVAHGLSVRRFRRELGTSGQIGIAPNVSWAVPYSTSEEDKAACA  
RTISLHSDWFLQPIYQGSYPQFLVDWFAEQGATVPIQDGDMDIIGEPIDMIGINYYSMSV  
NRFNPEAGFLQSEEINMGLPVTDIGWPVESRGLYEVLHYLQKYGNIDIYITENGACINDE  
VVNGKVQDDRRISYMQOHLVQVHRTIHDGLHVKGYMAWSLLDNFEWAEGYNMRFGMIHVD  
FRTQVRTPKESYYWYRNVVSNWLETRR

>P49235

MAPLLAAAMNHAAAHPGLRSHLVGPNNESFSRHHLPSSSPQSSKRRCNLSFTTTRSARVGS  
QNGVQMLSPSEIPQRDWFPSDFTFGAATSAYQIEGAWNEDGKGESNWDHFCHNHPERILD  
GSNSDIGANSYHMYKTDVRLLEKMGMDAYRFSISWPRILPKGTKEGGINPDGIKYRNL  
NLLLENGIEPYVTIFHWDVPPQALEEKYGGFLDKSHKSIVEDYTYFAKVCDFNFGDKVKNW  
LTFNEPQTFTSFSYGTGVFAPGRCSPLDCAYP TGNLSLVEPYTAGHNILLAHAEAVDLYN  
KHYKRDDTRIGLAFDVMGRVPYGTSLDKQAEERSWDINLGFLEPVVVRGDYPF SMRSLA  
RERLPFFKDEQKEKLAGSYNMLGLNYTTSRFSKNIDISPNYSPLVNTDDAYASQEVNGPD  
GKPIGPPMGNPWIYMYPEGLKDLLMIMKNKYGNPP IYITENGIGDVTKETPLPMEALN  
DYKRLDYIQRHIATLKESIDLGSNVQGYFAWSLLDNFEWFAGFTERYGIVYVDRNNNCTR  
YMKESAKWLKEFNTAKKPSKKILTPA

>P26205

LLSITTTTHIAFKPLPISFDDFSDLNRSCFAPGFVFGTASSAFQYEGAAFEDGKGPSIWD  
TFTHKYPEKIKDRNTNGDVAIDEYHRYKEDIGIMKDMNLDAYRFSISWPRVLPKGLSGGV  
NREGINYNNLINEVLANGMQPYVTLFHWDVPPQALEDEYRGLGRNIVDDFRDYAELCFK  
EFGDRVKHWITLNEPWGVMNAYAYGTFAPGRCSDWLKLNCTGGDSGREPYLAAHYQLLA  
HAAAARLYKTKYQASQNGIIGITLVSHWFEPASKEKADVDAAKRGLDFMLGWFMHPLTKG  
RYPESMRYLVKRRLPKFSTEEKELTGSFDFLGLNYSSSYAAKAPRIPNARPAIQTDSL  
INATFEHNGKPLGPMAASSWLCIYPQGIRKLLLYVKNHYNPNV IYITENGRNSSTINTVT  
SRIPF

>O09171

MAPIAGKAKRGILERLNAGEVVIGDGGFVFALEKRGYVKAGPWTPEAAVEHPEAVRQLH  
REFLRAGSNVMQTFTFYASEDKLENRGNVVAEKISGQKVNEAACDIARQVADEGDALVAG  
GVSQTPSYLSCKSETEVKKIFHQQLLEVFMKKNVDFLIAEYFEHVVEEAVWAVEALKTSGKP  
IAATMCIGPEGLHGVSPGECVAVRLVKAGAAIVGVNCHFDPSLQTIKLMKEGLEAARL  
KAYLSHALAYHTPDCGKQGFIDLPEFPFGLPRVATRWDIQKYAREAYNLGVRYIGGCC  
GFEPYHIRAIAEELAPERGFLLPASEKHGWSGSLDMHTKPWIRARARKEYWQNLRIASG  
RPYNPSMSKPDAGVTKGAAELMQQKEATTEQQLRALFEKQKFKSAQ

>P22805

MKQVLTELQEKDLQHVWHPCSQMKDYEAFFPIV IKKGEGVWLYDEQNQRYLDAVSSWVWN  
LFGHANPRISQALSEQAFTLEHTIFANFSHEPAIKLAQKLVALTPQSLQKVFADNGSSA  
IEVALKMSFYHMQTGKTQKKRFLALTDAYHGETLGALSVGGVDLYNEVYQPLLLD TVRA  
QGPDCFRCPFKHHPDSCHAQCSIFVEDQLRMHHEITAVIIIEPLIQAAAGMKMYPAYLR  
RLRELCTQYDVHLIADEI AVGFGRGTGLFACEQANISPDFMCLSKGLTGGYLP LSVVMTT  
NDVYQAFYDDYATMKAFLLSHSYTGNTLACRVALEVLAI FEEEQYIDVVQDKGERMRKLA  
LEAFSDLFPVGEYRQVGFVGAIELVANRDTKEPLPSEERIGYQIYKRALAKGLLIRPLGN

VLYFMPPYIITDDEMQFMIQTTKDTIVQFFEEREG

>P12995

MTTDDLAFDQRHIWHPYTSMTSPLPVYPVVSAAEGCELILSDGRRLVDGMSSWAAIHGYN  
HPQLNAAMKSQIDAMSHVMFGGITHAPAIELCRKLVAMTPQPLECVFLADSGSVAVEVAM  
KMALQYWQAKGEARQRFLTFRNGYHGDTFGAMSVCDPNSMHSWLKGYLPENLFAPAPQS  
RMDGEWDERDMVGFARLMAHRHEIAAVIIEPIVQGAGGMRMYHPEWLKRIRKICDREGI  
LLIADIEIATGFGRTGKLFACEHAEIAPDILCLGKALTGGTMTLSATLTTREVAETISNGE  
AGCFMHGPTFMGNPLACAAANASLAILESGDWQQVADIEVQLREQLAPARDAEMVADVR  
VLGAIGVVETTHPVNMAALQKFFVEQGVWIRPFGKLIYLMPPYIILPQQQLQRLTAAVNRA  
VQDETFFCQ

>P22822

MLETCSYIRMRAAEKNLEGGKHSISGGERIGSEFQIEPIVKQLLNKARNHSRGDADF IQI  
TVEKLTGDQILYMPPLEITTIDESSIERAHKEARSILTSVGVSKQAQNVAFHLLASNQNL  
RGAILLHSQTGLRLDNRGLKGVRSRIDWQDADVGYNERVREALALATKVANSPTYIAEL  
CWSDDPEYVTGYVSNHEIGYVRITPLKREGCESGGRIFVVSDEVELESYIHYLEREPILI  
RGHLK

>P47041

MTAEDILLRERTSTTTQRPVNSEQYLVNQLATAPVKNFQTTSEISRQTLVDTSNDDVYSI  
KNLKGSRNPISPSVSNVGFQSI FHTVDHPRSKVSVASNHSLRSNDNASAATSKSGSSQIG  
ESHVSDTVECSNNLSKKLSSDAISITQKSLHSTPSGRYMKGKASGFFNRRNRAHTTISSD  
PASFLTDSSTLHNSSHFRNVIKNFFQNKSHRHIGQDAIEPAIPNSLSKFLHSSYGRHKS  
PSQFIHTNAGQLVDSGTSVYSLNVNPSGVNPNPTIVEDPLSGTDPASPVPVSMHLHLLRNL  
PSLEANYKHFNSQELTTLTNNIWNIFCSNVAELFRTRQRIWKLRAKIENFNEVLEFYCILK  
TDPRVTHSGMNRISDLKEFLVSSLYNLENQIVFNYSNEDTINNALKRLGVIWRIFYQEV  
YYDLAAVLLPLDQSIREDNSTVLKSGNESRTHINGNYSIGFLLLMCFRDSIVLPCYENF  
VNSNDGISKSFQLYIFNQEEESNVTEETDKLTLLQCFGILSTIQSNDRNQRIIEELLAGIR  
MSI

>P52700

MRSTLLAFALAVALPAAHTSAAEVPLPQLRAYTVDASWLQPMAPLQIADHTWQIGTEDLT  
ALLVQTPDGAVLLDGGMPQMASHLLDNMKARGVTPRDLRLILLSHAHADHAGPVAELKRR  
TGAKVAANAESAVALLAGGSDDLHFGDGIITYPPANADRIVMDGEVITVGGIVFTAHFAG  
HTPGSTAWTWDTRNGKPVRIAYADSLSAPGYQLQGNPRYPHLIEDYRRSFATVRALPCD  
VLLTPHPGASNWDYAAGARAGAKALTCKAYADAAEQKFDGQLAKETAGAR

>P17493

MAKLTSAVPVLTARDVAGAVEFWTDRLGF SRDFVEDDFAGVVRDDVTLFISAVQDQVVPD  
NTLAWVWVRGLDELYAEWSEVVSTNFRDASGPAMTEIGEQPWGREFALRDPAGNCVHFVA  
EEQD

>P33912

MPICTTRDGVEIFYKDWGQGRPVVFIHGWPLNGDAWQDQLKAVVDAGYRGIAHRRRGHGH  
STPVWDGYDFDTFADDLNDLLTDLDLRDVTLVAHSMGGGELARYVGRHGTGRLRSVALLS  
AIPPVMIKSDKNPDGVPDEVFDALKNGLTTERSQFWKDTAEGFFSANRPGNKVTQGNKDA  
FWYMAMAQTIEGGVRCDVAFGYTDFTEDLKKFDIPTLVVHGDDDQVVPIDATGRKSAQII  
PNAELKVYEGSSHGIAMVPGDKEKFNRLDLEFLNK

>Q46381

MKLTGEEVALITGGASGLGRALVDRFVAEGARVAVLDKSAERLRELEVAHGGNAVGVVDV  
RSLQDQKRAAERCLAAFGKIDTLIPNAGIWDYSTALADLPEDKIDAAFDDIFHVNVKGYI  
HAVKACL PALVSSRGSVVF TISNAGFY PNGGGPLYTATKHAVVGLVRQMAFELAPHVRVN  
GVAPGGMNTDLRGPSSLSGLSEQSISSVPLADMLKSVLP IGRMPALEEYTGAYVFFATRGD  
SLPATGALLNYDGGMGVVRGFLTAAAGADLPEKLNINREGQE

>P47232

MTATPKFAHVVLQTSRFEAMRDWYCTVLDHAVVYEGHGLCFITFDEEHHRVALLGAPTAL  
EPRNPGAAGMHHTAYTFDTLGDLLDRYESLKSKEIEPKVPIQHGVTTSLYYQDPDGNFVE  
LQIDNFSTPDEATAYMNGPEYGGNPVGVVSFDPVLI PQALSAGTPVDRITTHAWALETTPD  
LPNPMIALTS

>Q8GR45

MTAEIAKFGHIALITPNLEKSVWFFRDIVGLEEVDRQGDITIFLRAWGDWEHHTLSLTPGN  
RARVDHIAWRTRKRPEDVETFAEQLKAKGTEVQWIEPGEEKGQKKAIRFRLPNGYPFEIYY  
DVEKPKAPEGKKSRLKNNVYRPSYGIAPRRIDHVNVTNPSEIHQWLKDNMGFKMREYI  
RLNNGFVAGGWMSVTPLVHDIGVMVDPKQP NRLLHFFAYYLDNVTDILRAADILREHDIT  
IEMGGPGRHGISQAFFLYVKDPGSGHRLELFSGGYLI FDPDWEPIEWQEHLEGLIYWG  
PEMKPGGPMDDTTEC

>P11122

MVAVTELGYLGLTVTNLDAWRSYAAEVAGMEIVDEGEGDRLYL RMDQWHHRIVLHASDSD  
DLAYLGWRVADPVEFDAMVAKLTAAGISLTVASEAEARERRVLGLAKLADPGGNPTEIFY  
GPQVDTHKPFHPGRPMYKGFVTGSEGIGHCILRQDDV PAAAAFYGLLGLRGSVEYHLQLP  
NGMVAQPYFMHCNERQHSVAFLGLPMEKRINHLMFEYTDLDDLGLAHDIVRARKIDVALQ  
LGKHANDQALTFYCANPSGWLWEFGWGARKAPSQQEYYTRDIFGHGNEAAGYGMDIPLG

>P08695

MSIRSLGYMGFAVSDVAAWRSFLTQKLG LMEAGTTDNGDLFRIDSRAWRIAVQQGEVDDL  
AFAGYEVADAAGLAQMADK LKQAGIAVTTGDASLARRRGVTGLITFADPFGLPLEIYYGA  
SEVFEEKPFLPGA AVSGFLTGEQGLGHFVRCVPDSKALAFYTDVLGFQLSDVIDMKMGPD  
VTVPVYFLHCNERHHTLAIAAFPLPKRIH HFMLEVASLDDVGFADFDRVDADGLITSTLGR  
HTNDHMVSFYASTPSGVEVEY GWSARTVDRSWVVVRHDS PSMWGHSVRDKALRATKHEQ  
QPE

>P29715

MPFITVQG ENSTSIDL YIEDHGTGQP VVLIHGFP LSGHSWERQSAALLDAGYRVITYDRR  
GFGQSSQPTTGYDYDTFAADLNTVLETLDLQDAVLVGF SMGTGEVARYVSSYGTARIAKV  
AFLASLEPFL LKTDDNPDGAAPQEFFDGI VAAVKADRYAFYTGFFNDFYNLDENLGTRIS  
EEAVRNSWNTAASGGFFAAAAA PTTWYTD FRADIPRIDVPALILHGTGDR TLP IENTARV  
FHKALPSAEYVEVEGAPHGLLWTHAEVNTALLAFLAK

>O81192

MSIISMVNSILSKPLNCLHNLERRPSKALLVPCTAPTARLRASCSSKLQEAHQIRRS GNY  
QPALWDSNYIQSLNTPYTEERHLDRKAELIVQVRILLKEKMEPVQQL ELIHDLKYLGLSD  
FFQDEIKEILGVIYNEHKCFHNNEVEKMDLYFTALGFRLLRQHGFNISQDVFNCFKNEKG  
IDFKASLAQDTKGMQLYEASFLLRKGEDTLELAREFATKCLQKKLDEGGNEIDENLLLW  
IRHSLDLPLHWRIQSVEARWFIDAYARRPDMNPLIFELAKLNFNIIQATHQQELKDLSRW  
WSRLCFPEKLPFVRDRLVESFFWAVGMFEPHQHG YQRKMAATIIVLATVIDDIYDVYGTLL

DELELFTDTFKRWDTESITRLPYMQLCYWGCVHNYISDAAYDILKEHGFFCLQYLKRSV  
DLVEAYFHEAKWYHSGYTPSLDEYLNIAKISVASPAIISPTYFTFANASHDTAVIDSLYQ  
YHDILCLAGIILRLPDDLGTSYFELARGDVPKTIQCYMKETNASEEEAVEHVKFLIREAW  
KDMNTAIAAGYPFPDGMVAGAANIGRVAQFIYLGHDGFGVQHSKTYEHIAGLLFEPYA

>P31570

MSDERYQQRQKVKDRVDARVAQAQEERGIIVFTGNGKGTAAFGTAARAVGHGKNVG  
VVQFIKGTWPNGERNLLEPHGVEFQVMATGFTWETQONREADTAACMAVWQHKGKRLADPL  
LDMVVLDELTYMVAYDYLPLEEVISALNARPGHQTVIITGRGCHRDILDLADTVSELRPV  
KHAFDAGVKAQMGIDY

>O42666

MEIDQNLQFPPISTRDAVHEKNCTLRVKSTKKRRSSTKDEETRMHPHIKSSFRNGMHA  
RVIREEDMEVVFEPFCFINLSKPVYVNGIGGINEIHKLPILFSSFVLCFFGNVSGDYGYV  
DNPVPLHISVISHFYPCLSYNTDVGITTTDTVENICQWKAHLPRALQFSLPVISDSNNEI  
CREMGLHPLGGAKLALDAIVIIDSIGRRRDILPVRTTTTVCVSTLITAVQETVRF LAIENG  
RL

>P20851

MFFWCACCLMVAWRVSASDAEHCPPELPPVDNSIFVAKEVEGQILGTYVCIKGYHLVGGKT  
LFCNASKEWDNTTTECRLGHCPDPVLVNGEFSSSGPVMVSDKITFMCNDHYILKGSNRSQ  
CLEDHTWAPPPFICKSRDCDPPGNPVHGYFEGNNFTLGSTISYYCEDRYLVGVQEQQCV  
DGEWSSALPVCKLIQEAPKPECEKALLAFQESKNLCEAMENFMQQLKESGMTMEELKYSL  
ELKKAELKAKLL

>P00105

AGDAAAGEDKIGTCVACHGTDGQGLAPIYPNLTGQSATYLESSIKAYRDGQRKGGNAALM  
TPMAQGLSDEDIADIAAYSSQE

>P16670

MTQEPGYTRLQITLHWAIAGLVLFNYIFGETMERAYDAVRQNVEPAGVGHYLVVVGLAV  
LVLTLVRIGARFVLGVPEKGTTPGDKVAAGLQGLLYLLTLLVLPALGMTAWGGQAWAAGP  
HVLAANAIMLLALVHAVSALFHQYVLKDRLLLLRMMRPR

>P77213

MPLPDFHVSEPFITLGIEMQVVPNGYDLSQDSSMLIDAVKKNITAGEVKHDITESMLE  
LATDVCRDINQAAGQFSAMQKVVLQAATDHHLEICGGGTHPFQKWQRQEVCDNERYQRTL  
ENFGYLIQQATVFGQHVHVCASGDDAIYLLHGLSRFVPHFIALSAASPYMQGTDTRFAS  
SRPNIFSAFPDNGPMPVWSNWQQFEALFRCLSYTTMIDSIKDLHWDIRPSPHFGTVEVRV  
MDTPLTLSHAVNMAGLIQATAHWLLTERPFKHQEKDYLLYKFNRFQACRYGLEGVITDPH  
TGDRRPLTEDTLRLLEKIAPSAHKIGASSAIEALHRQVVSGLNEAQLMRDFVADGGSLIG  
LVKKHCEIWAGD

>Q8R5M8

MASAVLPSGSQCAAAA AVAAAAAPPGLRLRLLLLLL SAAALIPTGDGQNLFTKDVTVIEG  
EVATISQVNSDSSVIQLLNPNRQTIYFRDFRPLKDSRFQLLNFSSELKVSLTNVVIS  
DEGRYFCQLYTDPPQESYTTITVLVPPRNL MIDIQKDTAVEGEEIEVNCTAMASKPATTI  
RWFKGNKELKKGSEVEEWSMYTVTSQMLMLKVHKEDDGVPVICQVEHPAVTGNLQTQRYL  
EVQYKPVHIIQMTYPLQGLTREGDAFELTCEAIGKQPVMVTVWRVDEMPQHAVLSGPN  
LFINNLNKTDNGTYRCEASNI VGKAHSYMLYVYDPPTTIPPTTTTTTTTTTTTTTTTTILTI

ITDTTATTEPAVHDSRAGEEGTIGAVDHAVIGGVVAVVVFAMLCLLIILGRYFARHKGTY  
FTHEAKGADDAADADTAIINAEGGQNNSEEKKEYFI

>Q8GB19

MTEHLMPMPQFGPLAGVRVVFSGIEIAGPFAGQMFAEWGAEVIWIENVAWADTIRVQPHYP  
QLSRRLHALSLNIFKDGGRDAFLKLMETTDIFIEASKGPAFARRGITDEVLWEHNPCLV  
IAHLSGFGQYGDQPQYTNLPAYNTIAQAFSGYLIQNGDKDQMPAPFPYTADYFSGMTATTS  
ALAALYKVQQTGKGESIDIAMYEVMLRMGQYFMMDYFNGGECPRMTKGKPEYAGCGLY  
RCQDGYIVMEVVGITQIEEIFKDIGLAHLGLTPEVPGTQLIHRINCPHGQLFEDELDEW  
LANQPITAVLKRLSELNIAAKVLTIPPELEGNPQYVARESITQWKTMSGETCKGPNIMPK  
FKNNPGKIWRGMPAHGMDTNAILKNIGYSDEQIRELVKGLAKIVE

>Q40313

MATNEDQKQTESGRHQEVGHKSLLOSDALYQYILETSVFPREHEAMKELREVTAKHPWNI  
MTTSADEGQFLSMLLKLINAKNTMEIGVYTGYSLLATALAIPEDGKILAMDINKENYELG  
LPVIKKAGVDHKIDFREGPALPVLDEMIKDEKNHGSYDFIFVDADKDNLYLNYHKRLIDL  
KVGGVIGYDNTLWNGSVVAPPDAPLRKYVRYRDFVLELNKALAVDPRIEICMLPVGDI  
TICRRIK

>P83657

THCLTTAAGAPVARFSTVAGERGAADAERDIRRLFSYGDAARRLGVNHQHIPVNAPR

>P26841

MGNFYFESPFGRKLLSEQVSNPNIRVGRYSYSSGYHGHGSFDDCARYLMPDRDDVDKLVIG  
SFCSIGSGAAFIMAGNQGHRAEWASTFPFHFHHEEPVFAGAVNGYQPAGDTLIGHDVWIG  
TEAMFMPGVRVGHGAIIGSRALVTGDVEPYAIVGGNPARTIRKRFSGDGIQNLLEMAWWD  
WPLADIEAAMPLLLCTGDIPALYRHWKQRQATA

>P08310

MTSVLIERIEAIIVHDLPTIRPPHKLAMHTMQTQTLVLRVRCSDGVEGIGEATTIGGLA  
YGYESPEGIKANIDAHLAPALVGLPADNINAAMLKLDKLAGNTFAKSGIESALLDAQ GK  
RLGLPVSELLGGRVRSLEVAWTLASGDTARDIAEAQHMLEIRRHRVFKLIGANPLAQD  
LKHVVAIKRELGDSASVRVDVNQYWDESQAIRACQVLGDNGLDLIEQPISRINRSGQVRL  
NQRSPAPIMADESIESVEDAFSLAADGAASIFALKIAKNGGPRAVLRTAQIAEAAGIALY  
GGTMLEGSIGTLASAHAFLLRQLTWGTELFGLLLLTEEIVNEPPQYRDFQLHIPRTPGL  
GLTLDEQRLARFARR

>P21179

MSQHNEKNPHQHQSPLHDSSEAKPGMDSLAPEDGSHRPAAEPTPPGAQPTAPGSLKAPDT  
RNEKLNLSLEDVRKGSSENYALTTNQGVR IADDQNSLRAGSRGPTLLEDFILREKITHFDHE  
RIPERIVHARGSAAHGYFQPYKSLSDITKADFLSDPNKITPVFVRFSTVQGGAGSADTVR  
DIRGFATKPHYTEEGIFDLVGNNTPIFFIQDAHKFPDFVHAVKPEPHWAIPQGQSAHDTFW  
DYVSLQPETLHNVMWAMSDRGI PRSYRTMEGFGIHTFRLINAEGKATFVRFHWKPLAGKA  
SLVWDEAQKLTGRDPDFHRRELWEAIEAGDFPEYELGFQLIPEEDEFKFDLDDPTKLI  
PEELVPVQVRGKMLNRNPDNFFAENEQA AFHPGHI VPGLDFTNDPLLQGR LFSYTD TQI  
SRLGGPNFHEIPINRPTCPYHNFRDGMHRMGIDTNPANYEPNSINDNWPRETTPPGPKRG  
GFESYQERVEGNKVRERSPSFGEYYSHPRLFWLSQTPFEQRHIVDGFSELSKVVRPYIR  
ERVVDQLAHIDLTLAQAVAKNLGIELTDDQLNITPPPVDVNLKDKDPSLSLYAIPDGDVKG  
RVVAILLNDEVRSADLLAILKALKAKGVHAKLLYSRMGEVTADDGTVLP IAATFAGAPSL  
TVDAVIVPCGNIADIADNGDANYLMEAYKHLKPIALAGDARKFKATIKIADQGEEGIVE

ADSADGSFMDELLTLMAAHRVWSRIPKIDKIPA

>P14091

MKTL L L L L L L L L V L L E L G E A Q G S L H R V P L R R H P S L K K K L R A R S Q L S E F W K S H N L D M I Q F T E S C  
S M D Q S A K E P L I N Y L D M E Y F G T I S I G S P P Q N F T V I F D T G S S N L W V P S V Y C T S P A C K T H S R F  
Q P S Q S S T Y S Q P G Q S F S I Q Y G T G S L S G I I G A D Q V S A F A T Q V E G L T V V G Q Q F G E S V T E P G Q T  
F V D A E F D G I L G L G Y P S L A V G G V T P V F D N M M A Q N L V D L P M F S V Y M S S N P E G G A G S E L I F G G  
Y D H S H F S G S L N W V P V T K Q A Y W Q I A L D N I Q V G G T V M F C S E G C Q A I V D T G T S L I T G P S D K I K  
Q L Q N A I G A A P V D G E Y A V E C A N L N V M P D V T F T I N G V P Y T L S P T A Y T L L D F V D G M Q F C S S G F  
Q G L D I H P P A G P L W I L G D V F I R Q F Y S V F D R G N N R V G L A P A V P

>Q05592

M K K A L L V V S F G T S Y H D T C E K N I V A C E R D L A A S C P D R D L F R A F T S G M I I R K L R Q R D G I D I D  
T P L Q A L Q K L A A Q G Y Q D V A I Q S L H I I N G D E Y E K I V R E V Q L L R P L F T R L T L G V P L L S S H N D Y  
V Q L M Q A L R Q Q M P S L R Q T E K V V F M G H G A S H H A F A A Y A C L D H M M T A Q R F P A R V G A V E S Y P E V  
D I L I D S L R D E G V T G V H L M P L M L V A G D H A I N D M A S D D G D S W K M R F N A A G I P A T P W L S G L G E  
N P A I R A M F V A H L H Q A L N M A V E E E A A

>Q9Y3M2

M P F F G N T F S P K K T P P R K S A S L S N L H S L D R S T R E V E L G L E Y G S P T M N L A G Q S L K F E N G Q W I  
A E T G V S G G V D R R E V Q R L R R R N Q Q L E E E N N L L R L K V D I L L D M L S E S T A E S H L M E K E L D E L R  
I S R K R K

>Q7SIB1

M K P P F Q E A L G I I Q Q L K Q H G Y D A Y F V G G A V R D L L L G R P I G D V D I A T S A L P E D V M A I F P K T I  
D V G S K H G T V V V V H K G K A Y E V T T F K T D G D Y E D Y R R P E S V T F V R S L E E D L K R R D F T M N A I A M  
D E Y G T I I D P F G G R E A I R R R I I R T V G E A E K R F R E D A L R M M R A V R F V S E L G F A L A P D T E Q A I  
V Q N A P L L A H I S V E R M T M E M E K L L G G P F A A R A L P L L A E T G L N A Y L P G L A G K E K Q L R L A A A Y  
R W P W L A A R E E R W A L L C H A L G V Q E S R P F L R A W K L P N K V V D E A G A I L T A L A D I P R P E A W T N E  
Q L F S A G L E R A L S V E T V R A A F T G A P P G P W H E K L R R R F A S L P I K T K G E L A V N G K D V I E W V G K  
P A G P W V K E A L D A I W R A V V N G E V E N E K E R I Y A W L M E R N R T R E K N C

>Q7Z6B0

M D D D D F G G F E A A E T F D G G S G E T Q T T S P A I P W A A F P T V S G V H L S P S S P E I V L D R D H S S I G  
C L S S D A I I S S P E N T H A A N S I V S Q T I P K A Q I Q Q S T H T H L D I S L F P L G L T D E K S N G T I A L V D  
D S E D P G A N V S N I Q L Q Q K I S S L E I K L K V S E E E K Q R I K Q D V E S L M E K H N V L E K G F L K E K E Q E  
A I S F Q D R Y K E L Q E K H K Q E L E D M R K A G H E A L S I I V D E Y K A L L Q S S V K Q Q V E A I E K Q Y I S A I  
E K Q A H K C E E L L N A Q H Q R L L E M L D T E K E L L K E K I K E A L I Q Q S Q E Q K E I L E K C L E E E R Q R N K  
E A L V S A A K L E K E A M K D A V L K V V E E E R K N L E K A H A E E R E L W K T E H A K D Q E K V S Q E I Q K A I Q  
E Q R K I S Q E T V K A A I I E E Q K R S E K A V E E A V K R T R D E L I E Y I K E Q K R L D Q V I R Q R S L S S L E L  
F L S C A Q K Q L S A L I A T E P V D I E

>P26842

M A R P H P W W L C V L G T L V G L S A T P A P K S C P E R H Y W A Q G K L C C Q M C E P G T F L V K D C D Q H R K A A  
Q C D P C I P G V S F S P D H H T R P H C E S C R H C N S G L L V R N C T I T A N A E C A C R N G W Q C R D K E C T E C  
D P L P N P S L T A R S S Q A L S P H P Q P T H L P Y V S E M L E A R T A G H M Q T L A D F R Q L P A R T L S T H W P P  
Q R S L C S S D F I R I L V I F S G M F L V F T L A G A L F L H Q R R K Y R S N K G E S P V E P A E P C R Y S C P R E E  
E G S T I P I Q E D Y R K P E P A C S P

>P01732

MALPVTALLLPLALLLHAARPSQFRVSPDLRTWNLGETVELKQVLLSNPTSGCSWLFQP  
RGAAASPTFLLYLSQNKPKAAEGLDTQRFSGKRLGDTFVLTLSDFRRENEGYFCSALS  
SIMYFSHFVFPVFLPAKPTTTPAPRPPTPAPTIASQPLSLRPEACRPAAGGAVHTRGLDFA  
CDIYIWAPLAGTCGVLLLSLVITLYCNHRNRRRVCKCPRPVVKSGDKPSLSARYV

>Q8VCN6

MARAAMEAAATVVLALALLGAAARGAASDDFNLDGDALEDPNMKPTPKAPTPKKPSGGFDL  
EDALPGGGGGGAGEKPGNRQPDPKPPRPHGDSGGISDSDLADAAGQGGGGAGRRGSGDE  
GGHGGAGGAEPGTPQGLVPGVVAAVVAAGAVSSFVAYQRRRLCFREGGSAPV

>O13842

MYETRDLTGNAGKPVDTNPWPNNKIAVSFVVNYEEGGERSLLYEDEGFETFLTEAGLMP  
FPNRPVRRERSIESCFEYSGRCGFWRILNLFKHKHVPFTCWAIGQAVEKNPVVVGAMEEAG  
CEVGSHTHRWINEYEGVPPETEYEHIKKSVQAIQKASPSNSAPRSWYTGRASLNTRKLV  
VYKDLGLPQPFDSEYNDYYPYVADPLASKPGAEDDKGLLIVPYTLEVNDMKYAVAPGF  
CNSDDFYTYARDAFDVLYEEGLEGAPKMMTIGLHCRLTGRPGRFRGLQKLMEHITSKEGV  
WVATREQIAQAWSAKHPYKA

>Q53EZ4

MSSRSTKDLIKSKWGSKPSNSKSETTLEKLKGEIAHLKTSVDEITSKGKGLTDKERHRL  
EKIRVLEAEKEKNAYQLTEKDKEIQRLRDQLKARYSTTALLEQLEETTREGERRQVLKA  
LSEEKDVLLKQQLSAATSRIAELESKTNTLRLSQTVAPNCFNSSINNIHEMEIQLKDALEK  
NQQWLVDYDQREVYVKGLLAKIFELEKKTETAHSLPQQTKKPESEGYLQEEKQKCYNDL  
LASAKKDLEVERQTITQLSFELSEFRKYEETQKEVHNLNQLLYSQRRADVQHLEDDRHK  
TEKIQLKREENDIARGKLEEEKKRSEELLSQVQFLYTSLLKQQEEQTRVALLEQQM  
LD FENEKLD RQH VQH QLLVILKELRKARNQITQLES LKQLHEFAITEPLVTFQGETENRE  
KVAASPKSPTAALNESLVECPKCNIQYPATEHRDLLVHVEYCSK

>P58233

MSSRELLLEKFAEKIGIGSISFNENRLCSFAIDEIYYISLSDANDEYMMIYGVCCKFPT  
DNSNFALEILNANLWFAENGGPYLCYEAGAQSLLLLALRFPLDDATPEKLENEIEVVVKS  
M ENLYLVLHNQGITLENEHMKIEEISSSDNKHYAGR

>Q9X1V3

MDARIVNALIGSVYETIRDVLGIEPKTGKPVSTVSHIEIPHSLVTVIGITGGIEGSLIYSF  
SSETALKVVSAMMGMEYNQLDELALSAIGELGNMTAGKLAMKLEHLGKHVDITPPTVVS  
GRDLKIKSFGVILKLPISVVFSEEDFDLHLSVKSGG

>P19080

MMIRGIRGATTVERDTEEEILQKTKQLLEKII EENHTKPEDVVQMLLSATPDLHAVFPAK  
AVRELSGWQYVPVTCMQEMDVTGGLKCCIRVMMTVQTDVPQDQIRHVYLEKVVVLRPDL  
LTKNTEL

>P93324

MGNSYITKEDNQISATSEQTEDSACL SAMVLT TNLVYPAVLNAAIDLNLFEIIAKATPPG  
AFMSPSEIASKLPASTQHSDLPNRLDRMLRLLASYSVLTSTTRTIEDGGAERVYGLSMVG  
KYLVPDESRYLASFTTFLCYPALLQVWMNFKEAVVDEIDLDFKNVHGVTKYEFMGKDKK  
MNQIFNKSMVDVCATEMCRMLEIYTGFEIGISTLVVGGGSGRNLELIISKYPLIKGINFD  
LPQVIENAPPLSGIEHVGDMFASVPQGDAMILKAVCHNWSDEKCI EFLSNCHKALS PNG  
KVIIIVEFILPEEPNTSEESKLVSTLDNLMFITVGGRRERTEKQY EKLSKLSGFSKFKVQVACR





SRVNFASFASVHGAIPEEVFLRIQREFFYGYTKVLKIDGQQRGLYNLMQLMKQKMTKPQK  
RPQSSAQEIVSGMWEELKEKIGFTSPESASDATLWLKLDRLIYVALQYHFMEGAPIPYGM  
YSGKPFYDKDLNNTLIAFPTEIGIPFSVLYVAEDATWLNINGNPETSMTSGMKVNVDFIF  
ETSQVQFVDARAHVPWSKRPAVASGVYADTQLVLPVHASFDMYSQEIQLSIEPTNTQK  
IDVIKFEFIPYTVLENNYPGDVLIENYKPI LHGEVPLFNDKHQAFPSDVGLWIVQVATE  
GDIHHTPSIYEIITQLFSAHTSTHIWEQSIVFDPTLSTTKTVSFTFNYSVSTGGSGSLVDR  
GDYDDGQISQGSFDEDFGQFSQVAGGSDQDIMEVDSFGTQSQTIERIMRLQQALISSGGH  
VRTISVEVELQGTPTNRYEASLTWAISSSASTRSSKVQVTLIKHPAVGVLEDPYTI CLNA  
QIVKPHFNPFPTTEDVLTANYHSTVKAELFEGETCEEAPVLLLEASFVSSNVKERVKEA  
IEKGCYSTYAPGIDIITSPLYDHSITATWTPDFPDNLKNITYYVDDI IKASLSKKIEF  
DHTSAHHASRVEIDATKCIETGLWTVRTEKPYAVSI INELELPWANP IFTPAPLATLL  
YGLTVGRTPVSVCTIDETKVRTADGKVFAYEPSECWNAMTLDTTFDQRGAMLVNRTGQWEV  
RIIWQKEGLVIDMSPTNFLVNGEPAKGTDNRYTVLHHDDSHIVFESGTSVKVSDKVEVL  
LGLDHRGHTTGICGNFDGEP SNDMVGPKGCCYYTDGPLFALSWASPGEGCASFMYKNLKR  
VVWYQENCPHFYTYEPTGVTHADALYDCTEWVYHQRTQYHCKALSPMPVCRPECVASHP  
ITTSVEYECRFSGHQQQAQQQQQQVQGTQWEECFPHFYTLTYPSSCIPQ

>P38677

MPLHHLMI GTWTPPGAIFTVQFDDEKLTCKLIKRT EIPQDEPISWMTFDHERKNIYGAAM  
KKWSSFAVKSPTEIVHEASHPIGGHPRANDADTNTRAIFFLLAAKQPPYAVYANPFYK FAG  
YGNVFSVSETGKLEKNVQNYEYQENTGIHGMVFDPTETYLVSADLTANKLWTHRKLASGE  
VELVGSVDAPDPGDHPRWVAMHPTGNLYALMEAGNRICEYVIDPATHMPVYTHHSFPLI  
PPGIPDRDPETGKGLYRADVCALTFSGKYMFASSRANKFELQGYIAGFKLRDCGSIEKQL  
FLSPTPTS GGHSSNAVSPCPWSDEWMAITDDQEGWLEIYRWKDEF LHRVARVR IPEPGFGM  
NAIWYD

>Q2L6L1

MSPWIKHICLVLVAAFMLVKTTESKKDEALYCSACMAIADEINYSISQTDPKMIHVGGF  
RLKPDGSLTDKKVPLARSETYLT ELL EEVCKSMSDYALYENPDTKEKSYKRFAPRDNDGG  
NFPDFKNFKFDGPESSALKFACESIVEELED DIISL FASDS DHVAKTLCSEVSDHCKSS  
VFQHSEL

>P26441

MAFTEHSPLTPHRRDLCSRSIWLARKIRSDLTALTESYVKHQGLNKNINLDSADGMPVAS  
TDQWSELTEAERLQENLQAYRTFHVLLARLLEDQQVHFPTTEGDFHQAIHTLLLQVAAFA  
YQIEELMILLEYKIPRNEADGMP INVGDGGLFEKKLWGLKVLQELSQWTVRSIHDLRFIS  
SHQTGIPARGSHYIANNKKM

>P0A6I6

MQKRAIYPGTFDPITNGHIDIVTRATQMFHDHILAI AASP SKKPMFTLEERVALAQQATA  
HLGNVEVVGFSDLMANFARNQHATVLI RGLRAVADFEYEMQLAHMNRHLMPELESVFLMP  
SKEWSFISSSLVKEVARHQGDVTHFLPENVHQALMAKLA

>P22535

MAQVQQLTPAQQAALRNQQAMAANLQARQIVLQQSYPVIQQVETQTFDPANRSVFDVTPA  
NVGIVKGLVVKVTAAITNNHATEAVALTDFGPANLVQRVIYDQPNQRHTE TSGWHLHFV  
NTAKQGAPFLSSMVTDSPIKYGDVMNVIDAPATIAAGATGELTMYWVPLAYSETDLTGA  
VLANVPQSKQRLKLEFANNNTAFAAVGANPLEAIYQGAGAADCEFE EISYTVYQSYLDQL  
PVGQNGYILPLIDLSTLYNLENSAQAGLTPNVDFVYQYANLYRYLSTIAVFDNGGSFNAG  
TDINYL SQR TANFS DRKLDPKTWAAQTRRR IATDFPKGVYCDNRDKPIYTLQYGNVGF

VVNPKTVNQARLLMGYEFYFTRTELNVNAGTISTT

>P22536

MANQQIGGSTVVTYNGAIPMGGPVAINSVIEIAGTEVLVDLKLKLDYATGKISGVQTLYIDL  
DFLGDVTVTMPDTGQRITARAGTQGYYPVLSTNLMKFIVSATIDGKFP MNF INFPIALGV  
WPSGIKGDKGDPGAPGAGGTVVVEDSGASFGESLLDTTSEPGKILVKRISGGSGITVTD  
YGDQVEIEASGGGGGGGGVTDALSLMYSTSTGGPASIAANALTD FDL SGALTVNSVGTGL  
TKSAAGIQLAAGKSGLYQITMTVKNNVT TGN YLLRVKYGSSDFV VACPASSLTAGGTIS  
LLIYCNV LGVPSLDV LKFSLCNDGAALSNYI INITAAKIN

>P49861

MSELALIQAIEESQOKMTQLFDAQKAEIESTGQVSKQLQSDLMKVQEELTKSGTRLFDL  
EQKLASGAENPGEKKSFSERAAEELIKSWDGKQGTFGAKTFNKSLGSDADSAGSLIQPMQ  
IPGIIMPGLRRLTIRDLLAQGRTSSNALEYVREEVFTMNADVVAEKALKPESDITFSKQT  
ANVKTIAHWVQASRQVMDAPMLQSYINNRLMYGLALKEEGQLLNGDGTGDNLEGLNKVA  
TAYDTSLNATGDTRADIIAHAIYQVTESEFSASGIVLNPRDWHNIALLKDNEGRYIFGGP  
QAFTSNIMWGLPVVPTKAQAAGTFTVGGFDMASQVWDRMDATVEVSREDRDNFVKNMLTI  
LCEERLALAHYRPTAIKGTFS SGS

>P30328

MAGGLSQLVAYGAQDVYLTGNPQITFFKTVYRRYT NF AIESIQQTINGSVGFGNKVSTQI  
SRNGDLITDIVVEFVLT KGGNGGTTYPAEELLQDVELEIGGQRIDKHYNDWFR TYDALF  
RMNDDRYNRRMTDWNNELVGAQKRFYVPLIFFFNQTPGLALPLIALQYHEVKLYFTLA  
SQVQGVNYNGSSAIAAGAAQPTMSVWVDYIFLDTQERTRFAQLPHEYLIEQLQFTGSETAT  
PSATTQASQNI RLFNFHPTKYLAWNFNPTNYGQYTALANIPGACSGAGTAAATVTTDPD  
Y GNTGTYNEQLAVLDSAQIQLNGQDRFATRKGSYFNKVQPYQSIGGVTPAGVYLYSFALKP  
AGRQPSGTCNFSRIDNATLSLTYKTCSIDATSPA AVLGNTE TVTANTATLLTALNIYAKN  
Y NVLRIMSGMGGLAYAN

>Q2FWC7

MKVGIDAGGTLIKIVQE QDNQRTFKTELTKNIDQVVEWLNQQQIEKLCLTGGNAGVIAEN  
INIPAQIFVEFDAASQGLGILLKEQGHDLADYIFANVGTGTSLHYFDGQSQR RVGGIGTG  
GGMIQGLGYLLSQITDYQLTDMAQHGD RNTIDLKVRHIYKDEPPIPGDLTAANFGHVL  
HHL DADFTPSNKLA AVIGVVGEVVTMAITVAREFKTENIVYIGSSFHNNALLRKVVEDY  
TVLRGCKPYYVENGA FSGAIGALYLEK

>P97084

MALFNSAHGGNIREAATVLGISPDQLLDFSANINPLGMPVSVKRALIDNLD CIERYPDAD  
YFHLHQALARHHQVPASWILAGNETESIFTVASGLKPRRAMIVTPGFAEYGRALAQSGC  
EIRRWSLREADGWQLTDAILEALTPDL DCLFLCTPNPTGLLPERPLLQAIADRCKSLNI  
NLILDEAFIDFIPHETGFIPALKDNPHI WVLRSLTKFYAIPGLRLGYLVNSDDAAMARMR  
RQQMPWSVNALALAGEVALQDSAWQQATWHWLREEGARFYQALCQLPLLT VYPGRANYL  
LLRCEREDIDLQRLLLTQRILIRSCANYPGLDSRYRVAIRSAAQNERLLAALRNVL TGI  
APAD

>P21638

MPEYDYIRDGNAIYERSFAIIRA EADLSRFSEEEADLAVRMVHACGSVEATRQFVFS PDF  
VSSARAALKAGAPILCDAEMVAHGVT RARLPAGNEVIC TLRDPRTPALAAEIGNTR SAAA  
LKLWSERLAGSVVAIGNAPTALFFLLEMLRDGAPKPAAILGMPVGFVGA AESKDALAENS  
YGVPF AIVRGLGGSAMTAAALNSLAR PGL

>P25524

MSNNALQTI INARLPGE EGLWQIHLQDGI SAIDAQSGVMPITENSLDAEQGLVIPPFFVE  
PHIHLDTTQTAGQPNWNQSGTLFEGIERWAERKALLTHDDVKQRAWQTLKWQIANGIQHV  
RTHVDVSDATLTALKAMLEVKQEVAPWIDLQIVAFPQEGILSYPNGEALLEEALRLGADV  
VGAIPHFEFTREYGVESLHKTFALAQKYDRLIDVHCDEIDDEQSRFVETVAALAHHEGMG  
ARVTASHTTAMHSYNGAYTSRFLRLLKMSGINFVANPLVNIHLQGRFDTPKRRGITRVK  
EMLESGINVCFGHDDVFDWPYPLGTANMLQVLHMGLHVCQLMGYGQINDGLNLI THHSAR  
TLNLQDYGIAAGNSANLIILPAENGF DALRRQVPVRYSVRGGKVIAS TQPAQT TVYLEQP  
EAIDYKR

>Q58653

MIFVITVLSGGTGP KLLQGLKRVVNNEELAVIVNTGEDTWIGDLYLSPDVDTVLYTLAD  
LINEETWYGVKEDTFYTHEQLKNLGFDEVLRIGDKDRALKMHKTYYLKRGHKLSEVVDME  
KVALGIKAKVIPMTDDR VETKILAKVDGKVDLLKFHDFWVKRKGDEVLDVIYENSLYAK  
PCEKAVEAIKNSDLVIIGPSNPITSIGPILSLNGIKELLKDKKVVVWSPIVGNSAVSGPA  
GKLMKAKGYDVSVKGIYEFYKDIVDVLVIDNV DKEIAKEIPCEVLI TNTIMKTLDDKVRL  
AKNIIIEFCGSL

>Q58178

MIKEKRKVEVIGLELPIFKGGEQINLSELIAQYPIEDGDIIVIAETLISKLEGGVIDRDK  
IIPSKEAIELAKKTGKDPKVQVILDEAKEIVKVGNFIITETKHGFVCANSVDESNIY  
KGIKILPKNPDESAEKIRKEIEKLTGKRVGVIISDSVGRPFKRGAVGIAIGVSGILALWD  
RKGEKDLFGRELKTTEVAIADELASMANVVMGEADEGIPVVIIRGANVPFGNGKGRDLIR  
PKEEDVFRN

>Q07092

MWVSWAPGLWLLGLWATFGHGANTGAQC PPSQQEGLKLEHSSSLPANVTGFNLIHRLSLM  
KTSAIKKIRNPKGPLILRLGAAPVTQPTRRVFPRGLPEEFALVLTLLLKKHHTHQKTWYLF  
QVTDANGYPQISLEVNSQERSLELRAQGDGDFVSCIFPVPQLFDLRWHKLMLSVAGRVA  
SVHVDCSSASSQPLGPRRPMRPVGHVFLGLDAEQGKPVSF DLQQVHIYCDPELVLEEGCC  
EILPAGCPPETS KARRDTQSNE LIEINPQSEGVYTRCFCL EEPQNSEVDAQLTGRISQK  
AERGA KVHQETA ADECPPCVHGARDSNVT LAPSGPKGGKGERGLPGPPGSKGEKGARGND  
CVRISP DAPLQCAEGPKGEKGESGALGPSGLPGSTGEKGQKGEKGDGGIKGVPGKPRDG  
RPGEICVIGPKGQKGD PGFVGP EPLAGEPGPPGLPGPPGIGLPGTPGDPGGPPGPKGDKG  
SSGIPGKEGPGGKPGKPGVKGEKGDPC EVCPTLPEGFQNFVGLPGKPGPKGEPGDPV PAR  
GDPGIQGIKGEKGEPC LSCSSVVAQH LVSSTGASGDVGS PGFGLPGLPGRAGVPGLKGE  
KGNFGEAGPAGSPGPPGVPAGIKGAKGEPCEPCPALS NLQDGDV RVVALPGPSGEKGE  
PGPPGFGLPGKQKAGERGLKQKGDAGNPGDPGTPGTTRPGLSGEPGVQGPAGPKGEK  
GDGCTACPSLQGTVTDMAGRPGQPGPKGEQGP EGVGRPGKPGQPGLPGVQGPPLKGVQG  
EPGPPGRGVQGPQGE PGAPGLPGIQGLPGPRGPPGPTGEKGAQGS PGVKGATGPVGP GA  
SVSGPPGRDGQQQTGLRGTPEKGP RGEKGEPEGECSCPSQDLIFSGMPGAPGLWMGSS  
WQPGPQGPPIPGPPGPPGVPLQGVPGMNGLPGQPGLTAELGSLPIEQHLLK SICGDCV  
QGQRAHPGYLVEKGEKGDQGI PGVPGLDNCAQCFLSLER PRAEEARGDNSEGDPGCVGSP  
GLPGPPGLPGQRGEEGPPGMRGSPGPPPIGPPPGFP GAVGSPGLPGLQGERGLTGLTGDK  
GEPGPPGQPGYPGATGPPGLPGIKGERGYTGSAGEKGEPPPGSEGLPGPPGPAGPRGER  
GPQGNSEKGDQGFQGPFGPPGPPGFPKGVGSPGPPGPQAEKGSEGIRGPSGLPGSP  
GPPGPPGIQGPAGLDGLDGKDGKPLRGDPGAGPPGLMGPFGFKGTGHPGLPGPKGDC  
GKPGPPGSTGRPGAEGEPGAMGPQGRPGPPGHVGPFP GPPGQPGPAGISAVGLKGD RGATG  
ERGLAGLPGQPGPPGHPGPPGEPGTDGAAGKEGPPGKQGFYGP PGPKGDPGAAGQKQAG

EKGRAGMPGGPGKSGSMGPVGGPPAGERGHPGAPGPSGSPGLPGVPGSMGDMVNYDEIK  
RFIRQEI IKMFDERMAYYTSRMQFPMEMAAAPGRPGPPGKDGAPGRPGAPGSPGLPGQIG  
REGRQGLPGVRGLPGTKGEKGDIGIGIAGENGLPGPPPGQPPGYGKMGATGPMGQQGIP  
GIPGPPGPMGQPGKAGHCNPSDCFGAMPMEQQYPPMKTMKGPFPG

>O35167

MAVLNPMTLGIYLQLFFCSIIVSQPTFINSVLPISAALPGLDQKKRGNHKACCLLMPPPPP  
LFPFPFFRGRSRPLLSPDMKNLLELEASPSPCMQGSLGSPGPPGPPGLPGKAGPKGE  
KGDGRPRGRKGRPGPPGVPGEPPGVPWPGPEGPRGEKGDVGMMLPGSRGPMGSKGFPGS  
RGEKGSRGGERDGLPKGEKGFPGFPGMLGQKGEKMGKESGIAGHRGPTGRPGKRKQGG  
KGDGSGIMGPPGKPGPSGQPPGRQGGPPGPPSAGQLVMGLKGERGFPGPPGRCLCGPPAN  
VNNPSYGDPMYGRGSPRVP AIFVNNQEELEKLNQNAIAFRRDQRSLYFKDSLWLP IQ  
LTPFYFVGLHHKAAWHLCGDGVLQPGEECDDGNPDVSDG CIDCHRAYCGDGYRHRGVEDC  
DGSDFGYLKCETYLPGSYGELRCTQYCSIDSTPCRYFT

>Q7Z4G1

MEASSEPPPLDAKSDVTNQLVDFQWKLGMVSSDTCRSLKYPYVAVMLKVADHSGQVKTKC  
FEMTIPQFQNFYRQFKEIAAVIETV

>P25959

MYRTRGFIYPAVLVFSALVLLIVNFVAAQYISRCMFEEKETKELYIGENLLQNGVLLSIRH  
VLEERKQGEGTQQFLYGRVSYIHDTSIKEQKEINLRVSTDSGTERTAQIVFDQKQKLL  
RWTE

>O23760

MGSTGNAETQLTPTHVSDEEANLFAMQLASASVLPMLKAAIELDVLEIMAKSIPHGSGA  
YISPAEIAAQLPTTNPDPVMLDRVLRLLASYSVVTCSLRELDPDGKVERLYGLAPVCKFL  
TKNEDGVSLAPLCLMNQDKVLMESWYLLKDAILDGGIPFNKAYGMTAFEYHGTDPFRNKV  
FNRGMSDHSTITMKKIFEMYTGFEALNTIVDVGGGTGAVLSMIVAKYPSIKGINFDLPHV  
IEDAPIYPGVEHVGGDMFVSVPKGDAIFMKWICHDWSEHCLKFLKNCYAALPEHGKIV  
AECILPLSPDPSLATKGVIIHIDAIMLAHNPGGKERTEKEFEALAIGAGFKGFKVACCAFN  
TYVMEFLKTA

>P02866

MAISKSSSLFLPIFTFITMFLMVVNKVSSSTHETNALHFMFNQFSKDQKDLILQGDATTG  
TDGNLELTRVSSNGSPQGSVGRALFYAPVHIWESSAVVASFEATFTFLIKSPDSHPADG  
IAFFISNIDSSIPSGSTGRLLGLFPDANVIRNSTTIDFNAAYNADTIVAVELDTYPNTDI  
GDPSYPHIGIDIKSVRSKKTAKWNMQNGKVGTAHIIYNSVDKRLSAVVSYPNADSATVSY  
DVDLDNVLPPEWVRVGLSASTGLYKETNTILSWSFTSKLKSNEIPDIATVV

>Q9F8A8

MAKQNLKSTDRAVQQMLDKAKREGIQTWVDRYEAMKPQCGFGETGLCCRHCLQGPCRINP  
FGDEPKVIGICGATAEIVARGLDRSIAAGAAGHSGHAKHLAHTLKKAVQGKAASYMIKDR  
TKLHSIAKRLGIPTEGQKDEDIALEVAKAALADFHEKDTPVLWVTTVLPPSRVKVLSAHG  
LIPAGIDHEIAEIMHRTSMGCDADAQNLLLGLRCSLADLAGCYMGTDLADILFGTPAPV  
VTESNLGVLKADAVNVAVHGNPVLSDIIVSVSKEMENEARAAGATGINVVGICCTGNEV  
LMRHGIPACTHSVSQEMAMITGALDAMILDYQCIQPSVATIAECTGTTVITMEMSKITG  
ATHVNFAEAAVENAKQILRLAIDTFKRRKGPVEIPNIKTKVAGFSTEAIINALSKLN  
ANDPLKPLIDNVVNGNIRGVCLFAGCANNVKVPQDQNFTTIARKLLKQNVLVVATGCGAGA  
LMRHGFMDPANVDELCDGLKAVLTAIGEANGLGGPLPPVLHMGSCVDNSRAVALVAALA

NRLGVDLDRPLPVVASAAEAMHEKAVAIGTWAVTIGLPTHIGVLPPITGSLPVTQILTSSV  
KDITGGYFIVELDPETAADKLLAAINERRAGLGLPW

>P31896

MTHHDCAHCSSDACATEMLNLAEANSIETAWHRYEKQQPQCGFGSAGLCCRICLKGPCRI  
DPFGEKPKYGVCGADRDTIVARHLVRMIAAGTAAHSEHGRHIALAMQHISQGELHDYSIR  
DEAKLYAIAKTLGVATEGRGLLAIIVGDLAAITLGDVFQNDYDKPCAWLAASLTTPRRVKRL  
GDLGLLPHNIDASVAQTMSRTHVGCADPTNLILGGLRVAMADLDGSMLELSDALFGT  
PQPVVSAANLGVMMKRGAVNIAVNGHNPMLSDIICDVAADLRDEAIAAGAAEGINIIGICC  
TGHEVMMRHGVPPLATNYLSQELPILTGAEAMVVDVQCIMPSPRIAECFHTQIITTDKH  
NKISGATHVPFDEHKAVETAKTIIRMAIAAFGRRDPNRVAIPAFKQKSIVGFSAEAVVAA  
LAKVNADDPLKPLVDNVVNGNIQGIIVLFVGCNTTKVQQDSAYVDLAKSLAKRNVLVLATG  
CAAGAFKAGLMTSEATTQYAGEGLKGVLSAIGTAAGLGGPLPLVMHMGSCVDNSRAVAL  
ATALANKLGVLDLPLVASAPECMSEKALAIISWAVTIGLPTHVGSVPPVIGSQIVTKL  
VTETAKDLVGGYFIVDTPKSAAGDKLYAAIQERRAGLGL

>P41046

MTMAACYANYDMSLSHGMSSALSALQQQQQQQQQHSQTQQQHHHQQQQQHMYHAAVAAH  
QQQLLQQQQQQQHHRHHHQPANTSSSSNSRHSAAAATQTQVAAAANSRQQQQQQQQQQ  
QQQQQQTASSNSNAAPAPSPQKDYSIPLHVDCSVEYELPNQPKPPAGQRVEPLLMIHPCY  
FRKMESQRRSPFVNMHATARAVSSSSLSGGAALGGGGSGAAVATAPSSSAARRGARAAT  
SAQQQQQQQRYQQQQQLRQQHQQMSQMSQQAHYPPQQSSLVQRHQQQQQQQQQQRAS  
SNQSQRQSQSQSQSHAANSAAAAAAQASIAAAAAAGWDQLAALAARTALTPHHMLHPH  
SHYAAKSGGGGAGGGKRDAMISGSYGQTAVASGKLQQSQVQQQQPQQQQHCLPPPPWDA  
TSMLMDRSPMATVPSNYQAGPDTNPMRLYSATPTAGAASGGSASVGGGGAVSGAGATGAV  
NTATDKLSGKYRQYLRSQRMHPYAAAAASLNLAAAAAAAGQTSFVVPFSSAATAVAATPTFQ  
HLPQISCVNV

>Q90733

MAMVVGAWRDPQDDVPGAQGTQPAPAPPVQGGPAGTPHTPQTPGPGGPPSTPAQSNAASQ  
QSQGDKQQQQQHIECVVCGDKSSGKHYGQFTCEGCKSFFKRSVRRNLSYTCRANRNCPID  
QHHRNQCYCRLKKCLKVGMRREAVQRGRMPPTQPTHGQFALTNQDPLNCHSYLSGYISL  
LLRAEYPYTSRFGSQCMQPNMIGIENICELAARMLFSAVEWARNIPFFPDLQITDQVAL  
LRLTWSELFVLNAAQCSMPLHVAPLLAAAGLHASPMASDRVAFMDHIRIFQEQVEKLKA  
LHVDSAEYSCLKAIVLFTSDACGLSDVAHVESLQEKSQCALEEYVRSQYPNQPTRFGKLL  
LRLPSLRTVSSSVIEQLFFVRLVGKTPIETLIRDMLLSGSSFNWPYMSIQ

>Q10998

MLLAKISVVVLLLAIDGTSSSESTDNVVLS SSPDSQKAATSRHKRAPGWGKRSSLNDEDL  
FADSDSAQELLDSVAALKRAPGWGKRFSGLMSEGSSLEAKRAPGWGKRQGEIDVDEGSE  
QEKRAPGWGKRAPGWGKRAPGWGKRAPGWGKRAPGWGKRAPGWGKRSGGDYCE TLEKMVD  
AYIYKAVEVDSRRLADCGSGEGTNEPFRK

>Q8GAW0

MTTMTTMTTEQLGMNNSVNDKLDVLLIGAGFTGLYQLYHLRKLGYKVHLVDAGADIGGIW  
HWNCYPGARVDTHCQIYQYSIPELWQEFNWKELFPNWAQMREYFHFADKKLDLSKDISFN  
TRVQSAVFDEGTREWTVRSIGHQPIQARFVIANLGFASPTPNVDGIEFTKQWYHTAL  
WPQEGVNMAGKRVAIIGTGSSGVQVAQEAAALDAKQVTVYQRTPNLALPMHQQLSAEDNL  
RMKPELPAAFERRGKCFAGFD FDFIAKNATELSAAERTEILEELWNAGGFRYWLANFQDY  
LFDDKANDYVYEFWRDKVRARIKDPKVAEKLAPMKKPHPYGAKRPSLEQWYIEIFNQNNV

TLVDVNETPVLRITEKGIIVTAEGEAEFDLIVFATGFDAVTGGLT SIDFRNNQGSFKDVW  
SDGIRTQLGVATAGFPNLLFGYGPQSPAGFCNGPSSAEYQGDLLIQLMNYLRDNNISRIE  
AQSEAEQEWKLIADFWDSLSLFPRAKSWYQGSNIPGKKVESLNFPLGLPTYISKFNESAE  
KGYAGFSLAS

>Q56148

MTTRMIILNGSSAGKSGIVRCLQSVLPEPWLAFGVDSLIEAMPLKMQSAEGGIEFDADG  
GVSIGPEFRALEGAWAEGVVAMARAGARI IIDDVFLGGAAAQERWRSFVGDLDVLWVGR  
CDGAVAEGRETARGDRVAGMAAQAYVVHEGVEYDVEVDTHKESIECAWAI AAHVVP

>P19476

MSCNQKQKECKKECQEKECKECCCPRIKAFKKFINTFEKAQIGKEAPEFKAPAYCPCGS  
IKEIDINEYRGKYVLLFYPLDWTFCPTMIGYSELAGQLKEINCEVIGVSVDSVYCHQ  
AWCEADKSKGGVGLTFPLVSDIKRCISIKYGMLNVEAGIARRGYVIIDDKGKVRYIQMN  
DDGIGRSTEETIRIVKAIQFSDEHGAVCPLNWKPGKDTIEPTPDGIKKYLTAH

>O75629

MAGLSRGSARALLAALLASTLLALLVSPARGRGRDHGDWDEASRLPPLPPREDAARVAR  
FVTHVSDW GALATISTLEAVRGRPFADVLSLSDGPPGAGSGVPYFYLSPLQLSVSNLQEN  
PYATLTMTLAQTNFCKKHGFDQPSPLCVHIMLSGTVTKVNETEMDIAKHSLFIRHPMKT  
WPSSHWNFFAKLNITNIWVLDYFGGPKIVTPEEYYNVTVQ

>Q9UBG3

MPQLLQNINGIIEAFRRYARTEGNCTALTRGELKRLLLEQEFADVIVKPHDPATVDEVLRL  
LDEDHTGTVEFKEFLVLVFKVAQACFKTLSESAEGACGSQESGSLHSGASQELGEGQRS  
TEVGRAGKGQHYEGSSHRQSQQGSRGQNRPGVQTQGGATGSAWSSYDRQAESQSQRIS  
PQIQLSGQTEQTQKAGEGKRNQTTEMRPERQPQTRQDRAHQGTGETVTGSGTQTQAGATQ  
TVEQDSSHQTGRTSKQTQEATNDQNRGTETHGQGRSQTSAVVTGGHAQIQAGTHTQTPTQ  
TVEQDSSHQTGSTSTQTQESTNGQNRGTEIHGQGRSQTSAVVTGGHTQIQAGSHTETVEQ  
DRSQTVSHGGAREQQQTQTPGSGQRWQVSNPEAGETVPGGQAQTGASTESGRQEWSST  
HPRRCVTEGQGDROPTVVGEWVDDHSRETVILRLDQGNLHTSVSSAQGDAAQSEEKRG  
ITARELYSYLRSTKP

>P76621

MNALTAVQNNAVDSGQDYSGFTLTPSAQSPRLLELTFTEQTTKQFLEQVAEWPVQALEYK  
SFLRFRVAKILDDL CANQLQPLLLKTLNRAEGALLINAVGVDDVKQADEMVKLATAVAH  
LIGRSNFDAMSGQYYARFVVKVNDNSDYSYLRQPHRVMELHNDGTYVEEITDYVLMMKIDE  
QNMQGGNSLLHLDDWEHL DNYFRHPLARRPMRFAAPP SKNVSKDVFHPVFDVDQQGRP  
MRYIDQFVQPKDFEEGVWLSSELSDAIETSKGILSVPVPGKFLINNLFWLHGRDRFTH  
PDLRRELMRQRGYFAYASNHYQTHQ

>P71543

MSKELTAKKRAALNRLKTVRGHLDGIVRMLSDAYCVDVMKQISAVQSSLERANRVMLHN  
HLETCTFSTAVLDGHGQAAIEELIDAVKFTPALTGPHARLGGAAVGESATEEPMPDASN

>Q45096

MTVTGQVKWFNNEKGFIEVPGENDVVFVHFSAIETDGFKSL EEGQKVSFEIEDGNRGPQ  
AKNVIKL

>P0A968

MEKGTVKWFNNAKGFIFICEGGGEDI FAHYSTIQMDGYRTLKAGQSVQFDVHQGPKGNH  
ASVIVPVEVEAAVA

>P69913

MLILTRRVGETLMIGDEVTVTVLVGVKGNQVRIGVNPKEVSVHREEIYQRIQAEKSQQSS  
Y

>P0C1W6

DDESECIINTRDSPWGRCCRTRMCGSMCCPRNGCTCVYHWRRGHGCSCPG

>P02775

MSLRLDTPPCNSARPLHALQVLLLLSLLLTALASSTKGQTKRNLAKGKEESLSDLYAE  
LRCMCIKTTSGIHPKNIQSLEVIGKGTCHCNQVEVIATLKDGRKICLDPDAPRIKKIVQKK  
LAGDESAD

>P82903

AGDIEAGKAKAAVCAACHGQNGISQVPIYPNLAGQKEQYLVAALKAYKAGQRQGGQAPVM  
QQQATALSDADIANLAAYYASLPADGGQ

>P38554

ETFEIPESVTMSPKQFEGYTPKKGDVTFNHASHMDIACQQCHHTVPDITYTIESCMTEGCH  
DNIKERTEISSVYRTFHTTKDSEKSCVGCHERELKRQGPSDAPLACNSCHVQ

>P00121

AASAGGGARSADDIIAKHCNACHGAGVLGAPKIGDTAAWKERADHQGGLDGI LAKAISGI  
NAMPPKGTCADCSDELREAIQKMSGL

>P00138

QFAKPEDAVKYRQSALTLMASHFGRMTPVVKGQAPYDAAQIKANVEVLKTL SALPWAAF  
PGTEGGDARPEIWSDAASFQKQAFQDNIVKLSAAAADAGDLDKLRAAFGDVGASCKACH  
DAYRKKK

>P00154

MKHVLASTAAGLMALGLASSAIAAGLSPEEQIETRQAGYEFMGWNMGKIKANLEGEYNAA  
QVEAAANVIAAIAANS GMGALYGP GTDKNVGDVKTRVKPEFFQNMEDVGKIAREFVGAANT  
LAEVAATGEAEAVKTAFGDVGAACKSCHEKYRAK

>P00152

QQSKPEDLLKLRQGLMQTLKSQWVPIAGFAAGKADLPADAAQRAENMAMVAKLAPIGWAK  
GTEALPNGETKPEAFGSKSAEFLEGWKALATESTKLAAAAKAGPDALKAQAAATGKVCKA  
CHEEFKQD

>P00145

ASPEAYVEYRKQALKASGDHMKALSAIVKGQPLNAEAAKHAEIAAIMESLPAAFPEGT  
AGIAKTEAKAVVWSKADEFKADAVKSADAALAKAQAATAGDTAQMKGKALALGGTCKGCH  
ETFRE

>P00144

MKRMMIVAALALTTTTVAQAADPAAYVEYRKS VLSATS NYMKAIGITLKEDLAVPNQTA  
DHAKAIASIMETLPAAFPEGTAGIAKTEAKAAIWKDFEAFKVASKKSQDAALELASAAET



GDKAAIGAKLQALGGTCKACHKEFKAD

>P17854

MSKLDLNLALNELPKVDRILALAEETNAELEKLDAGRVAWALDNLPGYVLSLSSSFGIQA  
AVSLHLVNVQIRPDIPVILTDGTGFLPETYRFIDELTDKLNKLNKLVYRATESAAWQ  
EARYGKLWEQGVGIEKYNDINKVEPMNRALKELNAQTWFAGLRREQSGSRANLPV  
LAIQRGVFKVLP IIDWDNRITIIQYLQKHGLKYHPLWDEGYLSVGDTHTTTRK  
WEPGMAEEETRFFGLKRECGLHEG

>P0ABK5

MSKIFEDNSLTIGHTPLVRLNRIENGRILAKVESRNPSFSVKCRIGANMIWDAEK  
RGVLKPGVELVEPTSGNTGIALAYVAAARGYKLTLTMPETMSIERRKLLKALGAN  
LVLTEGAKGMKGAIQKAEIIVASNPEKYLLQFQSNPANPEIHEKTTGPEIWEDTDG  
QVDVF IAGVGTGGTLTGVSRYIKGTGKTDLISVAVEPTDSPVIAQALAGEEIKP  
GPHKIQQIGAGFIPANLDLKLVDKVGITNEEAI STARRLMEEEGILAGISSGA  
AVAAALKLQEDSF TNKNIVVILPSSGERYLSTALFADLFTEKELQQ

>P47999

MAATSSSAFLNPLTSRHRPFKYSPELSSLSLSSRKAFAFDVSSAAFTLKRQSR  
SDVVCKAVSIKPEAGVEGLNIADNAAQLIGKTPMVYLNNVKGCVASVAAKLEI  
MEPCCSVKDRIGYSMITDAEEKGLITPGKSVLVESTSGNTGIGLAFIAASKGYK  
LILTMPASMSLERRVLLR AFGAELVLTEPAKGMTGAIQKAEIILKKT  
PNSYMLQQFDNPANPKIHYETTGP  
EIWEDTRGKIDILVAGIGTGGTITGVGRFIKERKPELVIGVEPTESAILSGGK  
PGPHKIQQIGAGFVPKNLDLAI  
VDEYIAISSEEAIETSKQLALQEGLLVGISSGAAAAAAIQVAKR  
PENAGKLIAVVFPSFGERYLSTQLFQSIREECEQMQLPEL

>P16703

MSTLEQTIGNTPLVKLQRMGPDNGSEVWLKLEGNNPAGSVKDRAALSMIVEAEK  
RGEIKPGDVLIEATSGNTGIALAMIAALKGYRMKLLMPDNMSQERRAAMRAYGA  
ELIILVTKEQGMEGARDLALEMANRGEGLLDQFNPNPNYAHYTTTTGPEIWQQT  
GGRITHFVSSMGTGTITGVSRFMREQSKPVTIVGLQPEEGSSIPGIRRWPT  
EYLPGIFNASLVDEVLDIHQRDAENTMRELAVREGIFCGVSSGGAVAGALRV  
AKANPDVVVAIICDRGDRYLS  
TGVFGEHFSQAGI

>Q9YBL2

MALADISGYLDVLDVSRGFSYLENAREVLRSGEARCLGNPRSEPEYVKALYVIG  
ASRIPVGDGCSHTLEELGVFDISVPGEMVFPSPLDFFFERGKPTPLVRSRLQLP  
NGVRVWLKLEWYNPFSLSVKDRPAVEIISRLSRRVEKGLSVADATSSNFGVALS  
AVARLYGYRARVYLPGAEEFGKLLP  
RLLGAQVIVDPEAPSTVHLLPRVMKDSKNEGFVHVNQFYNDANFEAHMRGTAR  
EIFVQSRRGGLALRGVAGSLGTSGHMSAAAFYLSVDP  
SIRAVLVQPAQGDSIPGIRRVE TGMLWINMLDISYTLAEVTLEEAMEAVVE  
VARSDGLVIGPSSGAAVKALAKKAAEGDLEPGDYVVVV  
PDTGFKYLSLVQNALEGAGDSV

>Q93ZN9

MSSTHQLVSSMISSSSSTFLAPSNFNLRTRNACL  
PMAKRVTNTCKCVATPQEKIEYKTKVS  
RNSNMSKLGAGYLFPEIARRSAHLLKYPDAQV  
ISLIGDTEPIPEVITSAMAKKAHELSTIEGYS  
GYGAEQGA  
KPLRAAIAKTFYGGGLGIGDDVDFVSDGAKCDISRLQVMFGSNVTI  
AVQDPSYPAYVDSSVIMGQTGFNTDVQKYGNIEYMRCTPENGFFPDLSTVGR  
TDIIFFCSPNNPTGAAATREQLTQLVEFAKKN  
GSIIVYDSAYAMYMSDDNPRSI  
FEIPGAEEVAMETASFSKYAGFTGVRLGWT  
VIPKLLYSDFP  
VAKDFNRIICTCFNGASNISQAGALACLTP

EGLEAMHKVIGFYKENTNIIIDTFTSLGYDVYGGKNAPYVWVHFPNQSSWDVFAEILEKT  
HVVTTPGSGFGPGGEGFVVRVSAFGHRENILEACRRFKQLYK

>O43293

MSTFRQEDVEDHYEMGEELGSGQFAIVRKCRQKGTGKEYAAKFIKKRRLSSRRGVSREE  
IEREVNIREIRHPNIIITLHDI FENKTDVVLILELVS GGELFDFLAEKESL TEDEATQFL  
KQILDGVHYLHSKRIAHFDLKPENIMLLDKNVNPRIKLIDFGIAHKIEAGNEFKNIFGT  
PEFVAPEIVNYEPLGLEADMWSIGVITYILLSGASPFLGETKQETLTNISAVNYDFDEEY  
FSNTSELAKDFIRRLLVKDPKRMTIAQSLHSHWIKAIRRRNVRGEDSGRKPERRRLKTT  
RLKEYTIKSHSSLPPNNSYADFERFSKVLEEA AAAEEGLRELQSRRLCHEDVEALAAIY  
EEKEAWYREESDSLQDLRRLRQELLKTEALKRQAQEEAKGALLGTSGLKRRFSRLENRY  
EALAKQVASEMRFVQDLVRALEQEKLQGVCEGLR

>P56744

MSVTSVNPATNATNEYYLTRQSQMESNVRSYPRKLPPLAIAKAQGCWVTDVEGTQYLDCLA  
GAGTLALGHNHPAVIQSIQDTLASGLPLHTLDLTTPLKDAFTEALLAYLPGGKEEYCLQF  
CGPSGADATEAAIKLAKTYTGRSSVIFS SGGYHGMTHGSLAMTGNLSAKNAVNGLMPGVQ  
FMPYPHEYRCPLGLGGEAGVDALTYFENFIEDVESGVTKPAAVILEA IQGEGGVV TAPV  
KWLQKIREVTEKHNIIVLILDEVQAGFARSGKMF AFEHAGIEPDVVVMSKAVGGGLPLAVL  
GIKRKFDAWQPAGHTGTFRGNQLAMGTGLVVLETIKEQNL AQNAQERGEFPCIGNVRGRG  
LMIGVEIVDERKPADRIGSHPADSQLAAA IQTACFNMNLLLEKGGRN GTVIRLLCPLIIT  
QEECVEVIARFKKAVAEALVAVRGA

>Q7XA07

MAAPAMLPGQAVKTPGSIWAKAIEHANEERKKPGADGRGDAFCYFVGSRAAGKSTLLNRF  
LYPTRADEVPKPSEGIEYTYARKPAAFDHEKKDLAHIWEVGGSQEF AEEIVNSDQLFLTAK  
QVTTAVVVIVVDLSDPAGVLP TLLYWVEQVKKKLGSTYEKFEKKGLQLPEQLRQRAKSKL  
YSANEDKDTVYHSGISLVIAATKYDAFKNQDPEVKKVMSRVLRYIAHAHGAF LCYLSGLH  
GASEGSGAEDAALLDNFTRL MNHLIFTGLEKKPVLKMQPQIDHTGPI MPAGFDTFKSVG  
RPRSQEGE TVAGGLAEWRELF EKMPFPGVREKEAKMSAKGAKFVIPEQYKEEEVDAVRQRK  
VTDLENFRKEQAAAVEAAKKKALMAKAQQAEEAAKKKAGAPAAGAKAPAKASPNGT PPRR  
PSNAGNQ

>Q6AY43

MPSETLWEIAKA EVEKRRCHGSDGDGMEIGEKSVFFIGSKNGGKTTIILRCLDRDEPAKP  
TLALEYTYGRKTKGHNTPKDIAHFWELGGGTSLLDLISIPITVDTLR TFSIVLVLDLSKP  
NDLWPTMENLLQATKSHVDKVTMKLGKANSKASSEMRQRMWSVMQKDHDPRELIDPFPIP  
LVIIIGSKYDIFQDFDPEKRKVIC KTLRFVAHYYGASLMFTSKSEALLLKM RVINQLAFG  
IDKSKSMCVDQNKPLFITAGLDSL CQIGSPPVPDSDIGKLAHSPMELWKKVYEKLFPPK  
STSTLKAIQDPARDPQYAESEVDEM RVQKDQELEQYKRSSSKTWKQIELDS

>Q57872

MILSDKDIIDYVTSKR I I IKPFNKDFVGP CSYDVTLGDEFI IYDDEVYDLSKELNYKRIK  
IKNSILVCPLNYNLTEEKINYFKEKYNVDYVVEGGVLT TNEYIELPNDISAQYQGRSSL  
GRVFLTSHQTAGWIDAGFKGKITLEIVAFDKPVILYKNQRIGQLIFSKLLSPADVGYSER  
KTSKYAYQKSVMPSLIHLDNHKKD

>P27707

MATPPKRSCPSFSASSEGTRIKKISIEGNIAAGKSTFVNILKQLCEDWEVVPEPVARWCN  
VQSTQDEFEELTMSQKNGGNVLQMMYEKPERWSFTFQTYACLSRIRAQLASLNGKLDKDAE

KPVLEFFERSVYSDRYIFASNLYESECMNETEWTIYQDWHDMNMQFGQSLELDGIIYLQA  
TPETCLHRIYLRGRNEEQGIPLEYLEKLYKHESWLLHRTLKTNFDYLDQEVPIILTLDVNE  
DFKDKYESLVEKVKEFLSTL

>O50657

MKNFRLSEKEVKTLAKRIPTPFLVASLKDVEENYQFMRRHLPRAGVIFYAMKANPTPEILS  
LLAGLGSHFDVASAGEMEILHELGVDSQMIYANPVKDARGLKAAADYNVRRFTFDDPSE  
IDKMAKAVPGADVLVRIAVRNNKALVDLNTKFGAPVEEALDLLKAAQDAGLHAMGICFHV  
GSQSLSTAAYEEALLVARRLFDEAEEMGMHLTDLDIGGGFPVPDAKGLNVDLAAMMEAIN  
KQIDRLFPDPTAVWTEPGRYMGCTAVNLVTSVIGTKTRGEQPWYILDEGIYGCFSGIMYDH  
WTYPLHCFGKGNKKPSTFGGSPCDGIDVLYRDFMAPELKI GDKVLVTEMGSYTSVSATRF  
NGFYLAPTIIFEDQPEYAARLTEDDDVKKKAAV

>P27117

MNSFSNEEFDCHFLDEGFTAKDILDQKINEVSYSDDKDAFYVADLGDILKHLRWLKALP  
RVTFFYAVKCNDSRTIVKTLAAIGTGFDCAASKTEIQLVQSLGVPPERIIYANPCKQVSQI  
KYAANNGVQMMTFDSEVELMKVARAHPKAKLVLRITDDSKAVCRLSVKFGATLKTSRLL  
LERAKELDIDVIGVSFHVGSCTDPETFVQAI SDARCVFDMGAEVGFNMYLLDIGGGFPG  
SEVDKLFKEEITSVINPALDKYFPDSGVRIIAEPGRYVVASAFTLAVNIIAKKLVLKEQ  
TGSDEEESTDRTFMYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTC  
DGLDRIVERCNLPEMHVGDWMLFENMGAYTVAAASTFNGFQRPTIYVMSGPTWQLMQQI  
RTQDFPPGVEEPDVGPLPVSCAWESGMKRHSAAACSTRINV

>P49725

MTLTGCVDYIEIIAGTKVAVCRNAIDNKTVATAIAATRIVNGNDPFVVMNVSTIMAKVI  
QWQRTMPRVAPCYAVKCNDDKVLRLTLADLGMGFDCAASKAEIEKVI GLVGPEKIVYANPC  
KTRGFIAHAEAAGVKRMTFDSVEELTKIKQNHADPSLILRISVSDPTAQCCQLGKIFGCDP  
ETVAPKLLRKAADMGMNVI GISFHVGSFCNEPATFRTALEYARGLFDLGISLGLSMTLLD  
IGGGFPGVDTAHISLDACAAVINPALEELFPLDSCPDEVIAEPGRYFACAAVSVTTNVI  
ASVKVPASRITEKADDVNRDGYMYMNDGVYGSFNCKLFDHYQPRGMPLAEHDADEPRFP  
VCVWGPTCDGLDQVEESSVMPRLYEGDWLYYVMDMGAYTSVAASTFNGFDKPKTYFIDEA  
TLGSIVRKADSAPRG

>Q96C86

MADAAPQLGKRKRELDVEEAHAASTEKEAGVNGTCAVRLPFSGFRLQKVLRESARDK  
IIFLHGKVNEASGDGDGEDAVVILEKTPFQVEQVAQLLTGSPQLQLQFSNDIYSTYHLFP  
PRQLNDVKTTVVYPATEKHLQKYLRQDLRLIRETGDDYRNITLPHLESQSLSIQWVYNIL  
DKKAEADRIVFENPDPDGFVLIPDLKWNQQQLDDLYLIAICHRRGIRSLRDLTPEHLPL  
LRNILHQQEAILQRYRMKGDHLRVYLYLPSYYHLHVHFTALGFEPGSGVERAHLLE  
VIENLECDPRHYQORTLTFALRADDPLLKLLQEAQQS

>Q16698

MKLPARVFFTLGSRLPCGLAPRRFFSYGTKILYQNTREALQSKFFSPLQKAMLPPNSFQGK  
VAFITGGGTGLGKGMTLLSSLGAQCVIASRKMDVLKATAEQISSQTGNKVHAIQCDVRD  
PDMVQNTVSELIKVAGHPNIVINNAAGNFISPTERLSPNAWKTITDIVLNGTAFVTLEIG  
KQLIKAQKGAFLSITTIYAETGSGFVVPASAKAGVEAMSKSLAAEWGKYGMRFNVIQF  
GPIKTKGAFSRLDPTGTFEKEMIGRIPCGRGLTVEELANLAAFLCSDYASWINGAVIKFD  
GGEEVLISGEFNDLRKVTKEQWDTIEELIRKTKGS

>Q93LE9

MSVRKILRMGDPILRKISEPVTEDEIQTKFEFKKLIRDMFDTMRHAEGVGLAAPQIGILKQ  
IVVVGSEDNERYPGTPDPPERIILNPVITPLTKDTSGFWEGLSVPGMRGYVERPNQIRM  
QWMDEKGNQFDETIIDGYKAIVYQHECDHLQGILYVDRLKDTKLFGFNETLDS SHNVLD

>Q46495

MPERLQVYKCEVCGNIVEVLNNGGIGELVCCNQDMKLMSENTVDAAKEKHVPVIEKIDGGY  
KVKVGAVAHPMEEKHYIQWIELLADDKCYTQFLKPGQAPEAVFLIEAAKVVAREYCNHIG  
HWKAEN

>P16932

MSLNDDATFWRNARQHLVRYGGTFEPMI IERAKGSFVYDADGRAILDFTSGQMSAVLGHC  
HPEIVSVIGEYAGKLDHLFSGMLSRPVVDLATRLANITPPGLDRALLLSTGAESNEAAIR  
MAKLVTKGYEIVGFAQSWHGMTGAAASATYSAGRKGVGPAAVGSFAIPAPFTYRPRFERN  
GAYDYLAELDYAFDLIDRQSSGNLAAFI AEPILSSGGI IELPDGYMAALKRKCEARGMLL  
ILDEAQTGVGRTGTMFACQRDGVTPDILTLSKTLGAGLPLAAIVTSAAI EERAHELGYLF  
YTTHVSDPLPAAVGLRVLDVVQRDGLVARANVMGDRLRRLGLDLMERFDCIGDVRGRGLL  
LGVEIVKDRRTKEPADGLGAKITRECMNLGLSMNIVQLPGMGVFR IAPPLTVSEDEIDL  
GLSLLGQAIERAL

>Q16854

MAAGRLFLSRLRAPFSSMAKSPLEGVSSSRGLHAGRGPRRLSIEGNI AVGKSTFVKLLTK  
TYPEWHVATEPVATWQNIQAAGTQKACTAQSLGNLLDMMYREPARWSYTFQTF SFLSRLK  
VQLEPFPEKLLQARKPVQIFERSVYSRYIFAKNLFENGSLSDIEWHIYQDWH SFLLWEF  
ASRITLHGFIY LQASPVCLKRLYQRAREEEKGIELAYLEQLHGQHEAWLIHKTTKLHFE  
ALMNI PVLVLDVNDDFSEEVTKQEDLMREVNTFVKNL

>P76015

MKKLINDVQDVLDEQLAGLAKAHP SLTLHQDPVYVTRADAPVAGKVALLSGGGSGHEPMH  
CGYIGQGMLSGACPGEIFTSPTPKIFECAMQVDGGEGVLLI IKNYTGDI LNFETATELL  
HDSGVKVTTVVIDDDVAVKDSL YTAGRRGVANTVLI EKLVGAAAERGDSL DACAE LGRKL  
NNQGH SIGIALGACTVPAAGKPSFTLADNEMEFVGVGIHGEPGIDRRPFSSLDQTVDEMFD  
TLLVNGSYHRTLRFWDYQQGSWQEEQQTKQPLQSGDRVIALVNNLGATPLSELYGVYNRL  
TTRCQQAGLTIERNLIGAYCTSLDMTGFSITLLKVDDETLALWDAPVHTPALNWGK

>Q9CIV9

MSAFFLNMKKSIIITQKIIAKAFKDLMQSNAYHQISVSDIMQTAKIRRQTFYNYFQ NQEEL  
LSWIFENDFAELINDNSDYWGQNELLLLLLRYLDENQIFYQKIFVIDKNFEHFFLIQWEN  
LLDKVIFDQEKKSDYHWSDLKSFICRYNAAAICAITRESIIRGNSLEKLYSQIVNLLLA  
QIKIFES

>P80346

MLGKIALEEAFALPRFEEKTRWWASLFSVDPEIEHADKYGVGYQILSYTAPGVQDIWDPV  
EAQAGEVGVDRILSIDYPFETFEDA AVVLRDVQTYGFIGALVNDTQRTGPMGNNQEEAY  
NINDYIAEQIRDKPDRFGAFTLSMHN PQEAGRDNAAARLFERNPTGTIYEKLGAFRDYDAK  
VKAIEITDINKLRIENASWDIFWQTDTEA QALAVEDADVWFDGAEFYDNAAMQYVIAYGAK  
QADIYGPINHWFEDRLGLAETCKWLVGPDLSFAHGVSLHVLGMTVNGVFDR

>P80402

MLGKIALEEAFALPRFEEKTRWWASLFSSTDAETHVKEITDINKIRIEHADKHGVGYQILS  
YTAPGVQDIWDPVEAQALAVEINDYIAEQVRVNPDRFGAFATLSMHNPKAADELRRCVE

KYGFKGALVNDTQRAGPDGDDMIFYDNADWDIFWQTCTELDVPFYMHPRNPTGTIYEKLW  
ADRKWLVGPPLSFAHGVSLSHVLGMVTNGVDFDRHPKQLQIMGHLGEHVPFDMWRINHWFE  
RKKLLGLAETCKKTIRDYFAENIWITTSGHFSTTTLNFCMAEVGSDRILFSDYPPFETFS  
DACEWFDNAELNGTDRLKIGRENAKKLFLKLDSDYKDSSA

>P41755

MLLCIVLFLIFHILINQAGIVHVLYNASFVASSSRFILFCEELFKATPQYWQWGNISIVQN  
GDASIASTLYLTMRTFIKHWKYTLIMINQSSISYSCYSTNEASHLLFTNLPKVAPYTLGP  
LNFECCLLSSHHRHIVLMFYGANIDHGLTKYELYTVCRPSSDEKLCNKILNSPRLHHTN  
RYLYLTEVRIVGAFYLIKQVGARMVGLLVHLAFMVLQNLPKLIWPLDLVHVRQKGTCTAH  
IAYHPLAQKHFPYFTHFYLVNTIYAVVKNILDNISSTLQSNRVRPRPDVAGFDFFHR  
FDAFEQSLTYGGDTGITSSNEKVALCFEATYTDIFFTVEIIDSTSVDSGAIMLPIILVDAY  
TAVARNFCSVSMVISPLVTLVVYDIYTCSEFIGLCTQRRRTINCTRILDAISSVGNSTFLP  
RYKSPRELTTROPSSGSSVILLIFLLLGFEEFFLFSGLVVVEPVNDVGDVVNDLLVAFIDL  
ALELFFVVEGVAEVLVGVVFKTVLGFNADVGVFIFRLVLFSLHHAFFNIILGEATLVVGNNG  
LVFFTSRLFDGRHVQDTVGINVEGDINLWNTTRHWRNTIEGELPEQVVVTGHRTLTFKHL  
NQHTRLVSVGGESLRLLGWHSSVTLDEGSHDTTSSSQTKRERSDIKKQQVLELFRRVVT  
AQNGSLDCGTESNSFIRVDRLAWFLAVEEVRKQLLDLWDTGGTTDKDDFMDLALGELRVT  
EDLFRNFHSLAEVVTAHVFETGTGDGGVEINTIEERVDFNVSLGRRRKSTLGTFTSGTKT  
AKGTLVLGHILAVLALAEFSGKVVEAVIEIETTQVGITSSSLDFEDTFFNGQKRHIEGTT  
TKIENENIAFTTLLVKTVGNGGTSRFVNDTKDVKTSNGTSLGSLTLRVVEISWDGNDSV  
VNSSTNEGFSNHLHLQNHGRGNFFRLESLSFTLEFDGDLWLVTSRGNLEWPVLNIGLSS  
WVVEFTTDQTLSEHSVGRVHGNLVLVSGITNKTFVAVSESNVRWGGTVTLIVGNNFNTIVL  
PDTDTRISRTEIDTDGSSLDTRHACSKFKNEVDSPPHLTSAFI

>P80053

MMEEVLSSSLYTQQVKKLYKVGELLGLDNETLETLSQPERIIQVKIQIRGSDGKLTTFMG  
WRSQHNSALGPYKGGVRYHPNVTQDEVEALSMIMTWKNSLLLLPYGGGKGGVRVDPKCLT  
REELEQLSRKYIQAIYKYLGESELDIPAPDVNTDSQTMAWFLDEYIKITGKVDFAVFTGKP  
VELGGIGVRLYSTGLGVATIAKEAANKFIGGVEEARVIIQGFNGVGYAGKFLSEMGAKI  
VGVSDSKGGVINEKIDVGKAIIEIKEKTGSVINYPEGRKVTNEELLISDCDILIPAALEN  
VINKFNAPKVKAKLIVEGANGPLTADADEIMRQRGIAVVPDILANAGGVVGSYVEWANNK  
MGEIISDEEAKKLIIVDRMNNAFNTLYDYHQKKLEDHDLRТАAMALAVDRVVRAMKARGIL

>P28270

SEAVAEKEDDPNFFKMEVGFDFKGAAIIVENKLVEDLKTGRSPEVEGNLTFT

>P13203

MTEQKAIIVTDAPKGGVYTTIDMPEPEHYDAKLSPVYIGICGTDRGEVAGALSFTYNPEG  
ENFLVLGHEALLRVDDARDNGYIKKGDVVPLVRRPGKCINCRIGRQDNCSIGDPDKHEA  
GITGLHGFMRDVIYDDIEYLVKVEDPELGRIAVLTEPLKNVMKAFEVFVVSKRSIFFGD  
DSTLIGKRMVIGSGSEAFLYSFAGVDRGFVMTVMNRHDETENKCLKIMDEFVVKFANYLK  
DMPEKIDLLVDTSGDPTTTFKFLRKVMNNGVVILFGTNGKAPGYPVDGEDIDYIVERNIT  
IAGSVDAAKIHVVQALQSLSNWNRHPDAMKSIITYEAKPSETNIFQKPHGEIKTVIKW  
Q

>P13650

MNKHLLAKIALLSAVQLVTLVSAFADVPLTPSQFAKAKSENFDDKVVILSNLNKPHALLWGP  
DNQIWLTERATGKILRVNPESESVKTVFQVPEIVNDADGQNGLLGFVAFHPDFKNNPYIYI  
SGTFKNPKSTDKELPNQTIIRRYTYNKSTDTLEKPVDLLAGLPSKDHQSGRLVIGPDQK

IYYTIGDQGRNQLAYLFLPNQAQHTPTQQEELNGKDYHTYMGKVLRLNLDGSIKDNPSFN  
GVVSHIYTLGHRNPQGLAFTPNGLKLLQSEQGPNSDDEINLIVKGGNYGWPVAVAGYKDDSG  
YAYANYSAANKSIKDLAQNGVKVAAGVPVTKSEWTKGNFVPLKTLTYTVQDITYNYNDP  
TCGEMTYICWPTVAPSSAYVYKGGKAITGWENTLLVPSLKRGVIFRIKLDPTYSTTYDD  
AVPMFKSNRNRDVIASPDGNVLYVLTDTAGNVQKDDGSVTNTLENPGSLIKFTYKAK

>Q93NG6

MTVTSQVKPEDEMLNWRLLILDGVSYSMDVVGARDRPEITWFDYWMSLANEYEQEAERKV  
ALGHDLGAGELLSAALCAQYAQFLWFDERRQKQARKVELYQKAAPLLSPPAERHELVV  
DGIPMPVYVRIPEGPGPHPAVIMLGGLESTKEESFQMENLVLDRGMATATFDGPGQGEMF  
EYKRIAGDYEKYTSAVVDLLTKLEAIRNDAIGVLRSLGGNYALKSAACEPRLAACISWG  
GFSLDLDYWDLETPLTKESWKYVSKVDTLLEEARLHVHAALETRDVLVLSQIACPTYILHGVHD  
EVPLSFVDTVLELVPAEHLNLVVEKGDGHCCHNLGIRPRLEMADWLYDVLVAGKKVAPTM  
KGWPLNG

>P09417

MAAAAAAGEARRVLVYGGRGALGSRVQAFRARNWWWASVDVVENEEASASIVKMTDSF  
TEQADQVTAEVGKLLGEEKVDAILCVAGGWAGNAKSKSLFKNCDLMWKQSIWTSTISSH  
LATKHLKEGGLTLGAKAALDGTGPMIGYMAKGAHVQLCQSLAGKNSGMPGAAAIAV  
LPVTLDTPMNRKSMPEADFSWTPLEFLVETTFHDWITGKNRPSSGSLIQVVTTEGRTELT  
PAYF

>Q8WNV7

MASTGVERRKPLENKVALVTASTDGIGLAIARRLAQDGAHVSSSRKQENVDRTVATLQG  
EGLSVTGTVCHVGAEDRERLVAMAVNLHGGVDILVSNAAVNPFFGNIIDATEEVWDKIL  
HVNKATVLMTKAVVPEMEKRGGSVLISSVGGAYHPPNLPYVSKTALLGLTKNLAV  
ELAPRNIRVNCLAPGLIKTNFSQVLWMDKARKEYMKESLRIRRLGNPEDCAGIVSFLCSE  
DASYITGETVVVGGGTASRL

>P66817

MQERIKACFTESIQTQIAAAEALPDAISRAAMTLVQSLNNGNKILCCGNGTSAANAQHFA  
ASMINRFETERPSLPAIALNTDNVVLTAIANDRLHDEVYAKQVRALGHAGDVLLAISTRG  
NSRDIVKAVEAAVTRDMTIVALTGVDGGELAGLLGPDVEIRIPSHRSARIQEMHMLTVN  
CLCDLIDNTLFPHQDD

>P0C6A8

MNSGNPCCDPVTCKPRRGEHCVSGPCCRCKFLNAGTICKRARGDDMNDYCTGISPDPCR  
NPWKG

>Q8GNT2

MDYCNKKHTAEYVKISDNMYVPFPEAFSDGGITWQLLHSSPETSSWTAIFNCPAGSSFA  
SHIHAGPGYFLLTKGKMEVRGGEQEGGSTAYAPSYGFESSGALHGKTFPPVESQFYMTFL  
GPLNFIDDNGKVIASIGWAEAQGAWLATKNEAA

>Q50EL0

MKAANASSAEAYRVLRAFRFDNEDQKLWWHSTAPMFAKMLETANYTTPCQYQYLITYKE  
CVIPSLGCYPTNSAPRWLSILTRYGTPFELSLNCSNSIVRYTFEPINQHTGTDKDPFNTH  
AIWESLQHLPLEKSIDLEWFRHFKHDLTLNSEESAFLAHNDRLVGGTIRTQNKLALDLK  
DGRFALKTYIYPALKAVVTGKTIHELVFSGVRRRLAVREPRILPPLNMLEEYIRSRGSKST  
ASPRLVSCDLTSPAKSRIKIYLLQMVSLLEAMEDLWTLGGRRRDASTLEGLSLVRELWDL

IQLSPGLKSYAPAYLPLGVIPDERLPLMANFTLHQNDPVPEPQVYFTTFGMNDMAVADAL  
TTFEFERRGWSEMARYETTLKSYYPHADHDKLNLYLHAYISFSYRDRTPYLSVYLQSFETG  
DWAVALNSESVKVCQDAACQPTSLPPDLSKTGVYYSGLH

>Q12594

MMTKAPATAVYDITLSLLFDFPNQEQRLWWHSIAPMFAAMLDTAGHNVHDQYRHLGIFKKH  
IIPFLGVYPAQGKHTWPSVLTRYGIPFELSINCLDSVVRYTFEPTTEHTGTGDDSYNAFA  
ILECIQKLVRIQPGIDMEWFSYFRNELVLNATESARLGRNDSVNQQPIRTQNKLALDLKG  
DRFALKVYLYPHLKS IATGVSSHDLIFNSVRKLSQKHTSIQPSFNVLCDYVASRNDPDSN  
AAEAEAGVPASALRARLLSCDLVDPSKSRIKIYILLEQTVSLTAMEDLWTLGGRRTDSSTL  
NGLDMMRELWHLQIPSGFMKYPESDLKLGEPDEQLPSMVHYALHPDQPMPEPQVYFTV  
FGMSDAGITNALATFFSRHGWYEMAKKYRVFLEGSFPNHDFESLNYLHTYVSFSYRKNKP  
YLSVYLHSFETGQWPAFSDPTAFNAFKRCDLSLT

>P17262

MKKGVMRPGHVQLRVLNLESALAHYRDLLGLIEMDRDEQGRVYLKAWTEVDKFSVVLREA  
DQPGMDFMGFKVIDEDCLNRLTQDLLNYGCL IETIPAGELKGCGRRVRFQTPSGHFFELY  
ADKEYTGKWGLEEINPEAWPRNLKGMRAVRFDHCLLYGDELQATYALFTEVLGFYLAEQV  
IDDDGTRVAQFLSLSTKAHDVAFIHCPEKGFHHVSFFLETWEDVLRADLISMTDTSID  
IGPTRHGLTHGKTIYFFDPSGNRNEVFCGGDYNQDHPVTLAKDLGKAIFYHDRVLNE  
RFLTVLT

>O35303

MEALIPVINKLQDVFNVTGADI IQLPQIVVVGTOSSGKSSVLESIVGRDLLPRGTGVVTR  
RPLILQLVHVSPEDKRKTTEENDPATWKNRSRHLKSGVEAEWGWKFLHTKNKLYTDFDEI  
RQEIENETERISGNNGVSPPEIHLKVFSPNVNLTIVDLPGMTKVPVGDQPKDIELQIR  
ELILRFISNPNSIILAVTAANTDMATSEALKISREVPDGRRTLAVITKLDLMDAGTDAM  
DVL MGRVIPVKLGIIGVVNRSQLDINNKKSVTDSIRDEYAF LQKKYPSLANRNGTKYLAR  
TLNRLLMHHIRDCLPELKTRINVLAAQYQSLNLSYGEFVDDK SATLLQLITKFATEYCNT  
IEGTAKYIETSELGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALF  
VPEVSFELLVKRQIKRLEEPSLRCVELVHEEMQRI IQHCSNYSTQELLRFPKLHDAIVEV  
VTCLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA  
VSRDKSSKVP SALAPASQEPSPAASAEADGKLIQDNRRRETKNVASAGGGIGDGGRI GDGG  
QEPTTGNWRGMLKTSKAEELLAEEKSKPIIMPASPQKGHAVNLLDVPVPVARKLSAREQ  
RDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLLDDLLT  
ESEDMAQRKEAADMLKALQGASQIIAEIRETHLW

>P04531

MKLIFLSGVKRSKGDTTADFIMSNYSVAVKYQLAGPIKDALAYAWGVFAANTDYPCLTRKE  
FEGIDYDRETNLNLTKLEVITIMEQAFCYLNGKSPKGVFVFDDEGKESVNFVAFNKITD  
VINNIEDQWSVRRLMQALGTDLIVNMFDRMYWVKLFALDYLDKFNSGYDYYIVPDTRQDH  
EMDAARAMGATVIHVVRPGQKSNDRTHITEAGLPIRDGLVITNDGSL EELFSKIKNTLKV  
L

>P87064

MVPSFVVYSSWVNGRQRYIRQAFASILFYIIRDITLSFP SHTTMSTKPE TDLQTVLDSEI  
KEWHFHIYFHQNAAEHQAAL ELRDAVLRRLRQDGAFFVAVPLFRVNMDPMGPHVGSYEI W  
VPSETFASVFSYLCMNRGRLSILVHPLTREELRDHEIRNAWIGPSFPLNLANLP IKSDEI  
PLQYPSLKLGYSSSTAHKMSLEERRKLGDDIEAVLRGEKEAARAPHRDA

>P76129

MKLTADNAADGIFFPALEQNMMAVLINENDEVMFFNPAAEKLWGYKREEVIGNNIDML  
IPRDLRPAHPEYIRHNREGGKARVEGMSRELQLEKKDGSKIWTRFALSKVSAEGKVYYLA  
LVRDASVEMAQKEQTRQLIIAVDHLDRPVIVLDPERHIVQCNRAFTMFGYCISEASGMQ  
PDTLLNIPEFPADNRIRLQQLLWKTARDQDEFLLLTRTGEKIWIKASISPVYDVLHLQN  
LVMTFSDITEERQIRQLEGNILAAMCSSPPFHEMGEIICRNIESVLNESHVSLFALRNGM  
PIHWASSSHGAEIQNAQSWSATIRQRDGPAGILQIKTSSGAETSAFIERVADISQHMAA  
LALQEKEQRHIEQLIQFDPMTGLPNRNNLHNYLDDLVDKAVSPVVYLIGVDHIQDVIDS  
LGYAWADQALLEVVNRFREKLKPDQYLCRIEGTQFVLVSLENDVSNITQIADELNRNVSK  
PIMIDDKPFPLTSLIGISYDLGKNRDYLLSTAHNAMYIRKNGGNGWQFFSPAMNEMVKE  
RLVLGAALKEAISNNQLKLVYQPQIFAETGELYGIEALARWHDPHGHVPPSRFIPLAEE  
IGEIEENIGRWVIAEACRQLAEWRSQNIHIPALSVNLSALHFRSNQLPNQVSDAMHAWGID  
GHQLTVEITESMMMEHDTEIFKRIQILRDMGVGLSVDDFGTGFSGLSRLVSLPVTEIKID  
KSFVDRCLTEKRILALLEAITSIGQSLNLTVAEGVETKEQFEMLRKIHCRIQGYFFSR  
PLPAEEIPGWMSSVLPKLI

>O80164

MKLSKDTIAILKNFASINSGILLSQKGFIMTRAVNGTTYAEANISDEIDFDVALYDLNSF  
LSILSLVSDDAEISMHTDGNIKIADTRSTVYWPAAADKSTIVFPNKPIQFPVASVITEIKA  
EDLQQLLRVSRGLQIDTIAITNKDGKIVINGYNKVEDSGLTRPKYSLTLTDYDGSNNFNF  
VINMANMKIQPGNYKVMLWGAGDKVAAKFESSQVSYVIAMEADSTHDF

>P40817

MHELIKIQFNTRRKKYGTGAALSLNNGNVGHEVLAHFHKKLPNYAVTPLHNLAHLSQRLGL  
GSIHIKDESWRFGLNAFKGLGGSYAVGKYLADKLQCDINSLSFAALNTPEIKEKIKDCVF  
VTATDGNHGRGVAWAAEQGLKAVVYMPKGSILRAENIRHHGAECTITDLNYDDAVRLA  
HRMAQTKGWVLLQDTAWTGYEEIPTWIMQGYMTLAVEEYEQLAETNSPLPHTHLILQAGVG  
SFAGSVMGYFVEKMQENIPNIIVVEPHQANCLYQSAVMDDGQPHCVTGDMATIMAGLACG  
EPNIIISWPIIRDNTSCFISADDCLAAKGMRISAAPRPGTDTFFISGESGAIGVGLLYELM  
NNMHYQDLANRLQLDASAHVLLISTEGDTSPIYEDIVWNGRSA

>P0A988

MKFTVEREHLKPLQQVSGPLGGRPTLPILGNLLQVADGTLSTLTGTDLEMEMVARVALV  
QPHEPGATTVPARKFFDICRGLPEGAEIAVQLEGERMLVRSGRSRFSLSTLPAADFPNLD  
DWQSEVEFTLPQATMKRLIEATQFSMAHQDVRYYLNGMLFETEGEELRTVATDGHRLAVC  
SMPIGQSLPSHSVIVPRKGVIELMRMLDGGDNPLRVQIGSNNIRAHVGDFIFTSKLVDGR  
FPDYRRVLPKNPKHLEAGCDLLKQAFARAAILSNEKFRGVRLYVSENQLKITANNPEQE  
EAEEILDVITYSGAEMEIGFNVSIVLVDVLNALKCENVRMMLTDSVSSVQIEDAASQSAAYV  
VMPMRL

>P14740

MKTPWKVLLGLLGVAALVTIITVPVVLLNKDEAAADSRRRTYTLADYLKNTFRVKSYSLRW  
VSDSEYLYKQENNILLFNAEHGNSSIFLENSTFEIFGDSISDYSVSPDRLFVLLYNYVK  
QWRHSYASYSIYDLNKRQLITEEKIPNNTQWITWSQEGHKLAYVWKNDIYVKIEPHLPS  
HRITSTGKENVIFNGINDWVYEEEEIFGAYSALWWSPNGTFLAYAQNFTGVPLEYSFY  
DESLQYPKTVWIPYPKAGAVNPTVKFFIVNTDSLSTTTTIPMQITAPASVTTGDHYLCD  
VAWVSEDRISLQWLRIQNYSVMAICDYDKTTLVWNCPTTQEHIEATSATGWCGRFRPAEP  
HFTSDGSSFYKIVSDKDGKHCQFQKDRKPEQVCTFITKGAWEVISIEALTSYLYYIS  
NEYKEMPGGRNLYKIQLTDHTNKKCLSCDLNPERCQYYSVLSKEAKYYQLGCRGPGPLPL  
YTLHRSTDQKELRVLEDNSALDKMLQDVQMPSKKLDFIVLNETRFWYQMIILPPHFDKSKK



YPLLIDVYAGPCSQKADAAFRNLNATYLASTENI IVASFDGRGSGYQGDKIMHAINKRLG  
TLEVEDQIEAARQFLKMGFVDSKRVAIWGWSYGGYVTSMLVLSGSGVFKCGI AVAPVSRW  
EYYDSVYTERYMGLPTPEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQI  
SKALVDAGVDFQAMWYTDEDHGIASSTAHQHIYSHMSHFLQQCFSLR

>Q55024

MTNTGLVQSFSQIEPNVLGLETSVTSQICEGLNRALASFQVLYLQYQKHHFTVQGAEFY  
LHEFFEDSYGSKVDHVHDLGERLNLGGVPAHPLKLAELTCFAIEEDGVFNCRMTLEHD  
LAAEQAILSLRRLTAQVESLGDRA TRYLLEGI LLKTEERAYHIAHFLAPDSLKLA

>P39691

MKKRVVLFSLTLALSGVARADDAAIKQTLNRLGLQSAEVKDSPIGGMKTVLTENGVLYI  
TEDGKHL LQGPLYDVSGKTPVNVNTHILNERLDALKDQMI VYKAPQEKHVITVFTDITCG  
YCHKLHEQMKDYNALGITVRYLAYPRQGMNSQAAKDMQSIWCVADRNKAFDAAMKGDDVS  
PATCKTDIGAHYQLGVLFVQGT PAIVLDDGT VVPGYQPPKEMMAM LDAHKASL KSGG

>P45111

MKKIFTALLCVAANAMADDAAIKRKLQSFNISNIVIKSSPISGIKTAVTDQGILYVSED  
GKYLFEGLYELTNNGPVDVAGKILVDKLNLSYKDEMIVYPAKNEKHVVTVFMDITCHYCH  
LLHQQLKEYNDLGITVRYLAFPRAGMNNQTAKQMEAIWTA KDPVFALNEAEKGNLPKEVK  
TPNIVKKHYELGIQFGV RGTPSIVTSTGELIGGYLKPADLLRALEETAQ

>P77202

MLKKILLLALLPAIAFAEELPAPVKAIEKQGITIIKTFDAPGGMKGYLKGYQDMGVTIYL  
TPDGKHAISGYMYNEKGENLSNTLIEKEIYAPAGRE MWQRMEQSHWLLDGKKDAPVIVYV  
FADPFCPYCKQFWQARPWVDSGKVQLRTL LVGVIKPESPATAAAI LASKDPAKTWQQYE  
ASGGKLLNVPANVSTEQMKVLS DNEKLMDDL GANVTPAIYYMSKENTLQQAVGLPDQKT  
LNIIMGNK

>P31654

MYTFSGSKPTQLYMDILSTVIKEGDV LAPRGKRIKEIRPVMIEFKNP IRRTTFLKGRNIN  
PFFQVAESLWILAGRS DVGFLLDYKNMGMQFSDDG VFFNAPYGERLRFWNRSDANNFIYN  
PLDQLRDVYEKIKADPDTRQAVAVIYNPLFDNINNDTKDRPCNLLLSFKLRNGKLDLSVY  
NRSNDLHWGTFGANLCQFSTILEAMATWLGVEVGSYYQITDSLHVYLLDDYGAKITEDIQK  
VYGVNLETDEAPVVEDFEELLDPNRMSYTMNELNQFLNEYFGIVDSL MRDETYMHDGD  
CAQMLLNQIRHEPDEYIKVTL LLMVAKQALNRGMKDTVATAMNWIPLCEIKVSALRFLYK  
SYPEYINQYDLDEKLMKYIRREE

>P77488

MSFDIAKYPTLALVDSTQELRLLPKESLPKLCDELRRYLLDSVSRSSGHFASGLGTVELT  
VALHYVYNTPF DQLIWDVGHQAYPHKILTGRRDKIGTIRQKGG LHPFPWRGESEYDVL SV  
GHSSTSISAGIGI AVAAEKEGKNRRTVCVIGDGAITAGMAFEAMNHAGDIRPDMLVILND  
NEMSI SENVGALNNHLAQLLSGKLYSSLREGGKVFSGVPP IKELLKRTEEH IKGMVVP  
TLFEELGFNYIGPVDGHDV LGLITTLKNMRDLKGPQFLHIMTKKGRGYEPAEKDPI TFHA  
VPKFD PSSGCLPKSSGGLPSYSKIFGDWLCETA AKDNKLMAITPAMREGSGMVEFSRKF  
DRYFDVAIAEQHAVTFAAGLAIGGYKPIVAIYSTFLQRAYDQVLHDVAIQKLPVLF AIDR  
AGIVGADGQTHQGAFDLSYLRCIPEMVMITP SDENECRQMLYTG YHYNDGPSAVRYPRGN  
AVGVELTPLEKLP IKGKIVKRRGEKLA IILNFGTLMPEAAKVAESLNATLVDMRFVKPLDE  
ALILEMAASHEALVTVEENA IMGGAGSGVNEVLM AHRKPVVPLNIGLPDFFIPQGTQEEM  
RAELGLDAAGMEAKIKAWLA

>Q9D0M5

MSDRKAVIKNADMSEDMQQDAVDCATQAMEKYNIEKDIAAYIKKEFDKKNPTWHCIVGR  
NFGSYVTHETKHFIFYFLGQVAILLFKSG

>P00382

MKLSLMVAISKNGVIGNGPDI PWSAKGEQLLFKAITYNQWLLVGRKTFESMGALPNRKYA  
VVTRSSFTSDNENVLIFPSIKDALTNLKKITDHVIVSGGGEIYKSLIDQVDTLHISTIDI  
EPEGDVYFPEIPSNFRPVFTQDFASNINYSYQIWQKG

>Q60034

MAKVIFVLAMDVSGKIIASSVESWSSFEDRKNFRKITTEIGNVVMGRITFEEIGRPLPERL  
NVVLTRRPKTSNNPSLVFFNGSPADVVKFLEGKGYERVAVIGGKTVFTEFLREKLVDELFL  
VTVEPYVFGKGIPIFFDEFEGYFPLKLLMRRNLNERGTLFLKYSVEKSHR

>P42892

MRGVWPPPVSALLSALGMSTYKRATLDEEDLVDSLSEGDAYPNGLQVNFHSPRSGQRCWA  
ARTQVEKRLVVLVLLAAGLVACLAALGIQYQTRSPSVCLSEACVSVTSSILSSMDPTVD  
PCHDFFSYACGGWIKANPVPDGHRSRWTFSNLWEHNQAI IKHLLNSTASVSEAERKAQV  
YYRACMNETRIEELRAKPLMELIERLGGWNITGPWAKDNFQDTLQVVTAHYRTSPFFSVY  
VSADSKNSNSNVIQVDQSGGLPSRDYLLNKTENEKVL TGYLNYMVQLGKLLGGGDEEAI  
RPQMQQILD FETALANITIPQEKRRDEELIYHKVTA AELQTLAPAINWLPFLNTIFYPVE  
INESEPIVVYDKEYLEQISTLINTDRCLLNMYMIWNLVRKTS SFLDQRFQDADEKFMFV  
MYGTTKTC LPRWKFCVSDTENNLGFALGPMFVKATFAEDSKSIATEI ILEIKKAFEE SLS  
TLKWMDEETR KSAKEKADAIYNMIGYPNFIMDPKELDKVFNDYTA VPDLYFENAMRFFNF  
SWRV TADQLRKAPNRDQWSMTPPMVNAYYSPTKNEIVFPAGILQAPFYTRSSPKALNFGG  
IGVVVGH E LTHAFDDQGREYDKDGNLRPWWKNS SVEAFKRQTECMVEQYSNYSVNGEPVN  
GRHTLGENIADNGGLKAA YRAYQNWVKNGAEHSLPTLGLTNNQLFFLGFAQVWCSVRTP  
ESSHEGLITDPHSPSRFRVIGSLSNSKEFSEHFRCP PGSPMNP PHKCEVW

>Q10711

MACLGPSAQVPELPEKNCGYREVQYWDQRYQGAADSAPYEWFGDFSCFRDLLEPELRLPLD  
RILVLGCGNSALS YELFLGGFPDVTSVDYSSVVVAAMRARYAHVPTLRWETMDV RALGFP  
SGSFDVVLEKGTLDALLTGEQDPWTVSSEGVHTVDQVLNEAGFRKRTSRLLGLHTQLELV  
LAGVSLLLAALLLGLCLVALGVQYHRDP SHSTCLTEACIRVAGKILESLDRGVSPCEDFYQ  
FSCGGWIRRNPLPDGRSRWNNSNSLWDQNQA I LKHLLENTTFN S SSEAERKTQRFYLSCL  
QVERIEELGAHALRDLIDKIGGWNVTGPWDQDNFMEVLKAVAGTYRATPFF'TVYVSADSK  
SSNSNI IQVDQSGLFLPSRDYLLNRTAN EKVL TAYLDYMEELGMLLGGQPTSTREQMRQV  
LELEIQ LANITVPQDQRRDEEKIYHKMSIAELQALAP SMDWLEFLSFLLSPLELGDSEPV  
VVYGTDY LQQVSELINRTEPSVLN NYLIWNLVQKTTSSLDHRFESAQEKLLETLYGTTKKS  
CTPRWQTCISNTDDALGFALGSLFVKATFD RQSKEIAEGMISEIRVA FEEALGHLVWMD E  
KTRQAAKEKADAIYDMIGFPDFILEPKELDDVYDGYEVSEDSFFQNMNLNLYNFSAKVMAD  
QLRKPPSRDQWSMTPQTVNAYYLP TKNEIVFPAGILQAPFYTCNHPQALNFGGIGVVMGH  
ELTHAFDDQGREYDKEGNLRPWWQNESLAAFRNHTACIEEQYSQYQVNGEKLNGRQTLGE  
NIADNGGLKAA YNAYKAWLRKHGEEQQLPAVGLTNHQLFFVGFAQVWCSVRTP ESSHEGL  
VTDPHSPARFRVLGTLSNSRDFLRHFGCPV GSPMNSGQLCEVW

>Q4JQJ5

MLPDKTALPIITLSQPTAEVGAQVHRLISKCPPLDPNSMYCNLLQSSH FSETAVAAKIGD  
ELVGFVSGYRIPQRPD TLFVWQVAVGEKARGQGLATRMLKAILARPVNQDINRIETTITP

NNKASWALFEGLAKKLDTOIGSAVMFDKTRHFADQHESTEMLVKVGPFKAVQA

>Q64214

MTDVLVVLKVFPPDSDEVNLDNLYTDISSKLPKEYKIRKETEP IAFGLNALILYVQMPEQ  
TEGGTDNLEEVVNNIQGVSHAEEVVGITRLGF

>O24606

MMFNEMGMCNMDFFSSGSLGEVDFCPVPQAEPSIVEDDYTDDEIDVDELEERRMWRDKM  
RLKRLKEQDKGKEGVDAAKQRQSQEQARRKKMSRAQDGI LKYMLKMMEVCKAQGFVYGI I  
PENGKPVGTGASDNLREWWKDKVRFDRNGPAAITKYQAENNI PG IHEGNNP IGP TPHTLQE  
LQD TTLGSLLSALMQHCDPPQRRFPLEKGVPPPWWPNGKEDWWPQLGLPKDQGPAPYKKP  
HDLKKAWKVGVLTA VIKHMFPIAKIRKLVRSKCLQDKMTAKESATWLAI INQEESLAR  
ELYPESCPLSLSGGCSLLMNDCSQYDVEGFEEKESHYEVEELKPEKVMNSSNFGMVAKM  
HDFPVKEEVPAGNSEFMRKRKPNRDLNTIMDRTVFTCENLGCAHSEISRGF LDRNSRDNH  
QLACPHRDSRLPYGAAPSRFHVNEVKPVVGFPPQPRPVNSVAQP IDLTGIVPEDGQKMI SE  
LMSMYDRNVQSNQTSMV MENQSVSLLQPTVHNHQEHLQFPGNMVEGSSFFEDLNI PNRANN  
NNSNNQTFQGNNNNNNVFKFDTADHNNFEAAHNNNNNNSGNRFQLVFDSTPFDMASFD  
YRDDMSMPGVVGTMDGMQQKQDVS IWF

>O82804

MKRGKDEEKILEPMFPR LHVNDADKGGPRAPPRNKMALYEQLSIP SQRF GDHGT MNSRSN  
NTSTLVHPGPSSQPCGVERNLSVQHLDSSAANQATEKFVSQMSFMENVRSSAQHDQRKMV  
REEEDFAVPVYINSRRSQSHGRTKSGIEKEKHTPMVAPSSHHSIRFQEVNQTGSKQNVCL  
ATCSKPEVRDQVKANARSGGFV ISLDVSVTEEIDLEKSASSHDRVNDYNASLRQESRNL  
YRDGGKTRLKDTDNGAESH LATENHSQEGHGSPEIDNDREYSKSRACASLQQINEEASD  
DVSDDSMVDSISSIDVSPDDVVGILGQKRFWRARKAIANQQRVFAVQLFELHRLIKVQKL  
IAASPDLLLDEISFLGKVS AKSYPVKLLPSEFLVKPPLPHVVVKQRGDSEKTDQH KMES  
SAENVVGRLSNQGHQSNYMPFANPPASPAPNGYCFPPQPPPSGNHQWLIPVMSPSE  
GLIYKPHPGMAHTGHYGGYYGHYMP TPMVMPQYHPGMGFPPPGNGYFPYGMMP TIMNPY  
CSSQQQQQQPNEQMNQFGHPGNLQNTQQQQQRSDNEPAPQQQQQPTKSYPRARKSRQGS  
TGSSPSGPQGISGSKSFRPF AA VDEDSNINNAPEQTMTTTTTTTTRTTVTQTTRDGGGVTR  
VIKVVPHNAKLASENAARIFQSIQEERKRYDSSKP

>Q7Z589

MPVVWPTLLDL SRDECKRILRKLELEAYAGVISALRAQGDLTKEKKDLLGELSKVLSIST  
ERHRAEVRRAVNDERLTTIAHNMSGPNSSSEWSIEGRRLVPLMPRLVLPQTAFTVTANAVA  
NAAIQHNASLPVPAETGSKEVVCYSYTTSTPTSTPVPSGSIATVKS PRPASPVV  
LPSGSTVYVKS VSCSDEDEKPRKRRRTNSSSSPVVLKEVPKAVVPVSKTITVPVSGSPK  
MSNIMQSIANS LPPHMSPVKITFTK PSTQTNTTTQKVIIVTTSPSSTFVFNILSKSHNY  
AAVTKLVPTS V IASTTQKPPVITASQSSLVSNSSSGSSSSTPSPIPNTVAVTAVVSSTP  
SVVMSTVAQGVSTSAIKMASTR LPSKSLVSAPTQILAQFPKQHQQSPKQQLYQVQQQTQ  
QQVAQPSPVSHQQQPQQSPLPPGIKPTIQIKQESGVKIITQQVQPSKILPKPVTATLPTS  
SNSPIMVVSSNGAIMTTKLVTTPTGTQATYTRPTVSPS IGRMAATPGAATYVKTTSGSII  
TVVPKSLATLGKIISSNIVSGTTTKITTI PMTSKPNVIVVQKT'TGKGTTIQGLPGKNVV  
TTLLNAGGEKTIQTVPTGAKPAILTATRPITKMIVTQPKGIGSTVQPAAKIIPTKIVYGQ  
QGKTQVLIKPKPVTFQATVVSEQTRQLVTE TLQQASRVAEAGNSSIQEGKEEPQNYTDSS  
SSSTESSQSSQDSQPVVHVIASRRQDWEHEIAMETSPTIIYQDVSESQSATSTIKALL  
ELQOTTVKEKLESKPRQPTIDLSQMAVPIQMTQEKRHSPESPSIAVVESELVAEYITTER  
TDEGTEVAFPLLVSQRSQPQPSQPQRTLLQHVAQSQTATQTSVVVKSIPASSPGAITHI  
MQQALSSHTAFTKHSEELGTEEGEVEEMDTLDPQTGLFYRSALTQSQSAKQQKLSQPPE

QTQLQVKTLQCFQTKQKQTIHLQADQLQHKLPQMPQLSIRHQKLTPLQQEQAQPKPDVQH  
TQHPMVAKDRQLPTLMAQPPQTVVQVLAVKTTQQLPKLQQAPNQPKIYVQPQTPQSQMSL  
PASSEKQTASQVEQPIITQGSSVTKITFEGRQPPTVTKITGGSSVPKLTSPTVTSISPIQA  
SEKTAVSDILKMSLMEAQIDTNVEHMIVDPPKKALATSMLTGEAGSLPSTHMMVAGMANS  
TPQQQKCRESCSSPSTVGSLLTTRKIDPPAVPATGQFMRIQNVGQKKAEESPAEEIIQAI  
PQYAI PCHSSSNVVVEPSGLLELNNFTSQQLDDEETAMEQDIDSSTEDGTEPSPSQSSAE  
RS

>P13340

MLLTGKLYKEEKQKQFYDAQNGKCLICQRELNPDVQANHLHDHDELNGPKAGKVRGLLCNL  
CNAAEQGMKHKFNRSGLKQGVDYLEWLENLLTYLKSDYTQNNIHPNFVGDKSKEFSRLG  
KEEMMAEMLQRGFYENESDTKTQLIASFKKQLRKSLLK

>O29362

MIGGDFAVVKAKKSLERRGFVVKRGDKIYLHPLEVVYLQIKGIESFGELEDVLSWAESRM  
EDFSTYYFVYEDLRDRGNKVKIQGEFLLTKKPYLPISERKTIRMEEIAEKARNFDELRLA  
VVDEESEITYFRVYEPDMMGEQKEELPEIAGILSDEYVITKQTEIFSRFYGSEKGLVT  
LSLIESLYLLDLGKLNLLNADREELVKRAREVERNFDRRYEVYRNLKERGFVVKTFKFG  
SEFRVYRKVESVDDLPHSEYLVDIADSREIRLIDLARAVRLAQNVKRKRMVFAYGKNYLCF  
ERVKV

>O07118

MQGRLEDGVVHLPGDARQRFHDSRGYGRPTGGDDLEVAPVEAAHLLSRDDIDGVDGMGLR  
ELLARTGTTLDFVVYKDLRDRGFYLSAPAREGWPGVADAADADFLVYPRGKGPWDGEVEHR  
VRVVGERESIPVSSLGEVVLAIIVDEDGLTIFDTEGDDPEGTAAEDLPADLDAELLSRA  
LVWGDVDRLYQRGFFGQRLYGRNADSGPLQLSLLEAAYLARADALAI DEADVVSRRDVE  
GDRFDRRLAVYAALREAKTVPKSGFKFGSDFRVYTEFESVDDLSSHSEFLVRVVPDHTFV  
PRDLSLDVRLAGGVRKRMVFALTDNNGEIDWLSVSRLTP

>Q58819

MVRDKMGKKITGLLDGDRVIVFDKNGISKLSARHYGNVEGNFLSLSLVEALYLINLWLE  
VKYKDNKPLSFEELYEYARNVEERLCLKYLVIKDLRTRGYIVKTGLKYGADFRLYERGAN  
IDKEHSVYLVKVFPESSFLSELTFVVRVAHSVRKLLIAIVDADGDIVYNNMTYVKP

>P53602

MASEKPLAAVTCTAPVNI AVIKYWGRDEELVLPINSSLSVTLHQDQLKTTTTAVISKDF  
TEDRIWLN GREEDVGQPRQLQA CLREIRCLARKRRNSRDG DPLPSSLSCKVHVASVNNFPT  
AAGLASSAAGYACLAYTLARVYGVESDLSEVARRGSGSACRSLYGGFVEWQMGEQADGKD  
SIARQVAPESHPELRVLIILVVS AEKKTGSGTVGMRASVETSPLLRFRAESVVPARMAEM  
ARCIRERDFPSFAQLTMKDSNQFHATCLDTFPPISYLN AISWRIIHLVHRFNHGGDTKV  
AYTFDAGPNAVIFTLDDTVAEFVAAVWHGFPPGSGNDTFLKGLQVRPAPLSAELQAALAM  
EPTPGGVKYYIIVTQVGPQPQILDDPCAHLGLPDGLPKPAA

>Q04720

MKKKNHKYRGKKNLNRGESPNFSGQHLMHNKLLIEEIVDRANISIDDTVLELGAGKGALTT  
VLSQKAGKVLAVENDSKFVDILTRKTAQHSNTKIIHQDIMKIHLPKEKFVVVSNIPYAIT  
TPIMKMLLNNPASGFQKGIIVMEKGAAKRFTSKFIKNSYVLAWRMWFDIGIVREISKEHF  
SPPPKVDSAMVRI TRKKDAPLSHKHYIAFRGLAEYALKEPNIPLCVRLRGIFTPRQMKHL  
RKSLKINNEKTVGTLTENQWAVIFNTMTQYVMHKKWPRANKRKPGEI

>Q61539

MSSSEDRHLGSSCGSFIKTEPSSPSSGIDALSHHSPSGSSDASGGFGIALSTHANGLDSP  
MFAGAGLGGNPCRKSYEDCTSGIMEDSAIKCEYMLNAIPKRLCLVCGDIASGYHYGVASC  
EACKAFFKRTIQGNIEYNCPATNECEITKRRRKSCQACRFMKCLKVGMLEKGVRLDRVRG  
GRQKYKRRLDSENSPYLNLPI SPPAKKPLTKIVSNLLGVEQDKLYAMPNDIPEGDIKAL  
TTLCELADRELVFLINWAKHIPGFPSLTLGDQMSLLQSAWMEILILGIVYRSLPYDDKLA  
YAEDYIMDEEHSRLVGLLDLYRAILQLVRRYKKLKVEKEEFMILKALALANSDSMYIENL  
EAVQKLQDLLHEALQDYELSQRHEEPRRAGKLLWTLPLLRQTAAKAVQHFYSVKLQGKVP  
MHKLFLEMLEAKV

>P23141

MWLRAFILATLSASAANGHPSSPPVVDTVHGKVLGKFVSLEGFAQPVAIFLGIPIFAKPP  
GPLRFTPPQPAEPWSFVKNATSYPMPCTQDPKAGQLLSELFNTRKENIPLKLSLSEDCLYLN  
IYTPADLTKKNRPLVMVWIHGGGLMVGAASYDGLALAAHENVVVVTIQYRLGIWGFST  
GDEHSRGNWGHLDQVAALRWVDNIASFNGPVSITIFGESAGGESVSVLVLSPLAKNLF  
HRAISESGVALTSVLVKKGDVKPLAEQIAITAGCKTTTSAVMVHCLRQKTEEELETTLK  
MKFLSLDLQGDPRESQPLLGTVIDGMLLLKTPEELQAERNFHTVPYVMGINKQEFGLIPI  
MQLMSYPLSEGQLDQKTAMSLWKSYPVLCIAKELIPEATEKYLGGTDDTVKKKDLFLDL  
IADVFMGVPSVIVARNHRDAGAPTYMYEFQYRPSFSSDMKPKTVIGDHGDELFSVFGAPF  
LKEGASEEEIRLSKMMKFWANFARNGNPNGEGLPHWPEYNQKEGYLQIGANTQAAQKLL  
DKEVAFWTNLFKAKAVEKPPQTEHIEL

>O16170

MYCEKLIILLGCFWISSASDPADPLLDVLPNGKLRGRDNGNYYSYESLPYAEPVGDLR  
FEAPQPYKQOWTDTFDATQPPVLCMQWDQFIQGDCLKAGNEDCLTVSVYRPNKNSRNSFP  
VVAQIHGVAFMFGGASQNGHENFMREGNLIIVKISYRLGPLGFVSTGDADLSGNFGLKDQ  
RLALLWIKQNIASFGEPELILVIGHSAGGGSVHLQVLRDFSKVAKAAISFSGNALDPW  
VVQQGGRGRAFELGRIVGCGQASDSVTLKCLKSKPASEIVSAVRNFLVFAYVPFTPFGP  
VVESPEAPEAFISQHPIDIKSGKFAQVPWAVTYTTEDGGYNAALLLEKQASSGRELIVD  
LNDRWFDWAPYLLFYRDSMTTIKMDYSRKLRQEYLGDRRFVSVSYWDLQRLFTDVLFK  
NSTEISLDLHRKHGKSPVYAFVYDNPANTGIGQGLAKRTDINFGTVHGDDYFLIFENIVR  
EPQLRSDEEIIISRNFLKMLNDFVLSENGTAFGTCDQDNVGS SKLQLLSITRNGCENLE  
LESFP

>P10768

MALKQISSNCKCFGGLQKVFEHDSVELNCKMKFAVYLPKAEETGKCPALYWLSGLTCTEQN  
FISKSGYHQSAHEGLVVIAPDTSRPGCNKIGEDSWDFGTGAGFYVDATEDPWKTNYRM  
YSYVTEELPQLINANFPVDPQRMSIFGHSMGGHGALICALKNPGKYKSVSAFAPICNPVL  
CPWGKKAFFSGYLGTQSKWKAYDATHLVKSYPGSQLDILIDQGKDDQFLLDGQLLPDNFI  
AACTEKKIPVVFRLQEGYDHSYFIFATFITDHIRHHAKYLNA

>P22862

MSTFVAKDGTQIYFKDWGSGKPVLFVSHGWLLDADMWEYQMEYLSRGRYRTIAFDRRGFGR  
SDQPWTGNDYDTFADDAQLIEHLDLKEVTLVGFVSMGGDVARYIARHG SARVAGLVLLG  
AVTPLFGQKPDYPQGVPLDVFAFKTELLKDRQFISDFNAPFYGINKGQVVSQGVQTQT  
LQIALLASLKATVDCVTAFAETDFRPDMAKIDVPTLVIHGDGQIVPFETTGKVAELIK  
GAELKVYKDAPHGFAVTHAQQLNEDLLAFLKR

>P20723

MKKFNILIALLFFTSLVISPLNVKANENIDSVKEKELHKKSELSSTALNNMKHSYADKNP

I IGENKSTGDQFLENTLLYKKFFTDLINFEDLLINFNSKEMAQHFKSKNVDVYPIRYSIN  
CYGGEIDRTACTYGGVTPHEGKNLKERKKIPINLWINGVQKEVSLDKVQTDKKNVTVQEL  
DAQARRYLQKDLKLYNNDTLGGKIQRGKIEFDSDDGSKVSYDLFDVKGDFPEKQLRIYSD  
NKTLSTEHLHIDIYLYEK

>Q9Z4J7

MTTRTSPAPAGLLRPSLHCLAFVAVALGSAGAALAKDVTWEDIANDDKTTGDVQLQYGMGTH  
AQRWSPLKQVNADNVFKLTPAWSYSFGDEKQRGQESQAIVSDGVIYVTASYSRFLFALDAK  
TGKRLWTYNHRLPDDIRPCCDVVNRGAAIYGDKVFFGTLDASVVALNKNTGKVVWKKKFA  
DHGAGYTMGTGAPTIVKDGKTGKVLLIHGSSGDEFVVGRLFARDPDTGEEIWMRPFVEGH  
MGRLNGKDSTVTGDVKAPSWPDDRNSPTGKVESWSHGGGAPWQSASFDAETNTIIVGAGN  
PGPWNTWARTAKGKNPHDYDSLTYTSGQVGVDPSSGEVWKFYQHTPNDAWDFSGNNELVLF  
DYKAKDGKIVKATAHADRNFFVYVDRSNGKLQNAFPFVDNITWASHIDLKTGRPVEREG  
QRPPLPEPGQKHGKAVEVSPFFLGKKNWNPMAYSQDTGLFYVPANHWKEDYWTEEVSYTK  
GSAYLGMGFRIKRMYYDDHVGSLRAMDPVSGKVVEHKEHLPLWAGVLATAGNLVFTGTGD  
GYFKAFDAKSGKELWKFQTSQIVSPPITWEQDGEQYLGVTVGYGGAVPLWGGDMADLTR  
PVAQGGSFVWFKLPSWDNRTASR

>P16930

MSFIPVAEDSDFPIHNLPGYVFFSTRGDPRPRIGVAIGDQILDLSI IKHLFTGPVLSKHQD  
VFNQPTLNSFMGLGQAAWKEARVFLQNLSSVSQARLRDDTELKRCAFISQASATMHLPAT  
IGDYTDIFYSSRQHATNVGIMFRDKENALMPNWLHLPVGYHGRASSVVVSGTPIRRPMGQM  
KPDDSKPPVYGACKLLDMELEMAFFVGPGRNLGEP IPI SKAHEHIFGMVLMNDWSARDIQ  
KWEYVPLGPFGLKSFQTTVSPWVVPMDALMPFAVNPQKQDRPLPYLCHDEPYTFDINLS  
VNLKGEQMSQAATICKSNFKYMYWTMLQQLTHHSVNGCNLRPGDLLASGTISGPEPENFG  
SMLELSWKGTKPIDLGNGQTRKFLLDGDEVIITGYCQGDGYRIGFGQCAGKVLPAALLPS

>P0A6Q3

MVDKRESYTKEDLLASGRGELFGAKGPQLPAPNMLMMDRVVKMTETGGNFDKGYVEAELD  
INPDLWFFGCHFIDGDPVMPGCLGLDAMWQLVGFYLGWLGGEGKGRALGVGEVKFTGQVLP  
TAKKVTYRIHFKRIVNRRLIMGLADGEVLVDGRLIYTASDLKVGLFQDTSAF

>Q9F6D4

MPGLRVPERRFSRVLGVGSYRPREVSNKEVCTWIDSTEEWIETRTGIRSRRIAEPDETI  
QVMGVAASRRALEHAGVDPAEIDLVVVSTMTNFVHTPPLSVAIAHEL GADNAGGFDL SAA  
CAGFCHALSIAADAVESGGRHVLVWATERMTDVIDLADRSLSF LFGDGAGAAVVGPSDV  
PGIGPVVRGIDGTGLGSLHMSSSWDQYVEDPSVGRPALVMDGKRVRWAVADVPAAREA  
LEVAGLTVGDLVAFVPHQANLRIIDVLVDRLGVEHVVSRAEDTGNTSSASVALALDR  
LVRSGAVPGGGPALMIGFGAGLSYAGQALLLPDPPSTPA

>P80030

MAATAAASSLQMATTRPSISAASSKARTYVVGANPRNAYK IACTPHLSNLGCLRND S ALP  
ASKKSFSFSTKAMESSESSEKASSGLPIDLRGKRAFIAGIADDNGYGWAVAKSLAAAGAEI  
LVGTWVPALNIFETSLRRGKFDQSRVLPDGLSMEIKKVYPLDAVFDNPEDPEDVKANKR  
YAGSSNWTVQEAACVQRQDFGSIDILVHSLANGPEVSKP LLET SRKGYLAAISASSYSFV  
SLLSHFLPIMNPGGASISLTYIASERIIPGYGGGMSSAKAALES DTRVLAF EAGRKQ NIR  
VNTISAGPLGSRAAKAIGFIDTMI EYSYNNAPIQKTLTAD E VGNAAAF LVSP LASAITGA  
TIYVDNGLNSMGVALDSPVFKDLNK

>P0AEK4

MGFLSGKRILVTGVASKLSIAYGIAQAMHREGAELAFETYQNDKLGKRVVEEFAAQLGSDIV  
LQCDVAEDASIDTMFAELGKVVWPKFDGDFVHSIGFAPGDQLDGDYVNAVTRREGFKIAHDIS  
SYSFVAMAKACRSM LNPGSALLTSLYLGAERAI PNYNVMGLAKASLEANVRYMANAMGPE  
GVRVNAISAGPIRTLAASGIKDFRKM LAHCEAVTP IRRVTVTIEDVGN SAAFLCSDLSAGI  
SGEVVHVDGGFSIAAMNELELK

>P0A8V6

MVIKAQSPAGFAEEYIIIESIWNNRFPPGTILPAERELSELIGVTRTTLREVLQRLARDGW  
LTIQHGKPTKVN NFWETSGLNILETLARLDHESVPQLIDNLLSVRTNISTIFIRTAFRQH  
PDKAQEV LATANEVADHADAF AELDYNIFRGLAFASGNPIYGLIILNGMKGLYTRIGRHYF  
ANPEARSLALGFYHKLSALCSEGAHQVYETVRRYGHESGEIWHRMQKNLPGDLAIQGR

>Q9FA38

MAKITKVQVGEALVGDGNEVAHIDLII GPRGSPAETAFCNGLVNNKHGFTSLLAVIAPNL  
PCKPNTLMFNKVTINDARQAVQMF GPAQHGVAMAVQDAVAEGII PADEADDLYVLVGVFI  
HWEAADDAKI QKYNYEATKLSIQRAVNGEPKASVVTEQRKSATHPFAANA

>Q6P587

MGIMAASRPLSRFWEWGKNIVCVGRNYADHVREMRSAVLSEPVLF LKPSTAYAPEGSPIL  
MPAYTRNLHHELELGVVMGKRCRAVPEAAAAMDYVGGYALCLDMTARDVQDECKKKGLPWT  
LAKSFTASCPVSAFVPKEKIPDPHKLKLWLKVNGELRQEGETSSMIFSIPIYIISYVSKII  
TLEEGDIILTGTGPKGVGPVKENDEIEAGIHGLVSM TFKVEKPEY

>P32055

MSKQRVFIAGHRGMVGS AIRRQLEQRGDVELVLRTRDELNLLDSRAVHDFFA SERIDQVY  
LAAAKVGGIVANN TYPADFIYQNM MIESNI IHAHQNDVNKLLFLGSSCIYPKLAKQPM  
ESELLQGTLEPTNEPYAIAK IAGIKLCESYNRQYGRDYRSVMP TNLYGPHDNFHPNSHV  
IPALLRRFHEATAQNAPDVVWGS GTPMREFLHVDDMAAAS IHVME LAHEVWLENTQPML  
SHINVTGVDCTIRELAQTI AKVVGYKGRVVF DASKPDGTPRKL LDVTRLHQLGWYHEIS  
LEAGLASTYQWFLENQDRFRG

>Q13630

MGEPQGS MRILVTGG SGLVGKAIQKV VADGAGLPGEDWV FVSSKDADLTDTAQTRALFEK  
VQPTHV IHLAAMVGG LFRNIKYNLDFWRKNVHMNDNLHSAFEV GARKVVSCLSTC IFPD  
KTTYPIDE TMIHNGP PHNSNFGYSYAKRMIDVQNRAYFQQY GCTFTAVIPTNVFGPHDNF  
NIEDGHVLPGLIHKVHLAKSSGSALT VWG TGNPRRQFIYSLDLAQLFIWV LREYNEVEPI  
ILSVGEEDEVS IKEAAEAVVEAMDFHGEVTFD TTKSDGQFKKTASNSKLR TYLPDFRFTP  
FKQAVKETCAWFTD NYEQARK

>P69902

MSTPLQGIKVLDF TGVQSGPSCTQMLAWFGADV I KIERPGVDVTRHQLRDI PDIDALYF  
TMLNSNKR SIELNTKTAEGKEVMEKLIREADILVENFHPGAIDHMGFTWEHIQE INPRLI  
FGSIKGFDECS PYVNVKAYENVAQAAGGAASTTGFWDGPPLVSAAA LGDSNTGMHLLIGL  
LAALLHREKTGRGQRVTMSMQDAVLNLCRVKLRDQQR LDKLGYLEEYPQYPNGTFGDAVP  
RGGNAGGGGQPGWILKCKGWETDPNAYIYFTIQEQNWENTCKAIGKPEWITDPAYSTAHA  
RQPHIFDIFAEIEKYTVTIDKHEAVAYLTQFDIPCAPVLSMKEISLDPSLRQSGSVVEVE  
QPLRGKYLTVGCPMKFSAFTPD IKAAPLLGEHTAAVLQELGYS DDEIAAMKQNHAI

>P00210

MARKFYVDQDECIACESCVEIAPGAFAMDPEIEKAYVKDVEGASQEEVEEAMDTCPVQCI

HWEDE

>P08813

GWTVTVDTDKCTGDGECVDVCPVEVYELQDGKAVPVDEEECLGCESCVEVCEAGAITVEE  
N

>O66511

MAEFKHVFCVQDRPPGHPQGSCAQRGSRVVFQAFMEKIQTDPLFMTTVITPTGCMNAC  
MMGPVVVVYPDGVWYGQVKPEDVDEIVEKHLKGGEPVERLVISKGKPPGMF

>P82802

AKPEFHIFICQNRPAHGPRGSCGAKGAEGVYNFAQVLIQKNLTNRIALTTTGCLGPCQ  
AGANVLIYPGAVMYSWVEPADAAIIVEQHLLGGEPYADKLTPAEIW

>P10624

MAKYLYLDQDECMACESVELCPEAFRMSAGEYAEVIDPNTTAEVEDAISTCPVEECIE  
WREE

>P20624

MPTVAYTRGGAEYTPVYLMKIDEQKICGCRFCFKVCGRDVMSLHGLTEDGQVVAPGTDEW  
DEVEDEIVKKVMALTGAENCIGGACARVCPSECQTHAALS

>P80306

AKIIFIEHNGTRHEVEAKPGLTVMEAARDNGVPGIDADCGGACACSTCHAYVDPAWVDKL  
PKALPTETDMIDFAYEPNPATSR LTCQIKVTSLLDGLVVHLPEKQI

>P00209

PIEVNDDCMACEACVEICPDVFEMNEEGDKAVVINPDSDLDCVEEAIDSCPAEAI VRS

>Q92496

MLLLINVILTLWVSCANGQEVKPCDFPEIQHGGLYYKSLRRLYFPAAAGQSYSYCDQNF  
VTPSGSYWDYIHCTQDGLWPTVPCLRTCSKSDIEIENGFI SESSSIYILNKEIQYKCKPG  
YATADGNSSGSITCLQNGWSAQPICIKFCMPVFENSRAKSNGMRFKLHDTLDYECYDGY  
EISYGNTTGSIVCGEDGWSHFPTCYNSSSEKCGPPPI SNGD'TTSFLLKVYVPQSRVEYQC  
QSYVELQGSNYVTCSNGEWSEPPRCIHPCIITEENMNKNNIQLKKGKSDIKYYAKTGDTIE  
FMCKLGYNANTSVL SFQAVCREGIVEYPRCE

>P0A6R3

MFEQRVNSDVLTVSTVNSQDQVTQKPLRDSVKQALKNYFAQLNGQDVNDLYELVLA EVEQ  
PLLDMMVMQYTRGNQTRAALMMGINRGTLRKKLKKYGMN

>P0A9L3

MTTPTFDTIEAQASYGIGLQVGQQLSESGLEGLLPEALVAGIADALEGKHPAVPVDV VHR  
ALREIHERADAVRRQR FQAMAAEGVKYLEENAKKEGVNSTESGLQFRVINQEGEAI PART  
DRVRVHYTGKLI DGTVFDSSVARGEPAEFPVNGVIPGWIEALTLMPVGSKWELTIPQELA  
YGERGAGASIPPFSTLVFEVELLEIL

>P0A8S9

MHTSELLKHIYDINLSYLLLAQRLIVQDKASAMFRLGINEEMATTLAAL TLPQMVKLAET  
NQLVCHFRFD SHQTITQLTQDSRVDDLQOIHTGIMLSTRLLNDVNQPEEALRKKRA



>P16328

MASISSLVGSGNPLDQLLTDLTKNEKGRLLTPITKQQSANSACLTAAYGTLKSALEKQFQTA  
NTALNKADLFKSTVASSTTEDLKVSTTAGAAAAGTYKINVTQLAAAQSLATKTTTFATTKEQ  
LGDTSVTSRTIKIEQPGRKEPLEIKLDDKGDTSMEAIRDAINDADSGIAASIVKVKENEFQ  
LVLVTANSGTDNMTKITVEGDTKLNLLAYDSTTNTGNMQELVKAENAKLNVNGIDIERQS  
NTVTDAPQGITLTLTKKVTDATVTVTKDDTKAKEAIKSWVDAYNSLVDTFSSLTKYTAVE  
PGEEASDKNGALLGDSVVRTIQGTGIRAQFANSNGNSAFKTMAEIGITQDGTSGKLIKIDDD  
KLTKVLKDNTAAARELLVGDGKETGITTKIATEVKSYLADDGIIDNAQDNVNATLKSLLTK  
QYLSVSNISIDETVARYKAQFTQLDTMMSKLNNTSSYLTTQQTAMNKS

>P03870

MPQFGILCKTPPKVLVRQFVERFERPSEKIALCAAELTYLCWMIITHNGTAIKRATFMSY  
NTIISNSLSFDIVNKSLOFKYKTQKATILEASLKKLIPAWFTTIIPYYGQKHQSDITDIV  
SSLQLQFESSEEDKGNHSHSKMLKALLSEGESIWEITEKILNSFEYTSRFTKTKTLYQF  
LFLATFINCGRFSDIKNVDPKSFKLQKYLGVIIQCLVTETKTSVSRHIYFFSARGRID  
PLVYLDEFLLRNSEPVLRVNRVTGNSSSNKQEQYQLKDNLVRSYNKALKKNAPYSIFAIGN  
GPKSHIGRHLMTSFLSMKGLTELTVVGNWSDKRASAVARTTYTHQITAIIPDHYFALVSR  
YYAYDPISEKEMIALKDETNPIEEWQHIEQLKGSAAEGSIRYPANNGIISQEVLDYLSSYIN  
RRI

>Q50228

MKTIVKLDLDDKPPWEQDQGIHNRWHPDLPMIAMVKPGDEFRVECMDWTGGQIGNNDSAND  
VRDVLDTQVHYLSGPIGVEGAEPGDLMVVDILDVGTFFDDSQWGFNGLFAKENGGLFDTDH  
FPEASKTIWDFHGVYTTSRHVPKVRVYAGIMHPGLIGCLPSKELLDTWNKREGDLIATDPD  
RVPPLACPPTSQSAVMGRLSGDAAKKAAAEGARTVPPRDHGGNCDIKNLTKGSRVYFPVY  
VKDGGLSMGDLHFSQGDGEITFCGAIEMAGYLDIKVGLIKDGVKKYGIKNPVFQPSPIPT  
TYRDYMI FEGISVDEAGKQHYLDVHIAAYRQAACLNAI EYLKFKFGYSGEQAVSILGTAPVEG  
HISGIVDIPNACATLWIPTEIFEFDIRPNADGPKIMVPPGVDVSFTS

>Q56415

MLQSLNHLTLAVSDLQKSVTFWHELLGLTLHARWNTGAYLTCGDLWVCLSYDEARQYVPP  
QESDYTHYAFTVAEEDFEPLSQRLEQAGVTIWKQNKSEGASFYFLDPDGHKLELHVGS  
LARLAACREKPYAGMVFTSDEA

>O31817

MEIKGINHLLFSVSHLDTSIDFYQKVFQAKLLVKGRITAYFDMNGIWLALNEEPDIPRND  
IKLSYTHIAFTIEDHEFEEMSAKLRLHVNILPGRERDERDRKSIYFTDPDGHKFEFHTG  
TLQDRLRYKQEKTHMHFYDETAF

>Q98GG1

MIEGLSHMTFIVRDLERMTRILEGVFDAREVYASDTEQFSLSREKFFLIGDIWVAIMQGE  
KLAERSYNHIAFKIDDADFDRYAERVGKLGDMRPPRPRVEGEGRSIYFYDDDNHMFELH  
TGTLTERLARKAKGLEAAQ

>P08836

MHKFTGVNAKFPQPALRNLSPVVVEREREFFVGFPPQIVRDLTETDGIHPEVGDVARLK  
EVLQYNAPGGKCNRGLTVVAAAYRELSGPGQKDAESLRCALAVGWCIELFQAFFLVADDIM  
DQSLTRRGQLCWYKKEGVGLDAINDSFLLESSVYRVLKKYCRQRPYYVHLLLELFLQTAYQ  
TELGQMLDLITAPVSKVDLSHFSEERYKAIIVKYKTAFYSFYLPVAAAAMVVGIDSKEEHE

NAKAILLEMGEYFQIQDDYLDCFGDPALTGKVGTDIQDNKCSWLVVQCLQRVTPEQRQLL  
EDNYGRKEPEKVAKVKELYEAVGMRAAFQQYEESSYRRLQELIEKHSNRLPKEIFLGLAQ  
KIYKRQK

>P46072

MTHPIIHDLENRYTSKKYDPSKKVQSQEDLAVLLEALRLSASSINSQPWKFIIVIESDAAKQ  
RMHDSFANMHQFNQPHIKACSHVILFANKLSYTRDDYDVVLSKAVADKRITTEEQKEAAFA  
SFKFVELNCDENGEHKAWTKPQAYLALGNALHTLARLNIDSTTMEGIDPELLSEIFADEL  
KGYECHVALAIGYHHPSEDYNASLPKSRKAFEDVITIL

>O28076

MKVNGVEVEETFAEAFDIKIARVLITGYDYYWAWVAANEATGFGTSVIMCPAEAGIEIKA  
KPSETPDGRPGYYIQICHMSKKGLEEQLLARLQGCVLTAPTAVFNGLPDAAEEKFDTGFK  
LKFFADGYEKEVEVGGKWCWAVPMMEGDFIIEENDIGYTNGIAGGNFFIMAETQPSALAAA  
KAAVDAISDVEGVITPFPGGIVASGSKVGANKYKFLKASTNEKFAPSIRDQVEGTQIPEG  
VKAVYEIVINGLNADAIKEATRVGILAAATKIPGVVKITAGNYGGKLGKHIINLNELF

>P69922

MKKISLPKIGIRPVIDGRRMGVRESLEEQTMMNAKATAALLTEKLRHACGAAVECVISDT  
CIAGMAEAAAACEEKFSQNVGLTITVTPCWYCGSETIDMDPTRPKAIWGFNGTERPGAVY  
LAAALAAHSQKGI PAFS IYGHVDQDADDTSIPADVEEKLRLRFARAGLAVASMKGKSYLSL  
GGVSMGIAGSIVDHNFFESWLGMKVQAVDMTELRRRIDQKIYDEAELEMALAWADKNFRY  
GEDENNKQYQRNAEQSRAVLRRESLLMAMCIRDMMQGNLADIGRVEESLGYNAIAAGFQ  
GQRHWTQYPNGDTAEAILNSSFDWNGVREPFVAVATENDSLNGVAMLMGHQLTGTAQVFA  
DVRTYWSPEAIERTVGHKLDGLAEHGI IHLINSGSAALDGSKQRDSEGNPTMKPHWEIS  
QQEADACLAATEWCPAIEHYFRGGYSSRFLTEGGVPPFTMTRVNI IKGLGPVLQIAEGWS  
VELPKDVHDILNKRTNSTWPTTWFAFRLTGKGPFTDVYSVMANWGANHGVLTIHVGADF  
ITLASMLRIPVCMHNVEETKVYRPSAWAAHGMDIEGQDYRACQNYGPLYKR

>P80412

SATSLTFQLAYLVKKIDFDYTPNWGRGTPSSYIDNLTFPKVLTDDKKYSYRVVWNGSDLGV  
ESNFAVTPSGGQTINFLQYNKGYGVADTKTIQVFVVIPDTGNSEEYIIAEWKKT

>P46672

MSDLVTKFESLIISKYPVSFTKEQSAQAAQWESVLKSGQIQPHLDQLNLVLRDNTFIVST  
LYPTSTDVHVFEVALPLIKDLVASSKDVKSTYTTTYRHILRWIDYMQNLLEVSSTDKLEIN  
HDLDLPEVIEKKKKAPAGGAADAAKADEDEVSKKAKKQDHPRGKPDDETLKKLREEAKA  
KKAAKKAANAKQQEQQNAPEKPKPSAIDFRVGF IQKAIKHPDADSLYVSTIDVGDEEG  
PRTVCSGLVKHFPLDAMQERYVVVVCNLKPVNMRGIKSTAMVLCGSNDDKVEFVEPPKDS  
KAGDKVFFEGFGDEAPMKQLNPKKKIWEHLQPHFTTNDGLEVIFKDEEEKDHPVRKLTNA  
KGESFKVASIANAQVR

>P22256

MNSNKELMQRSSQAI PRGVGQIHP IFADRAENCRVWDVEGREYLDFAGGIAVLNTGHLHP  
KVVAAVEAQLKLSHTCFQVLAYEPYLELCEIMNQKVPGDFAKKTLLVTTGSEAVENAVK  
IARAATKRSGTIAFSGAYHGRTHYTLALTGKVNYPYSAGMGLMPGHVYRALYPCPLHGISE  
DDAIASIHRIFKNDAAPEDIAAAIVIEPVQEGGGFYASSPAFMQRLRALCDEHGIMLIAD  
VQSGAGRTGTLFAMEQMGVAPDLTTFAKSIAGGFPLAGVTGRAEVMDAVAPGGLGGTYAG  
NPIACVAALEVLKVFEQENLLQKANDLGQKLDGLLAI AEKHPEIGDVRGLGAMIAIELEF  
EDGDHNKPKDAKLTAEIVARARDKGLILLSGCPYYNVLRILVPLTIEDAQIRQGLEIISQC

FDEAKQ

>P80147

MASVLLTRRLACSFRRHNHRLLVPGWRHISQAAAKVDVEFDYDGPLMKTEVPGPRSRELMK  
QLNIIQNAEAVHFFFCNYEESRGNLYLDVDGNRMLDLYSQISSIPIGYSHPALVKLVQQPQ  
NVSTFINRPALGILPPENFVEKLRRESLLSVAPKGMSQLITMACGSCSNENAFKTI FMWYR  
SKERGQSASF SKEELET CMINQAPGCPDYSILSFMGAFHGRTMGCLATTHSKAIHKIDIPS  
FDWPIAPFPRLKYPLEEFVKENQQEEARCLEEVEDLIVKYRKKKKT VAGIIVEPIQSEGG  
DNHASDDFFRKL RDISRKHGCAFLVDEVQ TGGGSTGKFWAHEHWGLDDPADVMTFSKKMM  
TGGFFHKEEFRPNAPYRIFNTWLGDPSKNLLLAEVINI IKREDLLSNAAHAGKVLLTGLL  
DLQARYPQFISRVRGRGTFC SFDTPDESIRNKLISIARNKGVMLGGCGDKSIRFRPTLVF  
RDHHAHLFLNIFSDILADFK

>P09148

MTQFNPVDHPHRRYNPLTGQWILVSPHRAKR PWQGAQETPAKQVLP AHDPDCFLCAGNVR  
VTGDKNPDYTGTYVFTNDFAALMSDTPDAPESHDP LMRCSARGTSRVICFSPDHSKTLP  
ELSVAALTEIVKTWQEQTAE LGKTYPWVQVFENKGAAMGCSNPHPHGQIWANSFLPNEAE  
REDRLQKEYFAEQKSPMLVDYVQRELADGSR TVVETEHWLAVVPYAAWPFETLLL PKAH  
VLRITDLTDAQRSDLALALKLTSRYDNL FQCSFPYSMGWHGAPFNGEENQHWQLHAHFY  
PPLLRSATVRKFMVGYEMLAETQRDLTAEQAAERLRAVSDIHFRESGV

>P11886

MQPIRLGLVGYGKIAQDQHVPAINANPAFTLVSVATQ GKPCPGVENFQSLGELLENGPPV  
DAIAFCTPPQGRFALVQQAALAGKHVLVEKPPCATLGKAA LWIKREQASAPCSPCIA YAP  
AIAAARDWLATR TLQSVQIDWKEDVRKWHPGQAWIWQPGLGVFDPGINALSIVTHLLPLP  
LFVESAE LRVPSNCQSP IAASIKMSDPRLLDVRAEFD F'DHGHDELWSIQIRCAEGLRLD  
NGGALLSIDGVRQTVAAEEGEYAAVYRHFQQLIGDKTSDVDVQPLRLVADSFFVGSRSVVE  
AFYD

>Q9H4G4

MGKSASKQFHNEVLKAHNEYRQKHGVPPLKLCCKNLNREAQQYSEALASTRILKHSPESSR  
GQCGENLAWASYDQTGKEVADRWYSEIKNYNFQQPGFTSGTG HFTAMVWKN TKKMGVGA  
SASDGSSFVVARYFPAGNVVNEGFFEENVLPKK

>P17649

MSICEQYYPEEPTKPTVKTESIPGPESQQLKELGEVFDTRPAYFLADYEKSLGNYITDV  
DGNTYLDLYAQISSIALGYNNPALIKAAQSP EMIRALVDRPALGNFP SKDLDKILKQILK  
SAPKGQDHVWVSGLSGADANELAFKAAFIYRAKQRGYDADFSEKENLSVMDNDAPGAPHL  
AVLSFKRAFHGRLFASGSTTCSKPIHKLDFP AFHWPFAEYPSYQYPLDENSDANRKEDDH  
CLAIVEELIKTWSIPVAALIIEPIQSEGGDNHASKYFLQKLRDITLKYNVVYIIDEVQ TG  
VGATGKLWCHEYADIQPPVDLVTF SKKFQSAGYFFHDPKFI PNKPYRQFNTWCGE PARI  
IAGAIGQEISDKKLT EQCSRVDYLFKKLEGLQKKYPENFQNLRGKGRGTFIAWDLPTGE  
KRDLLLKKLKLNVCNVGGCAVHAVRLRPSLTFE EKHADIFIEALAKSVNEL

>Q57609

MIQITVIQIDNYGPWTVTPNPRRESDLQALQSRLYADLNL MFGAHKGLVFYTRFDNLIAI  
TNGIDLITHKRIQESIRNRYPF TVSMVIA SAETPYEAQKLATETLQ EYGSAQDENRKEVL  
DVANELVVDGYVQIAHIDINNITGTLTDIVSAYDTYLNVNKVKLALMEELLKYNALLFFI  
GGDNFMAPSNGMSEEDFLDIFNRINKKYKIELKAGIGIGRTAEDASNLADIGLEKIRGKL  
VDKNVCTLKQDDFLESKMGMGKIYHPQF

>P07261

MVCTSTSSNFYSIAQYILQSYFKVNVDSLNSLKLVDLIVDQTYPDSLTLRKLNEGATGQP  
YDYFNTVSRDADISKCPIFALTIFVIRWHPNPPISIEFNTTVPLLDNSFISLNSNPLL  
YIQNQPNNSNSSVKVRSRSTFEPSKELIDLVPWLSYKQDMLLIDRTNYKLYSLCELFE  
FMGRVAIQDLRYSQHPLLLPNIVTFISKFIPELQNEEFKIGSFKNSNNALNNVTGI  
ETQFLNPSTEEVSQKVDSYFMELSKKLTENIRLSQEITQLKADMNSVGNVCNQIILLQR  
QLLSGNQAIKSKSENIIVSSTGGGILILDKNSINSNVLSNLVQSIDPNHSPNGQAQTHQR  
GPKGQSHAQVQSTNSPALAPINMFPSLSNSIQPMLGTLAPQPQDIVQKRKLPLPGSIA  
ATGSPFSPSPVGESPYSKRFKLDKPTPSQTALDSSLTKSISSPRLPLSTLANTAVTESF  
RSPQQFQHSDFVVGSSSSTTEMNSKKNEDSPSSSSKLAERPRLPNNDSTTSMPEST  
EVAGDDVDREKPPESKSEPNDNSPEKDPKNGKNSNPLGTDADKVPVINSIHNSTEAA  
NSSGTVTKTAPSFQSSSKFEIINKKDTKAGPNEAIKYKLSRENKTIWDLYAEWYIGLNG  
KSSIKKLIENYGWRRWKVSEDSHFFPTRRIIMDYIETECDRGIKLGFRF'NPPQPREDIRK  
ILVGDLEKFRINNGLTLNLSLYFRNLTKNKEICIFENFKNWNVRSMTEEEKLKYCKRR  
HNTPS

>Q01722

MHHQTKLDVFIIRAYNLLSNESVISGASLQSVTNSPQTTTNTPSGMVNGAVGTGIANPTG  
LMGSDSTPNIDEIITSTGSNALTKTNSDSANGTPNGNSSSTSAISNASNPATGNNASS  
ATSNGIYTQAQYSQLFAKISKLYNATLSSGSIDDRSTSPKSAIELYQRFQMIKELELSF  
DASPYAKYFRRLDGRLWQIKTDSELENDELWRLVSMISFTVFD'PQTGQIL'QGRRKNSL  
NTSTKGSPLDQGINNGMNGMNGNIGNGNSIKNYGNKNMPPNRTKKRGRTRVAKNAKNGK  
NNKNSNKERNGITDTSAFSNTTISNPGTNMLFDP'LSQQLQKRLQ'TLSQDVNSRSLTGY  
TQPTSPGSGGF'FLSHADLNPASSNTMGYNTMSNNGSHSWKRRSLGSLDVNTLDDEAV  
EELLQLTNTSKRQRPMTTAAEGALINDGPD'TNLNANNTQMKVDLNPNSMGPIDTEAVIR  
PLKEAYDAIISEKGQRIVQLERELELQRQETQWLRKMLIEDMGCVR'SMLRDLQR

>P26969

MERARRLANRATLKRLLSEAKQNRKTESTSTTTTTPLPFSLSGSSSRVSSVNSILRGR  
GSKPDNNVSRVGGFLGVGYPSQRSISVEALKPSDFFPRRHNSATPDEQTKMAESVGF  
TLDSLVDATVPKSIKEMKFNKFDGGLTEGQMI EHMKDLASKNKVFKSFIGMYYNTHV  
PPVILRNIMENPAWYTQYTPYQAEISQGRLESLLNFQTMITDLTGLPMSNASLLDEGTAA  
AEAMSMCNNIQKGGKKTFFIASNCHPQTIDICQTRADGFELKVVVKDLKIDYKSGDVC  
VLVQYPGTEGEVLDYGEFIKKAHANEV'VMASDLLALTVLKPPGEFGADIVVGSARFG  
VPMGYGGPHAAFLATSQ'EYKRMMPGRIIGVSVDSGKQALRMAMQ'TREQHIRRDKAT'SNI  
CTAQALLANMAAMYAVYHGPEGLKAI'AQRVHGLAGVFALGLKKGLE'VQDLGFFD'TVKVK  
TSNAKAIADAAIKSEINLRVVDGNTITAAFD'ETTTLEDVDKLFKVFAGGKPV'SFTAASLA  
PEFQNAIPSGLVRESPLYLTHPIFN'TYQTEHELLRYI'HLRQSKDLSLCHSMIPLG'SCTMKL  
NATTEMPPVTWPSFTDLHPFAPTEQAQGYQEMFNNLGDLLCTITGFDSFSLQPNAGAAGE  
YAGLMVIRAYHL'SRGDHRNVCII'PASAHGTNPASAAMVGMKIVTIGTDAKGNINIEELK  
KAAEKHKDNL'SAFMVTYPSTHG'VYEEGIDDICKI'HDNGGQVYMDGANMNAQVGLTSPGW  
IGADVCHLNLHKTFCIPHGGGGP'MGPIGVKKHLAPFLPSHPV'VPTGGIPAPENPQPLGS  
ISAAPWGSALILPISYTYIAMMGSQGLTDASKIAILNANYMAKRL'ESYYPVLF'RGVNGTV  
AHEFIIDL'RGFKNTAGIEPEDVAKRLMDYGFHGPTMSWPVAGTLMIEPTESESKAELDRF  
CDALISIRKEIAEVEKGNADVHNNVLKGAPHP'SLLMADAWTKPYSREYAAFPAAWLRGA  
KFWPTTGRVDN'VYGDRNLVCTLLPASQAVEEQAAATA

>Q12154

MDLTVEPNLHSLITSTTHKWIFVGGKGGV'GKTTSSCSIAIQMALSQPNKQFLLISTDPAH

NLSDAFGEKFGKDARKVTGMNLSCEIDPSAALKDMNDMAVSRANNNGSDGQGDDLGS  
LQGGALADLTGSIPGIDEALSFMVEMKHIKRQEQGEGETFDTVIFDTAPTGHTRFLQLP  
NTLSKLLLEKFGEITNKLGPMLNSFMGAGNVDISGKLNELKANVETIRQQFTDPDLTTFVC  
VCISEFLSLYETERLIQELISYDMVNSIIIVNQLLFAENDQEHNCRCQARWKMQKKYLD  
QIDELYEDFHVVKMPLCAGEIRGLNNTKFSQFLNKEYNPITDGKVIYELEDKE

>Q51669

MVDTSGVKIHPAVDNGIKPAQPGFAGGTLHCKCSTNPVRVAVRAQTAHNVCGCTKCWKP  
EGAIFSQVAVVGRDALEVLGAEKLEIVNAEAPIQRHRCRDCGVHMYGRIENRDHPFYGL  
DFVHTELSDEDGWSAPEFAAFVSSIIESGVDP SRMEAIRARLRELGLEPYDALSPPLMDA  
IATHIAKRSGALAA

>Q9U6Y4

MAHSKHGLKEEMTMKYHMEGCVNGHKFVITGEGIGYPPFKGKTINLCVIEGGPLPFSEDI  
LSAGFKYGDRIIFTEYQDIVDYFKNSCPAGYTWGRSFLFEDGAVCICNVDITVSVKENCI  
YHKSIFNGMFPADGPVMMKMTTWEASCEKIMPVPKQGILKGDVSMYLLKDGGRYRCQ  
FDTVYKAKSVPSKMPEWHFIQHKLLREDRSDAKNQKWQLTEHAIAPPSALA

>P70552

MPYLLISTQIRMEVGPTMVGDEHSDPELMQQLGASKRRVLGNMFYEEYVNDPPRIVLDKL  
ECRGFRVLSMTGVGQTLVWCLHKE

>O95749

MEKTQETVQRILLEPYKYLLQLPGKQVVRTKLSQAFNHWLKVPEDKLQIIIEVTEMLHNAS  
LLIDDIEDNSKLRRGFVAHSIYGIPSVINSANYVYFLGLEKVLTLDPDAVKLFTRQLL  
ELHQGQGLDIYWRDNYTCPTEEYKAMVLQKTGGLFGLAVGLMQLFSDYKEDLKPLLNTL  
GLFFQIRDDYANLHKEYSENKSFCEDLTEGKFSFPTIHAISRPESTQVQNILRQRTEN  
IDIKKYCVHYLEDVGSFEYTRNTLKELEAKAYKQIDARGGNPELVALVKHLSKMFKEENE

>P02228

DPEWHTLDAHEVEVQVQATWKAESHDEVEILYTVFKAHPDIMAKFPKFAGKDLEAIKDTAD  
FAVHASRIIGFFGEYVTLGSSGNQAAIRTLHLHDLGVFHKTRGITKAQFGEFRETMAYL  
KGNKWNADISHSWDDAFDKAFSVIFEVLES

>P02212

PSVQGAAAQLTADVKKDLRDSWKVIGSDKKNGVALMTTLFADNQETIGYFKRLGNVSQG  
MANDKLRGHSITLMYALQNFIDQLDNTDDLVCVVEKFAVNHI TRKISAAEFGKINGPIKK  
VLASKNFGDKYANAWAKLVAVVQAAL

>P49672

MATACVKSLESVQCGTCEKTIANGTEFYALLFDKHPDLRHYFKGNENLTGADVKKSDHFK  
KQGQRLLLACHVLAHLENDPASFKAYAREIVDPHLRMSVHLEPKLWSEFWPIWLDYLSLK  
ESVDDATKNAWLALGKKFSDECLDHLKNLGQPH

>P14528

VSQADIAAVQTSWRRCYCSWDNEDGLKFYQTLFDSNSKIRHAFESAGATNDTEMEKQANL  
FGLMMTQFIDNLDTTALNYKISGLMATHKTRNVVDPALFAIALNELVKFIGNQPAWKN  
VTAVILSQMKIALSSN

>P02222

MKFLVLALCIAAAVAAPLSADEASLVRGSWAQVKHSEVDILYYIFKANPDIMAKFPQFAG  
KDLETLKGTGQFATHAGRIVGFVSEIVALMGNSANMPAMETLIKDMAANHKARGIPKAQF  
NEFRASLVSYLQSKVSWNDSLGAAWTQGLDNVFNMMFSYL

>P41262

MSSGLTGPQKAALKSSWSRFMDNAVNTNGTNFYMDLKFAYPDTLTPFKSLFEDVSFNQMTD  
HPTMKAQALVFCDGMSFVDNLDDHEVLVVLLQKMAKLHFNRGIRIKELRDGYGVLLRYYL  
EDHCHVEGSTKNAWEDFIAYICRVQGDPMKERL

>P02224

MKFLVLALCIAAASAAVLTTEQADLVKKTWSTVKFNEVDILYAVFKAYPDIMAKFPQFAG  
KDLDSIKDSAAFATHATRIVSFLSEVISLAGSDANIPAIQNLAKELATSHKPRGVSKDQF  
TEFRALFTYKHAHINFDGPTETAWTLALDTTYAMLFSAMDS

>P02227

AVTPMSADQLALFKSSWNTVKHNEVDILYAVFKANPDIQAKFPQFAGKDLDSIKDSADFA  
VHSGRIVGFFSEVIGLIGNPENRPALKTLIDGLASSHKARGIEKAQFEEFRASLVDYLSH  
HLDWNDTMKSTWDLALNNMFFYILHALEVAQ

>P02215

SLQPASKSALASSWKTAKDAATIQNNGATLFSLLFKQFPDTRNYFTHFGNMSDAEMKTT  
GVGKAHSMVAFAGIGSMIDSDMDDADCMNGLALKLSRNHIQRKIGASRFGEMRQVFPNFLD  
EALGGGASGDVKGAWDALLAYLQDNKQAQAL

>P31331

GLSAEQKTALKDSWKILAANGETMVKNNSAAMFGLLFEKYPDTKKHFKTFDGDHFAAMKAT  
GMGKAHGMSVFSGLGALVSSVDDGECVVLGLAKKLSRNHTARGVTANDFKLMRSIFGEFLD  
KATGGKATESMKSAWDALLGVLIENHQ

>Q8T7J9

MSFSAAQVDTVRSNWCMTADIDAAGYRIFELLFQRNPDYQSKFKAFKGLAVSALKGNPN  
AEKHIRIVLGGGLGRILGALNTPELDVIYKEMASNHKPRGVMKQQFKDMGQAIVTALSEIQ  
SKSGGSFDRATWEALFESVANGIGQYQ

>P80017

MGATQSFQSVGDLTPAEKDLIRSTWDQLMTHRTGFVADVFI RIFHNDPTAQRKFPQMAGL  
SPAELRTSRQMHAAHAI RVSALMTTYIDEMDTEVLPPELLATLTRTHDKNHVGKKNYDLFGK  
VLMEAIKAELGVGFTKQVHDAWAKTFAIVQGVLI TKHAS

>O76242

MVNWAAVVDDFYQELFKAHPEYQNKFGFKGVALGSLKGNAAYKTQAGKTVDYINAAIGGS  
ADAAGLASRHKGRNVGSAEFHNAKACLAKACSAHGAPDLGHAIDDL SHL

>P0A593

MGLLSRLRKREPI SIYDKIGGHEAIEVVVEDFYVRVLADDQLSAFFSGTNMSRLKKGQVE  
FFAAALGGPEPYTGAPMKQVHQGRGITMHHFSLVAGHLADALTAAGVPSETITEILGVIA  
PLAVDVTSGESTTAPV

>Q9V2Z6

MPTWEELYKNAIEKAIKSVPKVKGVLLGYNTNIDAICYLDSKDLEERI IKAGKEEVIKYS

EELPDKINTVSQLLGSILWSIRRGKAAELFVESCVRFYMKRWGWNELRMGGQAGIMANL  
LGGVYGVVPIVHVPQLSRLQANLFLDGP IYVPTLENGEVKLIHPKEFSGDEENCIHYIYE  
FPRGFRVFEFEPRENRFISADDYNTTLFIREEFRESFSEVIKNVQLAILSGLQALTKE  
NYKEPFEIVKSNLEVLNEREIPVHLEFAFTPDDEKVVREEILNVLGMFYSVGLNEVELASIM  
EILGEKKLAKELLAHDPVDP IAVTEAMLKLAKKTGVKRIHFHTYGYLALTEYKGEHVRD  
ALLFAALAAAAMKGNITSLEEIREATSVPVNEKATQVEEKLRAEYGIKEGIGEVGYQ  
IAFIPTKIVAKPKSTVIGDITISSAFIGESFTL

>P0A9Z1

MKKIDAI IKPFKLDDVREALAEVGITGMTVTEVKGFGRQKGHTELYRGAEYMVDFLPKVK  
IEIVVPDDIVDTCVDTIIRTAQTGKIGDGKIFVFDVARVIRIRTGEEDDAI

>O31616

MKRHYEAVVIGGGIIGSAIAYYLAKENKNTALFESGTMGGRTTSAAGMLGAHAECEERD  
AFFDFAMHSQRLYKGLGEELYALSVDIRQHNGGMFKLAFSEEDVLQLRQMDDLDSVSWY  
SKEEVLEKEPYASGDI FGASF IQDDVHVEPYFVCKAYVKAAMLGAEIFEHTPVLHVERD  
GEALFIKTPSGDVWANHVVASGVWSGMFFKQLGLNNAFLPVKGECLSVWNDDIPLTKTL  
YHDHCYIVPRKSGRLVVGATMKPGDWSETPDLGGLESVMKKAKTMLPAIQNMKVDRFWAG  
LRPGTKDGKPYIGRHPEDSRILFAAGHFRNGILLAPATGALISDLIMNKEVNQDWLHAFR  
IDRKEAVQI

>P0A6V5

MDQFECINVAHAHQKLQEKEAVLVDIRDPQSFAMGHAVQAFHLTNDTLGAFMRDNDFTDP  
VMVMCYHGNSSKGAAYLLQQGYDVVYSIDGGFEAWQRQFPAEVAYGA

>Q12680

MPVLKSDNFDPLEEAYEGGTIQNYNDEHHLHKSWANVIPDKRGLYDPDYEHDACGVGFVA  
NKHGEQSHKIVTDARYLLVNMTHRGAVSSDGNNGDAGILLGIPHEFMKREFKLDLDDIP  
EMGKYAVGNVFFKKNEKNKKNLIKCKQKIFEDLAASFNL SVLGWRNVPVDSTILGDVALS  
REPTILQPLLVLPLYDEKQPEFNETKFRTOQLYLLRKEASLQIGLENWFYVCSLNNTTIVYK  
GQLTPAQVYNYYPDLTNAHFKSHMALVHSRFSSTNTFFPSWDRAQPLRWLAHNGEINTLRGN  
KNWMRSREGVMNSATFKDELDKLYPIIEEGGSDSAAALDNVLELLTINGTSLPEAVMMMV  
PEAYHKDMDSDLKAWYDWAACLMEPWDGPALLTFTDGRYCGAILDRNGLRPCRYYITSDD  
RVICASEVGVIP IENSLVVQKGLKPGDLFLVDTQLGEMVDTKKLKSQISKRQDFKSWLS  
KVIKLDLDSKTANLVPKEFISQDSLKLVQSDPRLLANGYTFEQVTFLLTPMALTGKEA  
LGSMGNDAPLACLNENPVLLYDYFRQLFAQVTNPPIDPIREANVMSLECYVGPQGNLLEM  
HSSQCDRLLKSPILHWNEFQALKNIEAAYPSWSVAEIDITFDKSEGLLGYTDTIDKIK  
LASEAIDDGKILIIITDRKMGANRVSISSLIAISCIHHHLIRNKQRSQVALILETGEARE  
IHHFCVLLGYGCDGVYPYLAMETLVRMNREGLLRNVNNDNDTLEEGQILENYKHAI DAGI  
LKVMSKMGISTLASYGKQAFI FEALGLDNSIVDLCTGTSSRIRGVTFEYLAQDAFSLHER  
GYPSRQTIKSVNLPESGEYHFRDGGYKHVNEPTAIASLQDTRVKNKNDVSWQLYVKKEME  
AIRDCTLRGLLELDFENSVSIPLEQVEPWTEIARRFASGAMSYGSI S MEAHSTLAIAMNR  
LGAKSNGEGGEDAERSAVQENGDMRSAIKQVASARFGVTSYYLSDADEIQIKIAQGAK  
PGEKGELPAHKVSKDIAKTRHSTPNVGLISPPPHHDIIYSIEDLKQLIYDLKCANPRAGIS  
VKLVSEVGVIVASGVAKAKADHILVSGHDGGTGAARWTSVKYAGLPWELGLAETHQTLV  
LNDLRRNVVQTDGQLRTGFDIAVAVLLGAESFTLATVPLIAMGCVMLRRCHLNSCAVGI  
ATQDPYLRSKFKGQPEHVINFYYLIQDLRQIMAKLGFRTIDEMVGHSEKLLKRDDVNAK  
AINIDLSPILTPAHVIRPGVPTKFTKKQDHKLHTRLDNKLIDEAEVTLDRGLPVNIDAS I  
INTDRALGSTLSYRVSKKFGEDGLPKDVTVVNIEGSAGQSFGAFLASGITFILLNGDANDY  
VGKGLSGGIIIVIKPPKDSKFKSDENVIVGNTCFYGATSGTAFISGSAGERFVVRNSGATI

VVERIKGNNAFEYMTGGRAIVLSQMESLNAFSGATGGIAYCLTSDYDDFVGKINKDTVEL  
ESLDCDPVEIAFVKNLIQEHWNYSQSDLAARILGNFNHYLKDFVKVIPTDYKKVLLKEKAE  
AAKAKAKATSEYLKKFRSNQEVDDDEVNTLLIANQKAKEQEKKKSITISNKATLKEPKVVD  
LEDAVPDSKQLEKNSERIEKTRGFMIHKRRHETHRDPRTVNDWKEFTNPITKKDAKYQT  
ARCMDCGTPFCLSDTGCPLSNIIPKFNELLFKNQWKLALDKLLETNNFPEFTGRVCPAPC  
EGACTLGIIEDPVGIKSVERIIIDNAFKEGWIKPCPPSTRTGFTVGVIGSGPAGLACADM  
LNRAGHTVTVYERSDRCGGLLMYGIIPNMKLDKAIQRRIDLLSAEGIDFVTNTEIGKTIS  
MDELKNKHNAVYYAIGSTIPRDLPIKGRELKNIDFAMQLLESNTKALLNKDLEIIREKIQ  
GKKVIVVGGGDTGNDCLGTSVRHGAASVLFELLPEPPVERAKDNPWPQWPRVMRVDYGH  
AEVKEHYGRDPREYCILSKEFIGNDEGEVTAIRTVRVEWKKSQSGVWQMV EIPNSEEIFE  
ADIILLSMGFVGPPELINGNDNEVKKTRRGTIATLDDSSYSIDGGKTFACGDCRRGQSLIV  
WAIQEGRKCAASVDKFLMDGTTYLPSNNGGIVQRDYKLLKELASQV

>P0AC88

MSKVALITGVGTQDGSYLAEFFLLEKGYEVHGIKRRASSFNTERVDHIYQDPHTCNPKFHL  
HYGDLSDTSLNTRILREVQPDEVYNLGAMSHVAVSFESPEYTADV DAMGTLRLLEAIRFL  
GLEKKTRFYQASTSELYGLVQEIIPQKETTFFYPRSPYAVAKLYAYWITVNYRESYGYAC  
NGILFNHESPRRGETFVTRKITRAIANIAQGLESCLYLGNMDSLRLDWDGHAKDYVKMQMM  
LQQEQPEDFVIATGVQYSVRQFVEMAAAQLGIKLRFEFTGVEEKGIVSVTGH DAPGVKP  
GDVIAAVDPYFRPAEVETLLGDPTKAHEKLGWKPEITLREMVSEM VANDLEAAKKHSL  
KSHGYDVAIALES

>P93031

MASENNGSRSDSESITAPKADSTVVEPRKIALITGITGQDGSYLTEFLLGKGYEVHGLIR  
RSSNFNTQRINHIYIDPHNVNKALMKLHYADLTDASSLRRWIDVIKPDDEVYNLAAQSHVA  
VSFEIPDYTADV VATGALRLLEAVRSHTIDSGRTVKYYQAGSSEMFGSTPPPQSE TTPFH  
PRSPYAASKCAAHWYTVNYREAYGLFACNGILFNHESPRRGENFVTRKITRALGR IKVGL  
QTKLFLGNLQASRDWGFAGDYVEAMWMLQQEKPPDYVVATEEGHTVEEFLDVSFGYLGL  
NWKDYVEIDQRYFRPAEVDNLQGDASKAKEVLGWKPQVGF EKLVKMMVDEDELELAKREKV  
LVDAGYMDAKQQP

>P63224

MYQDLIRNELNEAAETLANFLKDDANIHAIQRAAVLLADSFKAGGKVLSCGNGGSHCDAM  
HFAEELTGRYRENRPGYPAIAISDVSHISCVGNDFGFNDIFSRYVEAVGREGDVLLGIST  
SGNSANVIKAIAAAAREKGMKVITLTGKDGGMAGTADIEIRVPHFGYADRIQE IHIKVIH  
ILIQLIEKEMVK

>P43577

MSLPDGFYIRMEEGDLEQVTETLKVLTTVGTITPESFSKLIKWNEATVWVNDNEDKKIM  
QYNPMVIVDKRTETVAATGNIIIERKIIHELGLCGHIEDI AVNSKYQGQGLGKLLIDQLV  
TIGFDYGCYKIIIDCDEKNVKFYEKCGFSNAGVEMQIRK

>Q14749

MVDSVYRTRSLGVAAEGLPDQYADGEAARVWQLYIGDTRSR TA EYKAWLLGLLRQHGCQR  
VLDVACGTGVDSIMLVEEGFSVTSVDASDKMLKYALKERWNR RHEPAFDKWVIEEANWMT  
LDKDVPQSAEGGFDAVICLGN SFAHL PDCKGDQSEHRLALKN IASMVRAGLLVIDHRNY  
DHILSTGCAPPKNIYYKSDLTKDVTTSVLI VNNKAHMVTL DYTQVPGAGQDGS PGLSK  
FRLSYYPHCLASFTELLQAAF GGKQHSVLGDFKPYKPGQTYIPC YFIHV LKRTD

>Q58CS8



MAARLAGLAVVLGFAARGPAPGGAAKMKVVEEPNTFGLNPNFLPQTSRLQPKRDPSPVSG  
PAHLSRLSGKCFSLVESTYKYELCPFHNVTQHEQTFRWNAYSGILGIWHEWEITNNTFRG  
MWMRDGDACQSRSRQSKVELTCGKSNRLAHVSEPSTCVYALTFETPLVCHPHSLLVYPTL  
PAALQQRWDQLEQDLVDELITAQGYEKSLRAIFEDAGYLKTSEPNEAAQQEGGTKGLRFE  
TLESCQEAHKALSQEIKRLLQGVLTQHGVPYGKPTETPSSEHWGPQVPTAGMAEPLRGDPG  
LRGDTL

>Q08378

MDGASAEQDGLQEDRSHSGPSSSLPEAPLKPPGPLVPPDQDKVQCAEVNRASTEGETSPDG  
PGQGGLCQNGPTPPFPDPPSSLDPTTSPVGPDASPGVAGFHDNLRKSQGTSAEGSVRKEA  
LQSLRSLPMQETQLCSTDSPLPLEKEEQVRLQARKWLEEQKQYRVKRQQERSSQPATK  
TRLFSTLDPELMLNPNENLPRASTLAMTKEYSFLRTSVPRGPKVGSGLGLPAHPREKKTSKS  
SKIRSLADYRTEDSNAGNSGGNVPAPDSTKGSLLKQNRSSAASVVSEISLSPDTPDDRENT  
SLAGDSVSEVDGNDSDSSSYSSASTRGTYGILSKTVGTQDTPYMVNGQEI PADTLGQFPS  
IKDVLQAAAAEHQDQGEVNGEVRSRSDSICSSVSLSSAAETQEEMLQVLKEKMRLEGQ  
LEALSLEASQALKEKAELQAQLAALSTKLQAQVECSHSSQQRQDLSSEVDTLKQSCWDL  
ERAMTDLQNMLEAKNASLASSNNDLQVAEEQYQRLMAKVEDMQRSMLSKDNTVHDLRQQM  
TALQSQLQQVQLERTTLTSLKLKASQAEISSLSQSVRQWYQQQLALAQEARVRLQGEMAHIQ  
VGQMTQAGLLEHLKLENVSLSQQLTETQHRSMKEKGR IAAQLQGI EADMLDQEA AFMIQ  
EAKTMVEEDLQRRLEEFEGEGERERLQRMADSAASLEQQLEQVKLTLLQRDQQLQEQEHL  
DLMKQLTLTQEQALSREQSLDALQTHYDELQARLGELQGEAASREDTICLLQNEKII LEA  
ALQAASGKEELDRGARRLEEGTEETSETLEKLRREELAIKSGQVEHLQQETAALKKQMOK  
IKEQFLQKVMVEAYRRDATSKDQLISELKATRKRDLSELKELRQELMQVHGEKRTAEAE  
LSRLHREVAQVRQHMADLEGLHLSAQKERDEMETHLQSLQFDKEQMVAVTEANEALKKQI  
EELQQEARKAITEQKQKMRRLGSDLTSAQKEMKTKHKAYENAVGILSRRLQEALAAKEAA  
DAELGQLRAQGGSSDSSLALHERIQALEAELQAVSHSKTLLEKELQEVIALTSQELEESR  
EKVLELEDELQESRGFRKKIKRLEESNKKLALALEHEHEKGLTGLGQSNAALREHNSILET  
ALAKREADLVQLNLQVQAVLQRKEEEDRQMKHLVQALQASLEKEKEKVNLSKEQVAAAKV  
EAGHNRHFKAASLELSEVKKELQAKEHLVQKLQAEADDLQIREGKHSQEI AQFQAE LAE  
ARAQLQLLQKQLDEQLSKQPVGNEQEMENLQWEVDQKEREIQSLKQQLDLTEQQGRKELEG  
LQQLLQNVKSELEMAQEDLSMTQKDKFMLQAKVSELKNNMKTLLQONQQLKLDLRRGAAK  
TRKEPKGEASSNPATPIKIPDCPVPASLLEELLRPPPAVSKPEPLKNLNSCLQQLKQEMD  
SLQRQMEEHALT VHESLSSWTPLEPATASPVPPGGHAGPRGDPQRHSQSRASKEGPGE

>P13006

MQTLVSSLVVSLAAALPHYIRSNGIEASLLTDPKDVSGRTVDYIIAGGGLTGLTTAARL  
TENPNISVLVIESGSYESDRGPIIEDLNAYGDI FGSSVDHAYETVELATNNQTALIRSGN  
GLGGSTLVNGGTWTRPHKAQVDSWETVFGNEGWNWDNVAAYSLQAERARAPNAKQIAAGH  
YFNASCHGVNGTVHAGPRDGTDDYSPIVKALMSAVEDRGVPTKKDFGCGDPHGVSMPFNT  
LHEDQVRSDAAREWLLPNYQRPNLQVLTGQYVGVKLLSQNGTTPRAVGVVEFGTHKGNTHN  
VYAKHEVLLAAGSAVSPTILEYSGIGMKSILEPLGIDTVVDLPVGLNLQDQTATVRSRI  
TSAGAGQGQA AWFATFNETFGDYSEKAHELLNTKLEQWAEAEAVARGGFHNTTALLIQYEN  
YRDWIVNHNVAYSELFLDTAGVASFDVWDLFPFTRGYVHILDKDPYLHHFAYDPQYFLNE  
LDLLGQAAATQLARNISNSGAMQTYFAGETIPGDNLAYDADLSAWTEYIPYHFRPNYHGV  
GTCSMPKEMGGVVDNAARVYGVQGLRVIDGSIPPTQMSSHVMTVFYAMALKISDAILED  
YASMQ

>Q8K4Z6

MALLITVVTCFMIILDTSQSCHTPDDFVAITSPGHIMIGGLFAIHEKMLSDDHPRRPQI  
QKCAFGEISVFLQTLAMIHSIEMINNSTLLSGVKLGYEIIDYDCTEVTAAAMAATLRFLSKF

NCSRETVVVFQCDYSSYMPRVKAVIGAGYSETSI AVSRMLNLQLMPQVSYESTAE ILSDKI  
RFPSFLRTVP SDFYQTKAMAHLIRQSGWNWIGAITTDDDYGRLALNTFAIQAAENNV CIA  
FKEVLP AFLSDNTIEVRINQ TLEKIIA EAQVNVIVVFLRKFHVFNLFTKA IERKISKIWI  
ASDNWSTATKIITIPNVKKGKVVGF AFRRGNTSSFSHFLQTLHMYPNNDNNKPLHEFAML  
VSACKYIKDGDLSQCISNYSQATLTYDTTKTIENHLFKRNDFLWHYTEPGLIYSIQLAVF  
ALGHAIRDLCQARDCKKPNAFQPWELLAVLKNVTF TDGRNSFHFD AHDGDLNTGYDVVLWK  
ETNGLMTVTKMAEYDLQRDVFITTNQETKHEFRKLKQILSKCSKECSPGQMKKATGSQHS  
CCYECVSPENHYSNETDMDHCLLCNNETHWAPVRSTTCFEKEVEYLDWDDSLALLLIAL  
SLLGIAFVLAIGIIFTRNLKTPVVKSSGGLVVCYVMLICHALNFASTGFFIGEPQDFACK  
TRQTLFGVSFTLCVSCILTKSLKILLAFSFDPKLTMFLKCLYRPVPIVLTCTGIQVVICT  
LWLVLAAAPSVEENISLPRVILECEEESALAFGTMLGYITVLA FICFVFAFKGRKLPENY  
NEAKFLTFGMLIYFIAWITFIPVYTTTFFGKYLPAVEIIVILISNYGILCCIFFPKCYIIL  
CKQKTNTKSAFLQMVYNSAHSVDSLALSHVSLDSTSYDTATTNQS PGNKMTACQNDNHL  
PAQVLPHTGTAKTIKASKTLRQKRSSSI

>Q9HIJ2

MKIAILIRHGESDINVKGILSDTIDNMLTEKGMRQAEHAAAELK GIDIKNFYSSPIKRA  
FDTAQIIADSFNKDVVTDQRLIEIGLGKARGRKANEF TNGLYSGHITGK IREDLEMEKWD  
SLQKRVEAIASREGINVVVTHSDPIRAAISYFLEMGEETYGLS IKNASMTVIDVEIGR  
ILTLGAISMTDSVRKYLNIQ

>P62707

MAVTKLVLRHGESQWNKENRFTGWYDVDLSEKGVSEAKAAGKLLKEEGYSFDFAYTSVL  
KRAIHTLWNVLDELQAWLPVEKSWKLNERNHYGALQGLNKAETA EKYGDEQVKQWRRGFA  
VTPPELTKDDERYPGHDPYAKLSEKELPLTESLALTIDRVI PYWNETILPRMKSGERVI  
IAAHGNSLRALVKYLDNMSEEEILELNIPTGVPLVYEFDENFKPLKRYYLGNAD EIAAKA  
AAVANQGKAK

>P33158

MADAPYKLILLRHGESEWNEKNLFTGWVDVNLTPKGEKEATRGGELLKDAGLLPDVVHTS  
VQKRAIRTAQLALEAADRHWPVHRHWRLNERHYGALQ GKDKAQT LAEFGEEQFMLWRRS  
YDTPPPALDRDAEYSQFSDPRYAMLPPELRPQTECLKDVVGRMLPYWFDAIVPDL LTGRT  
VLVAAHGNSLRALVKHLDGISDADIAGLNIPTGIPLSYELNAEFKPLNPGGTYLDPDAAA  
AAIEAVKNQGKKK

>P22321

MEKELDLSQYSVRTDLAVEAKDIALENQPKPNNQSEIKGVIVKEKEEQGVKISMVEITEE  
GAEAIGKKKGRYVTLESVGIREQDTEKQEEAMEEVFAKELNFFIKSLNIPDDASCLV VGL  
GNLSVTPDALGPKAVDNLITRHLFELQPE SVQDGF RPVSAIVPGVMGMTGIETSDIIFG  
VVKVNPDFIIAIDALAARSIERVNATIQISDSGIHPGSGVGNKRKEISYETLGIPVIAI  
GIPTVVDAVSITSDTIDFILKHFGREMKEQGKPSKSLLP SGMTFGEKKKLTEDDLPNEEQ  
RQTYLGMIGTLPDEEKRRLIHEVLAPLGHNLMTVPKEVDMFIEDMANVVAGGLNAALHHE  
VDQENFGAYTH

>Q7YRZ7

MNIPFFFSFPPAICLLLIPGVFPVSCEGIIGGNEVAPHTRRYMALIKGLKLCAGALIKEN  
WVLTAAHCDLKGNPQVILGAHSTSHKEKLDQVFSIKKAI PYP CFPDQTFEGDLQLLQLEG  
KATMTKAVGILQLPRTEDDVKPHTKCHVAGWGSTKKDACQMSNALREANVTVIDR KICND  
AQHYNFNPVIDLSMICAGGRKGEDDSCEGDSGSP LICDNVFRGVT SFGKCGNPQKPGIYI  
LLTKKHLNWIKKTIAGAI

>P12544

MRNSYRFLASSLSVVVSLLLIPEDVCEKI IGGNEVTPHSRPFYMLVLLSLDRKTICAGALIA  
KDWVLTAAHCNLNKRSQVILGAHSITREEPTKQIMLVKKEFPYPCYDPATREGDLKLLQL  
TEKAKINKYVVTILHLPKKGDDVKPGTMCQVAGWGRTHNSASWSDTLREVNITIIDRKVCN  
DRNHYNFNPVIGMNMV CAGSLRGGDRSCNGD SGSPLLCEGVFRGVT SFGL ENKCGDPRGP  
GVYILLSKKHLNWIIMTIKGA V

>Q3V6T2

MENEIFTPLLEQFMTSPLVTWVKTFGPLAAGNGTNLDEYVALVDGVFLNQVMLQINPKLE  
SQRVNKKVNNASLRMHNSILVRQIKFYYQETLQQLIMMSLPNVLIIGKNPFSEQGTTEE  
VKLLLLLLLLGCAVQCQKKEEFIERIQGLDFDTKAAVAAHIQEVTHNQENVFDLQWMEVTD  
MSQEDIEPLLKNMALHLKRLIDERDEHSETIIEELSEERDGLHFLPHASSSAQSPCGSPGM  
KRTE SRQHL SVELADAKAKIRRLRQELEEKTEQLLDCKQELEQMEIELKRLQQENMNLSS  
DARSARMYRDEL DALREKAVRVDKLESEVSRYKERLHDIEFYKARVEELKEDNQVLETK  
TML EDQLEGRARS DKLHELEKENLQLKAKLHDMEMERDMRKKIEELMEENMTLEMAQK  
QSMDES LHLGWELEQISRTSELSEAPQKSLGHEVNELTSSRLLKLEMENQSLTKTVEELR  
TTVDSVEGNASKILMEKENQRLSKKVEILENEIVQEKQSLQNCQNLSKDLMKEKAQLEK  
TIETLRENSERQIKILEQENEHLNQTVSSLRQRSQISAEARVKDIEKENKILHESIKETS  
SKLSKIEFEKRQIKKELEHYKEKGERAELENE LHHLEKENELLQKKITNLKITCEKIEA  
LEQENSELERENRKLKKTLD SFKNLTFQLESLEKENSQ LDEENLELRRNVE SLK CASMKM  
AQLQLENKELESEKEQLKKGLELLKASFKKTERLEVSYQGLDIENQRLQKTL ENSNKKIQ  
QLESELQDLEMENQTLQKNLEELKISSKRLEQLEKENKSLEQETSQLEKDKKQLEKENKR  
LRQQA EIKD TTLEENNVKIGNLEKENKTL SKEIGIYKESCVRLKELEKENKELVKRATID  
IKTLVTLREDLVSEKLTQOMNNDLEKLTHELEKIGLNKERLLHDEQSTDDSRYKLLLESK  
LESTLKKSL EIKEEKIAALEARLEESTNYNQQLRQELKTVKKNYEALKQRQDEERMVQSS  
PPI SGEDNKWERESQETTRELLKVKDRLIEVERN NATLQAEKQALKTQLKQLETQNNNLQ  
AQILALQRQT VSLQE QNTTLQTQNAKLQVENSTLNSQSTSLMNQNAQLLIQQSSLENE  
SVIKEREDLKSLYDSL IKDHEKLELLHERQASEYESLISKHGTLKSAHKNLEVEHRDLED  
RYNQLLKQKGQLEDLEKMLKVEQEKMLLENKNHETVAAEYK KLCGENDRLNHTYSQLLKE  
TEVLQTDHKNLKSLLNNSKLEQTRLEAEFSKLKEQYQQLDITSTKLNNQCELLS QLKGNL  
EEENRHLLDQIQTLMLQNRTLLEQNMESKDLFHVEQRQYIDKLNELRRQKEKLEEKIMDQ  
YKFYDPSPPRRRGNWITLKMRLIKSKKDINRERQKSLTLPTRSDSSEGFLQLPHQDSQ  
DSSSVGSNSLEDGQTLGTTKSSMVALKRLPFLRNRPKDKDKMKACYRRSMSMNDLVQSMV  
LAGQWTGSTENLEVPDDISTGKRRKELGAMAFSTTAINFSTVNSSAGFRSKQLVNNKDTT  
SFEDISPQGVSDSSTGSRVHASRPASLDSGR TSTSNMNASLHEVKAGAVNNQSRPQS  
HSSGEFSLLDHEAWSSSGSSPIQYLKRQTRSSPVLQHKISETLESRHHKIKTGSPGSEV  
VTLQQFLEESNKLT SVQIKSSSQENLLDEVMSLSVSSDFLGKDKPVSCGLARSVSGKTP  
GDFYDRRTTKPEFLRPGPRKTEDTYFISSAGKPTPGTQGKIKLVKESLSRQSKDSNPYA  
TLPRASSVISTAEGTTRRTSIHDFLTKDSRLPISVDSPPAAADSNTTAASNVDKVQESRN  
SKSRSREQOSS

>O88644

MALQFEAFCAGGLAPGWSLTVQGHADAGEDKFEINFLTDAGDIAFHVKPRFSSATVVGNA  
FQGGRWGQEEVSSVFP LTLGEPFEVEVSADTEHFHIYAQE QKVLQFPHRHRPLATITRVR  
VLSDHQLAQVELAKRGLSWGDGGY

>P23893

MSKSENLYSAARELIPGGVNSPVRAFTGVGGTPLFIEKADGAYLYDVDGKAYIDYVGSWG  
PMVLGHNHPAIRNAVIEAAERGLSFGAPTEMEVKMAQLVTELVP TMDMVRMVNSGTEATM

SAIRLARGFTGRDKIIKFEGCYHGHADCLLVKAGSGALTLGQPNSPGVPADFAKYTLTCT  
YNDLASVRAAFEQYPQEIACIIIVEPVAGNMNCVPPLEFLPGLRALCDEFGALLI IDEVM  
TGFRVALAGAQDYGVVVDLTCLGKIIIGGGMPVGAFFGRRDMDALAPTGPVYQAGTLSG  
NPIAMAAGFACLNEVAQPGVHETLDELTTRLAEGLEAAEEAGIPLVNVHVGGMFGIFFT  
DAESVTCYQDVMACDVERFKRFFHMMLDEGVYLAAPSAFEAGFMSVAHSMEDINNTIDAAR  
RVFAKL

>Q980U5

MNSEELWAQAKQLFAGGVNSPVRAAVKPFPPFYVERGKGYIYTVDGKKFIDYVLGYGPLI  
LGHSPEVSKRRIVEQLERGWLFGTPELEIELARKIRSHIPSAQKIRFVNSGTEATMAAI  
RLARGYTKRSKILKFSGNHYGAHDYALVEAGSAATEYNVATSDGVPMEIMKTVEICEFND  
LDCVDKCLRNEIATVILEPVMGNAGVILPEKDFLFLGRLRELTKTYNSLLIFDEVITGFRI  
SIGGAQSYQIYDPDITTLGKIIIGGGFPIGAVAGKAEIIDNFTPAGKVFNAGTFNANPISM  
IAGIATIEELEKEYPYIIANQAAKTLVEELERLLKTKHTINHVGSFMQIFFGIDEVRNYS  
DAKRADKEYYIKFHERLLKEGVFIPPSQYETIFTSAHKDDVIADTIDKLMKVI GELN

>P31593

MAAVNGVGISWPSKLTQQRPKLVFSPSPRRCTPSSSTIKMTASVDEKKTFTLQKSEEA  
FSKAKELMPGGVNSPVRAFKSVGGQPIIIDSVKGSRMRDIDGNEYIDYVGSWGPALIGHA  
DDEVLAALAETMKKGTSGFAPCLENLTLAEMVISAVPSIEMVRFVNSGTEACMGVLRRLAR  
AFTGRPKIIKFEGCYHGHADPFLVKAGSGVATLGLPDSPPGPKAATSDTLTAPYNDISAV  
ESLFEHKGEEVAAILLEPVVGNAGFIQPNLDFLAAIRKIKENDALLIFDEVMTGFRLAY  
GGAQEYFGITPDLTTLGKIIIGGGLPVGAYGGRRDIMEMVAPAGPMYQAGTLSGNPLAMTA  
GIHTLKRLOQPGTYEYLDKITGELTQGILDAGKKTGHAMCGGYIRGMFGFLFAEGPVNNF  
SDAKKSDTEKFRFYRGMLEEGVYFAPSQFEAGFTSLAHTSEDIQKTVAAAEKVLKQI

>P46413

MATSWGSILQDEKQLEELAQQAIDRALAEGVLLRSKPNPSSSDVVTYAPFTLFPSPVPST  
LLEQAYAVQMDFNILVDAVSQNSAFLEQTLSSSTIKKDEYTARLFDIYKQVLKEGIAQTVF  
LGLNRSDYMFQCSADGSKALKQIEINTISASFGLASRTPAVHRHVLNVLNKTNEASKIL  
SNNPSKGLALGIAKAWELYGSANAVVLLIAQEKERNIFDQRAIENELDRKIHVIRRRFE  
DVSERGSLDQNRRLFMEDQEVAVVYFRDGYMPSQYNAQNWEARLLERSCAAACPDIAEQ  
LAGTKKVQQELSRVGLLEALLPGQPEAVARLRATFAGLYSLDMGEEGDQAVAEALAAPSH  
FVLKPREGGGNFYGEEMVHALEQLKDSEERASYILMEKIEPEPFRNCLLRPGSPAQVV  
QCISELGI FGVYVRQGTTLVMNKHVGHLLRTRKAI EHADGGVAAGVAVLDNYPVP

>P42206

MEALNQSQAATGAPVITDLKVVVPVAGHDSMLLNLSGAHGPLFTRNILILTDSSGHVGVGE  
VPGGEGIRKTL EDARHLLINQSIGNYQSLLNKVRNAFADRVDVGGRLQTFDLRIAVHAVT  
AVESALLDLLGQHLQVPVAALLGEGQQRDAVEMLGYLFYVGDNRKTDLGYRSEHEADNEW  
FRLRNKEALTPESSVALAEAAAYDRYGFKDFKLGKGGVLRGEDEIAAVTALSERFPDARITL  
DPNGAWSLKEAVALCRDQHHLVLAAYEDPCGAENGYSGREVMAEFRRSTGLRTATNMIATD  
WRQMGHAIQLQSVDIPLADPHFWTMQGSVRVAQMCNEWGLTWGSHSNNHFDISLAMFTHV  
AAAAPGNITAI DTHWIWQDQRLTKEPLQIKGGLVEVPKPKPGLGVELDWDALMKAHEVYK  
SMGLGARDDATAMRYLVSGWEFNNKRPCMVR

>Q53464

MDYIKGIAFDLYGTLFDVHVVVGRCD EAFPPGRGREISALWRQKQLEYTWLRSMLNRYVNF  
QQATEDALRFTCRHLGLDL DARTRSTL CDAYLR LAPFSEVPDSLRELKRRGLKLAILSN  
SPQSIDAVVSHAGLRDGFHLLSVDPVQVYKPDNRVYELAEQALGLDRSAILFVSSNAWD

ATGARYFGFPTCWINRTGNVFEEMGQTPDWEVTSLRVVELFETAAGKAEKG

>Q60099

MIKAVVFDAYGTLFDVQSVADATERAYPGRGEYITQVWRQKQLEYSWLRALMGRYADFWG  
VTREALAYTLGTLGLEPDESFLADMAQAYNRLTPYPDAAQCLAELAPLKRAILSNGAPDM  
LQALVANAGLTDSFDAVISVDAKRVPFKPHPDSYALVEEVLGVTPAEVLVSSNGFDVGGG  
KNFGFSVARVARLSQEALARELVSGTIAPLTMFKALRMREETYAEAPDFVVPALGDLPRL  
VRGMAGAHLLAPAV

>Q52086

MNLPDNSIHLQLPRPVCEAIIRPVPEHRADQELSEIYRDLKATFGVPWVGVIQAVAYYR  
PFFAEAWRRFAPSAKTHFFERASDDIRIRSWELMGQSFVIEGQTDRLREMGYSVREIGQI  
RAVLDFIDYGNPKYLIFATAIKEGLLSGRTFGGAAGDARCHFPRSPICQIDPIPVMVEEH  
HAGGTL SQVYADIKQTLQLPFINSYKAMARWPSYLEQAWGALKPCIDTPAYQAGRFDIN  
ARALAALDALPTAYRMSRDDALQAGLSEAQTDELIQVLSLQWMLSGLVNLVTHFKQQAL  
K

>O06652

MSHRPILKNFPQVDH HQASGKLGDLYNDIHDTLRVPWVAFGIRVMSQFEHFVPAWEALK  
PQISTRYAEAGADKVR EAAIIPGSAPANPTPALLANGWSEEEIAK LKATLDGLNYGNPKY  
LILISAWNEAWHGRDAGGGAGKRLDSVQSERLPYGLPQGV EKFHLIDPEAADDQVQCLLR  
DIRDAFLHHGPASDYRVLAAWPDYLEIAFRD TLKPVALTTEFELTTSRIRK IAREHVRGF  
DGAGGVAWRDMADRMTPEE IAGLTGVLFMYNRFIADITVA IIRLKQAFGSAEDATENKFR  
VWPTEKG

>Q52087

MKNIQGIVFDLYGTL YDVHSVVQACEEVYPGQDAISRLWRQKQLEYTWLRS LMGRYVNF  
EKATEDALRFTCTHLGLSLDDETHQR LSDAYLHLTPYADTADAVRRLKAAGLPLGIISNG  
SHCSIEQVVTNSEMNWAFDQLISVEDVQVFKPDSRVYS LAEKRMGF PKENILFVSSNAWD  
ASAASNFGFPVCWINRQNGAFDELDAKPTHVVRNLAEMSNWL VNSLD

>Q9SWE5

MENGRDRQDMEVNTT PRKPRVLLAASGSVAAIKFGNLCHCFTEWAEVRAVVTKSSLHFL  
DKLSLPQEVTLTYTDEDEWSSWNKIGDPVLHIELRRWADV LVIAPLSANTLGKIAGGLCDN  
LLTICIIRAWDYTKPLFVAPAMNTLMWNNPFTERHLLSLDELGITLI PPIKRLACGDYGN  
GAMAEPSLIYSTVRLFWESQAHQQTGGTS

>Q50925

MRIGEWMRGLLLCAGLMMCGVVHADISTVPDETYDALKLDRGKATPKET YEALVKRYKDP  
AHGAGKGTMGDYWEPIAIS IYMDPNTFYKPPVSPKEVAERKDCVECHSDETPVWVRAWKR  
STHANLDKIRNLKSDDPLYKKGKLEEVENNLRS MGKLGEKETLKEVGCIDCHVDVNKKD  
KADHTKDIRMPTADTCGTCHLREFAERESERDTMWPNGQWPAGRPSHALDYTAN IETTV  
WAAMPQREVAEGCTMCHTNQNKCDNCHTRHEFSAAESRKPEACAT CHSGVDHNNWEAYTM  
SKHGKLAEMNRDKWNWEVRLKDAFSKGGQNAPTCAACHMEYEGEYTHNITR KTRWANYPF  
VPGIAENITSDWSEARLDSWVLTCTQCHSERFARSYLDLMDKGTLEGLAKYQEANAIVHK  
MYEDGTLTGQKTNRPNPPEPEKPGFGIFTQLFWSKGNNPASLELKVLEMAENNLAKMHVG  
LAHVNPGGWTYTEGWGPMNRAYVEIQDEYTKMQELSALQARVNKLE GKQTSLLDLKGTGE  
KISLGGGLGGMLLAGALALIGWRKRKQTRA

>Q93TJ5

MSAFNTTLPPLDYDDDTLREHLQGADIP TLLLLTVAHLTGDLQILKPNWKPSIAMGVARS  
GMDLETEAQVREFCLQRLIDFRDSGQPAPGRPTSDQLHILGTWLMGPVIEPYLPLIAEEAV  
TAEEDLRAPRWKHDHVASGRDFKVVII GAGESGMIAALRFKQAGVPFVIEYKGNVGGTW  
RENTYPGCRVDINSFWYSFSFARGIWDDCFAPAPQVFAYMQAVAREHGLYEHIRFNTEVS  
DAHWDSTQRWQLLYRDSEGQTQVDSNVVVFAVGQLNRPMIPAIPIETFKGPMFSAQW  
DHDVDWVGKRVGVI GTGASATQFIPQLAQTAELKVFARTTNWLLPTPDLHEKISDSCKW  
LLAHVPHYSLWYRVAMAMPQSVGFLEDVMVDVGYPPTELAVSARNDRLRQDISAWMEPQF  
ADRPDLREVLIPDSPVGGKRIVRDNGTWISTLKRDNVSMIRQPIEVITPKGICCVDTGTEH  
EFDLIVYGTGFHASKFLMPINVTGRDGVALHDVWKGDDARAYLGMTVPQFPNMFVCMYGNP  
TGLVVYSTVIQFSEMTASYIVDAVRLLEGGHQSMVEKTPVFESYNQRVDEGNALRAWGF  
SKVNSWYKNSKGRVTQNF PFTAVEFWQRTHSVEPTDYQLG

>P06148

MGLTTAQIKAIQDHWFLNIKGLQAAADSIFFKYLTAYPGDLAFFHKFSSVPLYGLR SNP  
AYKAQTLTVINYLDKVV DALGGNAGALMKAKVPSHDAMGITPKHFGQLLKL VGGV FQEEF  
SADPTTVAAWGDAAGVLVAAMK

>O04986

MALVEDNNAVAVSFSEEQALVLKSWAILKSDANIALRFFLKIFEVAPSASQMF SFLRN  
SDVPLEKNPKLKT HAMS FVMTCEAAAQLRKAGKVTVRDTTLKRLGATHLKYGVGDAHFE  
VVKFALLDTIKEEVPADMWSPAMKSAWSEAYDHLVAAIKQEMKPAE

>Q16836

MAFVTRQFMRSVSSSSTASASAKKIIVKHVTVIGGGLMGAGIAQVAAATGHTVVLVDQTE  
DILAKSKKGI EESLRKVAKKKFAENPKAGDEFVEKTLSTIATSTDAASVHSTDLVVEAI  
VENLKVKNELFKRLDKFAAEHTIFASNTSSLQITSIANATTRQDRFAGLHFFNPVPMKL  
VEVIKTPMTSQKTFESLVDFSKALGKHPVSCKDTPGFIVNRLVLPYLMEAIRLYERGDAS  
KEDIDTAMKLGAGYPMGPFELLDYVGLD TTKFIVDGVHEMDAENPLHQPSPSLNKLVAEN  
KFGKKTGEGFYKYK

>Q56840

MSRVAIVTGASSGNGLAIATRFLARGDRVAALDLSAETLEETARTHWHAYADKVLVRAD  
VADEGDVNAIIAATMEQFGAIDVLVNAGITGNSEAGVLHTTPVEQFDKVMVAVNRGIFL  
GCRAVLPHMLLQGAGVIVNIASVASLVAFPGRSAYTTSKGAVLQLTKSVAVDYAGSGIRC  
NAVCPGMIETPMTQWRLDQPELRDQVLARIPQKEIGTAAQVADAVMFLAGEDATYVNGAA  
LVMDGAYTAI

>P0AET8

MFNSDNRLRDGKCAIITGAGAGIGKEIAITFATAGASVVVSDINADAANHVVDEIQQLGG  
QAFACRCDITSEQELSALADFAISKLKVDILVNNAGGGGPKPFDPMPADFRAYELNVF  
SFFHLSQLVAPEMEKNGGVILTITSM AENKNINMTSYASSKAAAASHLVRNMAFDLGEK  
NIRVNGIAPGAILTDALKSVITPEIEQKMLQHTPIRRLGQPQDIANAALFLCSPAASWVS  
GQILTVSGGGVQELN

>P55792

MLMTAEQYIESLRKLNTRVYMFGEK IENWVDHPMIRPSINCVAMTYELAQDPQYADLMTT  
KSNLIGKTI NRFANLHQSTDDL RKKVKMQRLLGQKTASCFQRCVGMDAFNAVFS TTYEID  
QKYGTNYHKNFTEYLKYIQENDLIVDGAMTDPKGDRLAPSAQKDPDLFLRIVEKREDGI  
VVRGAKAHQTGSINSHEHIIMPTIAMTEADKDYAVSFACPSDADGLFMIYGRQSCDTRKM  
EEGADIDLGNKQFGGQALVVFDNVFIPNDRIFLCQEYDFAGMMVERFAGYHRQSYGGCK

VGVGDVVIGAAALAADYNGAQKASHVKDKLIEMTHLNETLYCCGIACSAEGYPTAAGNYQ  
IDLLLANVCKQNITRFPYEIVRLAEDIAGGLMVTMPSEADFKSETVVGRDGETIGDFCNK  
FFAAAPTCTTEERMVLRFLLENICLGASAVGYRTE SMHGAGSPQAQRIM IARQGNINAKK  
ELAKAIAGIK

>P13195

METVVRRCPFLLSRVPQAFLLQKAGKSLLFYAQNCPKMMEVGAKPAPRTVSTSAQCQQVKE  
TPPANEKEKTAKAAVQQAPDESQMAQTPDGTQLPPGHPSPSTSQSSGSKCPFLAAQLSQT  
GSSVFRKASLELQEDVQEMHAVRKEVAQSPVLP SLVNAKR DGE GSP L LKNFQDIMRKQR  
PERVSHLLQDNLPKSVSTFYDHF FEKK IDEKKN DHTYRVFKTVNRRAQIFPMADDY TDS  
LITKKQVSVWCSNDYLGMSRHRVCGAVIETVKQHGAGAGGTRNISGTSKFHVELEQE LA  
DLHGKDAALLFSSCFVANDSTLFTLAKMMPGCEIYSDSGNHASMIQGIRNSRVPKYIFRH  
NDVNHLRELLQRS DPSVPKIVAFETVHSMDGAVCPLEELCDVAHEFGAITFVDEVHAVGL  
YGASGGGIGDRDGVMPKMDIISGTLGKAFGCVGGYIASTSLLDITVRSYAAGFI FT TSLP  
PMLLAGALESVRILKSNEGRALRRQHQRNVKLMRQMLMDAGLPVIHCPSHIIPVRVADAA  
KNTEICDELMTRHNIYVQAINYPTVPRGEE LLRIAPT PHHTPQMMNFFLEKLLL TWKRVG  
LELKP HSSAECNFCRRPLHFEVMSEREKAYFSGMSKMVSAQA

>P36553

MKPD AHQVKQFLNLQD TICQQLTAVDGAEFVEDSWQREAGGGGRSRVLRNGGVFEQAGV  
NF SHVHGEAMPASATAHRPELAGRSFEAMGVSLV VHPHNPYVPTSHANVRFFIAEKPGAD  
PVWWFGGGFDLTPFYGFEE DA IHWHR TARDLCLPFGEDVYPRYKKWCDEYFY LKHRNEQR  
GIGGLFFDDLNTPDFDRCF AFM QAVGKGYTDAYLP IVERRKAMAYGERERNFQLYRRGRY  
VEFNLVWDRGTLFGLQTGGRTESILMSMPPLVRWEYDYQPKDGSPEAALSEFIKVRDWV

>P11353

MPAPQDPRNLP IRQQMEALIRRKQAEITQGL ESIDTVKFHADTWTRGNDGGGGTSMVIQD  
GTTFEKGGVNVSVVYGQLSPA AVS AMKADHKNLRLPEDPKTGLPVT DGVKFFACGLSMVI  
HPVNPHAPTTHLNYRYFETWNQDGT PQTWWFGGADLTPSYLYEEDGQLFHQLHKDALDK  
HDTALYPRFKKWCDEYFYITHRKETRIGGIFDDYDERDPQEILKMVEDCFDAFLPSYL  
TIVKRRKDMPYTKEEQQWQAI RRRGRYVEFNLIYDRGTQFGLRTPGSRVESILMSLPEHAS  
WLYNHHPAPGSREAKLLEVTTKPREWVK

>P03444

MYKIVLVLT LFGAVNGLDKICLGHHAVPNGIIVKTLTNEKEEVTNATETVESKTLDR LCM  
KGRKYKDLGNCHPIGIIIGAPACDLHLTGRWETLIERENSIAYCYP

>P57777

MTQKLAVVLFNLGGPDGPD AVRPFLFNLFRDPAIIGAPALIRYPLAALISTTREKSAKAN  
YAIMGGSPLLPETEKQARALEAALALAMPGVEAKCFIAMRYWHPLTDETARQVA AFAPD  
QVVLLPLYPQFSTTTTGS SLKAWKKT YKGSVQTTVGCYPT EGG LIEAHARMIRE SWEKA  
GSPTNIRLLFS AHGLPEKVILAGDPYQKQVEATAAAVA AHLPPQIEWTVCYQSRVGLKW  
IGPSTDDEIRRAGGEDKGVMITPIAFVSEHVETLVELDHEYAELAEVGAAPYL RVSALG  
TAPEFIDGLAKAVRDSV GKAPGTVSSACGWRCGADWSKCPCREGASA

>P22830

MRS LGANMAAALRAAGVLLRDPLASSSWRVCQPWRWKS GAAAAAVTTETAQHAQGAKPQV  
QPQKRKPKTGILMLNMGGPETLGDVHDFLLRLFLDRDLMTLP IQNKLAPFIAKRRTPKIQ  
EQYRRIGGGSPIKIWT SKQEGEMVKLLDELS PNTAPHKYYIGFRYVHPLTEEAIEEMERD  
GLERAI AFTQYPQYSCSTTGSSLNAIYRYYNQVGRKPTMKWSTIDRWPTHLLLIQCFADH

ILKELDHFPLEKRSEVVILFSAHSLPMSVVNRGDPYPQEVSATVQKVMERLEYCNPYRLV  
WQSKVGPMPWLGPQTDESIGLKERGRKNILLVPIAFTSDHIETLYELDI EYSQVLAKEC  
GVENIRRAESLNGNPLFSKALADLVHSHIQSNELCSKQLTLSCPLCVNPVCRETKSFFTS  
QQL

>P02244

MGFPIDDPYVWDPSFRTFYSIIDDEHKTLFNGIFHLAIDDNADNLGELRRCTGKHFLNEQ  
VLMQASQYQFYDEHKKEHETFIHALDNWKGDVKWAKSWLVNHIKTIDFKYKGI

>P22766

GFPVDPFIWDASFKTFYDDLNDQHKQLFQAILLTQGNVGGATAGDNAYACLVAHFLFEEA  
AMQVAKYGGYGAAHAAHEEFLGKVKGGSSADAAYCKDWLTQHIIKTIDFKYKGI

>P27709

MSNDIDLKRLGPSAMDQIMLYLAFSAMRTSGHRHGAFDAAATAAKCAIYMTYLEQGN  
LRMTGHLHLEPKRVKIVEEVRQALMEGKLLKTLGSQEPYLIQFPYVWMEQYPWIPGR  
SRIPGTSLTSEEKQIEHKLPSNLPDAQLVTSFEFLELIEFLHKRSQEDLPPEHRMELSE  
ALAEHIKRLLYSQTVTRIDSPWGMFPYALTRPFYAPADDQERTYIMVEDTARYFRMMKD  
WAEKRPNAMRALEELDVPPERWDEAMQELDEIIRTWADKYHQVGGIPMILQMVFRKED

>P06865

MTSSRLWFSLLLAAAFAGRATALWPWPQNFQTSQRYVLYPNNFQFYQDVSSAAQPGCSV  
LDEAFQRYRDLLFGSGSWPRPYLTGKRHTLEKNVLVSVVTPGCNQLPTLESVENYTLTI  
NDDQCLLLSETVWGALRGLETFSQLVWKSAGTFFINKTEIEDFPRFPHRGLLLDTSRHY  
LPLSSILDTLDMAYNKNLVFHWHLVDDPSFPYESFTFPELMRKGSYNPVTHIYTAQDVK  
EVIEYARLRGIRVLAEFDTPGHTLSWGPPIPLLLTPCYSGSEPSGTFGPVNPVSLNNTYEF  
MSTFFLEVSSVFPDFYLHLGGDEVDFTCWKSNEIQDFMRKKGFGEDEFKQLESFYIQTLL  
DIVSSYKGYVWQEVFDNKVKIQPDTIIQVWREDIPVNYMKELELVTKAGFRALLSAPW  
YLNRI SYGPDWKDFYVVEPLAFEGTPEQKALVIGGEACMWGEYVDNTNLVPRLWPRAGAV  
AERLWSNKLTSDLTFAYERLSHFRCCELLRRGVQAQPLNVGFCEQEFEQT

>P0A6X3

MAKGQSLQDPFLNALRRERVPVSIYLVNGIKLQGGQIESFDQFVILLKNTVSMVYKHAIS  
TVVPSRPVSHHSNAGGGTSSNYHHGSSAQNTSAQQDSEETE

>P20035

MPIPNNGAGENAFDPVFNDDDGYPDLSFMI PAHYKKYLTKVLPNGVIKNRIEKLAYD  
IKKVYNNEEFHILCLLKSGRGGFTALLKHLRIHNYSAVETSPLFGHEHYVRVKSVCNDQ  
STGTLEIVSEDL SCLKGKHLVIVEDIIDTGKTLVKFCEYLKKEIKTVAIACLF IKRTP  
WNGFKADFVGF SIPDFVVGYSLDYNEIFRDLDHCCLVNDEGKKKYKATSL

>Q26997

MASKPIEDYGKGGRIEPMYIPDNTFYNADDFLVPPHCKPYIDKILLPGGLVKDRVEKLA  
YDIHRTYFGEELHIIICILKSGRGGFNLLIDYLATIQKYSGRESSVPPFFEHYVRLKSYQN  
DNSTGQLTVLSDDL SIFRDKHVLIVEDIVDTGFTLTFEGERLKAVGPKSMRIATLVEKRT  
DRSNLKGDFVGF SIEDVWIVGCCYDFNEMFRDFDHVAVLSDAARKKFEK

>P51900

MTETPMDDLERVLYNQDDIQKRIRELAELTEFYEDKNPVMICVLTGAVFFYTDLLKHL  
DFQLEPDYIICSSYSGTKSTGNLTISKDLKTNIEGRHVLVVEDIIDTGLTMYQLLNNLQM



RKPASLKVCTLCDKDIGKKAYDVPIDYCGFVVENRYIIGYGFDFHNKYRNLVIGILKES  
VYT

>Q9NWT6

MAATAAEAVASGSGEPREEAGALGPAWDESQLRSYSFPTRPIPRLSQSDPRAEELIENEE  
PVVLTDTNLVYPALKWDLEYLQENIGNGDFSVYSASTHKFLYDEKMANFQNFKPRSNR  
EEMKFHEFVEKLDIQQRGGEERLYLQQTLDNTVGRKIVMDFLGFNWNWINKQQGKRGWG  
QLTSNLLLLIGMEGNVTPAHYDEQQNFFAQIKGYKRCILFPDQFECLYPYPVHHPDRQS  
QVDFDNDPYERFPNFQNVVGYETVVGPGDVLYIPMYWVHHIESLLNGGITITVNFVYKGA  
PTPKRIEYPLKAHQKVAIMRNIKMLGEALGNPQEVGPLLNTMIKGRYN

>P38524

MERLSEDDPAAQALEYRHDASSVQHPAYEEGQTCNLNCLLYTDASAQDWGPCSVFPGKLV  
ANGWCTAWVAR

>Q8T0S6

MSEPEVTSVVDKSPNIISSCSFFKLKLLSEESLLQPPEKVF'DIMYKLGESYGSVYKAV  
HKESSSIVAIAKLVPESDLHEIIEKEISIMQQCDSFYVRYYSYFKQYDLWICMEYCGAG  
SVSDIMRLRKKTLTEDEIATILSDTLQGLVYLHLRRIHRDIKAANILLNTEGYAKLADF  
GVAGQLTDTMAKRNTVIGTPFWMAPEVIEEIGYDCVADIWSLGITALEMAEGKPPYGEIH  
PMRAIFMIPQKPPPSFREPDWSTEFIDFVSKCLVKEPDRATATELLEHEFIRNAKHS  
ILKPMLEETCAIREQQRANRSFGGVLAASQAKSLATQENGMQQHITDNAFMEDPGLVPE  
KFGYEQSSASDATMIAHAEQGVDEGTLGPGGLRNLKAAAPAAAASSAASPLDMPAVDSG  
TMVELESNLGTMVINSDDSTTAKNNDQKPRNRYRPFLEHFDRKNAGDGRGDEKPIA  
TEYSPAAAEEQQQQQQQQQQQQQDEQHLASGANDLNNWEHNMEMQFQQISAINQYGLQQH  
QQQQQVLMAYPLMNEQLIALNNQPNLLLSNAAPMGQQGIPAAAPAQPPPAYQNQHMTQS  
HAYVEGEFEFLKFLTFDDLNRQLCNIDHEMELEIEQLNKKYNAKRQPIVDAMNAKRKRQQ  
NINNNLIKI

>P15516

MKFFVFALILALMLSMTGADSHAKRHHGYKRKFHEKHHSHRGYRSNYLYDN

>P40919

MSERIASVERTTSETHISCTIDLHDPGVTEQKINVSTGIGFLDHMF'TALAKHGGMSLQL  
QCKGDLHIDDHHTAEDCALALGEAFKKALGERKGIKRYGYAYAPLDESLSRAVIDISSRP  
YFMCHLPFTREKVGDLSTEMVSHLLQSFAFAAGVTLHIDSIRGENNHIIAESAFKALALA  
IRMAISRTGGDDVPSTKGVLAL

>P06986

MSTVTITDLARENVRNLTPYQSARRLGGNGDVWLNANEYPTAVEFQLTQQTLNRYPECQP  
KAVIENYAQYAGVKPEQVLVSRGADEGIELLIRAFCEPGKDAIILYCPPTYGMYSVSAETI  
GVECRTVPTLDLWQDLQGISDKLDGVKVVVYVCSPPNPTGQLINPQDFRLLLELTRGKAI  
VVADEAYIEFCPQASLAGWLAIEYPLAAILRRLSKAFALAGLRCGFTLANEEVINLLMKVI  
APYPLSTPVADIAAQALSPQGIVAMRERVAQIIAEREYLI AALKEIPCVEQVFDSETNYI  
LARFKASSAVFKSLWDQGIILRDQNKQPSLSGCLRITVGTREESQRVIDALRAEQV

>Q9X0D0

MNPLDLIAKRAYPYETEKRDKTYLALNENPFPFPEDLVDEVFRRLNSDALRIYYDSPDEE  
LIEKILSYLDTDFLSKNNVSVNGADEIIVMMLMFDPSVFFPPTYSCYRIFAKAVGAKF  
LEVPLTKDLRIPEVNVGEGDVVFI PNPNPTGHVFEREEIERILKTGAFVALDEAYYEFH

GESYVDFLKKYENLAVIRTFSKAFSLAAQRVGVVASEKFIDAYNRVRLPFNVSYVSQMF  
AKVALDHREIFEERTKFIVEERERMKSALREMGYRITDSRGNFVVFVMEKEEERLLEHL  
RTKNVAVRSFREGVRITIGKREENDMILRELEVFK

>P06988

MSFNTEIIDWNSCTAEQQRQLLMRPAISASESITRTRVNDILDNVKARGDEALREYSAKFDK  
TTVTALKVSAEEIAAASERLSDELKQAMAVAVKNIETFHTAQKLPVVDVETQPGVRCQQV  
TRPVASVGLYIPGGSAPLFFSTVLMLATPASIAGCKKVVLCSPPIADEILYAAQLCGVQD  
VFNVGGAQAI AALAFGTESVPKVDKIFGPGNAFVTEAKRQVSQRLDGAAIDMPAGPSEVL  
VIADSGATPDFVASDLLSQAHEGPD SQVILLTPAADMARRVAE AVERQLAELPRAETARQ  
ALNASRLIVTKDLAQCV EISNQYGP EHLIIQTRNARELVDSITSAGSVFLGDWSPESAGD  
YASGTNHVLP TYGYTATCSSLGLAD FQKRMTVQELSKEGFSALASTIETLAAAERLTAHK  
NAVTLRVNALKEQA

>Q59041

MLPKATVKRIMKQHTDFNISAEAVDEL CNMLEEIIKITTEVAEQNARKEGRKTIKARDIK  
QCDDERLKRKIMELSERTDKMPILIKEMLN VITSEL

>P49866

MHADALASAYPAASQPHSPIGLALSPNGGGLGLSNSNQSS ENFALCNGNGNAGSAGGGS  
ASSGSNNNNMSMFSNNNL SSGSGTNS SQQLQQQQQQSPTVCAICGDRATGKHYGASS  
CDGCKGFFRRSVRKNHQYTCRFARNCVVDKDKRNQCRYCRLRCKCFKAGMKKEAVQNERDR  
ISCRRTSNDDPD PGNLSV I SLVKAENESRQSKAGAAMEPNINEDLSNKQFASINDVCE  
MKQQLLTLVEWAKQIPAFNELQLDDQVALLRAHAGEHLLLGLSRRSMHLKDVLLLSNNCV  
ITRHC PDPLVSPNLDISRIGARIIDELVTVMKDVGIDDTEFACIKALVFFDPNAKGLNEP  
HRIKSLRHQILNLEDYISDRQYESRGRFGEILLILPVLQSITWQMIEQIQFAKIFGVAH  
IDSL LQEMLLGGELADNPLPLSPPNQSN DYQSPHTGNMEGGNQVNSSLDSLATS GGP GS  
HSLDLEVQHIQALIEANSADDSFRAYA AASTAAAAAAAVSSSSSAPASVAPASIS PPLNSP  
KSQHQQHQQHATHQQQQESSYL DMPVKHYNGSRSGPLPTQHSPQRMHPYQRAVASPVEVSS  
GGGGLGLRNPADITLNEYNRSEGSSAEELLRRRTPLKIRAPEMLTAPAGYGTEPCRMTLKQ  
EPETGY

>P52705

MVTAHFVLIHTICHGAWIWHKLPALERAGHKVTALDMAASGIDPRQIEQINSFDEYSEP  
LLTFLEKLPQGEKVIIVGES CAGLNIAIAADRYVDKIAAGVFHNSLLPDTVHSPSYTVEK  
LLESFPDWRDTEYFTFTNITGETITTMKLG FVLLRENLF TKCTDGEYELAKMVMRKGSLF  
QNVLAQRPKFTEKGYGSIKKVYIWDQDKIFLPDFQRWQIANYKPKKVYQVQGGDHKLQL  
TKTEEVAHILQEVA DAYA

>Q02959

MSSKHS DPLERFYKQFQAFVQNNPNVISAARAAAQIPESAKAVVVLSPYSLQHVFPREWV  
TKSYRKTIVERPERLLASSMGISAAITMYP SLFTLKS SHQRKGS LMAPHV LKVHGSSWPA  
ELIELCQMADAKLLKGEIEVPDTWNSGDIYLS SSKTIKALQGTIGAIETGVDSIFKGP SAE  
HISNRAFVAIRPPGHHCHYGTPSGFCLLNNAHV AIEYAYDTYNVTHVVLD FDLHHGDGT  
QDICWKRAGFKPEEEEPEDSSYDDFGKKFAEF PKVGYFSMHDINSFP TESGFATKENIKNA  
STCIMNS HDLNIWNIHLSKWTTEEEFNVL YRTKYRTLFAKADEF FRSAKLEMNQQGRPFK  
GLVVISAGFDASEFEQTSMQRHSVNVPTS FYTTFTKDALKLAQMCHGKVL SLMEGGYSD  
KAICSGVFAHLIGLQNDWVKEWSEQV VKEIVRGCKPAWKPYKTKRAKD VIRIWAEEVI  
RLGRAMIPEFDDIIFKDAVNSAPSNSLLKATVEPASTSTIAQRIRSHRSNASPEKELHE  
NKPRSTEKQEQREIRS DTKVKQLSSNNRAAETQIPFLQQEF SSEDEDEEYVYDEELNKTF

NRTVEDITIDDISRHLETLEIEKKGDESDHELKEKNWKNSHQRRLLQGNGMYKIPSNTKP  
HRIRQPQNANTPTYDDSDISMISHVSRKHTTRSGGRW

>P93836

MGHQNAAVSENQNHDDGAASSPGFKLVGFVKFVRKNPKSDKFKVKRFHHIEFWCGDATNV  
ARRFSWGLGMRFSKSDLSTGNMVHASYLTLTSGDLRFLFTAPYSPSLSAGEIKPTTTAS I  
PSFDHGSCRSFFSSHGLGVRVAIEVEDAESAFSISVANGAIPSSPPIVLNEAVTIAEVK  
LYGDVVLRYVSYKAEDTEKSEFLPGFERVEDASSFPLDYGIRRLDHAVGNVPELGPALTY  
VAGFTGFHQFAEFTADDVGTAEGLNSAVLASNDEMVLIPINEPVHGTKRKSQIQTYLEH  
NEGAGLQHLALMSEDI FRTLREMRKRSSIGGFDFMPSPPPPTYQNLKKRVDVLSDDQIK  
ECEELGILVDRDDQGTLQIFTKPLGDRPTIFIEIIQRVGCMMKDEEGKAYQSGGCGGFG  
KGNFSELFKSIIEEYEKTLQAKLVG

>P80064

ADLYENPMGLMGFEFIELASPTPNTLEPIFEIMGFTKVATHRSKDVHLYRQGAINLILNN  
EPHSVASYFAAEHGPSVCGMAFRVKDSQKAYKRALELGAQPIHIETGPMELNLPKIGIG  
GAPLYLIDRFEGESSIYDIDFVFLGVDHRHPVGAGLKI IDHLTHNVYRGRMAYWANFYEK  
LFNFREIRYFDIKGEYTGTLT SKAMTAPDGMIRIPLNEESSKGAGQIEEFMQLQFNQEGIQH  
VAFLSDDLKIKTWDHLKSIGMRFMTPAPDPTYEMLEGRLPNHGEPVGELOARGILLDGSSE  
SGDKRLLQLQIFSETLMGPVFFFEIQRKGGDFGEGNFKALFESI ERDQVRRGVLSTD

>Q53586

MTQTTHHTPDARQADPFVKGMDAVVFAVGNAAQAAHYSTAFGMQLVAYS GPENGSRE  
TASYVLTNGSARFVLT SVIKPATPWGHFLADHVAEHGDGVVDLAI EVPDARAAHAYAIEH  
GARSVAEPEYELKDEHGTVVLAAIATYGKTRHTLVDRITGYDGPYLPGYVAAAPIVEPPAHR  
TFQAIDHCVGNVELGRMNEWVGFYKVMGFTNMKEFVGGDDIATEYSALMSKVADGTLKV  
KFPINEPALAKKKSQIDEYLEFYGGAGVQHIALNTGDIVETVVRTMRAAGVQFLDTPDSY  
DTLGEWVGDRVVDLRELKILADRDEDDGYLLQIFTKPVQDRPTVFFFEI IERHGSMGFG  
KGNFKALFEAIEREQEKRGNL

>P00492

MATRSPGVVISDDEPGYDLDFLCIPNHYAEDLERVFI PHGLIMDRTERLARDVMKEMGGH  
HIVALCVLKGKGFADLLDYIKALNRNSDRSIPMTVDFIRLKSVCNDQSTGDIKVIIGD  
DLSTLTGKNVLIVEDIIDTGKTMQTLTSLVRQYNPKMVKVASLLVKRTPRSVGYKPDFVG  
FEIPDKFVVGYALDYNEYFRDLNHVCVISETGKAKYKA

>Q24142

MDGVKVETFIKSEENRAMPLIGGGSASGGTPLPGGGVGMGAGASATLSVELCLVCGDRAS  
GRHYGAI SCEGCKGFFKRSIRKQLGYQCRGAMNCEVTKHHRNRCQFCRLQKCLASGMRSD  
SVQHERKPIVDRKEGIIAAAGSSSTSGGGNGSSTYLSGKSGYQQGRGKGHVKAESAATP  
PVHSAPATAFNLNENIFPMGLNFAELTQTLMFATQQQQQQQQHQSGSYSPDIPKADPE  
DDEDDSMDNSSTLCLQLLANSASNNSQHLLNFNAGEVPTALPTTSTMGLIQSSLDMRVIH  
KGLQILQPIQNQLERNGLSVKPECDSEAEDSGTEDAVDAELEHMELDFECGNRSGGSD  
FAINEAVFEQDLLTDVQCAFHVQPPTLVHSYLNIHYVCETGSRIIFLTHTLRKVPVFEQ  
LEAHTQVKLLRGVWPALMAIALAQCGQLSVPTIIGQFIQSTRQLADIDKIEPLKISKMA  
NLTRTLHDFVQELQSLDVTDMFGLLRILLFNPTLLQQRKERSLRGYVRRVQLYALSSL  
RRQGGIGGGEERFNVLVARLLPLSSLDAAEAMEELFFANLVGMQMDALIPFILMTSNTSG  
L

>O85094

MSTEDLYQEDVEMLDDYEDPSTEQHWSEEDGEPSGYATAEPDDHAAQEEQDEPPALDSLALDLTLRCGELRLTLAELRRLDAGTILEVTGISPGHATLCHGEQVVAEGELVDVEGRGLQITRLVTRS

>P38529

MEGPGAAAAAVGAGPGGSNVSAFLTKLWTLVEDPETDPLICWSPSGNSFHVFDQGGQFAKEVLPKYFKHNNMASFVRQLNMYGFRKVVHIEQGGLVKPEKDDTEFQHPYFIRGQEHLLENIKRKVTSVSSIKNEDIKVRQDNVTKLLTDIQVMKGKQESMDSKLIAMKHENEALWREVASLRQKHAQQQKVVNKLIQFLISLVQSNRILGVKRKIPMLMLNDSSSAHSMPKYSRQYSLEHVHGSSPYAASSPAYSGSNIYSPDSSTNSGPIISDVTELAQSSPSASPSGSLDERSSPVVRIKEEPPSPSRSPKENEPSTTTAAAGNSTEQPQPQEKCLSVACLKNELNHLDLTDIDSNLDNLQTMLSTHGFSVDTTALLDLFSPSMTVTDMLNPLDLSSSLASIQDLLSSQEQQKPEADAAAADTGKQLVHYTAQPLFLVDSSAVDVGSGDLPDIFFELGEGSYFTDGDEYNEDPTISLLSGTEQPKPKDPTVS

>P38531

MREGSALPGAPGAAPVPGFLAKLWALVEDPQSDDVICWSRNGENFCILDEQRFAKELLPKYFKHNNISSFIRQLNMYGFRKVVVALENGMITAEKNSVIEFQHPFFKQGNHLLENIKRKVSAVRTEDLKVCAEDLHKVLSSEVQEMREQQNNMDIRLANMKRENKALWKEVAVLRQKHSQQKLLLSKILQFILSLMRGNYIVGVKRKRSLTDAAGASPSKYSRQYVRIPVESGQAMAFSEHNSDDEDGNRTGLIIRDITDTLENATNGLLAVAHTSGRDRETQTALDPGLPICQVSQPNELSCAEPIPPVHINDVSKPNEMGNVAVELHTAQANAPEDPVSVIDSILNENNSGNQNDPLLDREEIQDFLNCIDASLEELQAMLSGKQYSFGSEAFSDVFNPELPAALDMLMETSPGMENIANMEDSTEDLGASERETAGSKGGQEGTESCDSSVLFQNCVVKWNFSSL

>P43773

MSEMPREIVSELDQHIIGQADAKRAVAIALRNRWRRMQLOEPLRHEVTPKNILMIGPTGVGKTEIARRLAKLANAPFIKVEATKFTEVGVYVKEVDSIIRDLTDSAMKLVRRQEI AKNRAAEDVAEERILDALLPPAKNQWGEVENHDSHSSSTRQAFRKKLREGQLDDKEIEIDVSAGVSMGVEIMAPPGMEEMTNQLQSLFQNLGSDKTKKRKMKIKDALKALIDDEAAKLINPEELKQKAIDAVEQNGIVFIDEIDKICKKGEYSGADVSREGVQRDLLPLVEGSTVSTKHGMVKT DHILFIASGAFQVARPSDLIPELQGRLP IRVELTALSAADFERILTEPHASL TEQYKALMATEGVNIAFTTDAVKKIAEAAFRVNEKTENIGARRLHTVMERLMDKISFSASDMNGQTVNIDAAYVADALGEVVENEDLSRFIL

>P0A7B8

MTTIVSVRRNGHVVIAGDGQATLGNVTMKGNVKKVRRRLYNDKVIAGFAGGTADAFTLFELFERKLEMHQHGLVKA AVELAKDWR TDRMLRKL EALLAVADETASLIITGNGDVVQPENDLIAIGSGGPYAQAARALLENTELSAREIAEKALDIAGDICIYTNHFHTIEELSYKA

>O32323

MTDWPVYHRIDGPIVMIGFGSIGRGTLP LIERHFAFDRSKLVVIDPSDEARKLAEARGVRFIQQAVTRDNYRELLVPLLTAGPGQGFVNLSDVTSLLDIMELARENGALYIDTVVEPWLGFYFDPDLKPEARSNYALRETVLAARRNKPGGTAVSCCGANPGMVSWFVKQALVNLAADLGVTGEEPTTREETWARLAMDLGVKGIHIAERDTQRASFPPKPFDFVFNWTSVEGFVSEGLQPAELGWGTFERWMPDNARGHDSGCGAGIYLLQPGANTRVRSWTP TAMAQYGLVTHNESISIADFLTVRDAAGQAVYRPTCHYAYHPCNDAVLSLHEMFGSGKRQSDWRILDETEIVDGI DELGVLLYGHGKNAYWYGSQLSIEETRR IAPDQ NATGLQVSSAVLAGMVWALENPNAGIV EADDLDFRRCLEVQTPYLG PVVGVYTDWTPLAGRPGLFPEDIDTSDPWQFRNVLRD

>P21310

MTELTLPKPGTLTLAQLRAIHAAPVRLQLDASAAPAIDASVACVEQIIAEDRTAYGINTGF  
GLLASTRIASHDLENLQRSLVLSHAAGIGAPLDDDLVRLIMVLKINSLSRGFSGIRRKVI  
DALIALVNAEVYPHIPLKGSV GASGDLAPLAHMSLVLLGEGKARYKGQWLSATEALAVAG  
LEPLTLAAKEGLALLNGTQASTAYALRGLFYAEDLYAAAACGGLSVEAVLGSRSFPDAR  
IHEARGQRQIDTAACFRDLLGDSSEVLSLHKNCCKVQDPYSLRCQPQVMGACLTQLRQA  
AEVLGIEANAVSDNPLVFAAEGDVISGGNFHAEPVAMAADNLALAEIGSLSERRISLM  
MDKHMSQLPPFLVENGGVNSGFMIQVTAALASENKALSHPHSVDSLPTSANQEDHVSM  
APAAGKRLWEMAENTRGVLAIEWLGACQGLDLRKGKLSAKLEKARQALRSEVAHYDRDR  
FFAPDIEKAVELLAKGSLTGLLPAGVLPSSL

>P42084

MPKQIDTILINIGQLLTMESSGPRAGKSMQDLHVEDAVVGIHEQKIVFAGQKGAEAGYE  
ADEIIDCSGRLVTPGLVDPHTHLVFGGSREKEMNLKLGISYLDILAQGGGILSTVKDTR  
AASEEELLQKAHFHLQRMLSYGTTTAEVKSGYGLEKETELKQLRVAKKLHESQPVDLST  
FMGAHAIPPEYQNDPDDFLDQMLSLLEIPEIKEQELASFADIFTETGVFTVSQSRRYLQKAA  
EAGFGLKIHAIIDPLGGAELAGKLVKAVSADHLVGTSDGKLAEGTIAVLLPGTTFY  
LGKSTYARARAMIDEGVCVSLATDFNPGSSPTENIQLIMSIAALHLKMTAEEIWHAVTVN  
AAYAIGKGEAGQLKAGRSADLVIWQAPNYMYPYHYGVNHVHQMKNGTIVVNREGAIL  
G

>P10943

MTLHKERRIGRLSVLLLLNEAEESTQVEELERDQWKVCLGKVGSMDAHKVVAIETASKK  
SGVIQSEGYRESHALYHATMEALHGVTRGEMLLGSLLRVGLRFAVLRGNPYESEAEAGDW  
IAVSLYGTIGAPIKGLEHETFGVGINHI

>P53385

MTDSVSKAVARTIRAPHGSELHCANWLI EAAAYRMIQNNLDPDVAERPEDLVVYGGIGKAA  
RNWACFEQILRSLQALQPEETLLVQSGKPVGVFRTHADAPRVLIANSNLVPHWATWDHFI  
ELDKAGLMMYGQMTAGSWIYIGAQQIVQGTFFETTFVEAGRKHNGDLTGKWIITAGLGGMG  
GAQPLAGVLGACVLAVECQESRIDFRLRTRYLDHKAFSVDEALAIIDKACKEKRAISVG  
LLGNAAEILPELVQRAKAGGMPDIVTDQTSAHDPINGYLPAGWDLARWESSRQSDPKAV  
EKAARASMAVHVQAMLD FCHMGIPTVDYGNMIRQVALDEGVKNAFDFFPGFVPAYIRPLFC  
EGKGPFRWVALSGDPEDIYKTDALKKALFPEHTNLHRWLDMAQERIAFQGLPARICWLGL  
GERHLAAGLAFNEMVRNDELKAPVVIGRDHLDCGSVASPNRETEAMMDGSDAVSDWPLLN  
LLNTAGGATWVSLHHGGVGMGFSQHAGVVIVADGTAEADARLSRVLWNDPATGVMRHAD  
AGYEVARDCARRHELTLPMAKELP

>P04807

MVHLGPKKPQARKGSMADVPKELMQQIENFEKIFTVPTETLQAVTKHFISELEKGLSKKG  
GNIPIPIGWVMDFPPTGKESGDFLAIDLGGTNLRVVLVKLGGDRTFDITTSKYRPLDAMRT  
TQNPDELWEFIADSLKAFIDEQFPQGISSEPIPLGFTFSFPASQNKINEGILQRWTKGFDI  
PNIENHDVVPMLQKQITKRNIPIEVVALINDTTGTLVASYYTDPETKMGVIFGTGVNGAY  
YDVCSIDIEKLQKLSDDIPPSAPMAINCEYGSFDNEHVVLPRTKYDITIDEESPRPGQQT  
FEKMSSGYLGEILRLALMDMYKQGFIFKNQDLSKFDKPFVMDTSYPARIEEDPFENLED  
TDDLQNEFGINTTVQERKLIRRLSELIGARAARLSVCGIAAICQKRGYKTGHIAADGSV  
YNRYPGFKEKAANALKDIYGTQTSDDYPIKIVPAEDGSGAGAAVIAALAQKRIAEGKS  
VGIIGA

>Q45515

MTKLIKNGTIVTATDIYEADLLIQDGKIAVIGRNLDSEGAVIDATGCYVFPGGIDPHTH  
LDMFPFGGTVTKDDFESGTIAAAFGGTTTTIIDFCLTNKGEPLKKAIE'TWHNKATGKAVIDY  
GFHLMISEITDDVLEELPKVIEEEGITSFKVFMAYKDVQADDGTLYRTLVAAKELGALV  
MVHAENGVIDYLTTKKALEDGHTDPIYHALTRPPELEGEATGRACQLTELAGSQLYVVHV  
SCAQAVEKIAEARNKGLNVWGETCPQYLVLDDQSYLEKPNFEGAKYVWSPPLREKWHQEV  
WNALKNQQLQTLGSDQCSFDKQKELGRGDFTKIPNGGPIIEDRVSIILFSEGVKKGRIT  
LNQFVDIVSTRIAKLFLFPKKGTIAVGADADLVIFDPTVERVISAE'THHMAVDYNPFEG  
MKVTGEPVSVLRCRGEFVVRDKQFVVKPGYGYVVKRAKYGALMADQDVVKMS

>P01085

SGPWCYYPGQAFQVPALPACRPLLRQLCNGSQVPEAVLRDCCQQLAHISEWCRCGALYSM  
LDSMYKEHGAQEQAGTGAFPRCRREVVKLTAASITAVCRLPVVVDASGDGAYVCKDVAA  
YPDA

>P13691

MGAMWMSMLLVLLLCMLMVTMPMTGARSDNSGPWMWCDPEMGHKVSPLTRCRALVKLECV  
GNRVPEVDVLRDCCQEVANISNEWCRCDLGSMLRSVYAALGVGGGPEEVFPGCQKDVMLK  
LVAGVPALCNVIPNEAAGTRGVICYWSASTDT

>Q9S9E3

DHHQSTDEPSESSKPCCDQCTCTKSIPPQCRCTDVRLNSCHSACSSCVCTFSIPAQCVCV  
DMKDFCYAPCKSSHDD

>P0C058

MRNFDLSPLMRQWIGFDKLANALQNAGESQSFPYNIKSSDDNHYRITLALAGFRQEDLE  
IQLEGTRLVSVKGTPEQPKEEKKWLHQGLMNQPFSLSFTLAENMEVSGATFVNGLLHIDL  
RNEPEPIAAQRIAISERPALNS

>Q9WVS0

MKPYFCRVFVFCFLIRLLTGEINGSADHRMFSFHNGGVQISCKYPETVQQLKMRLFRERE  
VLCELTKTKGSGNAVSIKNPMLCLYHLSMNSVSFFLNNPDSSQGSYYFCSLSIFDPPPFQ  
ERNLSGGYLHIYESQLCCQLKLWLPVGCFAFVVVLLFGCILIIWFSKKKYGSVHDPNSE  
YMFMAAVNTNKKSRLAGVTS

>P08392

MASENKQRPSPGPTDGPPTPSPDRDERGALGWGAETEEGGDDPDHDPDHPDLDDARR  
DGRAPAAGTDAGEDAGDAVSPRQLALLASMVEEAVRTIPTDPAASPPRTPAFRADDG  
DEYDDAADAAGDRAPARGREREAPLRGAYPDPTDRLSPRPPAQPPIRRRRHGRWRPSASST  
SSDSGSSSSSSASSSSSSSDEDEDGNDAAADHAREARAVGRGPSSAAPAAPGRTPPPPG  
PPPLSEAAPKPRAAARTPAASAGRIERRRARAAGVGRDATGRFTAGQPRRVELDADATSG  
AFYARYRDGYVSGEPWPAGPPPPGRVLYGGLGDSRPLWGAPEAEAEARRRFEASGAPAA  
VWAPELGDAAQYALITRLLYTPDAEAMGWLQNPVVPGDVALDQACFRISGAARNSSSF  
ITGSVARAVPHLGYAMAAGRFVGLAHAAAAVAMSRRYDRAQKGFLLTSLRRAYAPLLAR  
ENAALTGAAGSPGAGADDEGVAAVAAAAPGERAVPAGYGAAGILAALGRLSAAPASPAGG  
DDPDAARHADADDAGRRAQAGRVAVECLAACRGILEALAEFGDGLAAVPLAGARPAS  
PPRPEGPAGPAPPPPHADAPRLRAWLRELRFVVDALVLMRLRGDLRVAGGSEAAVAVR  
AVSLVAGALGPALPRDPRLPSSAAAAAADLLFDNQSLRPLLAASAPDAADALAAAAAS  
AAPREGRKRKSPGPAPPPGGGPRPKTKKSGADAPGSDARAPLPAPAPPSTPPGPEPAP  
AQPAAPRAAAAQARPRPVAVSRRPAEGPDPLGGWRRQPPGPSHTAAPAAAALEAYCSRA  
VAELTDHPLFPVPWRPALMFDPRALASIAARCAGPAPAAQAACGGGDDDDNPHPHGAAGG

RLFGPLRASGPLRRMAAWMRQIPDPEDVRVVVLYSPLPGEDLAGGGASGGPPEWSAERGG  
LSCLLAALANRLCGPDTAAWAGNWTGAPDVSALGAQGVLLLSTRDLAFAGAVEFLGLLAS  
AGDRRLIVVNTVRACDWPADGPAVSRQHAYLACELLPAVQCAVRWPAARDLRRTVLASGR  
VFGPGVVFARVEAAHARLYPDAPPLRLCRGGNVRYRVTRFRGPDTPVPMSPREYRRAVLPA  
LDGRAAASGTTDAMAPGAPDFCEEEAHSHAACARWGLGAPLRPVYVALGREAVRAGPARW  
RGPRRDFCARALLEPDDDAPPLVLRGDDDGPGALPPAPPGIRWASATGRSGTVLAAAGAV  
EVLGAEAGLATPPRREVVDWEGAWDEDDGGAFEGDGVL

>Q00630

MQRFLVFTIVAVATAAAGDIFYPGYCPDVKPVDDFDLSAFAGAWHEIAKLPLENENQGKC  
TIAEYKYDGKKASVYNSFVNVNGVKEYMEGDLEIAPDAKYTKQGKYVMTFKFGQRVNLVP  
WVLATDYKNYAINYNYNHPDKKAHSIHAWILSKSKVLEGNTEKVVNDNLKTFSHLIDAS  
KFISNDFSEAACQYSTTYSLTGPDRH

>Q46822

MQTEHVILLNAQGVPTGTLEKYAAHTADTRLHLAFSSWLFNAKGQLLVTRRALSCKAWPG  
VWTNSVCGHPQLGESNEDAVIRRCRYELGVEITPPESIYPDFRYRATDPSGIVENEVCPV  
FAARTTSALQINDDEVMDYQWCDLADVLHGIDATPWAFSPWMVMQATNREARKRLSAFTQ  
LK

>Q53479

MTEVLDILRKYSEVADKRIMECISDITPDITLLKASEHLITAGGKIRPSLALLSCEAVGG  
NPEDAAGVAAAIELIHTFSLIHDDIMDDDEMRRGEPVHVIVWGEPMAILAGDVLFSKAFE  
AVIRNGDSERVKDALAVVVDSCVKICEGQALDMGFEERLDVTEDEYMEMIYKKTAAALIAA  
ATKAGAIMGGASEREVEALEDYGKFIGLAFQIHDDYLDVVSDEESLGKPVGSDIAEGKMT  
LMVVKALEEASEEDRERLISILGSGDEGSVAEAEIFERYGATQYAHEVALDYVRMAKER  
LEILEDSDARDALMRIADFLEREH

>P26894

MTSKLAVAF LAVFLLSAALCEAAVLARVSAELRCQCINTHSTPFHPKFIKELRVIESGPH  
CENSEIIVKLVNGKEVCLDPKEKWVQKVVQIFLKRTEKQQQQQ

>P80229

MEQLSAANTRFALDLFRALNESNPAGNIFISPFSSISSALAMILLGTRGNTEAQM SKALHF  
DTVKDIHSRFQSLNADINKCGASYILKLANRLFGEKTYHFLPEFLASTQKTYGAELASVD  
FLRASEEARKAINEWVKEQTEGKIPELLASGVVDSATKLVLVNAIYFKGSWQEKFMTEAT  
KDAPFRNLNKKDSKTVKMMYQKKKFPFGYIKELKCRVLELPYQGDLSMVILLPDSIEDES  
TGLRKIEQHLTLEKLNWTKPDNLELLEVNHLPRFRLEESYDLNAPLARLGVQDLFGSR  
ADLTGMSEARDLFIKVVHKAFFVEVNEEGTEAAAAATAGIAVFAMLMPEEDFIADHPFIFF  
IRHNPSSNILFLGRLSSP

>P29107

MARMYYDQDANLDLLAGKTVAIIGYGSQGHAAHALNLKDSGVNVVVGLYSGSKSVAKAEGA  
GLKVL SVAEAAKAADLIMILLPDEVQKTVYEAEIAPNLVAGNVLLFAHG FNINFAQIVPP  
ADVDDVMAAPKPGHLVRRTYEQGQGPALFAVYQDASGQARDYAMAYAKGIGGTRAGIL  
ETTFREETETDLFGSEQVVLCCGLTALIKAGFDTLVEAGYQPELAYFECLHEVKLIVDLIV  
EGGLAKMRDSISNTAEYGDLTRGPRIVTEETKAEMRQILDEIQSGQFAREFVLENQAGKP  
GFTAMRRRESEELIEEVGKDLRAMFSWLKDR

>P20456

MADPWQECMDYAVTLAQAGEVVREALKNEMNIMVKSSPADLVTATDQKVEKMLITSIKE  
KYPSSHSFIGEESVAAGEKSILTDNPTWIIDPIDGT'N'FVHGFPFVAVSIGFVVNKKMEFG  
IVYSCLEDKMYTGRKKGAF'CN'GQKLQVSHQEDITKSLLVTELGSSRTPETVRIILSNIE  
RLLCLPIHGIRGVGTAALNMCLVAAGAADAYYEMGIHCWDVAGAGIIVTEAGGVLLDVTG  
GPFDLMSRRVVIASSNKTLAERIAKEIQIIPLQRDDED

>P80217

MSAPLDAALHALQEEQARLKMRLWDLQQLRKELGDS'PKDKV'PF'V'PKIPLVFRGHTQQDP  
EVPKSLVSNLRIHCPLLAGSALITFDDPKVAEQVLQ'Q'KEHTINMEECLRVQVQPLELPM  
VTTIQVSSQLSGRRVLVTGFPASLRLSEEEELLDKLEIFFGKTRNGGGD'VDV'RELLPGSVM  
LGFARDGVAQRLCQIGQFTVPLGGQ'Q'VPLRVSPYVNGEIQKAEIRSQPVPRSVLVLNIPD  
ILDGPELHDVLEIHFQKPTRGGGEVEALTVV'P'Q'Q'GLAVFTSESG

>P0A5Y6

MTGLLDGKRILVSGIITDSSIAFHARVAQE'QGAQLVLT'GF'DRLRLIQRITDRLPAKAPL  
LELDVQNEEHLASLAGRVTEAIGAGNKLDG'V'VHSIGFMPQTMGINPFFDAPYADVSKGI  
HISAYSYASMAKALLPIMNPGGSIVGMD'FD'PSRAMPAYNWM'TVAKSALESVNR'FVAREAG  
KYGVRSNLVAAGPIRTLAMS'AI'VGGALGEEAGAQIQLLEEGWDQRAPIGWNMKD'AT'P'VAK  
TVCALLSDWLPATTGDI'YADGGAHTQ'LL

>P19514

MAFENKIVEAFIEIPTGSQNKYEF'DKERGI'FKLDRVLYSPMFYPAEYGYLQNTLALD'GDP  
LDILVITTNPPFP'GCVIDTRVIGYLN'MVDSGEEDAKLIGVPVEDPRFDE'VRSIEDLPQHK  
LKEIAHFFERYKDLQ'GKRTEIGTWEGPEAAAKLIDECIARYNEQK

>P37980

MSGFSSEERAAPFTLEYRVFLKNEKGQYISPFHDIPYADKEVFH'MVVEV'PRWSNAKMEI  
ATKDPLNPIKQDVKKGLR'YVANLFPYKGYI'WNYGAIPQTWEDPGHNDKHTGCCGDNDPI  
DVCEIGSKVCARGEIIRVKVLGILAMIDEGE'TDWKVIAINVEDPDAANYNDINDV'KRLKP  
GYLEATVDWFRRYKVPDGK'PENEF'AFNAEFKDKNFAIDIESTHDYWRALVT'KKT'GKGI  
SCMNTTVSESPFQCDPDAAKAIVDALPPP'CESACTIPTD'VDKWFHHQKN

>P0A7A9

MSLLNVPAGKDLPEDIYVVIEIPANADPIKYEIDKESGALFVDRFMSTAMFYPCNYGYIN  
HTLSLDGDPVDVLVPTPYPLQPGSVIRCRPVGVLKMTDEAGEDAKLVAVPHSKLSKEYDH  
IKDVNDLPELLKAQIAHFFEHYKDLEK'GKWV'VEGWENAEAAKAEIVASF'ERAKNK

>P19117

MSEYTTREVGALNTLDYQVYVEKNGTPISSWHDIPLYANA'EKTILNMVVEIPRWTQAKLE  
ITKEATLNP'IKQDTKKGLR'FVRNCFPHHG'IWNYGAFPQTYEDPNV'VHPETKAKGSDP  
LDVCEIGEARGYTGQVKQVKVLGVMALLDEGE'TDWKVIVIDVNDPLAPKLNDIEDVERHM  
PGLIRATNEWFR'IYKIPDGK'PENSAF'AFSGECKNRKYAE'EVVRECNEAWERLITGKTDAKS  
DFSLVNVSVTGSVANDPSVSSTIPPAQELAPAPVDPSVHKW'FYISGSPL

>P50308

MKLSPGKNAPDVVNLVEIPQGSNIKYEYDDEEGVIKVD'RVLYTSMNYPFNYGFI'PGTLE  
EDGDPLDVLVITNYQLYPGSVIEVRPIGILYMKDEEGEDAKIVAVPKDKTDP'SFSNIKDI  
NDLPQATKNKIVHFFEHYKELEPGKYVKISGWGSATEAKNRIQLA'IKRVSGGQ

>P37981



MESFYHSVPVPGPKPPEEVVIVEIPRGRSRVKYEIAKDFPGMLVDRVLYSSVVYPVDYGLI  
PRTLYYDGDPMVMVLISQPTFFGAIMKVRPIGMMKMVDQGETDNKILAVFDKDPNVSYI  
KDLKDVNAHLLDEIANFFSTYKILEKKETKVLGWEGKEAALKEIEVSIKMYEEKYGKKN

>P38576

MANLKSPLVPGDKAPEVVHMVIEVPRGSGNKYEYDPLGAIKLDRLVPGAQFYPGDYGFIP  
STLAEDGDPLDGLVLSTYPLLPVVVEVRVVGLLMEDEKGGDAKVIQVVAEDQRDLHIQ  
DIGDVPEGVKQEIQHFFETYKALEAKKWKVVTGWRDRKAALKEEVRACIARYKG

>Q14653

MGTPKPRILPWLVSQDLGQLEGVAWVNKSRTFRIPWKHGLRQDAQQEDFGIFQAWAEA  
TGAYVPRGRKPDLPWKRNFRSALNRKEGLRLAEDRSKDPHDPHKIYEFVNSGVGDFSQP  
DTSPDTNGGGSTSDTQEDILDELLGNMVLAPLPDPGPPSLAVAPEPCPQPLRSPSLDNPT  
PFPNLGPPSENPLKRLLVPGEEWFEVTAFYRGRQVFQQTISCPEGLRLVGSEVGDRTLP  
WPVTLDPDGMSTLDRGVMYSYVRHVLSCLGGGLALWRAGQWLWAQRLGHCHTYWAVSEELL  
PNSGHGPDGEVPKDKEGGVFDLGPPIVDLITFTTEGSGRSPRYALWFCVGESWPQDQPWTK  
RLVMVQVPTCLRALVEMARVGGASSENTVDLHISNSHPLSLTSDQYKAYLQDLVEGMD  
FQGPGES

>Q92985

MALAPERAAAPRVLFGEWLLGEISSGCYEGQLQWLDEARTCFRVPWKHFARKDLSEADARIF  
KAWAVARGRWPPSSRGGGPPPEAETAERAGWKTNFRCALRSTRRFVMLRDNSGDPADPHK  
VYALSRELCWREGPGTDQTEAEAPAAVPPPQGGPPGPF LAHTHAGLQAPGPLPAPAGDKG  
DLLLQAVQQSCLADHLLTASWGADVPVTKAPGEGQEGPLPTGACAGGPGLPAGELYGWAV  
ETTPSPGPQPAALTTGEEAAPESPHQAEPYLSPSPSACTAVQEPSPGALDVTIMYKGRTV  
LQKVVGHPSCFTLYGPPDPAVRATDPQQVAFPSPAELPDQQLRYTEELLRHVAPGLHLE  
LRGPQLWARRMGKCKVYWEVGGPPGSASPSTPACLLPRNCDTPIFDFRVFFQELVEFRAR  
QRRGSPRYTIYLGFGQDLSAGRPEKESLVLVKLEPWLCRVHLEGTQREGVSSLDSSLSL  
CLSSANSLYDDIECFLELEQPA

>P0AAC8

MSITLSDSAAARVNTFLANRGKGFGLRRLGVRTSGCSGMAYVLEFVDEPTPEDIVFEDKGV  
KVVVDGKSLQFLDGTQLDFVKEGLNEGFKFTNPNVKDECGGESFHV

>Q99X56

MFMAENRLQLQKGSAAETIERFYNRQGIETIEGFQQMFVTKTLNTEDETKILTIVESE  
DSFNNWLNDSVDFKEAHKNVRLKSDDDGQQSPILSNKVFKYDIGYHYQK

>Q46893

MATTHLDVCAVPPAAGFGRRMQTECPKQYLSIGNQTILEHSHVHALLAHPRVKRVVIAISP  
GDSRFAQLPLANHPQITVVDDGGDERADSVLAGLKAAGDAQWVLVHDAARPC LHQDDLARL  
LALSETSRGTGGILAAPVRDTMKRAEPGKNIAIHTVDRNGLWHALTPQFFPRELLHDCLTR  
ALNEGATITDEASALEYCGFHPQLVEGRADNIKVTRPEDLALAEFYLTRTIHQENT

>Q8FI04

MRTQWPSPAKLNLFLYITGQRADGYHTLQTLFQFLDYGDTISIELRDDGDIRLLTPVEGV  
EHEDNLIVRAARLLMKTAADSGRLSTGSGANISIDKRLPMGGGLGGSSNAATVLVALNH  
LWQCGLSMDELAEMGLTLGADVVFVRGHAFAEGVGEILMPVDPPEKWYLVAPGVSIP  
TPVIFKDPPELPRNTPKRSIETLLKCEFSNDCEVIARKRFREVDVAVLSWLLLEYAPSRLTGT  
GACVFAEFDTESEARQVLEQAPEWLNQFVAKGVNLSPLHRAML

>P62623

MQILLANPRGFCAGVDRAISIVENALAIYGAPIYVRHEVVHNRYVVDSLREERGAIFIEQI  
SEVPDGAAILIFSAHGVSQAVRNEAKSRDLTVFDATCPLVTKVHMEVARASRRGEESILIG  
HAGHPEVEGTMGQYSNPEGMYLVESPDVWKLTVKNEEKLSFMTQTTLSDVDDTSDVIDA  
LRKRFPKIVGPRKDDICYATTNRQEAVALAEQAEVVLVVGSKNSSNSNRLAELAQRMGK  
RAFLIDDAKDIQEEWVKEVKCVGVTAGASAPDILVQNVVARLQQLGGGEAIPLEGREENI  
VFEVPKELRVDIREVD

>P35812

TNPVLDVDGNELQRGQLYYATSVMRPGGGLTLAAPKGCPLNVAQAPFDEYSGRPLAFFP  
ENADDDTVQEGSTLYIMFPEPTRCPQSTVWTFDREAGFVTTGGTTSKAIGPHNSRFAIRK  
AGDASSQPRDYQIEVPCSTGVERPSCRMGCLGTLGLAEGGKNVLLNINNESPHTIRFVK  
VKEG

>Q8WWA0

MNQLSFLFLFIATTRGWSTDEANTYFKEWTCSSSPSLPRSCKEIKDECPSAFDGLYFLRT  
ENGVIIYQTFCDMTSGGGGWTLVASVHENDMRGKCTVGDWRSSQQGSKAVYPEGDGNWANY  
NTFGSAEAATSDDYKNPGYYDIQAKDLGIWHVFNKSPMQHWRNSSLLRYRTDTGFLQTLG  
HNLFGIYQKYPVKYGEKGCWTDNGPVI PVVYDFGDAQKTASYSPYQREFTAGFVQFRV  
FNNERAANALCAGMRVTGCNTEHHCIGGGGYFPEASPQQCGDFSGFDWSGYGTHVGYSSS  
REITEAAVLLFYR

>P0AD59

MGRISSGMMFKAITTVAALVIATSAMAQDDLTISSLAKGETTKAAFNQMVQGHKLPWW  
MKGTTYTPAQTVTLGDETYQVMSACKPHDCGSQRIAVMWSEKSNQMTGLFSTIDEKTSQE  
KLTWLNVDALSIDGKTVLFAALTGSLENHPDGFNFK

>Q96N16

MSKKGRSKGEKPEMETDAVQMANEELRAKLTSIQIEFQQEKSXVGLRERLQEAKLEREQ  
EQRRHTAYISELKAKLHEEKTKELOALREGLIRQHEQEAAARTAKIKEGELQRLQATLNVL  
RDGAADKVKTALLTEAREEARRAFDGERLRLQQEILELKAARKQAEALSNCMQADKTKA  
ADLRAAYQAHQDEVHRIKRECERDIRRLMDEIKGKDRVILALEKELGVQAGQTQKLLLQK  
EALDEQLVQVKEAERHHSSPKRELPPGIGDMVELMGVQDQHMDERDVRRFQLKIAELNSV  
IRKLEDRNTLLADERNELLKRSRETEVQLKPLVEKNKRMKNKEDLLQSIQRMEEKIKNL  
TRENEMKEKLSAQASLKRHTSLNDLSLTRDEQIEFLRLQVLEQQHVIDDLSLERERLL  
RSKRHRGKSLKPPKHHVETFFGFDEESVDSETLSETSYNTDRTRTPATPEEDLDDATA  
REEADLRFCQLTREYQALQRAYALLQEQVGGTLDAEREARTREQLQADLLRCQAKIEDLE  
KLLVEKGQDSKWVEEKQLLIRTNQDLLEKIYRLEMEENQLKNEMQDAKDQNELLEFRVLE  
LEVRDSICCKLSNGADILFEPKLFKM

>P06999

MVRIYTLTAPSLDSATITPQIYPEGKLRCTAPVFEPGGGGINVARIAHLGGSATAIFP  
AGGATGEHLVSLADENVPVATVEAKDWTRQNLHVHVEASGEQYRFVMPGAALNEDEFRQ  
LEEQVLEIESGAILVISGSLPPGVKLEKLTQLISAAQKQGIRCIVDSSGEALSAAALIGN  
IELVKPNQKELSALVNRELTPDDVRRKAAQEVNMSGKAKRVVVSIGPQGALGVDSENCIO  
VPPPVKSQSTVGAGDSMVGAMTLKLAENASLEEMVRFVGAAGSAATLNQGTRLCSHDDT  
QKIYAYLSR

>Q9V2Z7

MIDEVRELGIYTAYNANVDAIVNLNAEIIQRLIEEFDPKIKRRLEEYPREINEPLDFVA  
RLVHALKTGKPMVPLVNEELHQWFDKTFKYDTERIGGQAGIIANILVGLKVKKVIAYTP  
FLPKRLAELFKEGILYPVVEEDKLVLPKIQSAYREGDPLKVNRIFEFRKGTRFKLGDEVI  
EVPHSGRFIVSSRFESISRIETKDELKFLPEIGEMVDGAILSGYQGIRLQYSDGKDANY  
YLRRAKEDIRLLKKNKDIKIHVEFASIQDRRLRKKVNNIFPMVDSVGMDEAEIAYILSV  
LGYSDLADRIFMYNRIEDAILGGMIIIDELNFEILQVHTIYYLMYITHRDNPLSEEELMR  
SLDFGTILAATRASLGDINDPRDVKVGMSVPYNERSEYIKLRFEEAKRKLRLKEYKVVIV  
PTRLVNPVSTVGLGDTISTGTFLSYLSLLRRHQ

>Q9UX83

MKIGIVTGIPGVGKTTVLSFADKILTEKGISHKIVNYGDYMLNTALKEGYVKSDEIRKL  
QIEKQRELQALAARRIVEDLSLLGDEGIGLIDTHAVIRTPAGYLPGLPRHVIEVLSPKVI  
FLLEADPKIILERQKRDSRARTDYSDTAVINEVIQFARYSAMASAVLVGASVKVVVNQE  
GDPSIAASEIINSLM

>O34676

MKNKWKYKPKRHWKEIELWKDVPEEKWNDWLWQLTHTVRTLDDLKVINLTEDEEEGVRIS  
TKTIPLNITPYASLMDPDNPRCPVRMQSVPLSEEMHKTKYDLEDPLHEDEDSVPVGLTH  
RYPDRVLFVLTNQCSMYCRYCTRRRFSGQIGMGVPPKQLDAAIAYIRETPEIRDCLISGG  
DGLLINDQILEYILKELRSIPHLEVIRIGTRAPVVPQRITDHLCEILKKYHPVWLNTHF  
NTSIEMTEESVEACEKLVNAGVPVGNQAVVLGINDSVPIMKKLMHDLVKIRVRPYYIYQ  
CDLSEGIGHFRAPVSKGLEIEGLRGHTSGYAVPTFVVDAPGGGKIALQPNYVLSQSPD  
KVILRNFEVITSYPEPENYIPNQADAYFESVFPETADKKEPIGLSAIFADKEVSFTPEN  
VDRIKRREAYIANPEHETLKDREKRDQLKEKKFLAQKKQKETECGGDSS

>Q9XY07

MANLNQKKYPAKDDFPNFEHGKSLLSKYL TADMYAKLRDVATPSGYTLDRAIQNGVDNPD  
FHLGLLAGDEETYTVFADLDFPVEEYHNGFKKTDNHKTDLDASKILDDVLDPAVVISSR  
VRTGRNIRGMALSPHVCRSERRAIEKMOVSEALNSLAADLKGYYSMLKMDEKTQQQLIDD  
HFLFDRPVSRHFTSGGMARDFPDGRGIWHNDKKNFLVWINEEDHTRIIISMQGGNMKEVF  
ERFTRGLTEVEKHIDKKTGKEFMKNDHLGFVLTCPSNLGTGVRCSVHAKLPHMAKDKRFE  
EICTKMRLQKRGTSGEFTE SVGGVYDINSNLDRLGSSEVEQVNCVIKGVKVLIEMEKKLEK  
GESIDDLVPK

>Q16322

MDVCGWKEMEVALVNFNDSDEIQEEPATDFDSTSPKGRPGGSSFSNGKILISESTNHE  
TAFSKLPGDYADPPGPEPVVNLNEGNQRVIINIAGLRFETQLRTLTSQFPETLLGDREKRMQ  
FFDSMRNEYFFDRNRPSFDGILYYYQSGGKIRR PANVPIDIFADEISFYELGSEAMDQFR  
EDEGF IKDPETLLPTNDIHRQFWLLFEYPESSAARAVAVSVLVVVISITIFCLETLPE  
FREDRELKVVRDPNLNMSKTVLSQTMFTDPFFMVESTCIVWTFELVLRVFCPSKTDFF  
RNIMNIIDIISIIPYFATLITELVQETEPSAQONMSLAILRIIRLVRVFRIFKLSRHSKG  
LQILGQTLKASMRELGLLIFFLFIGVILFSSAVYFAEVDEPESHFSSIPDGFVAVVTMT  
TVGYGDMCPTTPGGKIVGTLCIAIAGVLTIALPVPVIVSNFNFYHRETENEKQNIPIGEI  
ERILNSVGSRMGSTDSL NKTNGGCSTEKSRK

>P0ABZ4

MSKAGASLATCYGPVSADVIKAENIRLLILDVDGVLSDGLIYMGNNGEELKAFNVRDGY  
GIRCALTS DIEVAIITGRKAKLVEDRCATLGI THLYQGQSNKLIASFSDLLEKLAIAPENV  
AYVGDDLIDWPVMEKVGLSVAVADAHPLLI PRADYVTR IAGGRGAVREVCDDLLLAQGL  
DEAKGQSI

>Q46938

MDVRQSIHSAHAKTLDTQGLRNEFLVEKVFVADEYTMVYSHIDRIIVGGIMPITKTVSVG  
GEVVKQLGVSYFLERRELGVINIGGAGTITVDGQCYEIGHRDALYVKGGAKEVVFASIDT  
GTPAKFYYNCAHAHTTYPTTKKVTPEDEVSPVTLGDNLTSNRRRTINKYFVPDVLCTCQLSMG  
LTELAPGNLWNTMPCHTHERRMEVYFYFNMDDDACVFMHMGQPQETRHIVMHNEQAVISP  
SWSIHSGVGTKAYTFIWGMVGENQVFDMDHVAVKDLR

>Q03042

MAAGMLTDREREAIVSNLTKDVQALREMVRSESELVKLHREIHKLKSVLQQTTNNLNVT  
RNEKAKKKLYSLPEQCQEESRNQNPHLCSSEGMVLPSTPEFALEALSLGPLSPLASTSS  
ASPSGRTSADVVRPKAMPAAIKKQGVSAESCQVSMQSYSIPKPKYEKDFSDKQQIKDAI  
MDNDFLKNIDASQVRELVDMSYKSI AAGEFVIREGEVGAHLYVSAAGEFAVMQQGKVL  
KMGAGKAFGELAILYNCTRTASIRVLSEAARVWVLDRRVQFQIMMCTGLQRIENSVNFLR  
SVPLLMNLSEELLAKIADVLELEFYAAGTYIIRQGTAGDSFFLISQGNVVRTQKLTPTSP  
EETELRTLRSRDYFGEQALINEDKRTANI IALSPGVECLTLDRDSFKRLIGDLCELKEK  
YGDESRKLLAMQAQESCRDEPKQLQQEFPDLKLTDLLEVSTLGIGGFGRVELVKAHHQD  
RVDIFALKCLKKRHIIVDTKQEEHIFSERHIMLSSRSPFICRLYRTRFRDEKYVYMLLEACM  
GGEIWTMLRDRGSFEDNAAQFIIGCVLQAFEYLHARGI IYRDLKPENLMLDERGYVKIVD  
FGFAKQIGTSSKTWTFCTPEYVAPEIILNKGHDRAVDYWALGILIHLLNGTTPFSAPD  
PMQTYNLILKIDMIAFPKHISRWAQVLIKRLCRDVPSERLGYQTGGIQDIKKHKWFLGF  
DWDGLASQLLIPPFVRIAHPDVRVYFDRFPCDLNEPPDELSGWDADF

>P21136

MGTLRDLQYALQEKIEELRQRDALIDELELELDQKDELIQKLQNELDKYRSVIRPATQQA  
QKQSASTLQGEPRTRKQAI SAEPTAFDIQDLSHVTLPPFYKSPQSKDLIKEAILDNDFMK  
NLELSQIQEIVDCMYPVEYKGDSCI IKEGDVGSVYVMEDGKVEVTKEGVKLCMTMGPVKV  
FGELAILYNCTRTATVKTLVNVKLWAIDRQCFQTIMMRTGLIKHTEYMEFLKSVPTFQSL  
PEEILSKLADVLEETHYENGEYIIRQGARGDTFFIISKGVNVTREDSNEDPVFLRTL  
KGDWFGEKALQGEDVRTANVIAAEAVTCLVIDRDSFKHLIGGLDDVSNKAYEDAEAKAY  
EAEAAFFANLKLSDFNIDTLGVGGFGRVELVQLKSEESKTFAMKILKKRHIIVDTRQEH  
IRSEKQIMQGAHSDFIVRLYRTRFKDSKYLYMLMEACLGELWTLILRDRGSFEDSTTRFYT  
ACVVEAFAYLHSGKI IYRDLKPENLILDHRGYAKLVDFGFAKKIGFGKKTWTFCTPEYV  
APEIILNKGHDISADYWSLGI LMYELLTGSPPFSGPDPMKTYNIILRGIDMIEFPKIAK  
NAANLIKKLCRDNPSERLGNLKNVGDQIKKHKWFEFNGWELRKGTLTPPIIPSVASPTD  
TSNFDSFPEDNDEPPDDNSGWDIDF

>P60546

MAQGTLYIVSAPSGAGKSSLIQALLKTQPLYDTQVSVSHTTRQPRPGEVHGEHYFFVNHD  
EFKEMISRDAFLEHAEVFGNYGTSREAI EQVLATGVDFLDIDWQGAQQIRQKMPHARS  
IFILPPSKIELDRRLRGRGDSEEVIAKRMAQAVAEMSHYAEYDYLIVNDDFDALTDLK  
TIIRAERLRMSRQQRHDALISKLLAD

>P17423

MVRAFKIKVPASSANIGPGYDVLGVGLSLFLELDVTDIDSSQAQETNDDPNCKLSYTKES  
EGYSTVPLRSDANLITRTALYVLRNINRNFPSGTVHVSNIPLGRGLGSSGAAVVAGV  
ILGNEVAQLGFSKQRMLDYCLMIERHPDNITAAMMGFCGSFLRDLTPQEVERREIPLAE  
VLPEPSGGEDTGLVPLPPTDIGRHVKYQWNPAAIKCIAIIPQFELSTADSRGVLPKAYPT  
QDLVFNLRQLAVLTALTMDDPPNADLIYPAMQDRVHQPYRKTLPGLTEILSCVTPSTYP  
GLLGICLSGAGPTILALATENFEEISQEIINRFAKNGIKCSWKLLLEPAYDGASVEQQ

>Q91785

MPPGTKGDPSNVTQPLPCLPSAEEDAIAKVFVRIRPPVEGTLTGVDGEQGLCLTALSSTTI  
RLHSKPEPKMFTFDHVNVDTNQESVFSVAKNIVESCMNGYNGTIFAYGQTGSGKTFTM  
LGPSESDNFTHNLRGVI PRSFEYLFLLINREKEKAGEGKSFLCKCSFIEIYNEQIFDILLD  
SASAGLFLREHIKKGVFVVGAVEQVVTSAAEAYQVLSMGWRNRRVASTSMNRESSRSHAV  
FTVTIESMEKTNDLVNIRSSQLNLVLDLAGSERQKDTQTEGVRLKEAGSINRSLSCLGQVI  
TALVDVANGRQRHICYRDSKLTFFLLRDSLGGNAKTFYIANVHPGSKCFGETLSTLQFAQR  
AKLIKNAVVNEDTQGNVSQLQAEVKKLKEQLSOLLSGQMPGDISVARVPSVGDNNMDYM  
NNFIEAMMILEKSDREKKVLLQKVQVLEDLCKKKEKFIQSNKMIVKFREDHISRLEKAHK  
EGRISLSNNEQDDFIAELKEEIRTLKEQVEHHPRVAKYALENHSREENKRLHSLQSVKR  
AQEVTAQMIAELEKAFLEVSSEKDRQVAPMHSTPIQLDNNSLMSAARMRERMLQLESEL  
ATSKQEYEEFKELTKKKQVEQSELSLIKSNQHLENILEAIKANKRHEVSQLNRMHAAE  
TIKMTTPTKSYNLRSLVPRLSPDAMPNGLMDTPKSGDVMDDI INEPIPPEMSEQAYEA  
IAEELRIVQEQVTALQAKLDEEEGKNIRLQQQVKNLELCSTQIQELFNSERSNWNKEQQD  
LIAQIKSLEKQKQENKSQEDVLKSEVHDLRVVLQSADRELGAVKGEYSLYREKQEKELSQ  
LSARHMDVQLQLDNVRLEHETLLEEKRSLODAFDNLEEVMKFEIDQLKQEISDSKHENET  
LRAEFSNLLELLETEKERRQKLTSQLLEEDKENKTKELLQVVDENMHLRKQCSELMTKCEQ  
QVTELHGLEHSLTSSKEMIAADLEKKNTADKEVVADLMNQIQVHRTTIIHKTESIDLLTRE  
LEDIHSKYSIVLLAKEESKTVIEEQEKQIEELRECLERKQSADNIEKELLCDLHAHATEE  
LEKLTEAFNKQEALLHTHEKELVEKEQQISEL TNQVKLMTDLEISREQEKIRPASSNSSS  
PVVLPETPRTPEGNPYDSEIANLQKRNTNLEILVSELNEERTSKNEEIRLKMQLCETEN  
MRLEIQNLQGMCKELKSQLENCNMVMKDSNDQKPSDMQDLKREIEKEVSERMEKGKATEH  
ILKLQAELEETRNLCTKDHSLNELSKEIERTRSLEAKAFTEKEEIRSILEGKYEETEKL  
SHELDMLRKQVFLAEENGKILGHQNPQKIQYLVKLLKENNKLLEEAELRIENLFLKE  
SKKCEHCN

>Q03426

MLSEVLLVSAPGKVIILHGEHAVVHGKVALAVSLNLRTFRLRQPHSNGKVDLSLPNIGIKR  
AWDVARLQSLDTSFLEQGDVTTPTSEQVEKLKEVAGLPDDCAVTERLAVLAFLYLYLSIC  
RKQRALPSLDIVVWSELPPGAGLGSSAAYSVCLAAALLTVCEEIPNPLKGDGCVNRWTK  
DLEL INKWAQGERMIHGNSGVDNAVSTWGGALRYHQKISSLRSPALQILLTNTKVP  
RNTRALVAGVRNRLKFP EIVAPLLTSDAISLECERVLGEMGEAPAPEQYLVLEELIDM  
NQHHLNALGVGHASLDQLCQVTRARGLHSKLTGAGGGGCGITLLKPGLEQPEVEATKQAL  
TSCGFDCLETSIGAPGVS IHSATSLDSRVQQALDGL

>Q58487

MI IETPSKVILFGEHAVVYGYRAISMAIDL TSTIEIKETQEDEIILNLNDLNKSLGLNLN  
EIKNINPNNGDFKYCLCAIKNTLDYLNIEPKTGFKINISSKIPISCLGSSASITIGTI  
KAVSGFYNKELKDDEIAKLGVMVEKEIQGKASITDTSTITYKGILEIKNNKFRKIKGEFE  
EFLKNCKFLIVYAEKRKKKTAELVNEVAKIENKDEIFKEIDKVIDEALKIKNKEDFGKLM  
TKNHELLKKNLNI STPKLDRIVDIGNRFVGFAGKLTGAGGGGCVIILVNEEKEKELKELNK  
EDVRIFNCRMMN

>P07277

MSLPFLT SAPGKVIIFGEHSAVYNKPAVAASVSALRTYLLISESSAPDTIELDFPDISFN  
HKWSINDFNAITEDQVNSQKLAKAQQATDGLSQELVSLLDPLLAQLSESFHYHAAFCFLY  
MFVCLCPHAKNIKFSKSTLPIGAGLGSSASISVSLALAMAYLGGLIGSNDLEKLENDK  
HIVNQWAFIGEKC IHGTPSGIDNAVATYGNALLFEKDSHNGTINTNFKFLDDFPAIPMI  
LTYTRIPRSTKDLVARVRVLVTEKFPVMPKILDAMGECALQGLEIMTKLSKCKGTDDDEA

VETNNELYEQLELIRINHGLLVSIGVSHPGLELIKLNLSDDLRIKSTKLTGAGGGGCSLT  
LLRRDITQEIQIDSFKKKLQDDFSYETFETDLGGTGCCLLSAKNLNKDLKIKSLVFLFEN  
KTTTKQQIDDLPLPGNTNLPWTS

>P06855

MKKIILTIGCPGSGKSTWAREFIAKNPGFYINRDDYRQSIMAHEERDEYKYTKKKEGIV  
TGMQFDTAKSILYGGDSVKGVIIISDTNLPERRLAWETFAKEYGWKVEHKVFDVPWTELV  
KRNSKRGTKAVPIDVLRSMYKSMREYLGLPVYNGTTPGKPKAVIFDVDGTLAKMNGRGPYD  
LEKCDTDVINPMVVVELSKMYALMGYQIVVVSGRESGTEKEDPTKYRMRTRKWVEDIAGVPL  
VMQCQREQDTRKDDVVKEEIFWKHIAPHFDVKLAIDDRITQVEMWRRIGVECWQVASGD  
F

>P03176

MASYPCHQHASAFDQAARSRGHNNRRTALRPRRQQEATEVRPEQKMPDLLRVYIDGPHGM  
GKTTTTQLLVALGSRDDIVYVPEPMTYWRVLGASETIANIYTTQHRLDQGEISAGDAAVV  
MTSAQITMGMPYAVTDAVLAPHIGGEAGSSHAPPALTLIFDRHPAALLCYPAARYLMG  
SMTPQAVLAFVALIPPTLPGTNIVL GALPEDRHIDRLAKRQRPGERLDLAMLAAIRRVYG  
LLANTVRYLQCGGSWREDWGQLSGTAVPPQGAEPQSNAGPRPHIGDTLFTLFRAPPELLAP  
NGDLYNVFAWALDVLAKRLRSMHVFILDYDQSPAGCRDALLQLTSGMVQTHVTPGSIPT  
ICDLARTFAREMGEAN

>Q9R088

MLLRSLRSWAARSPRSVGPSSGSPGSLDSGAGPLWAPRRAWPPDKDRENDKEKKAVVCI  
EGNIASGKTTCLEFFSNTTDVEVLMEPVLKWRNVHGHNPISLMYHDASRWGLTLQTYVQL  
TMLDQHTRPQMSPVRLMERSIYSARYIFVENLYRGGKMPVDYAILSEWFDWIVRNIDVS  
VDLIVYLRRTTPEICYQRLKMRCEEEKVIPMEYLHAIHRLYEELVNGSLFPAAAPVLVI  
EADHNLEKMLELFEQNRARILTPENWKHGP

>P19924

MSERYPIIAITGSSGAGTTSVTRTFENIFCREGVKSVVIEGDSFHRYDRAEMKVKMAEAE  
RTGNMNFSHFGAENNLFGDLESIFRSYAESGTGMRRRYLHSTEEAAPFGQQPGTFTAWEP  
LPADTDLLFYEGLHGGVVTVDEVNVAQYPNLLIGVVPVINLEWIKLWRDCKQRGYSTEAV  
TDTILRRMPDYVNYICPQFSRTHVNFQRVPCVDTSNPFI SREIPAPDESMVIRFANPKG  
IDFQYLLSMIHDSFMSRANTIVVPGGKMEAMQLIFTFPVLRMMERRKRAAL

>P14193

MSNQYGDKNLKIIFSLNSNPELAKEIADIVGVQLGKCSVTRFSDGEVQINIEESIRGDCDY  
IIQSTSDPVNEHIMELLIMVDALKRASAKTINIVIPYGYARQDRKARSREPI TAKLFAN  
LLETAGATRVIALDLHAPQIQGFFDIPIDHLMGVPI LGYFEGKNLEDIVIVSPDHGGVT  
RARKLADRLKAPIAII DKRRPRPNVAEVMNIVGNIEGKTAILIDDI IDTAGTITLAANAL  
VENGAKEVYACCTHPVLSGPAVERINNSTIKELVVTNSIKLPEEKKIERFKQLSVGPLLA  
EAIIRVHEQQSVSYLFS

>P11801

MCGGTSKVLPEPPKDVQLDLVKKVEPFSGTKSDVYKHFITEVDSVGPVKAGFPAASQYAH  
PCPGPPTAGHTEPPSEPPRRARVAKYRAKFDPRVTAKYDIKALIGRGSFSRVVRVEHRAT  
RQPYAIKMIETKYREGREVCESLRVLRVRHANI IQLVEVFETQERVYMMELATGGEL  
FDRIIAKGSFTERDATRVLQMVLDGVRYLHALGITHRDLKPENLLYYHPGTDSKIIITDF  
GLASARKKGDCLMKTTCGTPEYIAPEVLVRKPYTNSVDMWALGVIAYILLSGTMPFEDD  
NRTRLRYRQILRGKYSYSGEPWPSVSNLAKDFIDRLLTVDPGARM TALQALRHPWVVSMAA

SSSMKNLHRSSISQNLKLRASSRCQSTKSAQSTRSSRSTRSNKSRRVRERELRELNLRYQQ  
QYNG

>P27812

MDSTTLVYADLNLARIQEPKHDSPPSLSPDTCRCPRWHRLALKFGCAGLILLVVLVIGLC  
VLVLSVQKSSVQKICADVQENRTHTTDCSVNLECPQDWLSHRDKCFRVFQVSNTWEEGQA  
DCGRKGATLLLIQDQEELRFLLDSEIKEYNSFWIGLRFTLPDMNWKWINGTTFNSDVLKI  
TGDTENGSCASISGDKVTSESCSTDNRWICQKELNHETPSNDS

>P56193

MARTTFLVSVSLFVSAVLARTVEYGLKISDGEIAPDGVKRNATLVNNGGYPGPLIFANKGD  
TLKVKVQNKLTNPEMYRTTSHWHGLLQHRNADDDGPFVVTQCPVPRESYTYTIPLDDQ  
TGTYWYHSHLSSQYVDGLRGPLVIYDPKDPHRRLYDVVDEKTVLIIGDWYHESKAILAS  
GNITRQRPVSATINGKGRFPDNTPANPDTLYTLKVKRGKRYRLRVINSSEIASFRFSVE  
GHKVTVIAADGVSTKPYQVDAFDILAGQRIDCVVEANQEPDITYWINAPLTNVPNKTAQAL  
LVYEEEDRRPYHPPKGPYRKWSVSEAIKYWNHKKHKGRLLSGHGGLKARMIEGSHHLHS  
RSVVKRQNETTTVMDESKLVPLEYPGAACGSKPADLVLDLTFGLNFATGHWMINGIPYE  
SPKIPTLLKILTDEGDVTESDFTKEEHTVILPKNKCIEFNIKGNISGIPITHPVHLHGHTW  
DVVQFGNPPNYVNPVPRRDVVGSTDAGVRIQFKTDNPGPWFLHCHIDWHLEEGFAMVFAE  
APEAVKGGPKSVAVDSQWEGLCGKYDNWLKSNPGQL

>Q99044

MSRFHSLLAFFVASLTAVAHAGIGPVADLTI TNAAVSPDGF SRQAVVNGGTPGPLITGN  
MGDRFQLNVIDNLTNHTMVKSTS IHWHGFFQKGTNWADGPAFINQCP ISSGHSFLYDFQV  
PDQAGTFWYHSHLSTQYCDGLRGPFVVYDPNDPAADLYDVNDTDTVITLVDWYHVAACKL  
PAFPLGADATLINGKGRSPSTTTADLSVISVTPGKRYRFRLLVSLSCDPNYTFSIDGHNMT  
I IETDSINTAPLVVDSIQIFAAQRYSFVLEANQAVDNYWIRANPNFNGVGF'TGGINSAIL  
RYDGA-AAVEPTTTQTTSTAPLNEVNLHPLVTTAVPGSPVAGGVDLA INMAFNFGTNTFFI  
NGTSFTPTVPVLLQIIISGAQNAQDLLPSGSVYSLPSNADIEISFPATAAAPGAPHPFHL  
HGHAFAVVRSA GSTVYNYDNP IFRD VVSTGT PAAGDNVTIRFR TDNPGPWFLHCHIDFHL  
EAGFAVVAEDI PDVASANPVPQAWSDL CPTYDALDPSDQ

>Q02081

MLSSITLLPLLA AVSTPAFAAVRNYKFDIKNVNVAPDGFQRP IVSVNGLVPGTLITANKG  
DTLRINVTNQLTDP SMRRATTIHWHLGFQATTADDEDGPAFVTQCP IAQNLSYTYE I PLHG  
QTGTMWYHAHLASQYVDGLRGPLVIYDPNDPHKSRVDVDDASTVVMLEDWYHTPAPVLEK  
QMFSTNNTALLSPVPDSGLINGKGRYVGGPAVPRSVINVKRGKRYRLRVINASAIGSFTF  
SIEGHRLTVIEADGIPHQLPVDSFQIYAGQRYSVIVEANQTAANYWIRAPMTVAGAGTN  
ANLDPTNVFAVLHYEGAPNAEPTTEQGSALGTALVEENLHALINPGAPGGSAPADVSLNL  
AIGRSTVDGILRFTFNNIKYEAPSLPTLLKILANNASNDADFTPNEHTIVLPHNKVIGAQ  
HHRGADHP IHLHGHVFDIVKSLGGTPNYVNPVPRRDVVRVGGTG VVLRFKADNPGPWVHC  
HIDCTWRLGSHLSLPRPPARFARVSSRSSTMPGTSSAPSTRFLFLPICSKW

>P53715

MMRALLLAIGLGLVAALQAQEFPAVGQPLQDLLGRWYLKAMTSDPEIPGKKPESVTPLIL  
KALEGGDLEAQITFLIDGQCQDVTLVLKKTNPFTFTAYDGKRVVYILPSKVVDHYIILYC  
EGELDGQEVMAKLVGRDPENNPEALEEFKEVARAKGLNPDIVRPQQSETCSPGGN

>Q41162

MASYKFKTQNSFPLLLSISFFFFLLLLLNKVNSTGSLSFSPKFPAPNPYLIQRDALVTST

GVLQLTNVNVGVPARRSIGRALYAAPFQIWDNTTGNVASFVTSFSFI IQAPNPATTADGL  
AFFLAPVDTQPGDLGGMLGIFKDGSYNKSQIVAVEFDTFSNIHFDPKGRHMGINVNSIV  
SVKTVPNWNTNGEVANVFISYEASTKSLNASLVYPSLETSFI IHAIVDVKDVLPPEWVRF  
FSATTGIDTGYVQTNVLSWSFESNLPGGNSVASVKNAGLSTYAA

>P28586

TSLCASKQRYLVINLQLGLFLTVKEPSGYSEATLESFNSTGTLFCLIPENRYFIAFDN  
DDYDVTLDVEFAQDVAGARVIAATKASNDNQLWGLVPLPETPGI IATALPSSNVITGT  
GIGESMEMQPEDPDLNQVFGFLKY

>Q39528

MTISNTNFLETKKPLSLPLLAFITIYMLLHRVNSSDSLSTFNNFPNSEDLIFQKAS  
ISSNETLELTRISSGQPATSSVGRALYYTPVRLWDKSTGRLASFKTTFSAITSPTQDP  
GDGFAFFIAPPDTPGYGGGLLGLFNGFNLRNSSNMGVAVNNQSAQIVAVEFDYINGQC  
DPKYRHVIGIDVNSITSLAYTQWQWQNGVKATAQISYNPASQKLTAVTSYPNSTPLTVSLD  
IDLQTVLPEWVRVGFSASTGQNVENSILAWSFSSSLTTLTAKKEDMYIARYV

>P05045

MASSTVSVVLSLFLLLLQANSANIQSFSFKNFNSPFI LQGDATVSSGKLQLTKVKENG  
IPTPSSLGRAFYSSPIQIYDKSTGAVASWATSFTVKISAPSKASFADGIAFALVPVGSEP  
RRNGGYLGVFDSVYNNSAQTVAVEFDTFSSNGWDPMSKHIGIDVNSIKSIATVSWDLAN  
GENAEILITYNAATSLLVASLVHPSRRTSYILSERVDITNELPEYVSVGFSATTGLSEGY  
IETHDVLWSFASKLPDDSTAEPDLASYLVRNVL

>P16404

MATYKLCVSLALSLTLFLLILNKVNSVETISFSFSEFEPGNDNLTLQGAALITQSGVLQL  
TKINQNGMPAWDSTGRITLYAKPVHIWDMTTGTVASFETRFSSIEQPYTRPLPADGLVFF  
MGPTKSKPAQGYGLGIFNNSKQDNSYQTLGVEFDTFSNPWDPQVPHIGIDVNSIRSIK  
TQPFQLDNGQVANVVIKYDASSKILHAVLVYPSGAIYTTIAEIVDVKQVLPPEWVDVGLSG  
ATGAQRDAAETHDVYSWSFQASLPETNDAVIPTSNHNTFAI

>P02874

AENTVSFDFSKFLSQENLILQGDVTDSDNRCLVLTRENNGRPVQDSVGRVLYQTP IHL  
WDKQIDKEASFETSFTFFIYRENINRGGDGITFFLAPDTPKSGGGYLGIFKDAESNET  
VVAVEFDTFSSNRWDPANSHIGINVNSVSKSKITTPWGLKNDYFTVTTITYDATRSLSVSSFY  
RNKPDDIFTVKASVHLRDALPQWVRIGLSAATGDLVEQHRLYSWSFKSVLPLDSST

>P83304

SLKGMISVGPWGGSGGNYWSFKANHAITEIVIHVKDNIKSISFKDASGDISGTFGGKDP  
ENEKGEKKIKIHWPTIYLSISGSYGDYNGVLVIRLSFITNLTTYGPFGSTSGGESFS  
IPIADSVVVGFGHGRAGYYLDALGIFVQPVPHGTISFGPWGGPAGDDAFNFKVGSWIKDII  
IYADAAINSIAFKDANGHCYKFGGQDPNDIGVEKKVEIDGNLEHLKSISGTYGNYKGF  
VVTLSLFTITNVTKHGPFGIASGTSFSIPIEGSLVTGFHGKSGYYLDSIGIYVKPRDVEGS  
ISIGPWGGSGGDPWYSYTANEGINQIIYAGSNIKSVAFKDTSGLDSATFGGVNPKDTGK  
NTVSNWPSEYLTISGTYGQYKFKDVFTTITSLSTTNLATYGPFGKASATSFSIPIHN  
NMVVGFGHGRAGDYLDALGIFVVKPDTAV

>P05046

MATSKLKTQNVVLSLTLTLVLLVLLTSKANSAAETVSFVSNKFPKQPNMILQGDIVTS  
SGKLQLNKVDENGTPKPSSLGRALYSTPIHIWDKETGSVASFAASFNFYAPDTKRLAD



GLAFFLAPIDTKPQTHAGYLGLFNENESGDQVVAVEFDTFRNSWDPPNPHIGINVNSIRS  
IKTTSWDLANNKVAKVLITYDASTSLLVASLVYPSQRTSNILSDVVDLKTSLPEWVRIGF  
SAATGLDIPGESHVLSWSFASNLPHASSNIDPLDLTSTFVLHEAI

>P58907

ADTIVAVELDSYPNTDIGDPSYPHISIADANSLHFSFNQFSQNPKDLILQ

>P18891

MPTEFLYTSKIAAISWAATGGRQQRVYFQDLNGKIREAQRGGDNPWTTGGSSQNVIGEAKL  
FSPLAAVTWKSQAQGIQIRVYCVNKDNLSEFVYDGSKWITGQLGSVGVKVGSNKLAALQ  
WGGSESAPPNIRVYQKSNVSGSSIEHYVWSGKWTAGASFGSTVPGTGIGATAIGPGRRLR  
IYYQATDNKIREHCWDSNSWYVGGFSASASAGVSIAAISWGSTPNIRVYWQKREELYEA  
AYGGSWNTPGQIKDASRTPSLPDTFIAANSSGNIDISVFFQASGVSLQQWQWISGKGWS  
IGAVVPTGTPAGW

>P02872

MKPFCVFLTFLLLAASSKKVDSAETVSNFNSFSEGNPAINFQGDVTVLSNGNIQLTNL  
NKVNSVGRVLYAMPVRIWSSATGNVASFLTSFSFEMKDIKDYDPADGI IFFIAPEDTQIP  
AGSIGGGTLGVSDTKGAGHFVGVFEFDTSNSEYNDPPTDHVGDVNSVDSVKTPWNSVS  
GAVVKVTVIYDSSTKTLVAVTNDNGDITTTIAQVVDLAKALPERVKFGFSASGSLGGRQI  
HLIRSWSTSTLITTTTRRSIDNNEKKIMMASA

>Q39527

ANSNSRPHLLQTKQPFVVLAI S ITFYLLLLLNKVNSEEALSFTFTKFSVNQDELLLQGDA  
LVSSKGELQLTRVENGQPIPHSVGRALYSDPVHIWDSSTGVSASFVTSFTFVVEAPNENK  
TADGIAFFLAPPDTQVQSLGGFLGLFNSSVYNSSNQILAVEFDTFNSWDPTARHIGIDV  
NSIESTRTATWGRNGEVAIVLITYVAPAETLIASLTYPSSQTSYILSAAVDLKSILPEW  
VRVGFSAATGRSAGYVETHDVLVSWSTSTLETGNSGAKQNNNAHLASYALI

>P56217

ASAGVAVTNLNLKPGHCVEIKGSIPPDCKGFAVNLGEDASNFLHLHFNARFDLHGDVVKIV  
CNSKEADAWGSEQREEVFPFQQGAEMVCFEYQTKI I IKFSSGDQFSFPVRKVLPSIPF  
LSLEGLAFKSITTE

>P26788

SGGLQVKNFDFTVGKFLTVGGFINNSPQRFVNVGSMNSLSLHLDHRFNYGADQNTIVM  
NSTLKGDNWETEQRSTNFTLSAGQYFEITLSYDINKFYIDILDGPNLEFPNRYSKFLP  
FLSLAGDARLTLVKE

>P09382

MACGLVASNLNLKPGECLEVRVGEVAPDAKSFVLNLGKDSNNLCLHFNPRFNAHGDIIV  
CNSKDGGAWGTEQREAVFPFQPGSVAEVCITFDQANLTVKLPDGYEFKFPNRLNLEAINY  
MAADGDFKIKCVAFD

>Q9YIC2

MSDRAEVRNIPFKLGMVLTGGVVNSNATRFSINVGESTDSIAMHMDHRFSYGADQNVLV  
LNSLVHNVGWQOEERSKKFPFTKGDHFQTTITFDTHTFYIQLSNGETVEFPNRNKDAAFN  
LIYLAGDARLTFVRLI

>P05162

MTGELEVKNMDMKPGSTLKITGSIADGTDGFVINLGQGTDKLNLHFNPRFSESTIVCNLSL  
DGSNWGQEQRREDHLCFSPGSEVKFTVTFESDKFKVKLPDGHELTFPNRLGHSHLSYLSVR  
GGFNMSSFKLKE

>P23668

MEQGLVVTQLDVPQGEVVKVKGKILSDAKGFSVNVGKDSSTLMLHFNPRFDCHGDVNTVV  
CNSKEDGTWGEEDRKADFPFQOGDKVEICISFDAAEVKVKVPEVEFEFEPNRLGMEKIQYL  
AVEGDFKVKAIKFS

>P41019

MTKKVAVLPGDGGQSNQRRCCRLKAI GERLRHQFEFTYGLIGGAAIDEAGSSSSRSTIET  
CNEADAVLLGSGVGGPKWDRFP SHLRPEKGLLAIRKELDLYANLRPVTFYDSLADASPLKK  
EYIEGVDFIIVRELTGGLYFGKPSDRRTEGNKETVVDTLFYKRTEIERIASIDTAVNRR  
KKVTSVDKANVLESSRVWREVAEEVAKDYDPVELEHMLVDSAAMQLIRNPKYFDVVVTEN  
MFGDILSDEASMLTGSLSGMLPSASLTADGPSLYEPVHGSAPDIAGQNKANPIAAAILSA  
MLLRHSFGLEKEAAVIEQAVESVLHAGHRTADLADGNHYLGTDKMVEVITAVIANDSAIS  
SIMTASR

>P0AC81

MRL LHTMLRVGDLQRSIDFYTKVLGMKLLRTSENPEYKYSLAFVGYGPETE EAVIELTYN  
WGVDKYELGTAYGHIALSVDNAAEACEKIRQNGGNVTREAGPVKGGTTVIAFVEDPDGYK  
IELIEEKDAGRGLGN

>Q04760

MAEPQPPSGGLTDEAALS CCSADADPSTKDFLLQQTMLRVKDPKKS LDFYTRVLGMTLIQK  
CDFPIMKFSLYFLAYEDKNDIPKEKDEKIAWALS RKATLELTHNWGTEDETQSYHNGNS  
DPRGFGHIGIAVPDVYSACKRFEELGVKFKVPDDGKMKGLAFIQDPDGYWIEILNPNKM  
ATLM

>Q0VD18

MAAWGERLAGVVRGVLLDISGVLYDGGEGGGAAIAGSVEAVARLKR SRLKVRFC TNESQKS  
RADLVGLLRRLGFDVSEGEVTAPAPAA CLILKQRGLRPHLLVHDGVRSEFDQIDTSNPNC  
VVIADAGEGFSYQNMNKAQVLMEL ENPVLFSLGKGRYKETSGLMLDVGPYMKALEYAC  
GIEAEVVGKPSPEFFKSALQEMGVEAHEAIMIGDDIVGDVGGAQRYGMRALQVRTGKFRP  
SDEHHPEVKADGYVDNLAEAVDLLLQHADK

>Q9RA05

MARVEGQVALITGAARGQGRSHAIKLAEEGADVILVDVPNDVVDIGYPLGTADELDQTAK  
DVENLGRKAIIVIHADVRDLESLTAEVDRAVSTLGRLDIVSANAGIASVPFLSHDIPDNTW  
RQMIDINLTGVWHTAKVAVPHILAGERGGSIVLTSSAAGLKGYAQISHYSAKHGVVGLM  
RSLALELAPHRRVNSLHPTQVNTPMIQNEGTYRIFSPDLENPTREDFEIASTTTNALPI  
PWVESVDVSNALLFLVSEDARYITGAAIPVDAGTTLK

>P79066

MVSKSLFLAAAVNLAGVLAQAPTAVLNGNEVISGVLE GKVDTFKGI PFADPPLNDRFKH  
PQPFTGSYQGLKANDFSPACMQLDPGNSLTL LDKALGLAKVIPEEFRGPLYDMAKGTVSM  
NEDCLYLVNFRPAGTKPDAKLPVMVWIYGGAFVYGSSAAYPGNSYVKESINMGQPVV FVS  
INRYRTGPFGLGGDAITAEGNTNAGLHDQRKGLEWVSDNIANFGGDPDKVMIFGESAGAM  
SVAHQLIAYGGDNTYNGKKLFHSAI LQSGGPLPYHDS SSVGPDISYNRFAQYAGCDTSAS  
ANDTLECLRSKSSSVLHDAQNSYDLKDLFLG LLPQFLGFGRPDGNIIPDAAAYELFRSGRY

AKVPYISGNQEDEGTAFAPVALNATTTTPHVKKWLQYIFYDASEASIDRVLSLYPQTL SVG  
SPFRTGILNALTPQFKRVAAILSDMLFQSPRRVMLSATKDVNRWTYLSTHLHNLV PFLGT  
FHGNELIFQFNVNIGPANSYLRYFISFANHHPNVGTNLLQWDQYTDEGKEMLEIHMTDN  
VMRTDDYRIEGISNFETDVNLYG

>Q02989

ACSSPEVSIHFHFFVYAGSFVKNFKKMKGSSAISKREMSRADQCKLLAYTAVGYETVGNVA  
ADIASIEGANLVAAPVAAGGHLGKGLTDAAMIAMDCSSIPFEEIKEILNKEFKEMGRKLD  
KNTEALEHVSKLVSKTLSTVEKIRVEMREGFKLVETIENIATKEIVFDINKIVQYFNNE  
RENINSRQKEEFVAKLQEPAPGNFLLYLRNSRTSESGTLYSLLFRIIDQELAI PNNAGDN  
NAIQALYALFYGTETFISIMFYLVKQYSYLAEYHYQKGNLEEFNTNFDHMKIVFQDFKFS  
LIGINQNTKPLVDEVLNVLNNVKNKSFIRNVQNKLFYDLMKQTESLLELKKELANMELPI  
IDETPRLSISISFKERSDDKPVDTPLLKWDKGEVKYAIQFEQDGKFSKISSWSKPVTVQ  
HLACPFISVDKDRRNRLIFRQFGDQIPELVGTLRGSQVEFRDIHRDLYNAAQVPYAREAL  
SISRTLIQNGANVSETFELGRGAIHAAAAGNYDVGELLLNKDINLLEKADKNGYTP LHI  
AADSNNKDFVMFLIGNNADVNRVTKSDLFTPLHLAARRDLTDVTQTLIDITEIDLNAQDK  
SGFTPLHLSISSTSETAAILIRNTNAVINIKSKVGLTPLHLATLQNNLSVSKLLAGK GAY  
LNDGDANGMTPLHYAAMTGNLEMVDFLLNQYININAATKEKKWTPHLHLAILFKKNDVAE  
RLLSDENLNIRLETNGGINPLHLASATGNKQLVIELLAKNADVTRLT SKGFSALHLGIIG  
KNEEIPFFLVEKGANVNDKTNQSGVTPLHFAAGLGKANI FRLLL SRGADIKAE DINSQMPI  
HEAVSNGHLEIVRILIEKDP SLMNVKNIRNEYPFYLA VEKRYKDI FDYFVSKDANVNEVD  
HNGNTLLHLFSSTGELEV VQFLMQNGANFR LKNNERKTFFDLAIENGR LNIVAF AVEKNK  
VNLQAAHRGKTILYHAICDSAKYDKIEIVKYFIEKLNESCNPLHEAAA YAHLDLVKYFV  
QERGINPAEFNEENQASPF CITHGAPCGYSLDCDTPDRLEVVEYLSDKIPDINGKCDVQ  
ENTPITVAIFANKVSI LNVLVIGADPNQQVDGDPPLYIAARQGRFEIVRCLIEVHKVDI  
NTRNKERFTALHAAARND FMDVVKYLVRQGADVNAKGIDDLRP IDIAGEKAKAYLQSSRF  
LRSGHSFQSNEIDSFGNTIHGISMSARTNDKLTQQISSKGTRSDSNSTEGKMHS ENVHVR  
SIDVNGALLLLDFMIRVFASKKTNFAPYGSRIKTRSAEEAQAEALIMTERFENLLSGLIG  
DPIPDSIDFSNVHSKIYKAIMSGRRSVISEMLCSFAEEYSKLNHESIKQLLSEFETLTTT  
KASEIHIEESVPYAPFEICELKVNSNVSQIK

>Q25338

MHSELQTI SAAVARKAVPNTMVI RLKRDEEDGEMTLEERQAQCKAIEYSNSVFGMIADV  
ANDIGSIPVIGEVVGI VTAPIAIVSHITSAGLDIASTALDCDDIPFDEIKEILEERFNEI  
DRKLDKNTAALEEVSKLVSKTFVTVEKTRNEMNENFKLVLETIESKEIKSIVFKINDFKK  
FFEKERQRIKGLPKDRYVAKLLEQKGI LGLKEVREPSGNSLSSALNELLDKNNNYAIPK  
VVDDNKAFAQALYALFYGTQTYAAVMFFLLEQHSY LADYYYQKGDVNFNAEFNNVAIIFD  
DFKSSLTGGDDGLIDNVI EVLNTVKALPF IKNADSKLYREL VTRTKALET LKNQIKTTDL  
PLIDDIPETLSQVNFNDENQLPTPIGNWVDGVEVRYAVQYESKGMYSKFSEWSEPF TVQ  
GNACPTIKVRVDPKKNRNLIFRKFNSGKPFQFAGTMTHSQTNFKD IHRDLYDAALNINKLK  
AVDEATTLIEKGADIEAKFDNDRSAMHAVAYRGNKIALRFL LKNQSIDIELKDKNGFTP  
LHIAAEAGQAGFVKLLINHGADVNAKTSKTNLTPLHLATRSGFSKTVRNLL ESPNIKVNE  
KEDDGFTPLHTAVMSTYMVDALLNHPDIDKNAQSTSGLTPFH LAI INESQEV AESLVES  
NADLNIQDVNHMAPIHFAASMGSIKMLRYLISIKDKVINSVTENNNTWTP LHFAYFKKE  
DAAKELLKQDDINLTIVADGNLTVLHLAVSTGQINIKELLKRGSNIEEKTGEGYTS LHI  
AAMRKEPEIAVVL IENGADIEARSADNLTPLHSAAKIGRKS TVLYLLEKGADIGAKTADG  
STALHLAVSGRKMKT VETLLNKGANLKEYDNKYLPIHKAI INDDLDMVRLFLEKDP SLK  
DDETEEGRTS IMLIVQKLLLELYNYFINNYAETLDEEALFNRLDEQ GKLELAYIFHNKEG  
DAKEAVKPTILVTIKLMEYCLKKLREESGAPEGSFSDSPSSKQCISTFSEDEMFRRTLPEI  
VKETNSRYLPLKGF SRSLNKFLPSLKFAESKNSYRSENFVSNIDSNGALLLLLDV FIRKFT

NEKYNLTGKEAVPYLEAKASSLR IASKFEELLTEVKGIPAGELINMAEVSSNIHKAIASG  
KPVSKVLC SYLDTFSELNSQQMEELVNTYLSTKPSVITSASADYQKLPNLLTATCLEPER  
MAQLIDVHQMFRLR

>Q9Y468

MRRREGHGT DSEMGGQPVRESQSSDPPALQFR ISEYKPLNMAGVEQPPSPELRQEGVTEY  
EDGGAPAGDGEAGPQQAEDHPQNPPEDPNQDPPEDDSTCQCQACGPHQAAGPDLGSSNDG  
CPQLFQERSVIVENS SSGSTSASELLKPMKKRKRREYQSPSEEESEPEAMEKQEEGKDPEG  
QPTASTPESEEWSSSQPATGEKKECWSWESYLEEQKAITAPVSLFQDSQAVTHNKNGFKL  
GMKLEGIDPQHPSMYFILTVAEVCGYRLRLHFDGYSECHDFWVNANSPDIHPAGWFEKTG  
HKLQPPKGYKEEEFSWSQYLRSTRQAAPKHLFVVSQSHSPPPLGFGVGMKLEAVDRMNPS  
LVCVASVTDVVD SRFLVHFDNWDDTYDYWCDPSSPYIHPVGCQKQKPLTPPDYDPDPD  
NFCWEKYLEETGASAVPTWAFKVRPPHSFLVNMKLEAVDRRNPALIRVASVEDVEDHRIK  
IHF DGWSHG YDFWIDADHPDIHPAGWCSKTGHPLQPP LGPREPSSASPGGCPPLSYRSLP  
HTRTSKYSFHHRKCPTPGCDGSGHVTKFTAHHCLSGCPLAERNQSRLKAELSDSEASAR  
KKNLSGFSPRKKPRHHGRIGRPPKYRKIPQEDFQTLTPDVVHQSLFMSALS AHPDRSLSV  
CWEQHCKLLPGVAGISASTVAKWTIDEVFGFVQTLTGCEQARLFKDEARIVRVTHVSGK  
TLVWTVAQGLDLCSDHLQEGKGILETGVHSLLC SLPLTHLLAKLSFASDSQY

>Q5ECE3

MKFFGLFLAILASTAADVVIDGACPDMAVSKFDMNAYQGTWYEIKKFPVANEANGDCGS  
VEYTPDNGLLKVVRAGHVEDDIEKFVVGVLTKNAGTSDAELT LSVVVG DYVRVAPLWIVST  
DYDNYAIGYSCKDYKKSQHRVNIWILSR TKTLNESSKSTVNKFLKEHSKEFDQSKFVET  
DFSEKACFFKKSHVYTVPFGA

>Q24388

MKSFTVIALAAVALLATLGQAKHLDSKVADKDFLMKQKFM YQILQHIYQDDVFTTTPFGGS  
YVEYKPWEHVADYVHP EMLEHFFELWQHQPFTDDMVWSVMYDKHEEYVVG LVR LFYFAKN  
WETFQHV VYWARQHVNKQLFVYAVT IASLFRDDMQGVVLP AHYEIHPWSYFDSQALEWAE  
HYKMHGFFHHVKQMDNIYNVVIRTNYSNVHGSLNYDHD LAYYLEDVGFNAFYFYFNLDYPF  
WTKGGEHV LNKDRRGELYLYVHWQLLARWYLERLSHDLGEVPAFNMYVPTESGYASNLR  
TYYGVPQWHRENHHSFYHEHNYEHI EHVEMYTQRVMDWIHKNEKFDVETINVLGNI IQGN  
ADSVDKKFYGSLDKLYRFIVNEGHHYGHGDESFPGLFMHYDTSMRDPIFYEVYKTI VSHY  
WHLMETYPEYHKKDYAFEGVHIDAVHMPE SLTTYFEHFDSDISNAVNV EPAVEGSADPLY  
TFGRNSHYKGS SYVIKARQQRLNHKPF EFTLDVTS DKAQDAVVKVFIGPKYDEHGHEIPL  
EHNYQNFFELEHFKVHLEAGVNH IKRASGDFSFWVNDRTTYLELYQK LMDATNSDYKFKL  
DQSEAHCGVPNRMMLPRGKKGQVFQFFYMVYPYHQPEVAQFTGYDPV VSCGVGHGSRVY  
DALPFGFPFNRPVKHDY YFDVHNFKFVDVKIFHRDEHTNVV

>P41318

MSVILVSAGYDHTIRFWEAL TGVC SRTIQHSDSQVNRLEITNDKLLLATAGHQ NVRLYDI  
RTTNP NPVASFEHGRGNVTSVSFQQDNRMVMTSSEDGTIKVWDVRS PPSIPRNYKH NAPVN  
EVVIHPNQGELISCDRDGNIRI WDLGENQCTHQLTPEDDTSLSLSMASDGSMLAAANTK  
GNCYVWEMP NHTDASHLKPVTKFRAHSTYITRILLSSDVKHLATCSADHTARVWSIDDDF  
KLETTLDGHQRWVWDCAFSADSAYLV TASSDHYVRLWDLSTREIVRQYGGHHKGAVCV AL  
NDV

>Q26304

MEMEKEENVVYGPLPFYPIEEGSAGIQ LHKYMHQYAKLGAI AFSNALTGVDISYQEYFDI  
TCRLAEAMKNFGMKPEEHIALCSENCEEFFIPVLAGLYIGVAVAPTNEIYTLRELNHS LG

IAQPTIVFSSRKGLPKVLEVQKTVTCIKKIVILDSKVNFGGHDCMETFIKKHVELGFQPS  
SFVPI DVKNRKHVALLMNSSGSTGLPKGVRITHEGAVTRFSSHAKDPIYGNQVSPGTAIL  
TVVPFHGHGFMFTTLGYFACGYRVVMLTKFDEELFLRTLQDYKCTSVILVPTLFAILNKS  
ELIDKFDLSNLTEIASGGAPLAKEVGEAVARRFNLPGVRQGYGLTETTSAFIITPEGDDK  
PGASGKVVPLFKVKVIDLDTKKTGLGVNRRGEICVKGPSMLMLGYSNPEATRETIDEEGWL  
HTGDIGYYDEDEHFFIVDRLKSLIKYKGYQVPPAELESVLLQHPNIFDAGVAGVDPDAG  
ELPGAVVVMEKGMTTEKEIVDYVNSQVVNHKRLRGGVRFVDEVPKGLTGKIDAKVIREI  
LKKPQAKM

>Q9Z1Q3

MNSQLVIGILLSALLGVALGHRTRCYDCGGGPSNSCKQTVITCGEGERCGLDRKPQPSSE  
QAKQPSATLSHHYPACVATHHCNQVAIESVGDVTFTTQKNCCFGDLNSAVASSVTPLCI  
LAAAVTTLAWLLPGL

>Q5SQ64

MAVLFLLLFLCGTPQAADNMQAIYVALGEAVELPCPSPTLHGDEHLSWFCSPAAGSFTT  
LVAQVQVGRPAPDPGKPGRESRLRLGNYSLWLEGSKEEDAGRYWCAVLGQHHNYQNWRV  
YDVLVLKGSQLSARAADGSPCNVLLCSVVPSTRMDSVTWQEGKGPVRGRVQSFWGSEAL  
LLVCPGEGLESEPRSRPRIIRCLMTHNKGVFSLSLAASIDASPALCAPSTGWDMPWILMLL  
LTMGQGVVILALSIVLWRQVRGAPGRDASIPQFKPEIQVYENIHLARLGPFAHKPR

>Q99683

MSTEADGIFTSVPPFAPSGFCTIPEGGI CRRGAAA VGE GEEHQLPPPPPGSFWNVESA  
AAPGIGCPAATSSSSATRGRGSSVGGSRRTTVAYVINEASQGQLVVAESEALQSLREAC  
ETVGATLETLHFGLDFGETTVLDRFYNADIAVEMSDAFRQPSLFYHLGVRESFSMANN  
IILYCDTNSDSLQSLKEIICQKNTMCTGNYTFVPYMITPHNKVYCCDSSF MKGLTELMQP  
NFELLLGPICLPLVDRFIQLLKVAQASSQYFRESILNDIRKARNLYTGKELAAELARIR  
QRVDNIEVLTADIVINLLSYRDIQDYDSIVKLVETLEKLPFDLASHHHVKFHYAFALN  
RRNLPGDRAKALDIMIPMVQSEGQVASDMYCLVGRYKDMFLDSNF'TDTESRDHGASWFK  
KAFESEPTLQSGINYAVLLLLAAGHQFESSFELRKVGKLSLLGKKGNLEKLSYWEVGF  
FLGASVLANDHMRVIQASEKLFKLTPAWYLKSIVETILYKHFVKLTTEQPVAKQELVD  
FWMDFLVEATKTDVTVVRFVLIILEPTKIYQPSYLSINNEVEEKTISIWHVLPDDKGIH  
EWNFSASSVRGVSISKFEERCCFLYVLHNSDDFQIYFCTELHCKKFFEMVNTITEEKGRS  
TEEGDCESDLLEYDYEDENGDRVVLGKGTYGIYAGRDLNQRVIAIKEIPERDSRYSQ  
PLHEEIALHKHLKHNIVQYLGFSSENGFIKIFMEQVPGGSLSALLRSKWGPLKDNEQTI  
GFYTKQILEGLKYLHDNQIVHRDIKGDNLINTYSGVLKISDFGTSKRLAGINPCTETFT  
GTLQYMAPEIIDKGPRGYGAADIWSLGCTIIEMATGKPPFYELGEPQAAMFKVGMFKVH  
PEIPESMSAEAKAFILKCFEPDPDKRACANDLLVDEFLKVSSKKKKTQPKLSALSAGSNE  
YLRISISLPVPVLEDTSSSEYGSVSPDTELKVDPF SFKTRAKSCGERDVKGIRTLFLGI  
PDENFEDHSAPPSPEEKDSGFFMLRKDSERRATLHRILT EDQDKIVRNLMESLAQGAEPP  
KLKWEHITTLIASLREFVVRSTDRKIIATTL SKL KLELDFDSHGISQVQVVLFGFQDAVNK  
VLRNHNKPHWMFALDSIRKAVQTAITILVPELRPHFSLASESDTADQEDLDVEDDHEE  
QPSNQTVRRPQAVIEDAVATSGVSTLSSTVSHDSQSAHRSLNVQLGRMKIETNRLLEELV  
RKEKELQALLHRAIEEKDQEI KHLKLSQPIEIPELPVFHLNSSGTNTEDSELTDWLRVN  
GAEDETISRFLAEDYTLLDVLYVYVTRDDLKCLRLRGGMLCTLWKAIDFRNKQT

>O60664

MSADGAEADGSTQVTVEEPVQQPSVVDRAVSMPLISSTCDMVSAAYASTKESYPHIKTVC  
DAAEKGVRTL TAAAVSQAQPI LSKLEPQIASASEYAHRLDKLEENLPILQQPTEKVLAD  
TKELVSSKVSQAQEMVSSAKDTVATQLSEAVDATRGAVQSGVDKTKSVVTGGVQSVMGSR

LGQMVLSGVDTVLGKSEEWADNHLPLTDAELARIATSLDGFVDVASVQQQRQEQSYFVRLG  
SLSERLRQHAYEHS LGKLRATKQRAQEALLQLSQALSLMETVKQGV DQKLVEGQEKLHQM  
WLSWNQKQLQGPEKEPKPEQVESRALTMFRDIAQQQLQATCTSLGSSIQGLPTNVKDQVQ  
QARRQVEDLQATFSSIHSFQDLSSSILAQSRERVASAREALDHMVEYVAQNTPTVTLVGP  
FAPGITEKAPEEKK

>Q05514

MKIVDVLCTPGLTGIFYFDDQRAIKKGAGHDGFTYTGSTVTEGFTQVRQKGESISVLLVLE  
DGQVAHGDCAAVQYSGAGGRDPLFLAKDFIPVIEKEIAPKLI GREITNFKPMAEEFDKMT  
VNGNRLHTAIRYGITQAILDAVAKTRKVTMAEVIRDEYNPGAEINAVPVFAQSGDDRYDN  
VDKMIIKEADVLP HALINNVEEKLGLKGEKLL EYVKWLRDR I IKLRVREDYAPIFHIDVY  
GTIGAAFDVDIKAMADYIQT LAEAAKPFHLRIEGPMDVEDRQKQMEAMRDLRAELDGRGV  
DAELVADEWCNTVEDVKFFTDNKAGHMVQIKTPDLGGVNNIADAIMYCKANGMGAYCGGT  
CNETNRSAEVT TNIGMACGARQVLAKPGMGVDEGMMIVKNEMNRVLALVGRRK

>Q02169

MTKPLILASQSPRRKELLDLLQLPYSII VSEVEEKLNRNFSPEENVQWLAKQKAKAVADL  
HPHAIVIGADTMVCLDGECLGKPKDQEEAASMLRRLSGRSHSVITAVS IQAENHSETFYD  
KTEVAFWSLSEEEIWTYIETKEPMDKAGAYGIQGRGALFVKKIDGDYYSVMGLPISK TMR  
ALRHFDIRA

>Q90889

MTPPNKGNKALKVKREPGENGTSLTDEELVTMSVRELNQHRLRGLSKEEIIQLKQRRRTLK  
NRGYAASCRVKRVTQKEELEKQKAELQQEVEKLA SENASMKMELDALRSKYEALQNFART  
VARSPVTPVRGPLTSSMGPLVPGKVATT SVITIVKSKTDARS

>P23256

MDFDFSKVVDRHGTWCTQWDYVADRFGTADLLPFTI SDMDFATAPCIEALNQRLMHGVFG  
YSRWKNDEF LAIAHWFSTQHHTAIDSQTVVYGPSVIYMVSELIRQWSETGEGVVIHTPA  
YDAFYKAI EGNQRTVMPVALEKQADGWFCDMGKLEAVLAKPECKIMLLCSPQNPTGKVWT  
CDELEIMADLCERHGVRVISDEIHMDMVWGEQPHIPWSNVARGDWALLTSGSKSFNIPAL  
TGAYGIIENSSSRDAYLSALKGRDGLSSPSVLALTAHIAAYQQGAPWLDALRIYLKDNLT  
YIADKMNAAFP ELNWQIPQSTYLAWLDRPLNIDDNALQKALIEQEKVAIMP GYTYGEEG  
RGFVRLNAGCPRSKLEKGVAGLINAIRAVR

>Q9UUZ3

MRHSIGLAAALLAPTL PVALGQHIRDLSSEKWTLS SRALNRTPAQFP SQVHLDLLRAGV  
IGEYHGLNDFNLRWIAANW TYTSQP IKGLLDNYGSTWLVFDGLDTFATISILWTANRIH  
GQSVSPVSGSMYLPAL EACQRRILIRKVSFRGGVTA EVNTCYLHIEWPDDVQLTYEYPNR  
WFM RKEQSDFGWDWGP AFAPAGPKPAYIVQLDKKESVYV LNTDLDIYRKNQINYLPPDQ  
SQPWVNASIDILGPLPAKPTMSIEVRDTHSGTILTSRTLNNVSVAGNAITGVTVLDGLN  
PKLWWPQSSVIRTSTMFLSLSKVEGTRPWPVW TNGRASAPFFLNQRNITEVQRAQGIAPG  
ANWHFEVNGHEFYAKGSNLIPPDSFWTRVTEERISRLFD AVVGNQNM LRVWSSGAYLHD  
YIYDLADEKGILLWSEFEFS DALYPSDDAFLENVA AEIVYNVRRVNHHP SLALWAGGNEI  
ESLMLPRVKDAAPSSYSYVGEY EKMYISLFLPLVYENTRSISYSPSSTTEGYLYIDLSA  
PVPMAERYDN TTSGSYYGDTDHYDYDTSVAFDYGSYPVGRFANEFGFHSMP SLQ TWQQAV  
D TEDLYFNSSVMLRNHHD PAGGLMTDNYANSATGMGEMTMGVISYYP IPSKSDHISNFS  
AWCHATQLFQADMYKSQIQFYRRGSGMPERQLGSLYWQLEDIWQAPSWAGIEYGGRWKVL  
HHV MRDIYQPVI VSPFWNYTTGSLDVYVTS DLWSPAAGTVDLTWL DLSGRP IAGNAGTPK  
SVPFTVGG LNSTR IYGTNVSS LGLPDTKDAV LILSLSAHGR L P NSDR TTNL THENYATLS

WPKDLKIVDPGLKLGYSKKTTVTVEATSGVSLYTWLDYPEGVVGYFEENAFVLAPGEKK  
EIGFTVLDDTTNGAWVRNITVQSLWDQKVRG

>P11444

MSEVLITGLRTRAVNVPLAYPVHTAVGTVGTAPLVLIDLATSAGVVGHSYLFAYTPVALK  
SLKQLLDDMAAMIVNEPLAPVSLEAMLAKRFCLAGYTGLIRMAAAGIDMAAWDALGKVHE  
TPLVKLLGANARPVQAYDSSHSLDGVKLTATERAVTAAELGFRAVKTKIGYPALDQDLAVVR  
SIRQAVGDDFGIMVDYNQSLDVPAAIKRSQALQQEGVTWIEEPTLQHDYEGHQRIQSKLN  
VPVQMGENWLGPEEMFKALSIGACRLAMPDAMKIGGVTGWIRASALAQQFGIPMSSHLFQ  
EISAHLLAATPTAHWLERLDLAGSVIEPTLTFEGGNAVIPDLPGVGIWREKEIGKYL

>P16468

MALPGGAAMNITIRLQFEKDIVSFSIDIAAAIGKAGGDIVGIDVISSSKVHTVRDITVSAL  
DTKQCDLIIIEALKKIRGVKIVNVSDRTFLMHIGGKIETNSKIPVKTRDDLRSVYTPGVAR  
VCTAIAEDPRKAYSILTIKRNTVAVVSDGTAVLGLGDIGPYAAMPVMEGKAMLFKEFAGVD  
AFPICLDTKDTEEIIQIVKAIAPAFGGINLEDISAPRCFEIEKRLKEELDIPVFDHDDQH  
TAVVLLAGLLNALKIVDKKLEDIKVVLTGIGAAGIACTKILLAAAGVRNIGVDRHGAIHR  
DETYENPYWQEYAQLTNPDLNKGSLSDVIAGADVFIGVSAPGILKVEDVKKMARDPIVFA  
MANPIPEIDPELAEPYVRVMATGRSDYPNQINNVLCFPGIFRGALDCRAREINEEMKLAA  
AKAIASVVTEDELNETYIIPSVFNKVVVERVRQAVVEAAYRTGVARKDNI PVGGYTGO

>P77947

MSAPAPSPLAIVDAEPLRQEEVLTDAALAFVAELLHRRFTRAVTNSSPRRADAAREIAR  
TSTLDFLPETA AVRADDSWRVAGPAALNDRRVEITGPTDRKMTINALNSGAKVWLADFEE  
PSAPTWENVVLGQVNLSDAYTRNIDFTDERTGKTYALRPLKSWRPSWPRGWHLNERHLV  
DPDGSFGARRVVDFGLYFFHNAQRLLDLGKGPYFYLPKTESHLEARLWNDVVFVFAQDYV  
GIPQGTVRATVLIETITAAAYEMEEILYELRDHASGLNAGRWDYLF SIVKNFPATRPKFVL  
PDRNVTMTKLTMTAFMRRYTNCSSYCHNARASAAIGGMAAFIPSRDAEVNKVAF EKVRAD  
KDREANDGFDGSWVAHPDLVP IAMESFDRCWHRPNQKDRLEDVHVEAADLIAVDSLEAT  
TYAGSSSTAVQVGIRYIEAWLRGLGRVAIFNLMEDAATAEISRSQIWQWINAGVEFEHGE  
KATPIWPRKSRRGRKWRPVREELGEEPFAARDWQHADLVVQVSLDEDYADFLTL PAYER  
LRG

>P30952

MVKVSLDNVLLVDVDKEPFFKPSSTTVGDILTDALEFIVLLHRTFNKRKQLLENRQV  
VQKKLDSGSYHLDFLPETANIRNDPTWQGPILAPGLINRSTEITGPPLRNMLINALNAPV  
NTYMTDFEDSASPTWNNMVYQVNLDAIRNQIDFDTPRKS YKLN GN VANLPTIIVRPRG  
WHMVEKHLYVDDEPISASIFDFGLYFYHNAKELIKLGKGPYFYLPKMEHHLEAKLWNDVF  
CVAQDYIGIPRGTIRATVLIETLPAAFQMEEIIYQLRQHSSGLNCRWDYIFSTIKRLRN  
DPNHILPNRNQVTMTSPFMDAYVKRLINTCHRRGVHAMGGMAAQIPKDDPAANEKAMTK  
VRNDKIRELTNGHDGSWVAHPALAPICNEVF INMGTPNQIYFIPENVVTAANLLET KIPN  
GEITTEGIVQNLDIGLQYMEAWLRGSGCVPINNLMEDAATAEVSRCQLYQWVKHGVT LKD  
TGEKVTPEL TEKILKEQVERLSKASPLGDKNKFALAAKYFLPEIRGEKFSEFLTLLYDE  
IVSTKATPTDL SKL

>P02686

MGNHAGKRELNAEKASTNSETNRGESEKKNRNLGELSRTTSEDNEVFGEADANQNGTSSQ  
DTAVTDSKRTADPKNAWQDAHPADPGSRPHLIRLFSRDAPGREDNTFKDRPSESEDELQTI  
QEDSAATSESLDVMASQKRPSQRHGSKYLATASTMDHARHGFLPRHRDTGILDSIGRFFG  
GDRGAPKRGSGKDSHHPARTAHYGS LPQKSHGRTQDENPVVHFFKNIVTPRTPPPSQGKG

RGLSLSRFSWGAEGQRPFGYGGRASDYKSAHKGFKGVDAQGTLSKIFKLGGRDSRSGSP  
MARR

>P60355

MFKHTRKLQYNAKPDRSDPIMARRLQESLGGQWGETTGMMSYLSQGWASTGAEKYKDLLL  
DTGTEEMAHVEMISTMIGYLLEDAPFGPEDLKRDP SLATTMAGMDPEHSLVHGLNASLNN  
PNGAAWNAGYVTSSGNLVADMRFNVVRESEARLQVSRLYSMTEDGVRDMLKFL LARETQ  
HQLQFMKAQEELEEKYGIIVPGDMKEIEHSEF SHVLMNFS DGDGSKAFEGQVAKDGEKFT  
YQENPEAMGGIPHIKPGDPRLLHNHOG

>P15807

MVKSLLQLAHQKDKKILLIGGGEVGLTRLYKLIPTGCKLTLVSPDLHKSII PKFGKFIQN  
EDQPDYREDAKRFINPNWDPTKNEIYEYIRSDFKDEYLDLEDENDAWYIIMTCIPDHPES  
ARIYHLCKERFGKQQLVNVADKPDLCDFYFGANLEIGDRLQILISTNGLSPRFGALVRDE  
IRNLFTQMGLDALEDAVVKL GELRRGIRLLAPDDKDKYRMDWARRCTDLFGIQHCHNID  
VKRLDLDFKVMFQEONCSLQFPPRERLLSEYCSS

>P07623

MPIRVPDELPAVNFLREENVFMVMTTSRASGQEI RPLKVLILNLMPKK IETENQFLRLLSN  
SPLQVDIQLLRIDSRESRNTPAEHLNMFYCNFEDIQDQNF DGLIVTGAPLGLVEFNDVAY  
WPQIKQVLEWSKDHVTSTLFVCWAVQAALNILYGI PKQTRTEKLSGVYEHHLHPHALLT  
RGFDDSFLAPHSRYADFPAA LIRDYTDLEILAETEEGDAYLFASKDKRIAFVTGHPEYDA  
QTLAQEFFRDVEAGLDPDVPYNYFPHNDPQNTPRASWRSHGNLLFTNWLNYVYQITPYD  
LRHMNPTLD

>P0A8U6

MAEWSGEYISPYAEHGKKSEQVKKITVSIPLKVLKILTDERTRRQVNNLRHATNSELLCE  
AFLHAFTGQPLPDDADLRKERSDEIPEAAKEIMREMGINPETWEY

>P13444

MNGPVDGLCDHSLSEEGAFMFTSESVGEGHPDKICDQISDAVLDAHLKQDPNAKVACETV  
CKTGMLVLLCGEITSMAMIDYQRVVVRTIKHIGYDDSAKGFDFKTCNVLVALEQQSPDIAQ  
CVHLDRNEEDVGAGDQGLMFGYATDETEECMPLTIVLAHKLNTRMADLRRSGVLPWLRPD  
SKTQVTVQYVQDNGAVIPVRVHTIVISVQHNE DITLEAMREALKEQVIKAVVPAKYLDED  
TIYHLQPSGRFVIGGPQGDAGVTGRKIIIVD TYGGWGAHGGGAFSGKDYTKVDRSAAYAAR  
WVAKSLVKAGLCRRVLVQVSYAIGVAEPLSISIFTYGT SKKTERDELLEVVNKNFDLRPG  
VIVRDLDLKKPIYQKTACYGHFGRSEFPWEVPKKL V F

>P0A817

MAKHLFTSES SVSEGHDPK IADQISDAVLDAILEQDPKARVACETYVKTGMVLVGGEITTS  
AWVDIEEITRNTVREIGYVHSDMGFDANSCAVLSAIGKQSPDINQGVDRADPLEQGAGDQ  
GLMFGYATNETDVLMPAPITYAHRLVQRQAEVRKNGTLPWLRPDAKSQVTFQYDDGKIVG  
IDAVVLSTQHSEEIDQKSLQEAVMEEI IKPILPAEWLTSATKFFINPTGRFVIGGPMGDC  
GLTGRKIIIVD TYGGMARHGGGAFSGKDP SKVDRSAAYAARYVAKNIVAAGLADRCEIQVS  
YAIGVAEPTSIMVETFGTEKVPSEQLTLLVREFFDLRPYGLIQMLDLLHP IYKETAAYGH  
FGREHFPWEKTDKAQLLRDAAGLK

>P45131

MSVQNVVLFDTQPLTLM LGGKLSHINVAYQTYGTLNAEKNNAVLICHALTGDAEPYFDDG  
RDGWQNFMGAGLALDTRYFFISSNVLGGCKGTTGPSSINPQTGKPYGSQFPNIVVQDI



VKVQKALLDHLGISHLKAIIGGSFQGMQANQWAIDYPDFMDNIVNLCSSIYFSAEAI GFN  
HVMRQAVINDPNFNNGDYEGTTPDQGLSIARMLGMLTYRTDLQLAKAFGRATKSDGSFW  
GDYFQVESYLSYQKKFLERFDANSYLHLLRALDMYDPSLGYDNVKEALSRIKARYTLVS  
VTTDQLFKPIDLYKSKQLLEQSGVDLHFYEFPSDYGHDAFLVDYDQFEKRI RDGLAGN

>P52002

MSKFFIDRPIFAWVIALVIMLAGGLSILSLPVNQYPAIAPPAAIAVQVSYPGASAETVQDT  
VVQVIEQQMNGIDNLRYSISSESNSDGSMTITVTFEQGTDPDIAQVQVQNKLQLATPLLPQ  
EVQRQGI RVTKAVKNFLMVVGVVSTDGSMTEKEDLSNYIVSNIQDPLSRTKGVGDFQVFGS  
QYSMRIWLDPAKLNYSYQLTPGDVSSAIQAQNVQISSGQLGGLPAVKGQQLNATIIGKTRL  
QTAEQFENILLKVNPDGSQVRLKDVADVGLGGQDYSINAQFNGSPASGIAIKLATGANAL  
DTAKAIRQTIANLEPFMPQGMKVVPYDTPVVSASIEHVVKTLGEAILLVFLVMYLFQ  
NFRATLIPTIAVPVLLGTFGVLAAGFVSINTLTMFGMVLAI GLLVDDAIVVVENVERVM  
AEEGLSPREAARKSMGQIQGALVGIAMVLSAVFLPMAFFGGSTGVIYRQFSITIVSAMAL  
SVIVALILTPALCATMLKPIEKGDHGEHKGFFFGWFNRMFLSTHGYERGVASILKHRAP  
YLLIYVVIVAGMIWMFTRIPTAFLPDEDQGVLFQVQTPPGSSAERTQVVVDSMREYLL  
KESSSVSSVFTVTGFNFAGRGQSSGMAFIMLKPWEERPGENSVFELAKRAQMHHFSFKD  
AMVFAFAPPSVLELGNATGFDFLQDQAGVGHEVLLQARNKFLMLAAQNPALQVRPNGM  
SDEPQYKLEIDDEKASALGVSLADINSTVSI AWGSSVNDFIDRGRV KR VYLQGRPDARM  
NPDDL SKWYVRNDK GEMV PFNAFATGKWEY GSPKLER YNGVPAMEILGEPAPGLSSGDAM  
AAVEEIVKQLPKGVGYSWTGLSYEERLSGSQAPALYALSLLVVFLCLAALYESWSIPFSV  
MLVVPLGVIGALLATSMRGLSNDVFFQVGLLTTIGLSAKNAI LIVEFAKELHEQKGIVE  
AAIEACRMRLRP IVMTSLAFILGVVPLAISTGAGSGSQHAI GTGVIGGMVTATVLAIFWV  
PLFYVAVSTL FKDEASKQOASVEKGO

>Q59268

MQEKTKRI IKEDIEAVRAYSDCFDVEMPDLDENGEVIGLPAPYPREVAGTVRSGYRIYDL  
AKKAKERGWPIQNPILGRNTAEETYGESQEMYAYADKFD ETLFHFVHAEATR HIDPLKGR  
ELINQSRGKGGITPIGEREFIAMGGGSKHPVRINATGDTPHLSIINALIAGFDGTDIGPV  
IHVHFGGRGIHDYKTKVVNGYKAIQICAENNI FVQLDSHKHLN NIGGTDGMALAMCLLSE  
GLAVHAGLPWELSAIQMNVAGINIYADLAVMRAFRKACHSKSIIAVPETFQNP PGNLVAE  
AAHFSRMAVTAKLGGADFYRPKAAESVGIPTGDSMGQAIWGTEDVFGHV VNPDIQSPVID  
AREAEI IDEALAVLEATLHLEGLTLEAMTDDFWKQWSEALIDLIVAAGKAGV LDSQRAA  
GWDLKRHV VVNRDKDGI TRYVKGYTPLGVDASRCAQSD EDEVHVEKAPTRPEKIVLATV  
GADAHVNGINVIREAFQDAGYDVVYLRGMNLPESVAEVAAEVGADAVGVS NLLGLGMELF  
PRVSKRLEELGLRDKMVV CAGGRIAEKEEEHRQFEKIQKEGSAFMGMDGFFGPGSSPED  
CVKIIGDMINAKKA

>P0ABR9

MHAYLHCLSHSPLVGYVDP AQEVLDEVNGV IASARERIAAFSPELVVLFAPDHYNGFFYD  
VMPPFCLGVGATAIGDFGSAAGELPVPVELAEACAHAVMKSGIDLAVSYCMQVDHGFAQP  
LEFLLGGLDKVPVLPVFINGVATPLPGFQRT RMLGEAIGRFTSTLNKRVLFLGSGGLSHQ  
PPVPELAKADAHMRDRLLGSGKDLPASERELRQQRVISA AEK FVEDQRTLHPLNP IWDNQ  
FMTLLEQGRIQELDAVSNEELSAIAGKSTHEIKTWVAAFAAISAFGNWRSEGRYYRPIPE  
WIAGFGSLSARTEN

>P18196

MSNTPIELKGSSFTLSVVHLHEAEPKVIHQALEDKIAQAPAF LKHAPVVLNVSALEDPVN  
WSAMHKAVSATGLRVIGVSGCKDAQLKAEIEKMGLPILTEGKEKAPRPAPTPQAPAQNTT  
PVTKTRLIDTPVRSQRIYAPQCDLIVTSHVSAGAEIADGNIHVYGMMRGRALAGASGD

RETQIFCTNLMAELVSIAGEYWLSQDIPAIFYGKAARLQLVENALTVQPLN

>P10889

MAPPTCRLLSAALVLLLLLATNHQATGAVVASELRCQCLKTLPRVDFKNIQSLSVTPPGP  
HCAQTEVIATLKGQKQVCLDPEAPLVQKIIQKILNKGKAN

>P50456

MVAENQPGHIDQIKQTNAGAVYRLIDQLGPVSRIDLSRLAQLAPASITKIVREMLEAHLV  
QELEIKEAGNRGRPAVGLVVETEAWHYLSLRISRGEIFLALRDLSSKLVVEESQELALKD  
DLPLLDRIISHIDQFFIRHQKKLERLTSIAITLPGIIDTENGIVHRMPFYEDVKEMPLGE  
ALEQHTGVPVYIQHDISAWTMAEALFGASRGARDVIQVVIDHNVGAGVITDGHLLHAGSS  
SLVEIGHTQVDPYKRCYCGNHGCLETIASVDSILELAQLRLNQSMSSMLHGQPLTVDSL  
CQAALRGDLLAKDIIITGVGAHVGRILAIMVNLFPQKILIGSPLSKAADILFPVISDSIR  
QQALPAYSQHISVESTQFSNOGTMAGAALVKDAMYNGSLLIRLLQG

>P46057

MAVAPTSYDILMGTFRSPYLYTLTFDVLARKLQVREVNEATGGHNWLDVSPDGNTLYATV  
WGEPPKLTSDYDIVRGGEYATTKLSRNVASQYMSGYVCSNNKAMYSACGPQVDTFLVDDNG  
TLLDQPAVQSFNLLQGQEKKNANGTLDGGLRHGGHSADLSPDGTCLYVADIGRNCVWY  
HVDRETGLLTEASKNIATRPHDGRHAWHPNGRIVYSLQEHSSYVDAFRLTDDNKLEFL  
EGGCIIPDEKDHDKYWADEVRLSPMADVFGSTRGLEEGTDPGFVTAWNLRPDGTFASTE  
THRFTQTKTSGGWANAIAVCPNLGPNGEVFMTLTDSEVGFIQILAYTSDKGFVVDLKI  
TEKEHIMPATTVWL

>Q9SWR3

MAAVTGLYGSIDEFLNHCSQSGDSAYSALRSLLERLEKPDTRTEARIFLAHLQKKLDNDG  
ASQRCLETYHFQIQDIYLDNRNEGTYQNRKKFTMMVIPSIFMPEDWSFTFYEGINRHPDS  
IFKDKTVAELGCGNGWISIAIAEKWLPLKVYGLDINPRAVKISWINLYLNAFDEEDGQPVY  
DSESKTLLDRVEFYESDLSYCRDNHIELERIVGCIPQILNPNPDAMSKLVTENASEEFL  
HLSLNYCALQGFVEDQFGLGLIARAVEEGIDVIKPMGIMIFNMGGRPGQGVCCKRLFERRG  
LSVNKLWQTKILQASDTDISALVEIEKNPNHRFEFFMGLVGDRPICARTAWAFGKACGRI  
SHALSVYSCQLRHPNEVKKIFEFLKNGFHDISNSLDLSFEDDSVADEKIPFLAYLAGVLK  
DGSRFPYEPPTGNKRFRDLIASFMKTYHHVPLSTDNVAIFPSRATAIENSLRLFTRPRLAI  
VEEHLTCNLPRQWLTSLEIEQTRDSKTPIDGITVIEAPRQSDLMIELIKKLPQVVVTGI  
AQFEAVTSSAFEHLRVRTREIGSRFLIDISDQFELSSLPSSIGVLKYLARTPLPASHAII  
CGLLRNRVYTDLEVAFVISEEQTIFDALTRTVELLQGN TALISQYYYGCLFHLLSFQIP  
DRRQTAEREAENVEASDIDMIGFSSSAISVLSQSELSVRVTEKSSLLHMDVDQIFLPTPT  
PVKAAIFESFARQNVTECTEDVTPILRQFILNTWNFSVEHSAEFIYADFPALALFNKLVLC  
CIEEGGSLCMPAGSNGNYAAAANKFLNANIMSIPTAEVGFKLTAKQLSSVLETVHKPVVY  
ISGPTINPTGLLYSNEEMKSLTLVCARYGARTIIDTSFSGIKFNSQDWDGWNLDASLAGL  
TGNPSFSVCLLGGFLFFKIPTGGLSYGFLVLKSGFLADSFRSSFSGLNKPHTVRYTAKKL  
LELGEQKGNLTGAAQGGQEKLLATRLKRLKETLENCGWEVIEARGGVSVIAKPSAYLGKNI  
KLEKDGSTWVTKLDGTNIREAMLRATGLCINGPSWTGIPDYCRFTFALEDGDFDRALDCI  
VKFNQLVK

>P0A738

MSQLTHINAAGEAHMVDVSAKAETVREARAEAFVTMRSETLAMIIDGRHHKGDVFATARI  
AGIQAAKRTWDLIPLCHPLMSKVEVNLQAEPEHNRVRIETLCRLTGKTVEMEALTAAS  
VAALTIYDMCKAVQKDMVIGPVRLAKSGGKSGDFKVEADD

>Q96BY2

MTLRLLLEDWCRGMDMNP RKALLIAGISQSCSVAEIEEALQAGLAPLGEYRLLGRMFRRDE  
NRKVALVGLTAETSHALVPKEIPGKGGIWRVIFKPPDPDNTFLSRLNEFLAGEGMTV GEL  
SRALGHENGSLDPEQGMIPEMWAPMLAQALEALQPALQCLKYKKLRVFSGRESPEPGEEE  
FGRWMFHHTQMIKAWQVPDVEKRRRLLLESRLGPALDVIRVLKINNPLITVDECLQALEEV  
FGVTDNPRELQVKYLTQYKDEEKL SAYVLRLEPLLQKLVQRGAIERDAVNQARLDQVIA  
GAVHKTIRRELNLPEDGPAPGFLQLLVLIKDYEAEEEEALLQAILEGNFT

>P48563

MAMNTGGFDSMQRQLEAELRSLSES SKRRNSTIRHASDKSIEILKRVHSFEELERHPDFA  
LPPVLACQSRNAKMTTLAMQCLQGLSTVPSIPRSRLSEILDAFIEATHLAMEIQLKVLQV  
VPIFFKTYGKFIYGPLCCKLLCCSNLLHVPNKAPVVVGTASATLQQLIDEIFDRLSIES  
VVDDKQYEVLLISNSESIVNVRYDANKLFDNICSLNEISSNGAVSDEEMLLDIGDIPID  
YGLEILESILKNSQKNLLECQDLQYLLRVKAIPLLLRCISSSRHFSTAVRSCRCLKLLIR  
KEYLSILELELEVLISLLIHGISVESNL SGWQRVLSLELFKDLSQDPEIVNTLYMDYDNY  
PDKKHVFKYLLKECIVLLNSPEYITFLAPSKVVEKMDSPPLITTENSTVKT KFMHLLDKSN  
APSINITYIISLILITCNHLCEGLNKSALLESSPLEKKIEDKEREETGNDSTVVKVYSGL  
FSGLFELNKLFLYSTSLETSIFHLVVRAFQKLAHSAGVLSLKD KLRACMKLFSILITNNV  
TSSNQYSFNDTSKSAKNQHTRNISTSSVTTSPVESTKNPSRSIADSAQNKEMKRR LHPRN  
ISSRQVSLLRALISLSISLGPIDFSESWRYTFLTWQWITYYIYGPSADFKESFYSEDIPP  
PPILTKSDVTSIESLTKFFESTSSYSCSTFHLVLRILDSKNTLTLEQTNLNLNDIG  
YHPLDAKDEIIPCIYNKAFFVNKIGELATYNCKKFLFGKNGKELWSLISTYMIKLISNRE  
MDNDSLRLYTVRVFTDIKKATNEVGNSDEQDNKVKQFGTLENLVIDSIMATINSIKQLD  
IGKQEIYNGTINVEDILFQLLLTLKEILNEFGELLMNSWTNIFNIINSPFEWTVEDTDF  
SVNEDIDSSSLFEGIVQKHKNMIQVSYDVFKLISDDFLQSLPMSVIKFVIDTLVNFVSQK  
RNLNISFSSISQFWLVGDYLRVRFNPETLNLSDKRRSLSEKINNQKLEIITSSSHDW  
ELYNGLWIYLLKNLINCTNDDRVEVKNGAVQTFFRIDSHSVCFFPPWDLIFLEVIEPLLT  
KEWSTEELNETDFINVTLQGLIKLYPEHFKDFKNNTTCAKEWSMLLDFLKRLLSSTSN  
TKNAVILNYQTLKEIITIEDVPSDILKCCCEIFTDYNITYSDLSTNASSKTEYDCIYEL  
ITGFPPPLYQLISKYDAMTDEFVEKVLFFFNSAIKYPLLPFVQDKTKPSSMQKAILSGLD  
IFMTNDSKDTEILILLQLSTISILAFDTREKITKKGPKLPKASLNRLPTFEAISYMSCS  
NLRNRIAKIDQFGISTLKAKHILRILKNLAEIKRKS LITGSESEDEPIWVLASNCFCDL  
SNKIFKSLQEDAENPLKDNFCDLFINVIVVTLQRINPELDNLTEIDDLNEYSKYREILLE  
NRIIDL FNERQLDTFIYAVWDCSFLYEFDELENALMQDCGTFSELSQKLSSDFSCIFGS  
TTNPRFQTKYKCSLECLQDLVNFMLNTNEKLRKLTAPYLSARIALALRRYISDEYLIGRA  
PIPKLRKTELATLLNGLCVILRGVLDQNSTLGNKQIGVENLQTLSPILRTIPVSHKMDG  
LQDKVLELSLGF TKLD

>Q58037

MKLGIIITIERDAVVNDLIK SCKEYEVYKVIITPSNIVAGFNLD FKLKYKSFLEDELDCCF  
VRNLGWDSFFRFDVLKYLNHYPVINPPDGIDRASNKFLTSVFLLELNNLPQPKTVVTESI  
NEAIVWIDKFEEAVLKPIFGCGGEGIVRVKKELP ISTKLKILNEFKEKYNTFYIQEFIKP  
VRNEHRDIRAFVVDDEVAAMYRIGGENWKNVVSQGRVEKCEITEEIEKLALKAKNALG  
LFYAGVDLIESEDGLKVLEVNSTPSWIGLSKVSEVNIADKLLEKIIQYVKS

>P75467

MLLGTFNITLDAKNRISLPAKLRAFFEGSIVINRGFENCLEVRKPDQFQKYFEQFNSFPS  
TQKDRTRLKRLIFANANFVDVDTAGRVLIPNNLINDAKLDKEIVLIGQFDHLEIWDK KLY  
EDYLANSESLETVAERMKDVK

>P07266

MSPKNITRSVIPAIDL YCRKANFKTLKSLSMILGSKKEWYDTKKAPLRTFLVSRCGIFEQ  
LRGRLVEDGKVNLF SVFLTND SF SFCCKMTVDDKFNTSLVDWQKIPFDSTFATDRRQNI SL  
LPVDTLFATEKIIISILGVSPNMTNLVSIERERSDLVDFNCKLQSNILEHLLYAKCQGVVY  
TSTNEKARLLAAVCNPEFIDTFWCELTPIRVSLKENPSISVPREYQMYDPVVRATIKEVV  
TKRLLRSAFDNDIDPLMCLHLDKGWKLKFPILSSTTGLNFS LKDCLSLDTGKDASDMTEV  
FLATMESSKVLRTYSNLVDIVMKDNGRLDSGV LKQFN DYVKQEKLNLQHFQAGSSKFLKG  
AKI

>P80252

MPGPCNCIETNVCICGTGCSGKCCRCGDACKCASGCGCSGCKVVCKCSGTCACGCDCTGP  
TNCKCESGCSCK

>P04043

MKIKEIKKVTLQPFTKWTGGKRQLLPVIRELIPKTYNRYFEPFVGGALFFDLAPKDAVI  
NDFNAELINCYQQIKDNPQELIEILKVHQEYNSKEYYLDLRSADRDERIDMMSEVQRAAR  
ILYMLRVNFNGLYRVNSKNQFNVPYGRYKNPKIVDEELIS AISVYINNNQLEIKVGD FEK  
AIVDVRTGDFVYFDPPYIPLSETSAFTSYTHEGFSFADQVRLRDAFKRLSDTGAYVMLSN  
SSSALVEELYKDFNIHYVEATR TN GAKSSSRGKISEIIVTNYEK

>P55818

MSKLLLFQFDTDATPSVFDVVVGYDGGADHITGYGNVTPDNV GAYVDGTIYTRGGKEKQS  
TAIFVGGGDMAAGERVFEAVKKRFFGPFVSCMLDSNGSNTTAAAGVALVVKAAAGGSVKG  
KKAVVLAGTGPVGMRSAALLAGEGAEVVLCGRKLDKAAADSVNKRFKVNVTA AETADD  
ASRAEAVKGAHFVFTAGAI GLELLPQAAWQNESSIEIVADYNAQPPLGIGGIDATDKGKE  
YGGKRAFGALGIGGLK LKLRACIAKL FESSEGVFDAEEIYKLAKEMA

>Q06489

MSLEAIVFDRSEPENVS VKVLDQ LLLPYTTKYVP IHTIDDGYSVIKSMQVRGAPAI AIVG  
SLSVLTEVQLIKHNPTSDVATLYSLVNWESTKTVLNKRLDFLLSSRPTAVNLSNSLVEIK  
NILKSSSDLKAFDGS LYNVCELIDEDLANNMKMGDNGAKYLIDVLQKDGFKDEF AVLTI  
CNTGSLATSGYGTALGVIRSLWKDSLAKTDKADSGLDNEKCPRMGHVFPLETRPYNQGSR  
LTAYELVYDKIPSTLITDSSIA YRIRTSP IPIKAAFVGADRIVRNGDTANKIGTLQLAVI  
CKQFGIKFFVVPKTTIDNV TETGDDIIVEERNPEEFKVVTVINPENGSLILNESGEP  
ITGKVGIAPLEINVWNP AFDITPHELIDGIIITEEGVFTKNSSGEFQLES LF

>P31304

MKKLGFLSLLLLAVCTLFACSNQKNASSDSSKLKVVATNSIIADITKNIAGDKIDLHSIV  
PVGKDPHEYEPLPEDVKKTSQADLIFYNGINLETGGNAWF TKLVKNANKEENKDYAVSD  
GVDVIYLEGQSEK GKEDPHAWLNLENGIIYAQNI AKRLIEKDPDNKATYEKNL KAYVEKL  
TALDKEAKEKFNNIPEEKKMIVTSEGCFKYFSKAYNVPSAYIWEINTEEEGTPDQIKSLV  
EKL RKT KVPSL FVESSVDDRPMKTVSKDTNIP IHAKIF TDSIADQGE EGD TYYSMMKYNL  
DKISEGLAK

>Q5HZI1

MNDDNSDRTEDGSRVYVIRDKNSNPSEYYQTSLSAQCP SVSHGDWNSDNP DAMVVDYEMD  
PAVDSSSESVLSHQV EELAYPEPSSDFMGKHEFTMYSELTCQSPALVNTGK PQDLHSNC  
DSLEAIQDEKFDPLKPC ECRSDDDYACGDSPEVLEL KQTYGMKVDTANYTFIARHDIEQG  
QPLHAPGGLQTTVRDRNALSSCGRTPPHSSKMYVRGVNYNREN FENLQATPSKTLN TTF T  
VISDVLMQTDSPDVG VQGQNSLGNVTKEYTDGTRRGLIGEKEIQAVTLVSDGMEVPNGSA

SQEFYCVSEDDPNSETHSHGPYAQQEMGQNLRGTLPNCHVDGECPVLPVPAFEKSKTRVLG  
SECKVTVTEDPHIDSHDNDSDIQSSTEELTLRSVSGQRGSPYEMGWGENGGAICTDKAGC  
MSTPVEQPPNLSFRLEPAEVKKYNNVENGRDAKRAPNLKGEPTNMPKPNLKGKSAKTNT  
TVGSKVRKTEIISYPTPNFKNIKAKVISRSVLQPKDTSIMKDTSPSPQVTGGSSPSPGPSK  
HLTMMNKAPRSDFKASKKAEIPINKTHKQQFNKLITSQAAQVTTHSKNASLGVPRRTSAT  
KSNQENVDKTGSFHAGSETGSVAFFQKIKGILPVKMKSSSECLEVTYVSHIDQISPEKGE  
QDGEAPMEKQELGKQATNEIFESKSLLVGSAPKTSTTPGRSSSKPDSRSLRKTTPGLKAKV  
GPTAACLRKSESRTLGSDRALSPQRIRRVSGSGHAAINKYEEKPPKQAFQNGSGPLYL  
KPLVPRAHSHLLKTSKPGPSRKSLFTAFNSVEKGRQKNPRSLCIQTQTAPDVLSSERTLE  
LAQYKTKCESQSGFILHLRQLLSRGNTKFEALTVVIQHLLSEREEALKQHKTLSQELVSL  
RGELVAASSACEKLEKARADLQTAYQEFVQKLNQQHQTDRTTELENRLKDLYTAECEKLS  
IYIEEAKEYKTQLQEQFDNLNAAHETTKLEIEASHSEKVELLKKTYETSLSEIKKSHEME  
KKSLEDLLNEKQESLEKQINDLKSENDALNERLKSEEKQLSREKANSKNPQVMYLEQEL  
ESLKAVLEIKNEKLHQQDMKLMKMEKLVNNTALVDKLRKRFQQENEELKARMDKHMAISR  
QLSTEQAALQESLEKESKVNKRLSMENEELLWKLHNGDLCSPKRSPSSAIPFQSPRNSG  
SFSSPSISPR

>P56868

MKIGIFDSGVGGLTVLKAIRNRYRKVDIVYLGDTARVPYGIKSKDTIIRYSLECAFLKD  
KGVDIIVVACNTASAYALERLKEINVPVFGVIEPGVKEALKKSRNKKIGVIGTPATVKS  
GAYQRKLEEGADVFAKACPLFVPLAEEGLLGEITRKVVEHYLKEFKGKIDTLILGCTH  
YPLLKKEIKKFLGDVEVVDSSSEALSLSLHNFIKDDGSSSLELFFTDLSPNLQFLIKLILG  
RDYPPVKLAEGVFTH

>P22033

MLRAKNQLFLLSPHYLRQVKESGSRLLIQORLLHQQPLHPEWAALAKKQLKGNPEDLI  
WHTPEGISIKPLYSKRDTMDLPEELPGVKPFTRGPYPTMYTFRPWTIRQYAGFSTVEESN  
KFYKDNKAGQQGLSVAFDLATHRGYSDNPRVVRGDVGMAGVAIDTVEDTKILFDGIPLE  
KMSVSMTMNGAVIPVLANFIVTGEEQGVPEKLTGTIQNDILKEFMVRNTYIFPPEPSMK  
IADIFEYTAKHMPKFNSISISGYHMQEAGADAIILELAYTLADGLEYSRTGLQAGLTIDE  
FAPRLSFFWGIGMNFYMEIAKMRAGRRLWAHLIEKMFQPKNSKSLLLRAHCQTSGWSLTE  
QDPYNNIVRTAIEAMAAVFGGTQSLHTNSFDEALGLPTVK SAR IARNTQII IQEESGIPK  
VADPWGGSYMECLTNDVYDAALKLINEIEEMGGMAKAVAEGIPKLRIEECAARRQARID  
SGSEVIVGVNKYQLEKEDAVEVLAIDNTSVRNRIEKLKIKSSRDQALAERCLAALTEC  
AASGDGNILALAVDASRARCTVGEITDALKKVFGEHKANDRMVSGAYRQEFGESKEITSA  
IKRVHKFMEREGRPRLLVAKMGQDGHDRGAKVIATGFADLGFDVDIGPLFQTPREVAQQ  
AVDADVHAVGVSTLAAGHKTLVPELIKELNSLGRPDILVMCGGVIPPQDYEFLEFVGVSN  
VFGPGTRIPKAAVQVLDDIEKCLEKKQSSV

>Q56239

MGGYGGVKMEGMLKGEVGPPLPPLLQQYVELRDRYPDYLLLFQVGDYECFGEDAERLAR  
ALGLVLTHTKTSKDFTPMAGIPIRAFDAYAERLLKMGFRLAVADQVEPAEEAEGLVRRV  
TQLLTPGTLTQEALLPREANYLAAIATGDGWGLAFLDVSTGEFKGTLKSKSALYDELFR  
HRPAEVLLAPELRENEAFVAEFRKRFPVMLSEAPFEPQGEGLALRRAQGALLAYARATQ  
GGALSVRPFRLYDPGAFVRLPEASLKALEVFEPLRGQDTLFGVLDETRTAPGRRLLQAWL  
RHPLLERGPLEARLDRVERFVREGALREGVRRLLFRLADLERLATRLELSRASPRDLAAL  
RRSLEILPELKGLLGEEVGLPDL SGLLEELRAALVEDPPLKVSEGGI IREGYDPDL DALR  
RAHAEGVAYFLDLEAREKERTGIPTLVKGVNAVFGYYLEVTRPYEYKVPQYRVPVQTLKD  
RQRYTLPEMKERERELYRLEALIKRREEEVFLALRERARKEAEALREARILAEILDVYAA  
LAEVAVRHGYTRPRFGERLRIRAGRHPVVERRTAFVNDLEMAHELVLVTGPNMAGKSTF

LRQTALIALLAQIGSFVPAEEAELPLFDGIYTRIGASDDLGGKSTFMVEMEEVALVLKE  
ATERSLVLLDEVGRGTSSLDGVAIATALAEALHERRCYTLFATHYFELTALALPRLKLNH  
VAAKEEEGGLVFYHQVLPGPASKSYGVEVAEMAGLPKEVVERARALLSAMAARREGALEE  
VLERLLALDPDLTPLEALRFLHELKALALGLPLGSMKG

>P41354

MPQLATICYIDNGKELMLHRNKKPNDVHEGKWI GVGKLERGETPQECAAREILEETGL  
KAKPVLKGVITFPEFTPDLDWYTYVFKVTEFEGDLIDCNEGTLWVVPYDEVLSKPTWEGD  
HTFVEWLLLEDKPPFFSAKFVYDGDKLLDTQVDFYE

>P13702

MSLDSRLPAFRNLSPAARLDHIGQLLGLSHDDVSLLANAGALPMDIANGMIENVIGTFEL  
PYAVASNFQINGRDVLPVVEEPSIVAAAASYMAKLARANGGFTTSSSAPLMHAQVQIVG  
IQDPLNARLSLLRRKDEIIELANRKDQLLNSLGGGCRDIEVHTFADTPRGPMLVAHLIVD  
VRDAMGANTVNTMAEAVAPLMEAITGGQVRLRILSNLADLRLARAQVRITPQQLETAEFS  
GEAVIEGILDAYAAVDPYRAATHNKGIMNGIDPLIVATGNDWRAVEAGAHAYACRS GH  
YGLTTWEKDNNHGLVGTLEMPMPVGLVGGATKTHPLAQLSLRILGVKTAQALAEI AVAV  
GLAQNLGAMRALATEGIQRGHMALHARNIAVVAGARGDEVDWVARQLVEYHDVRADRAVA  
LLKQKRGQ

>Q01966

MADIQLSKYHVSKDIGFLLLEPLQDVL PDYFAPWNRLAKSLPDLVASHKFRDAVKEMPLLD  
SSKLAGYRQKRLAHLQLVLITSGYLWQEGEGGAVQRLPECVAKPLWNVSNLGLKPVLT Y  
GDVCLTNCRVKGGDIEVMYNLPGGAGTEWFLKVCGLVELTLGKGAQSVQNVLDGAKANDK  
AKMTSGLTELTTTIGNMQAALAKMNDNLTPDHFYVNLRPFLGGFGGPASPISGGLIYEGV  
SDAPVTMIGGSAAQSSAMQLLDNLLGVTHSPDKQAFLEISNYMIPAHKQLLADLT KMPR  
KVPQIVAEAKDANLSKAYSGCVAALTQYRTHYIQVVTKYIVTASKSDSPKSLAYKDTGKS  
DLIPFLKEVRDDTEKMOK

>P83179

DFMFGTSTASGGGLAYYNNLLNELLKVLFTYFGDRAYAPNSPQRGTADFYALNHYSRDK  
YGLPKLLLTEDGYGDDGQLDDFEKLAPSGVMNSLEPKNYLNATLQAMYLMKLSLSLSGVF  
HLLREQNVTSVHYTVNKC MN

>P54455

MKKIGIFGGTDFPPHNGHLLMANEVLYQAGLDEIWFMPNQIPPHKQNEYDTSFHRVEML  
KLAIQSNPSFKLELVEMEREGPSYTFDVTSLKQRYPNLQFFIIGADMI EYLPKWYKLD  
ELLNLIQFIGVKRPGFHVETPYPLLFADVPEFEVSSTMIRERFKSKKPTDYLI PDKVKKY  
VEENGLYES

>Q57961

MRGFIIGRFQPFHKGHLEVIKKAEEVDEIIGIGSAQKSHLTLENPFTAGERILMITQSL  
KDYDLTYYPPIPIKIDIEFNSIWSYVESLTPPFDIVYSGNPLVRVLFEEERGYEVKRP EMFN  
RKEYSGTEIRRRMLNGEKWEHLVPKAVVDVIKEIKGVERLRKLAQTDK

>O26253

MRGLLVGRMQPFHRGHLQVIKSILEEVDELIICIGSAQLSHSIRD PFTAGERVMMLTKAL  
SENGIPASRYIIPVQDIECNALWVGHIKMLTPPFDRVYSGNPLVQRLFSEDGYEVTAPP  
LFYRDRYSGTEVRRRMLDDGDWRSLLPESVVEVIDEINGVERIKHLAKKEVSELGGIS

>P68827

MASSMGRFLLFFIALRGFLLLEASGDFGSGASRDDDVLPLPYSRARARLARDCTRVHAGRLE  
HHESWPPAAQTAGAHRPSVVRTFVSYFADRAVPGHLTRAPEPLRTFSVLEPGGPGGCASKR  
RATVEETARPSGCTVAQNGGFFRMETGECLGNVVS GGRRVSSAGGLQNAQFGIRRDGTLV  
TGYLSEEEVLDTENPFVQLLSGVWVLIIRNGSIYINESQAAECEETQETGSFNRFVNVISA  
RTAVGHDRKQQLVLLHVDGQTEQRGINLWEMAFLKQDVVNA INLDGGGSATFVLNGTL  
ASYPSDHCQDNMWRCPRRVSTVVCVHEPRCQPPDCSGHGTCMEGRCQCTGHFWRGAACDK  
LDCGPANCSQHGLCTETGCRCEAGWTGSNCSEECPLGWYGPQCQSPCKCEHQPCDPQTG  
NCSVNWSPTLSSLSFRVKECFPPPEVTVQAEELSLLTRTTWLAITLALAFLLLI STAANV  
SLFLGSRAARRRHLDGAYVYHPLQEVNGEHPAAEKEQLGDS S NPFKD

>Q9XFB7

MMEGCCSNKKVMEEEALVKKITGLAAAIGELPSLSPSPEVNALFTELVTSCIPPSTVDV  
DALGPDAQEMRARLIRLCADAEGHLEAHYSDLLAAHDNPLDHLTLFPYFN NYIKLSQLEH  
GLLARHVPGPAPARVAFLGSGPLPLSSLVLAARHLPDASFNDYDISGEANERASRLVRAD  
ADAGARMAFR TADVADVTTELEGYDVVFLAALVGMAAEEKARLVEHLGRHMAPGAALVVR  
SAHGARGFLYPVVDPEEIRRGGFEVLTVHHPEDDEVINSV I IARKAAAPPPVAADRDPVN  
MPMPAQCAVAVSRPCLGCACELGARAHQKMK EIAMEEMEA

>O86309

MAMDLGGYLTRIGLDGRPRPDLGTLHAI VAAHNRSIPFENLDPLLGI PVADLSAEALFAK  
LVDRRRGGYCYEHNGLLGYVLEELGFEVERLSGRVWVRADDAPLPAQTHNVLSVAVPGA  
DGRYLVDVGFGGQTLTSP IRLEAGPVQQTRHEPYRLTRHGDDHTLAAQVRGEWQPLYTFT  
TEPRPRIDLEVGSWYVSTHPGSHFVTGLTVAVVTDDARYNLRGRNLAVHRSGATEHIRFD  
SAAQVLDAIVNRFIDLDLGLAGRDVQARVAEVLDT

>Q95W86

MAGLLKESMRIKIYMEGTVNGYHFKCEGEGDGNPFEGTQNMRI RVTEGAPLPFAFDILSP  
CCAYGSKTFIKHTSGIPDYFKQSFPEGFTWERTTIYEDGGVLT AHQDTSLEGNCLIKVK  
VLGTNFPADGPMKKISGGWEPCTEIVYQDNGVLRGRNVMALKVSGRPPLICH LHSTYRS  
KKACALTMPGFHFADLRIQMPKKKKDEYFELYEASVARYSDVPEKAT

>P14888

MTVQPFSPDSDLTLDEAMDELVSAEDFLEFFGVFPDQDVVHVNR LHIMQRYHDYLSKAGD  
LDEHDDQARYAVFQKLLARAYLDFVESDALTEKVFKVFRMH EPQKTFV SIDQLLS

>P25006

MTEQLQMTTRTMLAGAALAGAVAPLLHTAQAHAAAGAAAAA GAAPVDISTLPRVKVDLVKP  
PFVHAHDQVAKTGPRVVEFTMTIEEKKLVIDREGTEIHAMTFNGSVPGPLMVVHENDYVE  
LRLINPDTNTLLHNIDFHAATGALGGGALTQVNPGEETT LRFKATKPGVFVYHCAPEGMV  
PWHVTSGMNGAIMVLPRDGLKDEKGQPLTYDKIYYVGEQDFYVPKDEAGNYKKYETPGEA  
YEDAVKAMRTLTPTHIVFNGAVGALTGDHALTA AVGERVLVVHSQANRDTRPHLIGGHGD  
YVWATGKFRNPPDLQETWLIPGGTAGAAFYTFRQPGVYAYVNHNLIEAFELGAAGHFVKV  
TGEWNDDLMTSVVKPASM

>Q06178

MDPTRAPDFKPPSADEELIPPPDPESKIPKSIPIIPYVLADANSS IDAPFNIKRRKKKHPK  
HHHHHHHSRKEGNDKKHQH IPLNQDDFQPLSAEVSS EDDADFRSKERYGSDSTTESETR  
GVQKYQIADLEEVPHGIVRQARTLEDYEFPSHRLSKKLLDPNKLPLVIVACGSFSPITYL  
HLRMFEMALDAISEQTRFEVIGGYSPVSDNYQKQGLAPSYHRV RMCELACERTSSWLMV

DAWESLQPSYTRTAKVLDHFNHEINIKRGGVATVTGEKIGVKIMLLAGGDLIESMGEPNV  
WADADLHHILGNYGCLIVERTGSDVRSFLLSHDIMYEHRRNILI IKQLIYNDISSTKVRL  
FIRRAMSVQYLLPNSVIRYIQEHRLYVDQTEPVKQVLGNKE

>Q9HAN9

MENSEKTEVVLLACGSFNPITNMHLRRLFELAKDYMNGTGRYTVVKGIISPVGDAYKKKGL  
IPAYHRVIMAELATKNSKWVEVDTWESLQKEWKETLKVLRHHQEKLEASDCDHQQNSPTL  
ERPGRKRKWTETQDSSQKKSLEPKTKAVPKVKLLCGADLLESFAVNLWKSEDITQIVAN  
YGLICVTRAGNDAQKF IYESDVLWKHRSNIHVVNEWIANDISSTKIRRALRRGQSIRYLV  
PDLVQEYIEKHNLYSSESEDRNAGVILAPLQRNTAEAKT

>Q96T66

MKSRIIPVLLACGSFNPITNMHLRMFEVARDHLHQTMGYQVIQGIISPVNDTYGKKDLAA  
SHHRVAMARLALQTSDWIRVDPWESEQAQWMETVKVLRHHHSKLLRSPPQMEGPDHGKAL  
FSTPAAVPELKLCCGADVLKTFQTPNLWKDAHIQEI VEKFGLVCVGRVGHDPKGYIAESP  
ILRMQHNIHLAKEPVQNEISATYIRRALGQGQSVKYLIPDAVITYIKDHGLYTKGSTWK  
GKSTQSTEGKTS

>Q60049

MEATLPVLDAKTAALKRRSIRRYRKDPVPEGLLREILEAALRAPSAWNLQPWRIVVVRDP  
ATKRALREAAFGQAHVEEAPVVLVLYADLEDALAHLDEVIHPGVQGERREAQKQAIQRAF  
AAMGQEARAWASGQSYILLGYLLLLLEAYGLGSPMLGFDPERVRAILGLPSHAAIPAL  
VALGYPAEEGYPSHRLPLERVVLWR

>O14310

MESKEAKEKEGVNTSDSKGSQIESSISDLREKSQHLEFVLLLEPQVPVIQYGLNQLEEKARN  
LESKVLLTRDGDTKAHYLLAESGMNAEQTRQKIYSIHSPWDQLELDKKSLEYEQPHTKL  
YNGQNVVASIENGYQSNVYEFQLRLMKNNGIAWENTKTEFMEDVGKLLHSDNSGLGTSI  
SMSLRPNLARPLLTASSVKSQSVRSLREVGSNLP IPTGSLTKIDGLNNQLSNDLTRSQTT  
NIFGFAEKASSFAAAVHKLNEARIRNQACHVWLSLFAVSQMVNTEVIQQLFDAWSLLAHMI  
DETRYGMGDFEARHLALDSSSAALAVEKNCIEGSLKYLENQFLSLIDLHLSDAGHITTVN  
SVEKVIAYSKLRFYKNGSWIKSTVSVVNDVPLWVVLFYLMRSGQLDAALQFVNTYSDDFE  
KLGRSFPLYFYASYAKNPSLPLPKQLRDRLQAEYQQLMKYAPEDPFKHA IYKLLGNCEPHR  
VSLPEVCVTSESYMWIQLMFCRVNQNDVIDSNGGQSTNSLFLNLYQLEKKIVAFGPRYFNP  
KNNTPTNYFLALLMCGEFERAISFLHTNYPVEATHFAVAMAYGLLRTKNYEKNENILY  
EADDVKINFPQLIIAYLKHLEYVDAAVYLDYIACIPLVPAYQACSINLTKILLLQSHEFS  
KFLGDIKPDTERTTGLLDLYLRLIPFDHDSLQKLYLEGAREADDGFRFGDSIILYHLLGD  
YDTVIGVAIKNLSQSI VSRGLWSIDSKESKNMHISSNVVASEAPDALAANLLAMYESNPK  
KSAKVSATNKKALKVLLKVVVKVQKLYGQEKWDEVQLIEHLDLLPINEVQAEFEPNEQIP  
PISARLRRRAFEFSTFQDEVLSVIPSLMYISMSSIKALYRTISKLPVNEESKKKLQRLQ  
FKGSMLVMFSTMIESRLSPQILEYLQAEQLTLL

>Q19427

MPTFRSNI VVFNLIARRAFTTTSTKNMGFVEKVRLLDYWKIQDSALQSEFPRSRVLVLMVD  
RRLLVTKDQPDVQMVVELSFDDLKQRLGEYGLQFDLSNSCLLDALSTDVDMIPLFGTSIDA  
ADPPEDSPI SKKEVLKQLGNSLGGFRFTDIRMAMLTMRERQRNLLAKFQSLTKWAS IYRR  
CPKCAAALKMRSSKSGAECVTCQRVYYP TFS PVSITLITDPTNEHALLVRHRGSAGGVFT  
AVAGFAHSGESMAECARREIAEEVGI EVDSIRSLDMSQPWPMPDSSLMIAHVAVAKIDQK  
ISVCPDELETAQWFTRHQVKEALTTTTLADPLLNLPRTLDDRQTLHYIPPAGAI AHQMIR  
QWVDGKLENHNSRI



>Q9LK88

MEAVTAIKPLIRVAALSGSLRKTFSFHTGLLRAAIDLTKESVPGLOIEYIDISPLPLINTD  
LEVNGTYPPVVEAFRQKILEADSILFASPEYNFVSAPLKNALDWARPPNVWADKPAAI  
ISTGGGFGGGRSQYHLRQIGVFLDLHFINKPEFTLNAFQPPQKFD AEGNLVDEVTKERLK  
QVLLSLQAFTLRLQ GK

>Q505F1

MATIEEIAHQIIDQQMGEIVTEQQTGQKIQIVTALDHSTQGKQFILANHEGSTPGKVFLT  
TPDAAGVNQLFFTSPLDLSAPHLQLLTKESPDQGNKVFVDFLCVVCQDKASGRHYGAI TCEG  
CKGFFKRSIRKNLVYSCRGSKDCVINKHHRNRCQYCR LQRCIAFGMKQDSVQCERKPIEV  
SREKSSNCAASTEKIYIRKDLRSPLAATPTFVTDSETARSAGLLDSGMFVNIHPSGIKTE  
PAMLMAPDKAESQGDSTLASVVTSLANLKGAKDL SHCGGDMPPVQSLRNGDTSFGAFH  
HDIQTNGDVSRAFDTLAKALTPGESTSCQSPEEGMEGSPHLIAGEPSFVEKEGPLLSESH  
VAFRLTMPSPMPEYLVNHYIGESASRLLFLSMHWALSIPSFQALGQENSISLVKAYWNE L  
FTLGLAQCWQVMNVATILATFVNCLHSSLQQDKMSPERRKSLMEHIFKLQEF CNSMVKLC  
IDGHEYAYLKAIVLFSPDHPGLENMELIERFQEKAYVEFQDYITRTY PDDTYRLSRLLLR  
LPALRLMNATITEELFFKGLIGNVRIDSVIPHILKMEPADYNSQIIGHSL

>Q64249

MERDERPPSGGGGGGSAGFLEPPAALPPPPRNGFCQDELAELDPGTNGETDSLTLGQGH  
IPVSVPPDDRAEQRTCLICGDRATGLHYGII SCEGCKGFFKRSICNKRVYRCSRDKNCVMS  
RKQRNRCQYCRLLKCLQMGMNRKAIREGMPGGRNKSIGPVQISEEEIERIMSGQEFEE E  
ANHWSNHGSDSDHSSPGNRASESNQPSPGSTLSSSRSVELNGFMAFRDQYMGMSVPPHYQY  
IPHLFSYSGHSPLLPQARSLDPQSYSLIHQLMSAEDLEPLGTPMLIEDGYAVTQAE LFA  
LLCRLADELLFRQIAWIKKLPFFCELSIKDYTCLLSSTWQELILLSSLTVYSKQIFGELA  
DVTAKYSPSDEELHRFSDEGMEVIERLIYLYHKFHQLKVSNEEYACMKAINFLNQDIRGL  
TSASQLEQLNKRYWYICQDFTEYKYTHQPNRFPDLMCLPEIRYIAGKMVNVPLEQLPLL  
FKVVLHSCKTSTVKE

>Q99J45

MSEGESQTVVSSGSDPKVESSSLAPGLTSVSPVPTSTTSAASPEEEEESEDESEILEESP  
CGRWQKRREEVNRNVPIDGIDSAYLAMDTEEGVEVVWNEVQF SERKNYKLQEEKVRAVFDN  
LIQLEHLNIVKFHKYWADV KENKARVIFITEYMSSGSLKQFLKKT'KKNHKTMNEKAWKRW  
CTQILSALSYLHSCDPIIHGNLTCDTIFIQHNGLIKIGSVAPDTINN HVKTCREEQKNL  
HFFAPEYGEVTVNTTAVDIYSFGMCALEMAVLEIQNGESSYVPQEAISSAIQLLED SLQ  
REFIQKCLQSEPARRPTARELLFHPALFEVPSLKLAAHCIVGHQHMI PENALEEITKNM  
DTSAVLAEIPAGPGREPVTLYSQSPAELDKFLEDVRNGIYPLTAFGLPRPQQPQQEEV  
TSPVPPSVKTPTEPEAEVETRKVVLQCNIESVVEEGVKHHLTLLLLKLEDKLN RHLSCDL  
MPNESIPDLAAELVQLGFISEADQSRLTSLLEETLNKFNFTRNSTLNTATVTVSS

>Q16656

MEEHGVTQTEHMAIEAHAVAQQVQVHVATYTEHSMLSAD EDSPPSPEDT SYDDSDILN  
STAADEVTAHLAAAGPVGMAAAA AVATGKKRKRPHVFESNPSIRKRQQTRLLRKL RATLD  
EYTTTRVQQAIVLCISPSKPNPVFKVFGAAPLENVVRKYKSMILEDLESALAEHAPAPQE  
VNSELPPLTIDGIPVSVDKMTQAQLRAFIPEMLKYSTGRGKPGWGKESCKPIWWPEDIPW  
ANVRSDVRTEEQKQRVSWTQALRTIVKNCYKQHGREDLLYAFEDQQTQTQATATHSIAHL  
VPSQTVVQTFSPDGTVSLIQVGTGATVATLADASELPTTVTVAVQVNYSAVADGEVEQNW  
ATLQGGEMTIQTTQASEATQAVASLAEEA VAASQEMQQGATVTMALNSEAAAHA VATLAE  
ATLQGGGQIVLSGETAAAVGALTGVDANGLVQIPVSMYQTVVTS LAQNGPQVQVAMAPV

TTRISDSAVTMDGQAVEVVTLEQ

>Q9Z4P4

MKFKLLLAGSLVAVGAMALLASNINEKEKQRVELAKAPSEAGIAGKEKSEEWAKYYPRQF  
DSWKKTKKEYDSFTDMLAKDPALVIAWSGYAFSKDYNSPRGHYYALQDNVNSLRTGAPVDA  
KTGPLPTACWTCKSPDVPRLIEEDGELEYFTGKWAKYGSQIVNVIGCANCHDDKTAEKLV  
RVPHLNRGLQAAGLKTFFEESTHQDKRTLVCQAQCHVEYYFKKTEWKDAKGADKTAMVVTLP  
WANGVGKDGNAQVEGMIKYYDEINFSDWTHNISKTPMLKAQHPGFEFWKSGIHGQKGVSC  
ADCHMPYQTQEGSVKYSQDHQVKENPLDSMDQSCMNCHRESESKLRGIVHQYERKEFLNKV  
AFDNIGKAHLETGKAI EAGASDEELKEVRKLRIRHGQFKADMAIAAHGNYFHAP EETLRLL  
AAGSDDAQKARLLLKILAKHGVM DYIAPDFDTKDKAQKLAKVDIAALAAEKMKFKQ TLE  
QEWKKEAKAKGRANPELYKDVDTINDGKSSWNKK

>P03495

MDSNTVSSVFQVDCFLWHVRKQVVDQELGDAPFLDRLRRDQKSLRGRGSTLGLNIEAATHV  
GKQIVEKILKEESDEALKMTMASTPASRYITDMTIEELSRDWFMLMPKQKVEGPLCIRID  
QAIMDKNIMLKANFSVIFDRLETLILLRAFTEEGAIVGEISPLPSFPGHTIEDVKNAIGV  
LIGGLEWNDNTVRVSKTLQRFWAGSSNENGRPPLTPKQKRKMARTARSKVRRDKMAD

>P03502

MADNMTTQIEVGPATNATINFEAGILECYERFSWQRALDYPGQDRHLHRLKRKLESRIK  
THNKSEPENKRMSLEERKAIGVKMMKVLFFMDPSAGIEGFEPYCVKNPSTSKCPNYDWT  
YPPTPGKYLDDEIEEPENVDHP IEVVLRDMNNDARQKIKDEVNTQKEGKFRITIKRDIR  
NVLSLRVLVNGTFLKHPNGDKSLSTLHRLNAYDQNGGLVAKLVATDDRTVEDEKDGHRIL  
NSL FERFDEGH SKPIRAAETAVGVLSQFGQEHRLSPEEGDN

>O35987

MAEERQDALREFVAVTGAEEDRARFFLESAGWDLQIALASFYEDGGDEDIVTISQATPSS  
VSRGTAPSDNRVTSFRDLIHDQDEEEEEEGQRFYAGGSERSGQQIVGPPRKKSPNELVD  
DLFKGAKEHGAVAVERTKSPGETSKPRPFAGGGYRLGAAP EEEESAYVAGERRRHSGQDV  
HVVLKLVKWTGFSLDNGDLRSYQDPSNAQFLESIRRGEVPAELRRLAHGGQVNLDMEDHRD  
EDFVKPKGAFKAFTGEGQKLGSTAPQVLNTSSPAQQAENEAKASSSILINEAEPTTNIQI  
RLADGGRLVQKFNHSHRISDIRLFIVDARPAMAATSFVLMTTFPNKELADENQTLKEANL  
LNAVIVQRLT

>Q9R5V5

MPKKTIIYFGAGWFTDRQNKAYKEAMEALKENPTIDLENSYVPLDNQYKIRVDEHP EYLH  
DKVWATATYNNDLNGIKTNDIMLGVIYIPDEEDVGLGMELGYALSQKGYVLLVIPDEYDYGK  
PINLMSWGVSDNVIKMSQLKDFNFKPRFDFYEGAVY

>P13717

MRFNKMLLALALLFAAQASADTLESIDNCAVGCPTGGSSNVSIVRHAYTLNNSSTTKFA  
NWAYYHITKDTPASGKTRNWKTDPALNPADTLAPADYTGANAALKVDRGHQAPLASLAGV  
SDWESLNYLSNITPQKSDLNQGAWARLEDQERKLIDRADISSVYTVTGPLYERDMGKLP  
TQKAHTIPSAYWKVIFINNSPAVNHYAAF LFDQNTPKGADFCQFRVTVDEIEKRTGLI IW  
AGLPDDVQASLKS KPGVLPPELMGCKN

>P38447

MQLLRAGLTLALGAGLGAAAESWWRQADARATPGLLSRLPVL PVAAGLPAVPGAPAG  
GGPGELAKYGLPGVAQLKSRASYVLCYDPRTRGALWVVEQLRPEGLRGDGNRSSCDFHED

DSVHAYHRATNADYRGSFDRGHLAAAAANHRWSQKAMDDTFYLSNVAPQVPHLNQNAWNN  
LEKYSRSLTRTYQNVVYCTGPLFLPRTEADGKSYVKYQVIGKNHVAVPTHFFKVLILEAA  
GGQIELRSYVMPNAPVDEAIPLEHFLVPIESIERASGLLFVFNILARAGSLKAITAGSK

>O95848

MERIEGASVGRCAASPYLRPLTLHYRQNGAQKSWDFMKTTHDSVTVLLFNSSRRSLVLVKQ  
FRPAVYAGEVERRFPGLAAVDQDGPRELQPALPGSAGVTVELCAGLVDQPGLSLEEVAC  
KEAWEECGYHLLAPSDLRRVATYWSGVGLTGSRQTMFYTEVTDQRSGPGGGLVEEGELIE  
VVHLPLEGAQAFADDPDIPKTLGVIFGVSWFLSQVAPNLDLQ

>P32056

MFLRQEDFATVVRSTPLVSLDFIVENSERGEFLLGKRTNRPAQGYWFVPGGRVQKDETLA  
AFERLTMAELGLRLPITAGQFYGVWQHFYDDNFSGTDFTHYVVLGFRFRVSEEEELLPD  
EQHDDYRWLTSDALLASDNVHANSRAYFLAEKRTGVPGL

>Q9CA40

MSTGEAIPRVAVVVFILNGNSILLGRRRSSIGNSTFALPGHLEFGESFEECAAREVMEE  
TGLKIEKMLLTVTNNVFKAPTSPSHYVSVSIRAVLVDPSQEPKNMEPEKCEGWDWYDWE  
NLPKPLFWPLEKLFSGGFNPFTHGGGD

>Q9UKK9

MESQEPTESSQNGKQYIISEELISEGKWKLEKTTYMDPTGKTRTWESVKRTRRKEQTAD  
GVAVIPVLQRTLHYECIVLVKQFRPPMGYCIIEFPAGLIDDGETPEAAALRELEEEETGYK  
GDIAECSPAUCMDPGLSNCTIHIIVTVTINGDDAENARPKPKPGDGEFVEVISLPKNDLLQ  
RLDALVAEEHLTVDARVYSYALALKHANAKPFVFPFLKF

>P95020

MSDRKPVRRGRHQARKRAVALLFEAEVIRGISAEEVVDTRAALAEAKPDIAARLHPYTAAVAR  
GVSEHAAHIDDLITAHLRGWTLDRLPVDRAILRVSVWELLHAADVPEPVVDEAVQLAK  
ELSTDDSPGFVNGVLGQVMLVTPQLRAAAQAVRGA

>P01398

MKTLTLLTVVVTIVCLDLGYTRTCLISPSSTPQTCPNGQDIFLKAQCDKFCSIRGPVIE  
QGC VATCPQFRSNYRSLLCCTTDNCNH

>P13397

MSKVDLWQDATAQAELVRSGEISRTELLEATIAHVQAVNPEINAVIIPLEKARRESELA  
SGPFAGVPYLLKDLTVVSQGDINTSSIKGMKESGYRADHDAYFVQRMRAAGFVLLGKVNT  
PEMGTQVTTEPEAWGATRNPWNLGRSVGGSSGGSGAAVAAALSPVAHGNDAAAGSVRIPAS  
VCGVVLKPTRGRISPGPLVTDSDNVAGAAHEGLFARSVRDIAALLDVVSGHRPGDTFCA  
PTASRPYAQGISENPGSLRVGVLTHNPVGFALDPECAAAAARGAAAAALAALGHVDNDAYP  
EALGDRSFLKDYLTICDVAIAREIERNGELIGRPLTEDDVEWTSWEMVKRADQVTGRAFA  
ACVDELRYAYGKVERWWEAGWDLILPTVTRQTPTEIGELMLAKGTDLEGRHTALISGSLR  
MLAFTVPFNVSGQPAISLPIGMSSDGMPIGVQIVAAAYGREDLLLQVAAQLEGALPWVARR  
PQLLNPSRKIPAA

>P28269

NMPEHAGASLASQLKLDHAWMPYTANRNFLRDPRLIVAAEGSWLVDDKGRKVYDSLGLW  
TCGAGHTRKEIQEAVAKQLSTLDYSPGFQYGHPLSFQLAEKITDLPGNLNHVFFTDGSGS  
ECALTAVKMRAYWRLKGQATKTKMIGRARGYHGVIAGTSLGGVNGNRKLFQQPMQDVD

HLPHLLASNAYSRGMPKEGGIALADELLKLI ELHDASNIAAVFVEPLAGSAGVLPPEG  
YLKRNREICNQHNILLVFDEVITGFGRTGSMFGADSFVTPDLMCIAKQVTNGAIPMGAV  
IASTEIYQTFMNQPTPEYAVEFPHGYTYSAPVACAAGLAALCLLQKENLVQSVAEVAPH  
FEKALHGIKAKNVIDIRNFGLAGAIQIAPRDGDAIVRPF EAGMALWKAGFYVRFGGDTL  
QFGPTFNSKPQDLDRFLDAVGEVLNKLDD

>P00973

MMDLRNTPAKSLDKFIEDYLLPDTCFRMQINHAIDIICGFLKERCFRGSSYPVCVSKVVK  
GGSSGKGTTLRGRSDADLVVFLSPLTTFQDQLNRRGEFIQEIRRQLEACQRERAFSVKFE  
VQAPRWGNPRALS FVLSSLQLGEGVEFDVLPAPFDALGQLTGSYKPNPQIYVKLIEECTDL  
QKEGEFSTCFTELQRDFLKQRPTKLKSLIRLVKHWHYQNCCKKLGKLPQYALELLTVYAW  
ERGSMTHTFNQAQGFRTVLELVINYQQLCIYWTKYDFKNPIIEKYLRRQLTKPRPVILD  
PADPTGNLGGGDPKGRQLAQEA EAWLNYPCKFNWDGSPVSSWILLAESNSADDETD DPR  
RYQKYGYIGTHEYPHFSHRPSTLQAASTPQAEEDWTCTIL

>P29728

MNGESQLSSVPAQKLGWFIQEYLKPYEECQTLIDEMVNTICDVLQEPEQFPLVQVAIG  
GSYGRKTVLRGNSDGLTVLFFSDLKQFQDQKRSQRDILDKTGDKLKFCLFTKWLKNNFEI  
QKSLDGFTIQVFTKNQRISFEVLA AFNALS LNDNPSPIYRELKRS LDKTNASPGEF AVC  
FTELQQKFFDNRP GKLDLILLIKHWHQCCQKKIKDLPSLSPYALELLTVYAWEQGCRKD  
NFDIAEGVRTVLELIKQEKLCIYWMVNYNFEDETI RNILLHQLQSARPVILDPVDPTNN  
VSGDKICWQWLKKEAQTWLTSPNLDNELPAPSWNVLPAPLFTTPGHLLDKF I KEFLQPNK  
CFLEQIDS AVNIIRTFLKENCFRQSTAKIQIVRGGSTAKGTALKTGSDADLVVFNLSLKS  
YTSQKNERHKIVKEIHEQLKAFWREKEEELEVSFEPPKWKAPRVLSFSLKSKVLNESVSF  
DVLPAFNALGQLSSGSTPSPEVYAGLIDLYKSSDLPGGEFSTCFTVLQRNFIRSRPTK LK  
DLIRLVKHWHYKECERKLPKGLSPPKYALELLTIYAWEQSGVPDFDTAEGFRTVLELV T  
QYQQLCIFWKVNYNFEDETVRKFLLSQLQKTRPVILDPAEPTGDVGGDRWCWHL LAKEA  
KEWLSSPCFKDGTGNPIPPWKVPTMQTPGSCGAR IHPV NEMFSSRSRSHRILNNSKRNF

>P04181

MFSKLAHLQRFAVLSRGVHSSVASATSVATKKT VQGPPTSDDIFEREYKYGAHNYHPLPV  
ALERGKGIYLDVVEGRKYFDLSSYS AVNQGHCHPKIVNALKSQVDKLTLT SRAFYNNVL  
GEYEEYITKLFNYHKVLPMTGVEAGETACKLARKWGYTVKGIQKYKAKIVFAAGNFWGR  
TLSAISSTDPTS YDGF GPFMPGFDIIPYNDLPALERALQDPNVAAFMVEPIQGEAGVVV  
PDPGYLMGVRELCTR HQVLFIADEIQTGLARTGRWLAVDYENVRPDIVLLGKALSGGLYP  
VSAVLCDDIMLTIKPGEHGSTYGGNPLGCRVAIAALEVLEENLAENADKLGII LRNEL  
MKLPSDVVTAVRGKGLLNAIVIKETKDWDAWKVCLRLRDNGLLAKPTHGDIIRFAPPLVI  
KEDELRESIEIINKTILSF

>Q07805

MDFVKELKSSQDYMNELTYGAHNYDPIPVVLKRGKGVFVYDIEDRRYYDFLSAYSSVNQ  
GHCHPDILNAMINQAKKLTICSRAFFSDSLGVCERYLTNLFYDKVLMNMTGAEASETAY  
KLCKRWGYEVKKIPENSAKIVCNMNFSGRTLGCVSASTDKKCKNNFGPFV PNF LKVPYD  
DLEALEKELQDPNVCAFIVEPVQGEAGVIVPSDSYFPGVASLCKKYNVLFVADEVQTGLG  
RTGKLLCTHHYGVKPDVILLGKALSGGHYPI SAILANDDVMLVLKPGEHGSTYGGNPLAA  
AICVEALKVLINEKLCENADKLGAPFLQNLKEQLKDSKVREVRGKGLLCAIEFKNDLVN  
VWDICLKFKENGLITRSVHDKTVRLTPPLCITKEQLDECTEII VKT V KFFDDNL

>P07435

AQEEEEAEQNLSELSGPWRTVYIGSTNPEKIQENGPFRTYFREL VFDDEKGTVDYFYSVKR

DGKWKNVHVKATKQDDGTYYVADYEQNVFKIVSLSRTHLVAHNINVDKHGQTTELELTV  
KLNVEDEDLEKFWKLTEDKGDIDKKNVVNFLENEDHPHPE

>P08937

MVKFLLIVLALGVSCAHHENLDISPSEVNGDWRTLYIVADNVEKVAEGGSLRAYFQHMEC  
GDECQELKIIFNVKLDSECQTHTVVGQKHEDGRYTTDYSGRNYFHVLLKKTDDIIFFHNVN  
VDESGRRQCIDLAVAGKREDLNKAQKQELRKLAEYNI PNENTQHLVPTDTCNQ

>P0AFG8

MSERFPNDVDPIETRDWLQAIESVIREEGVERAQYLIDQLLAEARKGGVNVAAGTGISNY  
INTIPVEEQPEYPGNLELERRIRSAIRWNAIMTVLRASKKDLELGGHMASFQSSATIYDV  
CFNHFFRARNEQDGGDLVYFQGHISPGVYARAFLEGRLTQEQLDNFRQEVHGNGLSSYPH  
PKLMPEFWQFPPTVSMGLGPIGAIYQAKFLKYLEHRGLKDTSKQTVYAF LGDGEMDEPESEK  
GAITIATREKLDNLV FVINCNLQRLDGPVTGNGKI INELEGI FEGAGWNVIKVMWGSRW  
ELLRKDTSGLIQLMNETVDGDYQTFKSKDGAYVREHFFGKYPETAALVADWTDEQI WAL  
NRGGHDPKKIYAAFKAQETK GKATVILAHTIKGYGMGDAAEGKNIAHQVKKMNMDGVRH  
IRDRFNVPVSDADIEKLPYITFPPEGSEEHTYLHAQRQKLHGYP SRQPNFTEKLELPSLQ  
DFGALLEEQSKEISTTIAFVRALNVM LKNKS IKDRLVPI IADEARTFGMEGLFRQIGIYS  
PNGQOYTPQDREQVAYYKEDEKQI LQEGINELGAGCSWLA AATSYSTNNLPMIPFYIYY  
SMFGFQRI GDLCWAAGDQQARGFLIGGTSGR TTLNGEGLQHEDGHSHIQSLTIPNCISYD  
PAYAYEVAVIMHDGLERMYGEKQENVY YITTLNENYHMPAMPEGAE EGIRKGIYKLETI  
EGSKGKVQLLGS SILRHVREAAEILAKDYGVGSDVYSVTSFTELARDGQDCERWNMLHP  
LETPRVPYIAQVMNDAPAVASTDYMKLFAEQVRTYVPADDYRVLGTDGFGRSDSRENLRH  
HFEVDASYVVVAALGELAKRGEIDKKVVADAI AKFNIDADKVNPRLA

>P0A910

MKKTAAIAIAVALAGFATVAQAAPKDNTWYTGAKL GWSQYHDTGF INNNGP THENQLGAGA  
FGGYQVNPYVGFEMGYDWLGRMPYKGSVENGAYKAQGVQLTAKLGYPITDDLDIYTRLGG  
MVWRADTKSNVYGNHDTGVSPVFAGGVEYAITPEIATRLEYQWTNNIGDAHTIGTRPDN  
GMLS LGVSYRFGQGEAAPVVAPAPAPAPEVQTKHFTLKS DVLFNFNKATLKPEGQAALDQ  
LYSQLSNLDPKDGSVVVLGYTDRI GSDAYNQGLSERRAQSVVDY LISKGIPADKISARGM  
GESNPVTGNTCDNVKQRAALIDCLAPDRRVEIEVKG IKDVVTQPQA

>P97608

MGSPEGRFHFAIDRGGTFTDVFAQCPGGHVRVLKLLSEDPANYADAPTEGIRRILEQEEG  
VLLPRGRPLDTSRIASIRMGTTVATNALLERQGERVALLVTRGFRDLLHIGTQARPDLFD  
LAVPMPEVLYEEVLEVDERVVLYRGE PGAGSPVKGR TGDLLEIQQPVDLEALRGKLEGLL  
SRGIHSLAVVLMHSYTWAQHEQQVGT LARELGFTHVSLSSEVMPMVRIVPRGHTACADAY  
LTPTIQRYVQGFRRGFQGLKNVQVLFMRSDGGLAPMDAFSGSRAVLSGPAGGVVGY SAT  
TYHLEGGQPVI GFDMGGTSTDVSRYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGGSRL  
FFRSGLFVVGPESAGAHGPACYRKGGPVTVTDANLVLGRLLPASFP CIFGPGEDQPLSP  
EASRKALEAVAMEVNSFLTNGPCPASQLSLEEAMGFVRVANEAMCRP IRAL TQARGHDP  
SAHV LACFGGAGGQHACAIARALGMDTVHIHRHSGLLSALGLALADVHEAQEP CSLSYT  
PETFAQLDQRLSRLEEQCVDALQVQGFPRSQISTESFLHLRYQGTDCALMVSAHQHPATA  
CSPRAGDFGA AFVERYMREFGFIIPERPVVDDVRV RGTGRSGLQLEDTPKIQTGPPHVE  
KVTQCYFEGGYQETPVYLLGELGYGHQLQG PCLIIDNNSTILVEPGCAEVTDTGDIRIS  
VGAEGPSMADTRLDPIQLSIFSHRFMSIAEQMGRILQRTAISTNIKERLDFSCALFGPDG  
GLVSNAPHIPVHLGAMQETVQFQIQHLGADLHPGDVLLSNHPSAGGSHLPDLTVITPVFW  
PGQTRPVFVYASRGHHADIGGITPGSMPPHSTTLQOEGAVFLSFKLVQGGVFQEEAVTEA  
LRAPGKISGCSGTRNLHDNLSDLRAQVAANQKGIQLV GELIGQYGLDVVQAYMGHIQANA

ELAVRDMLRAFGTSRQARGLPLEVSAEDHMDDGSPICLRVQINLSQGSVDFDFTGSGSEV  
FGNLNAPRAITLSALIYCLRCLVGRDIPLNQGLAPVRV IIPKGSILDPSEAAVVGNNV  
LTSQRVVDVILGAFGACASASQGCMMNVTLGNARMGYEYETVAGGAGAGPGWHGRSGVHSHM  
TNTRITDPEILESRYPVILRRFELRPGSGGRGRFRGGDGVVRELVFREALLSVLTERRA  
FQPYGLHGGEPEGARLNLIRKDGRTVNLGGKTSVTVYPGDVFCLHTPGGGGYGDPEDPA  
PPPGSPPLFPAFPERGVSFEYRRAQEAV

>P59636

MDPNQTNVVPALHLVDPQIQLTITRMEAMGQGNADPKVYPIILRLGSQLSLSMARR  
NLDSEARAFQSTPIVVQMTKLATTEELPDEFVVVTAK

>P20740

MHCFLGREILSFFCLTVRKMWLKFIILAILLLHAAAAGKEPEPQYVLMVPAVLQSDSPSQVC  
LQFFNLNQTISVRVVLEYDTINTTIFEKNTTTSNGLQCLNFMIPPVTSVSLAFISFTAKG  
TTFDLKERRSVMIWNMESFVQVQTDKPIYKPGQSVMFVVALDFNFKPVQEMYPLIAVQD  
PQNNRIFQWQNVTSSEINIVQIEFPLTEEPILGNKYKIVTKKSGERTSHSFLVEEYVLPKF  
DVTVTAPGSLTVMDSELTVKICAVYTYGQPVVEGKVQLSVCDFDSYGRCKKSPVCQSFTK  
DLDTDGCLSHILSSKVFELNRIGYKRNLDVKAIVTEKEQVCNLTATQSSISITQVMSSLQF  
ENVDDHHYRRGIPYFGQIKLVKDNPSISNKVIQLFVNKNKTNHFTTDINGIAPFSIDTSK  
IFDPELSLKALYKTSQCHSEGWIEPSYPDASLSVQRLYSWTSSSFVRIEPLWKDMSCGQK  
RMITVYYYILNTEGYEHINIVNFYVGMAGKIVLTGEIKVNIQADQNGTFMIPLVVNEKM  
APALRLLVYMLHPAKELVADSVRFSIEKCFKNKVQLQFSEKQMLTTSNVSLVIEAAAANSF  
CAVRAVDKSMILLKSETELSAETIYNLHP IQDLQGYIFNGLNLEDDPQDPCVSSDDIFHK  
GLYYRPLTSGLGPDVYQFLRDMGMKFFFTNSKIRQPTVCTRETVRPPSYFLNAGFTASTHH  
VKLSAEVAREERGRHILETIREFFPETWIWDIILINSTGKASVSYTIPDTITEWKASAF  
CVEELAGFGMSVPATLTAFQPFVVDLTLTPYSIIHGDFLVRANVFNYLNHC IKINVLLLE  
SLDYQAKLISPEDDGCVC AKIRKSYVWNI FPKGTGDVLF SITAETNDDEACEEEALRNIR  
IDYRDTQIRALLVEPEGIRREETQNF LICMKDDVISQDVAIDLPTNVVEGSPRPSFSVVG  
DIMGTAIQNVHQLLQMPFGNGEQNMVLFAPNIYVLDYLDKTRQLSEDVKSKTIGYLVSGY  
QKQLSYKHPDGSYSTFGIRDKEGNTWLTAFVYKSF AEASRFIYIDDNVQAQTLIWLATKQ  
KTDGCFQSTGILVNNAMKGGVENELSSAYSITIALLEAGHSMSTVIRNAFYCLETASEK  
NITDIYTQALVAYAFCLAGKAEICESFLRELQKSAKEVDGSKYWEQNQRSAPKSHLLDH  
VQSTDVEITSYVLLALLYKPNRSQEDLTKASAIVQWIIRQQNSYGGFASMQDTVVALQAL  
AAYGAATYNSVTQNVIKINSKNTFEKVFTVNNENRLLLQQTPLPQVPGKYSLTVNGTGCV  
LIQTALRYNIHLPEGAFGFSLSVQTSNASCPRDQPGKFDIVLISYTGKRSSSNMVIDV  
KMLSGFVVPKSSLDQLIDDHTVMQVEYKKNHVLLYLGNILQKRRKEVTFVSVEQDFVVTHP  
KPAPVQIYDYETEEYAVA EYMSLCRGVVEEMG

>P00371

MRVVVIGAGVIGLSTALCIHERYHSVLQPLDVKVYADRFTPF'TTTDVAAGLWQPYTSEPS  
NPQEANWNQOTFNYL LSHIGSPNAANMGLTPVSGYNLFREAVPDPYWKDMVLGFRKLT  
ELDMFPDYRYGWFNSTLILEGRKYLQWLTERLTERGVKFFLRKVESFEVARGGADV IIN  
CTGVWAGVLQPDPLLPGRGQIIKVDAPWLKNFIITHDLERGIYNSPYIIPGLQAVTLGG  
TFQVGNWNEINNIQDHNTI WEGCCRLEPTLKDAKIVGEYTGFRPVRPQVRLEREQLRFGS  
SNTEVIHNYGHGGYGLTIHWGCALEVAKLFGKVL EERNLLTMPPSHL

>P0C2D7

ADDKNPLEECFREDDYEEFLEIAKNGLKKTSPNPKHIVYPVKPSEQLYEEESLRDQLPTSMH  
RYPSMIQKIFFAGEYTANAHGWIDSTIK

>P81375

ADDKNPLEECFREDDYEEFLEIAKNGLEGWYANLGPMPYPVKPSEEGKHDDIFAYEKFDE  
IVGGMDKKFWEDDGIHGGKETFCYSPMIQKPYQFQHFSEALTAPVGR

>P0C215

MLFRLLSPLSPLALTALLLFLLLPPSDVSGLLLRPPPAPCLLLFLPFQILSGLLFLFLPL  
FFSLPLLLSPLSPITMRFPARWRFLPWKAPSQPAAAFLE

>O26255

MMSMDFEDFPVESAHRIILTPRPTVMVTTVDEEGNINAAPFSFTMPVVSIDPPVVAFASAPD  
HHTARNIESTHEFVINITPADIIERMVVTARDIPAGENELEAAGLAWTSSRRVKPPRIVE  
APGHLECELLRMFEVGDHNLITGSVVSASVRSVAVKEGLLDVESVKPVLHVGGNKFFVGD  
HVRHVE

>P30821

MSTANTVAIVIYSTYGHVVKLAEAEKAGIEKAGGKAVIYQFPETLSPEILEKMHAAKPN  
YPVVTLDVLTQYDAFLFGYPTRYGTTPAQFRFTWDSGGLWVQALHGKYFGQFFSTGTL  
GGGQESTALTAMTSFVHHGMIFVPLGYKNTFSLMANVESIHGGSSWGAGSYAGADGSRNV  
SDDELEIARIQGETFFKTVFRK

>Q8J136

MSTSSSDPFFNFSAKSSFRSAAAQKASASSLPPLPGPDKKVPGMDIKYDVVIVGSGPIGCT  
YARELVGAGYKVMFDIGEIDSGLKIGAHKNTVEYQKNIDKFVNVIQGGQLMSVSVPVNT  
LVVDTLSPTSWQASTFFVRNGSNPEQDPLRNLVSGQAVTRVVGGMSTHWCATPRFDREQR  
PLLVKDDADADDAEWDRLYTKAESYFQTGTQDFKESIRHNLVNLKLAEEYKGRDFQQIP  
LAATRRSPTFVWESSANTVFDLQNRPNTPDAPEERFNLFPVAVACERVVRNALNSEIESLHI  
HDLISGDRFEIKADVYVLTAGAVHNTQLLVNSGFGQLGRPNPTNPPELLPSLGSYITEQS  
LVFCQTMSTELIDSVKSDMTIRGTPGELTYSVTYTPGASTNKHPDWWNEKVKNHMMQH  
EDPLPIPFEDPEPQVTTLFQPSHPWHTQIHRDAFSYGAVQQSIDSRLIVDWRFFGRTEPK  
EENKLWFSDKITDAYNMPQPTDFRFPAGRTSKEAEDMMTDMCVMSAKIGGFPGSLPQF  
MEPGLVLHLGGTHRMGFDEKEDNCCVNTDSRVFGFKNLFLGGCGNIPTAYGANPTLTAMS  
LAIKSCEYIKQNFTPSPFTSEAQ

>Q6QWR1

MFLDTPPFRADEPYDVFIAGSGPIGATFAKLCVDANLRVCMVEIGAADSFTSKPMKGDPN  
APRSVQFGPGQVPIPGYHKKNEIEYQKIDRFVNVIKALSTCSIPTSNNHAIATLDPSVV  
SNSLDKPFISLGKNPAQNPFVNLGAEAVTRGVGGMSTHWCATPEFFAPADFNAPHRER  
KLSTDAEADARIWKDLYAQAKEIIGTSTTEFDHSIRHNLVLRKYNDIFQKENVIREFSPL  
PLACHRLTDPDYVEWHATDRILEELFTDPVKRGRFTLLTNHRCTKLVFKHYRPGEEVEVD  
YALVEDLLPHMQNPGNPASVKKIYARSYVVACGAVATAQVLANSHPDDVVIPIPFPGGEK  
GSGGGERDATIPTPLMPMLGKYITEQPMTFCQVVLDSLSMEVVRNPPWPGLDWWKEKVAR  
HVEAFPNDPIPIPFRDPEPQVTIKFTEEHPWHVQIHRDAFSYGAVAENMDTRVIVDYRFF  
GYTEPQEANELVFQQHYRDAYDMPQPTFKFTMSQDDRARARRMMDDMCNIALKIGGYLPG  
SEPQFMTPLALHLAGTTRCGLDTQKTVGNTHCKVHNFNNLYVGGNGVIEGTGAANPTLT  
SICYAIRASNDIIAKFGRHRG

>Q8J2V8

MPIRLSKEKINDLLQRSQGLTSSQDEIVHYTDVFIAGSGPIACTYARHIIDNTSTTKVY  
MAEIGSQDNPIVIGAHHRNSIKFQKDTDKFVNILINGALQPISSPSDITYQPTLAVAAWAPP  
IDPAEQQLVIMGHNPQNEAGLNLPGSAVTRTVGGMATHWCACPTPHDEERVNPNVDKQE

FDALLERAKTLLNVHSDQYDDSIHQIVVKETLQQTLASRGVTTLPPLGVERRTDNPIYVT  
WTGADTVLGDVPKSPRFVLVTETRVTKFIVSETNPTQVVAALLRNLNTSNDELVVAQSFV  
IACGAVCTPQILWNSNIRPHALGRYLSEQSMTFQCIVLKRISIVDSIATDPRFAAKVEAHK  
KKHPDDVLPPIPFHEPEPQVMIPYTSDFPWHVQVHRYAFGDVGPKADPRVVVDLRFVFGKSD  
IVEENRVTFGPNPKLRDWEAGVTDTYGMPQPTFHVKRTNADGDRDQRMNDMTNVANILG  
GYLPGSYQPQFMAPGLAQHITGTTRIGTDDQTSVADPTSKVHNFDNLWVGNGCIPDATAAC  
NPTRTSVAYALKGAEAVVSYLGVS

>Q3C2C2

MNFLVVIIVTTVSLAGAASAGEIQONLYQFGKMMVCLGNLNVLEGLEYNNGYGCYCGRGGKGT  
PLDDTDRCCQHQHDECYERATDEMGCWSIETYATTYDYTKSKVSGKCTIKCKLESYDYSRFT  
IRKKCKAFICECDRIGAQCFADKRSTFNRSLSISYTKDKC

>P15445

NLYQFKNMIKCTVPSRSWDFADYGCYCGRGGSGTPVDDLDRCCQVHDNRYNEAEKISGC  
WPYFKTYSYECSQGLTCKGDNNAASVDCDRLAAICFAGAPYNDNNYNIDLKARCQ

>Q90W39

MRTLWIVAVLLLGVVEGNLLQFNKMIKIMTKKNAIPFYSSYGCYCGWGGQKPKDATDRCC  
FVHDCCYGKLTDCSPKSDIYSYSWKTGIIICGEGTECEKKICECDRAAAVCLGHNLRTYK  
KRYMFYPDFLCTDPSEKC

>Q9PVF2

MRTLWILAVLQVGVVEGHLLQFETMIKMTKQTGLFSYSFYGCYCGWGGHGRPQDPTDRCC  
FVHDCCYGKVTNCDPKAAAYSYTIENGGIVCGDDPCKQICECDRAAAMCFRDNLDTYN  
YAKYWKFSKDCQEESDPC

>Q6JK69

MRTLWIMAVLLVGVVEGSLVELGKMILQETGKNPLTSYGAYGCNCGVGGRGKPKDATDRCC  
YVHKCCYKMTDCDPPKDRYSYSWKDKTIVCGEKNSCLKELCECDKAVAI CLRNLDTYN  
KKYKNNYLKPFCKKADAC

>P09466

MLCLLLTLGVALVCGVPAMDIPQTKQDLELPKLAGTWHSMAMATNNISLMATLKAPLRVH  
ITSLLPTPEDNLEIVLHRWENNSCVEKKVLGEKTENPKKFKINYTVANEATLLD TDYDNF  
LFLCLQDTTTTPIQSMQCQYLARVLVEDDEIMQGFIRAFRPLPRHLWYLLDLKQMEEP CRF

>P31663

MLIIETPLLRQQIRRLRMEGKRVALVPTMGNLHDGHMKLVDEAKARADV VVVSIFVNP  
M QFDRPEDLARYPRTLQEDCEKLNKRKVDLVFAPSVKEIYPNGTETHTYVDVPLSTMLEG  
ASRPGHFRGVSTIVSKLFNLVQPDIAFCGEKDFQQLALIRKMOVADMGF DIEIVGVPIMRA  
KDGLALSSRNGYLTAEQRKIAPGLYKVLSSIADKLQAGERDLDEIIT IAGQELNEKGFRA  
DDIQIRDADTLLEVSETSKRAVILVAAWLGDARLIDNKMVELA

>P57766

MFKIVYPNAKDFFSFINSITNVTDSEIILNFTEDGIFSRHLTEDKVLMAIMRIPKDV LSEY  
SIDSPTSVKLDVSSVKKILSKASSKATIELTETD SGLKIIIRDEKSGAKSTIYIKA EK  
G QVEQLTEPKVNLAVNFTTDESVLNVIAADVTLVGEEMRISTEEDKIKIEAGEEGKRYVAF  
LMKDKPLKELSIDTSASSSYSAEMFKDAVKGLRGF SAPTMVSFGENLPMKIDVEAVSGGH  
MIFWIAPRL



>P80484

MVRS GKAVVLA AVAF CATSVVQKSHGFVPSPLRQRAAAA GAAAA SAATMFAPA AFADEI  
GDA AKKLG DASYAFAKEVDWNNGI FLQAPGKLQPLEALKAIDKMIVMGAAADPKLLKAAA  
EAH HKAI GSVSGP NGVTSRADWDNVNAALGRVIASV PENMVM DVYDSVSKITDPKVPAYM  
KSLVSGADAEKAYEGFLAFKDVVKKSQVTS AAGPATVPSGDKIGVAAQQLSEASYPFLKE  
IDWLSDVYMKPLPGVSAQQSLKAIDKMIVMGAQADGNALKAAA EAH HKAI GSI DATGVTS  
AADYA AVNAALGRVIASV PKSTVMDVYNAMAGATDTSIPLNMF SKVNPLDANAAAKAFYT  
FKDVVQAAQR

>P14100

MGSTATETE ELEN TTFKYLI GEQTEKMWQR LKGI LRCLVKQLEKGDVNVIDLKKNIEYAA  
SVLEAVYIDETRLLD TDDELSDIQSDSVPSEVRDWLASTFTRKMGMMKKKSEEKPRFRS  
IVHV VQAGIFVERMYRKS YHMVGLAYPEAVIVTLKDVDKWSFDV FALNEASGEHSLKFMI  
YELFTRYDLINRFKIPV SCLIAFAEALEVGYSKYKNPYHNL IHAADVTQT VHYIMLHTGI  
MHWL TELEILAMVFAAA IH DYEHTGT TNNFHIQTRSDVA ILYNDRSVLENHHVSAAYRLM  
QEEEMNVLINLSKDDWRDLRNLVIEMVLSTDM SGHFQQIKNIRNSLQQPEGLDKAKTMSL  
ILHAADISHPAKSWKLHHRWTMALMEEFFLQGDKEAELGLPFSPLCDR KSTMVAQSQIGF  
IDFIVEPTFSL L TDSTEKII IPLIEEDSKTKTPSYGASRRSNMKGTTNDGTYS PDYSLAS  
VDLKSFKNSLVDIIQQNKERWKELAAQGE PDPHKNSDLVNAEEKHAETHS

>Q8N807

MDLLW MPLLLLVAACV SAVHSSPEVNAGVSSIHITKPVHILEERSLLV LTPAGLTQMLNQT  
RFLMVL FHNPS SKQSRNLA EELGKAVEIMGKGKNGIGFGKVDITIEKELQQEFGITKAPE  
LKLFFEGNRSEPI SCKGVVESAAALV VVWLR RQISQKAF LFNSS EQVAEFVISRPLVIVGFF  
QDLEEEVAELFYDV IKDFPELTFGVITIGNVIGRFHVTLDSVLVFKK GKIVNRQKLINDS  
TNKQELNRVIKQHLTDFVIEYNTENKDLISELHIMSHMLL FVSKSSESYGII IQHYKLAS  
KEFQNKILFILVDADEPRNGRVFKYFRVTEVDIPSVQILNLSSDARYKMP SDDITYESLK  
KFGRSFLSKNATKHQSSEEIPKYWDQGLVKQLV GKNFN VVVF DKEKDV FVMFYAPWSKKC  
KMLFPLLEELGRKYQNHSTII IAKIDVTANDIQLMYLDRYPFFRLFP SSGSQAVLYKGEH  
TLKGFSDFLSHIKTKIEDEDELLSVEQNEVIEEEVLAEEKEVPM MRKGLPEQQSPELEN  
MTKYVSKLEEPAGKKKTSEE VVVV VAKPKGPPVQKKKPKVKEEL

>Q05957

MAPPNGTTNGETE VATQGSYTA VSTGRKTTMHR LIEEHG SVLMPGVQDALSAAVVEKTGF  
HAAFVSGYSVSAAMLGLPDFGLLTTTTEVVEATR RITAAAPNL CVVVDGDTGGGGPLNVQR  
FIRELISAGAKGVFLEDQVWPKKCGHMRGKAVVPAEEHALKIAAAREAI GDSDFFLVART  
DARAPHGLEEGIRRANLYKEAGADATFVEAPANVDELKEVSAKTKGLRIANMIEGGKTPL  
HTPEEFKEMGFHLIAHSLTAVYATARALVNIMKILKEKGTTRDDL DQMATFSEFNELISL  
ESWYEMESKFKNFTPKAT

>P0AFI7

MSDNDELQQIAHLRREYTKGGLRRRDL PADPLTLFERWLSQACEAKLADPTAMVVATVDE  
HGQPYQRIVLLKHYDEKGMVFYTNLGS RKAHQIENNPRVSL LFPWHTLERQVMVIGKAER  
LSTLEV MKYFHSRPRDSQIGAWVSKQSSRISARGILESKFLELQKQFQQGEVPLPSFWGG  
FRVSLEQIEFWQGEHRLHDRFLYQRENDAWKIDRLAP

>P0A794

MAELLLGVNIDHIATLRNARGTAYPDPVQAA FIAEQAGADGITVHLREDRRHITDRDVR I  
LRQTL DTRMNLEMAVTEEMLAIAVETKPHFCCLVPEKRQEVTTEGGLDVAGQRDKMRDAC

KRLADAGIQVSLFIDADEEQIKAAAEVGGAPFIEIHTGICYADAKTDAEQAQELARIKAAT  
FAASLGLKVNAGHGLTYHNVKAIAAIPEMHELNIGHAIIGRAVMTGLKDAVAEMKRLMLE  
ARG

>Q8W1X2

MTTPPVLSLALPSDTGRVLSIQSHTVQGYVGNKSAVFPQLLGYDVPDINSVQFSNHTGY  
PTFKGQVLNGQQLCDLIEGLEANDLLFYTHVLTGYIGSVSFLDTILEVINKLRSVNPNT  
YVCDPVMGDEGKLYVPEELVHVYREKVVPLASMLTPNQFEAEKLTGLRINSEEDGREACA  
ILHAAGPSKVVITSITIGGILLIGSHQKEKGLKPEQFKILIHKIPAYFTGTGDLMTALL  
LGWSNKYPDNLDKAAELAVSTLQALLRRTLDDYKRAGYDPTSSSLEIRLIQSQEDIRNPK  
VELKAERYS

>P82197

MEEECRVLSIQSHVVRGYVGNRAATFPLQVLGFEVDAVNSVQFSNHTGYSHWKGQVLNSD  
ELQELYDGLKLNHNQYDYVLTGYTRDKSFLAMVVDIVQELKQONPRLVYVCDPVMGDQR  
NGEGAMYVPDDLVPVYREKVVVADIIITPNQFEAELLTGRKIHQSFEALEVMDMLHSMGP  
DTVVITSSNLLSPRGSYLMALGSQRTRAPDGSVVTQRIRMEMHKVDAVFVGTGDLFAAM  
LLAWTHKHPNNLKVACEKTVSAMHHVLQRTIKCAKAKSGEGVKPSPAQLELRMVQSKKDI  
ESPEIVVQATVL

>P77150

MMKNILAIQSHVVYGHAGNSAAEFPMRRLGANVWPLNTVQFSNHTQYKWTGCVMPPSHL  
TEIVQGIAAIDKLHTCDAVLSGYLGSAAEQGEHILGIVRQVKAANPQAKYFCDPVMGHPEK  
GCIVAPGVAEFHVRHGLPASDIIAPNLVELEILCEHAVNNVEEAVLAARELIAQGPQIVL  
VKHLARAGYSRDRFEMLLVTADEAWHISRPLVDFGMRQPVGVGDVTSGLLLVKLLQGATL  
QEALHVTAAVYEIMVTTKAMQEYELQVVAQDRIAKPEHYFSATKL

>Q95YL5

MMSYGYQQTPIVAPPAKFQALWFYSFYTQIQHQQLHEMSAWFRSIDKDRSGSISAMELQH  
LHVGYGPLGIETATKLIRVFDVVKSGQIDFYEYAALHQFINILYANFLANDRNRSGTIDA  
QEIHRALGTSGFNLPFNTVNLFLKASPRGYGLKFSDFLGLCASIAIARSLFEAHRMRT  
GVAHLNVNHIYDIISLV

>P13976

MLKYQLKNENGWMHRRLVRRKSDMERGEIWLVSLDPTAGHEQQGTRPVLIVTPAAFNRVT  
RLPVVVPVTSGGNFARTAGFAVSLDGVGIRTTGVVRCQPRTIDMKARGGKRLERVPETI  
MNEVLGRLSTILT

>Q86BE9

MDISKAPNPRKLELCRKYFFAGFAFLPFVWAINVCWFFTEAFHKPPFSEQSQIKRYVIYS  
AVGTLFWLIVLTAWIIIFQTNRTAWGATADYMSFIIPLGSA

>P49292

MASPNGGVTTYDYDDSDSAAPVRAQTIEELHSLQRKAAATAKDSASPLQSIASLASTAR  
EYGNLVKGDPEAKGAPPAPVKHQAAAAAIAASDSSLKFTHVLYNLSPAELYEQAFGQ  
KKSSFITSTGALATLSGAKTGRSPRDKRVVKKDDTTAQELWVGKSPNIEMDERQFVINRE  
RALDFLNSLDKVYVNDQFLNWDPENRIKVRITTSRAYHALFMHNMCIPTEEEELETFGTP  
DFTIYNAGEFPANRYANYMTSSTSINISLARREMVILGTQYAGEMKKGLFGVMHYLMPKR  
GILSLHSGCNMGKEGDVALFFGLSGTGKTTLSTDHNRLIGDDEHCWSDNGVSNIEGGCY  
AKCIDLSKEKEPDIWNAITFGTVLENVVFNERTREVDYADKSITENTRAAYPIEFIPNAK

IPCVGPHPKNVILLACDAYGVLPPVSKLNLAQTMHYHFI SGYTAIVAGTEDGVKEPTATFS  
ACFGAAFIMYHPTKYAAMLAEKMQKYGRGTGWLVTGWSSGGRYGVGNRIKLPYTRKIIDAI  
HSGELLTANYKKTEVFGLIIPTEINGVPSIILDPVNTWTDKAAKYETLLKLAGLKFKNF  
VFASYKIGDDNSLTEQILAAGPNF

>P56839

MSTKVKKTTQLKQMLNSKDLEFIMEAHNGLSARIVQEAGFKGIWGSGLSVSAQLGVRDSN  
EASWTQVVEVLEFMSDASDVPILLDADTGYGNFNARRLVKLEDRGVAGACLEDKLFPK  
TNSLHDGRAQPLADIEEFALKIKACKDSQTDPDFCIVARVEAFIAGWGLDEALKRAEAYR  
NAGADAILMHSKKADPSDIEAFMKAWNNQGPVVIVPTKYKTPTDHFRDMGVSVMVIWANH  
NLRASVSAIQOTTQIYDDQSLVNVEDKIVSVKEIFRLQRDDELVQAEDKYL PKN

>P71086

MAAHELKEALETCLKETGVRITPQRHAILEYLVNSMAHPTADDIYKALEGKFPNMSVATVY  
NNLRVRFRESGLVKELTYGDASSRFDVFTSDHYHAICENCGKIVDFHYPGLDEVEQLAAHV  
TGFKVSHHRLIYGVCQECSSKENH

>P09373

MSELNEKLATAWEGFTKGDWQNEVNVDRDFIQKNYTPYEGDESFLAGATEATTTLWDK VME  
GVKLENRTHAPVDFDTAVASTITSHDAGYINKQLEKIVGLQTEAPLKRALIPFGGIK MIE  
GSCKAYNRELDPMIKKIFTEYRKTHNQGVFDVYTPDILRCRKSGLVTGLPDAYGRGR IIG  
DYRRVALYGIDYLMKDKLAQFTSLQADLENGVNLEQTIRLREEIAEQHRALGQMKEMAAK  
YGYDISGPATNAQEAIQWTFYGYLAAVKSQNGAAMSFGRTSTFLDVYIERDLKAGKITEQ  
EAQEMVDHLVMKLRMVRFLRTPYDELFSGDP IWATESIGGMGLDGRTLVTKNSFRFLNT  
LYTMGPSPEPNMTILWSEKLPNFKKFAAKVSIDTSSLQYENDDLMPDFNDDYAIACC  
VSPMIVGKQMQFFGARANLAKTMLYAINGGVDEKLMQVGPKSEPIKGDVNLNDEVMERM  
DHFMDWLAKQYITALNI IHYMHDKYSYEASLMALHDRDVIRTMACGIAGLSVAADSLSAI  
KYAKVKPIRDEDEGLAIDFEIEGEYPQFGMNDRVDDLAVDLVERFMKKIQKLHTYRDAIP  
TQSVLTITSNVYVYKKTGNTPDGRRAGAPFGPGANPMHGRDQKGAVASLTSVAKLPFAYA  
KDGISYTFISVFNALGKDDEVRKTNLAGLMDGYFHEASIEGGQHLNVNVMNREMLLDAM  
ENPEKYPQLTIRVSGYAVRFNSLTKEQQQDVITRFTTQSM

>Q59126

MRVGVLTTGGGDCPGLNAVIRAVVRKGI EAHGWEIVGFRSGWRGPLTGDSRPLGLDDVEE I  
LIRGGTILGSSRTNPYKEEGGVEKIRAVLADQGV DALIAIGGEDTLGVAKKLTDDGIGVV  
GVPKTI DNDLAATDYTFGFDTAVHIA TEAIDRLRTTAESHYRAMVVEVMGRHAGWIALHA  
GLAGGANVILVPERPFSVEQVVEWVERRFEKMYAPIIVVAEGAVPEGGAEVLR TGEKDAF  
GHVQLGGVGTWLADIEAERTGKESRAVVLGHTQRGGTPTAYDRVLATRFGLHAVDAVADG  
DFGTMVALRGTDIVRVKLAEATAELKTVPPERYEEAEVFFG

>P18669

MAAYKLV LIRHGESA WNLNRFSGWYDADLSPAGHEEAKRGGQALRDAGYEFDICFTSVQ  
KRAIRTLWTVLDAIDQM WLPVVRTWRLNERHYGGLTGLNKAETA AKHGEAQVKI WRRSYD  
VPPPPMEPDHPFYSNISKDRRYADLTEDQLPSCESLKDTIARALPFWNEEIVPQIKEGKR  
VLIAAHGNSLRGIVKHLEGLSEEAIMELNLP TGIPIVYELDKNLKPIKPMQFLGDEETVR  
KAMEAVAAQ GKAKK

>P15428

MHVNGKVALVTGAAQIGRAFAEALLLKGAKVALVDWNLEAGVQCKAALDEQFEPQKTLF  
IQCDVADQQQLRDTFRKVVDFHFRGLDILVNNAGVNNEKNWEKTLQINLVSVISGTYLGLD

YMSKQNGGEGGIIINMSSLAGLMPVAQQPVYCASKHGIVGFTRSAALAAANLMNSGVRLNA  
ICPGFVNTAILESIEKEENMGQYIEYKDHIKDMIKYYGILDPPLIANGLITLIEDDALNG  
AIMKITTSGIHFQDYDTTPFQAKTQ

>P20971

MFKFYTMDDFDYSGSRVLRVDINSPVDPHTGRILDDTRMLHSKTLKELVDENAKVAIL  
AHQSRPGKRDFTTMEEHSHKVLNILDMPVTVYVEDIFGCAARESIRNMENGDIILLENVRF  
YSEEVLKRDPKVQAETHLVRKLSVVVDYINDAFAAAHRSQPSLVGFPLKLPAAAGRLME  
REVKTLYKIIKNVEKPCVYILGGVKIDDSIMIMKNILKNGSADYILTSGLVANVFLEASG  
IDIKEKNRKILYRKNYKFKIKMAKKLKDKYGEKILTPVDVAINKNGKRIDVPIDDIPNFP  
IYDIGMETIKIYAEKIREAKTIFANGPAGVFEEQQFSIGTEDLLNAIASSNAFVVIAGGH  
LAAAAEKMGISNKNINHISGGGACIAFLSGEELPAIKVLEEARKRSDKYI

>P61884

MFRLRDFEYFNRTVFLRVDLNSPMSNGKIIISDARFRAVLPTIKYLIESGAKVVVGTHQ GK  
PYSEEYSTTEE HARILSELLNMHVEYVEDIFGKYARERIKAMKPGEVIVLENLRFSAEEV  
KNATIEECEKTFVVRKLSQVIDLVVNDFAAAHRSQPSLVGFARIKPMIMGFLMEKEVDA  
LTKAYESEKPRVYVLGGAKVDDSLKVAENVLRKEKADLILTGGLVGLFQTLAKGFDLGR  
ENIKFLEKKGILKYVDWAEKILDEFYPYVRTPVDFAIIDFKGERVEIDLLSDEKRLFDEYP  
ILDIGSRTVEKYREILLKARIIVANGPMGVFEREEFAVGTIGVFKAIGESPAFVSVIGGGH  
SIASIKYKNITGISHISTGGGAMLTFFAGEKLPVLEALKISYEKFSNLLS

>Q9YE01

MEDLYLSWPKWFSEALARYSSLEGALEGVEEIIYCGMGGSGAAGDYIEALLSIYAPQGPE  
FRVVKDFRPPRPPRHRGYGLVLAASYSGNTLETVECGSLLSPAAGRVAVTSGGRLLEMAK  
ERGWLVARLPGGILPRVSFPWMLAASTAMLSGALGVDLEALKRLAGGLDQGLKGEAERL  
AGFISRYRIASLVTCGPGIPLAVRLKNELAENAKMPSRLEIYPESSHNDIVALEAAEGLY  
GAVFIWIEHEGSLCPAVLDVVEGIYREYGVDTISIESSARGGP NATVAEYLSRTL VFGLA  
SVRLALMRGFNPEETPPIDKYKRRLGEALRSQA

>Q9HIC2

MLRSHCMEFSEELKTLKDQVRFDGSRFTGTFSNIVIAGMGGSGIAGRIFSEMYSAKPVFV  
CDDYHIPEFVDGNTEFIAVSYSGNTEETLSAAEEAIKKGAKVHAITSGGRLESEMVDTIK  
IPGGLQPRSAVGYLTMPIINTFIRPKHEDIEEAAGLLSDLDKNNTVQENIATEIYAGRRI  
PVIYGSTPYRSVAYRWKTQFNENAKILAYSNYFSELNHNMTMPLRDTYRKDEFYFMAFDS  
TDERIRKRIEVTQKITGTSFKKIEARGSSLIARIFYLIHFGDYVTVYHLARIRNVDPQDVS  
AIEDLKKRIS

>O31156

MKIEAVIFDWAGTTVDYGCFAPLEVFMEIFHKRGVAITAEERKPMGLLKIDHVRALTEM  
PRIASEWNRVFRQLPTEADIQEMYEEFEEILFAILPRYASPINGVKEVIASLRERGIKIG  
STTGYTREMMDIVAKEAALQGYKPDFLVTPDDVPAGRPPYPMWICYKNAMELGVPNMHMIK  
VGDTVSDMKEGRNAGMWTVGVLGSSSELGLTEEEVENMDSVELREKIEVVRNRFVENGAAH  
FTIETMQELESVMEHIEKQELIIS

>Q9I433

MNYNQPATLQAAILDWAGTVVDFGSAFPTQIFVEAFAEFGVQVSLLEEARGPMGMGKWDHI  
RTLCDIPAIAERYRAVFGRLPSDDDVTAIYERFMPLQIEKIAEHSALIPGALQAI AELRG  
MGLKIGSCSGYPVVMKVVVALAETNGYVADHVVA TDEVPNGRPWPAQALANVIALGIDD  
VAACVKVDDTWP GILEGRAGMWTVALTCSGNALGLTYEQYQALPAAELERERTRIEQMF

EGSRPHYLIIETIAELPAVVRDINARLARGEMPQGN

>P22363

MSKIFVNPSAIRAGLADLEMAEETVDLINRNIEDNQAHLQGEPIEVDNLPEDMKRLHLDD  
EKSSNLGEMVRVGEKGYREDFQMDDEGEDPNLLFQSYLDNVGVQIVRQMRSGERFLKIWSQ  
TVEEIVSYVTVNFNPPRRSSEDKSTQTTGRELKKETTSAFSQRESQPSKARMVAQVAPG  
PPALEWSATNEEDDL SVEAEIAHQIAESFSKKYKFP SRSSGIFLYNFELKMNLLDDIVKE  
AKNVPGVTRLAHDGSKIPLRCVGLGWVALANSKKFQLLVEADKLSKIMQDDLNRYSCTSC

>P04859

MDQDAFILKEDSEVEREAPGGRESLSDVIGFLDAVLSSEPTDIGGDRSWLHNTINTPQGP  
GSAHRAKSEGEVSTPSTQDNRSGEESRVSGRTSKPEAEAHAGNLDKQNIHRAFGGRTG  
TNSVSDLDGGDGSILENPPNERGYPRSGIEDENREMAAHPDKRGEDQAEGLPEEVRGG  
TSLPDEGEGGASNNGRSMEPGSSHSARVTGVLVIPSPELEEAFLRRNKRRPTNSGSKPLT  
PATVPGTRSPPLNRYNSTGSPGKPPSTQDEHINSGDTPAVRVKDRKPPIGTRSVSDCPA  
NGRPIHPGLESSTKKGIGENTSSMKEMATLLTSLGVIQSAQEFESSRDASYVFARRALK  
SANYAEMTFNVCGLILSAEKSSARKVDENKQLLKQIQESVESFRDIYKRFSEYQKEQNSL  
LMSNLSTLHIITDRGGKTDNTDSLTRSPSVFAKSKENKTKATRFDPMETLEDMKYKPD  
LREDEFRDEIRNPVYQERDTEPRASNARLLPSKEKPTMHSRLRVIESSPLSRAEKAAYV  
KSLSKCKTDQEVKAVMELVEEDIESLTN

>P04880

MDNLTKVREYLKSYSRLDQAVGEIDEIEAQRAEKSNEYELFQEDGVEEHTRPSYFQAADD  
DTESEPEIEDNQGLYVPDPEAEQVEGFIQGPLDDYADEDDVDFVTSQDWKQPELESDEHGK  
TLRLTLPEGLSGEQKSQWLLTIKAVVQSAKHWNLAECTFEASGEGVIKKRQITPDVYKV  
TPVMNTHPYQSEAVSDVWLSKTSMTFQPKKASLQPLTISLDELFSRGEFISVGGNGRM  
SHKEAILLGLRYKKLYNQARVKYSL

>P61457

MAGKAHRLSAEERDQLLPNLRAVGWNELEGRDAIFKQFHFKDFNRAFGFMTRVALQAEKL  
DHHPEWFNVYKVVHITLSTHECAGLSERDINLASFIEQVAVSMT

>P07219

MMRARVPLLLLGILFLASLSASFATSLREEEESQDNPFYFNSDNSWNTLFKNQYGHIRVL  
QRFDDQSKRLQNLLEDYRLVEFRSKPETLLLPQQADAELLLVVRSGSAILLVKPDDRREY  
FFLTQGDNP IFSDNQKIPAGTIFYLVNPDPKEDLRIIQ LAMPVNNPQIHEFFLSSTEAQQ  
SYLQEFKSHILEASFNSKFEEINRVLFEEEGQQEEGQQEGVIVNIDSEQIEELSKHAKSS  
SRKSHSQDNTIGNEFGNLTERTDNLNVLISSIEMKEGALFVPHYYSKAIIVILVVNEGE  
AHVELVGPKNKETLEFESYRAELSKDDVFVIPAAYPVAIKATSNVNF'TGFGINANNNNR  
NLLAGKTDNVISSIGRALDGKDVGLTFSGSGEEMKLINKQSGSYFVDGHHHQEQQKQ  
SHQEQQKGRKGAFVY

>P34755

MPRTSLLTLACALATGASAFSYGAAIPQSTQEKQFSQEFDRDGYSLKHYGGNGPYSERVS  
YGIARDPPTSCEVDQVIMVKRHGERYPSPSAGKDIEEALAKVYSINTTEYKGDLAFLNDW  
TYYPVNECYNAEETSGPYAGLLDAYNHGNDYKARYGHLWNGETVVPFFSSGYGRVIETA  
RKFGEGFFGYNYSTNAALNIISESEVMGADSLTPTCDTDNDQTTCDNLTYQLPQFKVAAA  
RLNSQNPGMNLTASDVYNLMVMASFELNARPFNSWINAFTQDEWVSFGYVEDLNYYCAG  
PGDKNMAAVGAVYANASLTLLNQGPKEAGSLFFNF'AHDNTNITPILAAALGVLI PNEDLPLD  
RVAFGNPYSIGNIVPMGGHLTIERLSCQATALSDEGTYVRLVLNEAVLPPFNDCTSGPGYS

CPLANYTSILNKNLPDYTTTTCNVSASYPQYLSFWWNYNTTTELNYRSSPIACQEGDAMD

>Q46806

MRVLIKNGTVVNADGQAKQDLLIESGIVRQLGNNISPQLPYEEIDATGCYVFPGGVDVHT  
HFNIDVGIARSCDDFFFTGTRAAACGGTTTIIDHMGFGPNGCRLRHQLEVYRGYAAHKAVI  
DYSFHGVIQHINHAILDEIPMIVEEGLSSFKLYLTYQYKLNDDDEVLQALRRLHESGALTT  
VHPENDAAIASKRAEFIAAGLTAPRYHALSRPLECEAEAIARMINLAQIAGNAPLYIVHL  
SNGLGLDYLRLARANHQPVWVETCPQYLLLLDERSYDTEDEGMKFILSPPLRNVREQDKLWC  
GISDGAIDVVATDHCTFSMAQRLQISKGDFSRCPNGLPGVENRMQLLFSSGVMTRITPE  
RFVELTSAMPARLFGLWPQKGLLAPGSDGDVVIIDPRQSQQIQHRHLHDNADYSPWEGFT  
CQGAIVRTL SRGETIFCDGTFTGKAGRGRFLRRKPFVPPVL

>Q51793

MNGSIQGKPLLGKGMSESLTGTLDAPFPEYQTLPADPMSVLHNWLERARRVGI REPRALA  
LATADSQGRPSTRIVVISEISDAGVVFSTHAGSQKGRELLHNPWASGVLYWRETSQQIIL  
NGQAVRLPNAKADDAWLKRPYATHPMSSVSRQSEELQDVQAMRNAARQLAELQGPLRPE  
GYCVFELRLESLEFWGNGQERLHERLRYDRSDTGWNVRRLLQP

>P46547

MSSPLHYVLDGHIHCEPHFFFTVPLDHQQPDEETITLFGRTLCKDRLDDEL PWLLYLQGG  
PGFGAPRPSANGGWIKRALQEFRVLLLDQRGTGHSTPIHAELLAHLNPRQQADYLSHFRA  
DSIVRDAELIREQLSPDHPWSSLGQSFGGFCSLTYLSLFPDSLHEVYLTGGVAPIGRSAD  
EVYRATYQRVADKNRAFFARFPHAQAIANRLATHLQRHDVRLPNGQRLTVEQLQQQGLDL  
GASGAFEELYLLEDAFIGEKLNPAFLYQVQAMQPFNTNPVFAILHELIYCEGAASHWAA  
ERVRGEFPALAWAQGKDFAFGTGEMIFPWFMEQFRELIPLKEAAHLLAEKADWGPLYDVPVQ  
LARNKVPVACAVYAEDMYVEFDYSRETLKGLSNSRAWITNEYEHNGLRVDGEQIILDRLLIR  
LNRDC

>P46544

MMQITEKYLPFGNWQTYCRIVGEATDRAPLLLLHGGPGSSHNYFEVLDQVAEKSGRQVIM  
YDQLGCGNSSIPDDQAETAYTAQTWVKELENVREQLGLDQIHLGQSWGGMLALIYLCDY  
QPEGVKSILSSTLASAKLWSQELHRLIKYLPKGEQAAIKEAETTGNYSLAYQAANAHF  
MDQHAIKLTPDLPEPVLRRKKKGGSLAYLTGWGPNEYTPIGNLHGYYETDRLLKDLHLPALI  
TSGTDDLCTPLVAKSMYDNLPNARWELFAGCGHMPFVQENAKYQELLSDWLISQD

>P03067

MRLKVMMDVNKTKIRHRNELNHTLAQLPLPAKRVMYMALAPIDSKEPLERGRVFKIRAE  
DLAALAKITPSLAYRQLKEGGKLLGASKISLRGDDIALAKELNLPFTAKNSPEELDLNI  
IEWIAYSPDEGYLSLKFTRTIEPYISSLIGKKNKFTTQLLTASLRLSSQYSSSLYQLIRK  
HYSNFKKKNFYFIIISVDELKEELIAYTFDKDGNIEYKYPDFPIFKRDVLNKAIAEIKKTE  
ISFVGFTVHEKEGRKISKLKFEFVVEDEFGDKDDEAFFMNLSEADAAFLKVFDETVPP  
KKAKG

>P03274

MEDINFASLAPRHGSRPFMGNWQDIGTSMSSGGAFSWGSLWSGIKNFGSTIKNYGSKAWN  
SSTGQMLRDKLKEQNFQQKVVDGLASGISGVVDLANQAVQNKINSKLDPRPPVEEPPPAV  
ETVSPEGRGEKRPRPDREETLVTQIDEPPSYEEALKQGLPTTRPIAPMATGVLGQHTPVT  
LDLPPPADTQQKPVLPGPSAVVVTTRPSRASLRRRAASGPRSMRPVAGSNWQSTLNSIVGLG  
VQSLKRRRCF

>Q76KC2

MHLKASEKRALGRTGLTVTALGLGTAPLGGLYAPVSRADADALLEAGWDSGIRYFDSAPM  
YGYGRCEHLLGDMLREKPERAVISTKVGRMLTNERAGRTPPPAPPKNPLDSGWHNGLNFR  
EVFDYSYDGMRSFDDSQORLGFPEIDLIVVHDIIGRVTHADRHEFHWNALTRGGGFRA  
ELRAAGNIKGFGLGVNEWQIIRDALEEADLDCSLLAGRYSLLDQVSEKEFLPLAQKRGMA  
LVIAGVFNNGILAAPRGGEQKFDYADAPAEI IARTNRLHDI CDEYHVPLAAAAAMQFPLRH  
EAVSSILIGVRSPEQIRQNVVWFEQSIPDEFWTTLRSEGLIS

>P06765

MSAAAVFRGLRPSPELLLLGLLLLPAVVAVTRASPEESDGLSCVCVKTSSSRIHLKRIT  
SLEVIKAGPHCAVPQLIATLKNKSKI CLDRQVPLYKKI IKKLLES

>P82142

HETDPDGHVLSMLLIVMKFQREFSNLKDAFMTVHKARSFGSGSERLYVTNKEVGNFEG  
GEICRQAGGRIPSPQLKNQKAFANVLERHNKEAYLVVGNANFTNWAEGQPKKADGTCV  
KADTHGLWHSTSCDDNLLVVCEFYFIL

>Q96GD0

MARCELRGAALRDVLGRAQGVLFDCDGLWNGERAVPGAPELLERLARAGKAALFVSNN  
SRRARPELALRFARLGFGLRAEQLFSSALCAARLLRQRLPGPPDAPGAVFVLGGEG  
ELRAAGRLLAGDPSAGDGAAPRVRAVLVGYDEHFSFAKLREACAHLRDPECLLVATDRDP  
WHPLSDGSRTPGTGSLAAAVETASGRQALVVGKPSPYMFECITENF SIDPARTLMVGDRL  
ETDILFGHRCGMMTTLTGTGVSRLAEAQAYLAAGQHDLVPHYVESIADLTEGLED

>P07738

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEDLVFTSVL  
NRSIHTAWLILEELGQEWVPESSWRNLNERHYGALIGLNREQMALNHGEEQVRLWRRSYN  
VTPPPIEESHPPYQEIYNDRRYKVCVPLDQLPRSESLKDVLERLLPYWNERIAPEVLRG  
KTILISAHGNSSRALLKHLEGISDEDIINITLPTGVPILLELDENLRAVGP HQFLGDQEA  
IQAAIKKVEDQKVKQAKK

>P55859

MANGYTYEDYQDTAKWLLSHTEQRPQVAVICGSLGGLVNKLTQAQTFDYSEIPNFP  
ESTVPGHAGRLVFGILNGRACVMMQGRFHMIEGYPFWKVTFPVRVFRLLGVETLVV  
TNAAGGLNPNFEVGDIMLIRDHINLPGFSGENPLRGPNEERFGVRF PAMSDAYDRD  
MRQKAHSTWKQ MGEQRELQEGTYVMLGGPNFETVAECRLLRNLGADAVGMSTVPE  
VIVARHCGLRVFGFSLITNKVIMDYESQGKANHEEVLEAGKQAAQKLEQFVSL  
LMASIPVSGHTG

>Q9NVS9

MTCWLRGV TATFGRPAEWP GYLSHL CGRSAAMD LGPMRKS YRGDREAF EETHL  
TSLDPVKQFAAWFEEAVQCPDIGEANAMCLATCTRDGKPSARMLLLKGF  
GKDGFRFFTFNFESRKGKELDSNPFASLVFYWEPLNRQVRVEGPVKKLPEE  
EEAE CYFHSRPKSSQIGAVVSHQSSVIPDREYL RKKNEELEQLYQDQEV  
PKPKSWGGYVLYPQVMEFWQGTNRLHDRIVFRRGLPTGDSPLGPMTHR  
GEEDWLYERLAP

>Q00472

MAKKLSSPKEYKEFIDKFDVFLFDCDGLWLSGSKPIPGVTDTMKLLRSLGKQI  
IFVSNNSTKSRETYMKNINEHGIAAKLEEIYPSAYSSATYVKKVLKLPADK  
KVFLVGEAGIEDELDRVGV AHIGGTDP SLRRALASEDVEKIGPDPSV  
GAVLCGMDMHVTYLKYCMAFYQLQDPNCAFLLTNQDSTFPTNGKFL  
PGSAISYPLIFSTGRQPKILGKPYDEMMEAI IANVNFDRKKA

CFVGDRLNTDIQFAKNSNLGGSLLVLTGVSKEEEEILEKDAPVVPDYVESLAKLAETA

>P19881

MTAQQGVPIKITNKEIAQEFLDKYDTFLFDGVLWLGSQLPYTLEILNLLKQLGKQLI  
FVTNNSTKSRLAYTKKFASFIDVKEEQIFTSYASAVYIRDFLKLQPGKDKVWVFGESG  
IGEELKLMGYESLGGADSRDLTPFDAAKSPFLVNLGLDKDVSCVIAGLDTKVNYHRLAVTL  
QYLQKDSVHFVGTNVDSTFPQKGYTFPGAGSMIESLAFSSNRRPSYCGKPNQNMNSIIS  
AFNLDRSKCCMVGDRLNTDMKFGVEGGLGGTLLVLSGIETEERALKISHDYPRPKFYIDK  
LGDYITLTNNEL

>P39767

EISLNGYGRFGLQYVEDRQVGLDTEIISRLRINIVGTTETDQGVTFGAKLRMQWDDGDA  
FAGTAGNAAQFWTSYNGVTVSVGNVDTAFDVSVALTYDSEMGYEASSFGDAQSSFFAYNSK  
YDASGALDNYNGIAVTYSISGVNLYLSYVDPDQTVDSSLVTEEFGLAADWSNDMISLAAA  
YTTDAGGIVDNDIAFVGAAYKFNDAAGTVGLNWDNGLSTAGDQVTLYGNYAFGATTVRAY  
VSDIDRAGADTAYGIGADYQFAEGVKVSGSVQSGFANETVADVGVRFDF

>P31243

EVKLSGDARMGVMYNGDDWNFSSRSRVLFTMSGTTDSGLEFGASFKAHESVGAETGEDGT  
VFLSGAFGKIEMGDALGASEALFGDLYEVGYTDLDDRRGNDIPYLTGDERLTAEDNPVLL  
YTYSAGAFSVAASMSDGKVGGETSEDDAQEMAVAAAYTFGNVTVGLGYEKIDSPDTALMAD  
MEQLELAAIAKFGATNVKAYYADGELDRDFARAVFDLTPVAAAAATAVDHKAYGLSVDSTF  
GATTVGGYVQVLDIDTIDDVTTYGLGASYDLGGGASIVGGIADNDLPNSDMVADLVKFK  
F

>Q9UHV8

MSSLPVVPYKLPVSLSVGSCVIKGTPIHSFINDPQLQVDFYTDMEDESDIAFRFRVHFGN  
HVVMNRREFGIWMLEETTDYVPFEDGKQFELCIYVHYNEYEIKVNGIRIYGFVHRIPPSF  
VKMVQVSRDISLTSVCVCN

>P80366

FVRKTNKNRDMPLDSDVFRVPPGYNAPQQVHITQGLVGRAMIISWVTMDEPGSSAVRYW  
SEKNRKRKIAKGMSTYRFFNYSSGFIHHTTIRKLKYNTKYYYEVGLRNTTRRFSTPTP  
QTGLDVPHYTFGLIGDLGQSFDSNTTLSHYELSPKKGQTVLFFVGDLSYADRYPNHDNVRWD  
TWGRFTERSVAYQPWIWTAGNHEIEFAPEINETEPFKPFSYRYHVPYEASQSTSPPFWYSI  
KRASAHIIVLSSHIAVGRGTPQYTWLKKELRKVKRSETPWLIVLMHSPLYNSYNHHFMEG  
EAMRTKFEAWFVKYKVDVVFAGHVHAYERSERVSNIAYKITDGLCTPVKDQSAPVYITIG  
DAGNYGVIDSNMIQPQPEYSAFREASFGHGMFDIKNRTHAHFSWNRNQDGVAVEADSVWF  
FNRHWYPVDDST

>P19147

MQPAVSLIAGAVLSALLCSSAIAAETSANADGLTDRAARGNLVEPGGARRLAGDQTTALK  
ASLSDKTAKNVILLIGDGMGDSEITAARNYAEGAGGYFKGIDALPLTGQYTHYSLDRKTH  
KPDYVTDSAASATAWATGVKTYNGALGVDVNGKDQPTLLEIAKAAGKATGNVSTAELQDA  
TPAALVSHVISRKYGPEETSEKCAANALENGGRGSITEQLLKTADVTLGGGAKSFNQL  
AKSGEWQKSLKDQAAAQGYQWVSNADELQAVTLANQQKPLLGLFADGNMPVRWLGPAS  
YHGNDKPAVTCENNPARTAAATPTLAAMTEKAIALLKDNPNNGFFLQVEGASIDKQDHAAN  
PCGQIGETVDLDEAVQKALAFARADGNTLVIVTADHAHASQIVSADAKAPGLTQKLTTKD  
GAPMTLSYGNSEEEESQGHGTGTQLRVAAYGPHAAANVVGLTDQTDLFF'TMRDAMGIK



>P24822

MQGPVWLLLLLGLRLQLSLSVIPVEEENPAFWNKKAEEALDAAKKLQPIQTSAKNLIIFLG  
DGMGVPTVTATRILKQLEGLHLPETPLAMDRFPYMALSKTYSVDRQVPSASTATAYLC  
GVKTNKYKTIGLSAAARFDQCNTTTFGNEVFSVMYRAKKAGKSVGVTTRVQHASPSTYV  
HTVNRNWDADMPASALREGCKDIATQLISNMDINVLGGGRKYMFPAGTPDPEYPNDA  
NETGTRLDGRNLVQEWLSKHQGSQYVWNREQLIQKAQDPSVTYLMGLFEPVDTKFDIQRD  
PLMDPSLKDMTETAVKVL SRNPKGFYLFVEGGRIDRGHHLGTAYLALTEAVMFDLAIERA  
SOLTSERDTLTIVTADHSHVFSFGGYTLRGTSIFGLAPLNALDGKPYTSSILYGNPGYVG  
TGERPNVTAAESSGSSYRRQAAPVVKSETHGGEDVAIFARGPQAHLVHGVQEQNYIAHVM  
ASAGCLEPYTDCGLAPPADESQTTTTTRQTTITTTTTTTTTTTTTTPVHNSARSLGPATAPL  
ALALLAGMLMLLLGAPAES

>P35482

MFKRSLIAASLSVAALVSAQAMAVTGGGASLPAELYKGSADSILPANFSYAVTGSSTGKN  
AFLTNNSSLFGTTGTVHYAGSDSVLSGSELTTYNSNYNGTYGPLIQIPSVATSVTPYRK  
DGNTTLNLTSAQLCDAFSGAKTTWGQLLGTDDSTPIRIVYRTGSSGTTELFTRHLNSICP  
TRFATNSTFTNARLPAGGTLPSNWVGAATSTVVSTVKATNGSLGYVSPDAVNINSNAEV  
SRVNGNLPTQANVSTALGVSAPPANAADRADPSKWPVFTNPSAGYSIVGYTNFVFGQCY  
KDASVSTDVRAFINKHYGGTTTTNAAVAAHGFIPLTPAWKSAIVSAFYTGTSENLAIGNTN  
VCNTKGRP

>P09487

MISPFLLLAIGTCFASSLVPEKEKDPKYWRDQAQQTLKNALRLQTLNNTVAKNVIMFLGD  
GMGVSTVTAARILKQQLHHSPEETKLEMDKFPYVALSKTYNTNAQVPDSAGTATAYLCG  
VKANEGTVGVSAAATQRSQCNTTQGNEVTSILRWAKDAGKSVGIVTTTRVNHATPSASYAH  
SADRWDYSDNEMPEALSQGCCKDIAYQLMHNKIDIEVIMGGGRKYMFPKNRTDVEYELDE  
KARGTRLDGLNLDIWKSFKPKHKHSHYVWNRTDLLALDPHSVDYLLGLFEPGDMQYELN  
RNNATDPSLSEMVEMAIRILNKNPKGFFLLVEGGRIDHGHHEGKAKQALHEAVEMDQAIG  
QAGAMTSVEDTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMVSDTDKPPFTAILYGNPGP  
YKVVGGERENVMVDYAHNNYQAQSAVPLRHETHGGEDVAVFAKGPMAHLLHGVHEQNYI  
PHVMAYAACIGANRDHCASASSSGSPSPGPLLLLLLALLPLGSLF

>Q4J6C6

MQOKTKLFLQALKYSIPHLGKCMQKQHLNHYNFADHCYNRIKLLKYYHLTKCLQNKPKISE  
LARNIPSRFSCKDLQPVKQENKPLPENMDAFEKVRTKLETQPQEEYEIINVEVKHGGF  
VYYQEGCCLVRSKDEEADNDNYEVLFNLEELKLDQPFIDCIRVAPDEKYVAAKIRTEDSE  
ASTCVI IKLSQPVMEASFVNVSSFEWVKDEEDEDVLFYTFQRNLRCHDVYRATFGDNKR  
NERFYTEKDPSYFVFLYLTKDSRFLTINIMNKTTSSEVWLDGLSPWDPPVLIQKRIHGVL  
YYVEHRDDELYILTNVGEPTFKLMRTAADTPAIMNWDLFFTMKRNTKVIDLDMFKDHCV  
LFLKHSNLLYVNVIGLADDSVRSKLPWACGFIMDTNSDPKNCPPQLCSPIRPPKYTY  
KFAEGKLFEEETGHEDPITKTSRVLRLLEAKSKDGKLVPMTVFHKTDSEDLQKKPLLHVYV  
AYGMDLKMNFRPERRVLVDDGWILAYCHVRGGELGLQWHADGRLTKKLNGLADLEACIK  
TLHGQGFSPSLTTLTAFSAGGVLGALCNSNPELVRAVTLLEAPFLDVLNMTMDTTLPLT  
LEEELEEWGNPSSDEKHKNYIKRYCPYQNIKPQHYPYIHTAYENDERVPLKGIYSYTEKL  
KEAIAEHAKDTGEGYQTPNIIIDIQPGGNHVIEDSHKKITAQIKFLYEELGLDSTSVFED  
LKKYLKF

>P13735

MAPIIHKNLTAPELVEWALKLEKDSQLTARGALSVRSYAKTGRSPRDKRIVNTTDVTDNV  
DWGSVNMKLTTEESFEKLTIAKDYFATCKHLFVMDCFAGHDERYRLKVRVYTRPYHALF

MRNMLIVPTLEELQSFGEPTYVIYNAGEAKADPTVPGVTSTTSVALNFKTREQVILGTEY  
AGEMKKGILTVMFELMPRMGHLCHMASANVGKSGDVTVFFGLSGTGKTTLSADPRRNLI  
DDEHVWTRDGVFNIEGGCYAKAIGLNPETEKDIYEAVRFGAVAENCTLDRRTHEIDFNDE  
SICKNTRVAYPLMHIDGALS KAVAGHPKNIIFLTNDAFGVMPPVARL TSAQAMFWFVMGY  
TANVPGVEAGSARVARPIFSSFCFGPFLVRHATHYGGQLAEKMEKHNSRVWLLNTGYAGG  
RADRGAKRMLRVTRAIIDAIHDGTLDQADYEVYPGWAF TFLRGLR TPCQAC

>P10963

MSPSKMNATVVGSTSEVEQKIRQELALSDEVTTIRRNAPAAVLYEDGLKENKTVISSSGAL  
IAYSGVKTGRSPKDKRIVEEPTSKDEIWWGPVKNKPCSERTWSINRERAADYLRTRDHIYI  
VDAFAGWDPKYRIKVRVVCARAYHALFMTNMLIRPTEEELAHFGEPDFTVWNAGQFPANL  
HTQDMSSKSTIEINFKAMEMIILGTEYAGEMKKGIFTVMFYLMFVHHNVLT LHSSANQGI  
QNGDVTLFFGLSGTGKTTLSADPHRLLIGDDEHCWSDHGVFNIEGGCYAKCINLSAEKEP  
EIFDAIKFGSVLENVIYDEKSHVVDYDDSSITENTRCAYPIDYIPSAKIPCLADSHPKNI  
ILLTCDASGVLPVSKLTPEQVMYHFISGYTSK MAGTEQGVTEPEPTFSSFCFGQPFLALH  
PIRYATMLATKMSQHKANAYLINTGWTGSSYVSGGKRCPLKYTRAILDSIHDGSLANETY  
ETLPIFNLQVPTKVNGVPAELLNPAKNWSQGESKYRGAVTNLANL FVQNFKIYQDRATPD  
VLAAGPQFE

>Q9HAB8

MAEMDPVAEFPQPPGAARWAEVMARFAARLGAQGRRVVLVTSGGTKVPLEARPVRFLDNF  
SSGRRGATSAAEFLAAGYGVLFYLRARSAPFYAHRFPPTWLSALRPSGPALSGLLSLEA  
EENALPGFAEALRSYQEA AAAAGTFLAVEFTTLADYLHLLQAAAQALNPLGPSAMFYLA  
VSDFYVPVSEMPEHKIQSSGGPLQITMKMVPKLLSPLVKDWAPKAFIISFKLETDP  
NRARKALEIYQHQVVANILESRQSFVIVTKDSETKLLLLSEEEIEKGVIEEEKIVDNLQ  
SRHTAFIGDRN

>Q8NEY8

MWSEGRYEYERIPRERAPPRSHPSDGYNRLVNI VPKKPPLLDRPGEGSYNRYSHVDYRD  
YDEGRSFSHDRRSGPPHRGDESGYRWRDDHSASRQPEYRDMRDGFRRKSFYSSHYARER  
SPYKRDNTFFRESPVGRKDSPHSRSGSSVSSRSYSPERSKSYSFHQSHRKSVRPGASYK  
RQNEGNPERDKERPVS LKTSRDTSPSSGSAVSSSKVLDKPSRLTEKELAEAAASKWAAEK  
LEKSDESNLPEISEYEAGSTAPLFTDQPEEPESNTTHGIELFEDSQLTTRSKAIASKTKE  
IEQVYRQDCETFGMVVKMLIEKDPSLEKSIQFALRQNLHEIESAGQ TWQQVPPVRNTEMD  
HDGTPENEGEETAQSAPQPPQAPQPLQPRKKRVRRTTQLRRTTGAPDITWGMLKKTQEA  
ERILLRTQTPFTPENLFLAML SVVHCNSRKDVKPENKQ

>P0A7B1

MGQEKLYIEKELSWLSFNERVLQEAADKSNPLIERMRFLGIYSNNLDEFYKVRFAELKRR  
IIISEEQSNSHSRHLGKIQSRVLKADQEFDGLYNELLEMARNQIFLINERQLSVNQQ  
NWL RHYFKQYLRQHITPILINPDTDLVQFLKDDYTYLAVEIRGDTIRYALLEIPSDKVP  
RFVNL PPEAPRRRKPMILLDNILRYCLDDIFKGGFFDYDALNAYSMMKTRDAEYDLVHEME  
ASLMELMSSSLKQRLTAEPVRFVYQRDMPNALVEVLREKLTISRYSIVPGGRYHNFKDF  
INFPNVGKANLVNKPLPRLRHIWFDKAQFRNGFDAIRERDVLLYYPYHTFEHVLELLRQA  
SFDPSVLAIKINIYRVAKDSRIIDSMIHA AHNGKKVTVVVELQARFDEEANIHWAKRLTE  
AGVHVIF SAPGLKIHAKLFLISRKENGEVRYAHIGTGNFNEKTARLYTDYSLLTADARI  
TNEVRRVFNFIENPYRPVTFDYLMVSPQNSRRLLYEMVDREIANAQQGLPSGITLKLNNL  
VDKGLVDRLYAASSGVPNLLVVRGMCSLIPNLEGISDNIRAI SIVDRYLEHDRVYIFEN  
GGDKKVYLSSADWMTRNIDYRIEVATPLLDPRLKQRVLDIIDILFSDTVKARYIDKELSN  
RYVPRGNRRKVRAQLAIYDIKSLEQPE

>Q94702

MALTNAQILAVIDSWEETVGQFPVITHHVPLGGGLQGTLLHCYEIPLAAPYGVGFANNGPT  
RWQYKRTINQVVHRWGSHTVPFLLEPDNINGKTCTASHLCHNTRCHNPLHLCWESLDDNK  
GRNWCPCPGNGGCVHAVVCLRQGPLYGPATVAGPQQRGSHFVV

>Q09927

MKDPNTIPPWRCTDFNAWCIAVDKSTNVKNKEELLSTLTYFINYEIEMGQTYPIDIKMTR  
NEAEDFFFFKCTVICVPVESETSPAPDLATASIDWKTSLLGAFYIKPNYPGRCSHICNGG  
FLVSPSHRSKGIGRNLANAYLYFAPRIGFKSSVFNLFATNIKSIRLWERLNFTRAGI IK  
DAGRLKGHEGYVDAYIYQYHFPSLEDALK

>P0AFL6

MPIHDKSPRPQEFAAVDLGSNSFHMVIARVVDGAMQIIGRLKQRVHLADGLGPDNMLSEE  
AMTRGLNCLSLFAERLQGFSPASVCIVGTHTLRQALNATDFLKRAEKVIPYPIEIIISGNE  
EARLIFMGVEHTQPEKGRKLVIDIGGGSTELVIGENFEPILVESRRMGCVSFAQLYFPGG  
VINKENFQRARMAAAQKLETLTWQFRIQGWNVAMGASGTIKAAHEVLMEMGEKDGIITPE  
RLEKLVKEVLRHRNFASLSLPLSEERKTVFVPLAILCGVFDALAIRELRLSDGALREG  
VLYEMEGFRHRHQDVRSRRTASSLANQYHIDSEQARRVLDTTMQMYEQWREQQPKLAHPQLE  
ALLRWAAMLHEVGLNINHSGLHRHSAYILQNSDLPGFNQEQQMMATLVRYHRKAIKLDL  
LPRFTLTKKKQFLPLIQLLRLGVLLMNQRQATTTPTLTLITDDSHWTLRFPHDWFSQNA  
LVLLDLEKEQEYWEGVAGWRLKIEEESTPEIAA

>P33437

MRSVIDAAQKAQISAIIASDVAAMTYANEIGVEVHLSTQLNISNAEALRFIALAMWSYWQ  
RAEYGSSTYNPRDHRQGHICGPKGHPVRIEMFAHGALCMAVSGKCYLSLHEHNTSANRGA  
CAQICRRGYTVKDSGLELDIENQYIMSPKDLKTIHFINKMMDAGVRVFKIEGRARGPEYV  
YTVCRCYKEAIEAYCNGTYDEESIGRWDEQLATVFNRFWDGYLLGQRLGEWTHRYGSGR  
TRQKTYVGKGIKYFSRLGVAEFEIESGELHIGDEIVITGPTTGVIIQKVEEIRYELQTV  
KATKGQRISIPVKEKVRPSDKLYRFDKREE

>O31158

MTTFTTRDGTQIYYKDWGSGQPIVFSHGWPLNADSWESQMIFLAAQGYRVIAHRRRGHGR  
SSQPWSGNDMDTYADDLAQLIEHLDLRDAVLFGFSTGGGEVARYIGRHGTARVAKAGLIS  
AVPPLMLKTEANPGGLPMEVFDGIRQASLADRSQLYKDLASGPFPGFNQPGAKSSAGMVD  
WFWLQGMAAGHKNAIDCIIKAFSETDFTEDLKKIDVPTLVVHGADQVVP IEASGIIASAAL  
VKGSTLKIYSGAPHGLTDTHKDQLNADLLAFIKG

>P25026

MPYVTTKDNVEIFYKDWGPKDAQPIVFHHGWPLSGDDWAQMLFFVQKGYRVIAHRRRGHGR  
GRSAQVSDGHDMHYAADAFAVVEALDLRNAVHIGHSTGGGEVARYVANDGQPAGRVAKA  
VLVSAPVPLMLKTESNPEGLPIEVFDGFRKALADNRAQFFLDVPTGPFYGFNRAGATVHQ  
GVIRNWRQGMESAKAHYDGIKAFSETDQTEDLKSITVPTLVLHGEDDQIVPIADAALK  
SIKLLQNGTLKTYPGYSHGMLTVNADV LNADLLAFVQA

>P61289

MASLLKVDQEVKLVDSFRERITSEAEDLVANFFPKKLELDSFLKEPILNIHDLTQIHS  
DMNLPVPPDPILLTNSHDGLDGPTYKKRRLDECEEFQGTQKVFVMPNGMLKSNQQLVDIIE  
KVKPEIRLLIEKCNVTKMWVQLLIPRIEDGNNFGVSIQEEVVAELRTVESEAASYLDQIS  
RYYITRAKLVSKIAKYPHVEDYRRTVTEIDEKEYISLRLIISELRNQYVTLHDMILKNIE

KIKRPRSSNAETLY

>Q14997

MEPAERAGVGEPEPEGGRPEPEGPRGFVPQKEIVYKLLPYAERLDAESDLQLAQIKCNLG  
RAVQLQELWPGGLFWTRKLSSTYIRLYGRKFSKEDHVLFIKLLYELVSIKLEISMMQGFAR  
RLLINLLKKKELLSRADLELPWRPLYDMVERILYSKTEHLGLNWFNPNSVENILKTLVKSC  
RPYFPADATAEMLEEWRLMCPFDVTMQKAITYFEIFLPTSLPPELHHKGFKLWFDELIG  
LWVSVQNLQWEGQLVNLFARLATDNIGYIDWDPYVPKIFTRILRSLNLPVGSQVLVPR  
FLTNAVYDIGHAVIWIWITAMMGPSKLVQKHLAGLFNSITSFYHPSNNGRWLNKLMKLLQRL  
PNSVVRRLHRERYKKPSWLTVPVPSHKLTDQDVTDFVQCI IQPVLLAMFSKTGSLEAAQA  
LQNLALMRPELVIPPVLERTYPALETLEPHQLTATLSCVIGVARSLVSGGRWFPEGPTH  
MLPLLMRALPGVDPNDFSKMITFQFIATFSTLVPLVDCSSVLQERNDLTEVERELCSAT  
AEFEDFVLQFMDRCFGLIESSTLEQTREETETEKMTHLESVELGLSSTFSTILTQCSKE  
IFMVALQKVFNFSTSHIFETRVAGRMVADMCRAAVKCCPEESLKLFPVPHCCSVITQLTMN  
DDVLNDEELDKELLWNLQLLSEITRVDGRKLLLYREQLVKILQRTLHLTCKQGYTLSCNL  
LHLLLRSTTLIYPTHEYCSVPGGFDKPPSEYFPIKDWGKPGDLWNLGIQWHVPSSEEVSFA  
FYLLDSFLQPELVKLQHCGDGKLEMSRDDILQSLTIVHNCLIGSGNLLPPLKGEVPTNLV  
PSMVSLEETKLYTGLEIDLSENHREVIATVIRKLLNHILDNSEDDTKSLFLI IKIIGDL  
LQFQGSHEFDSRWKSFNLVKKSMENRLHGKKQHIRALLIDRVMLQHELRTLTVEGCEY  
KKIHQDMIRDLLRLSTSSYSQVRNKAQQTFFAALGAYNFCCRDI I PLVLEFLRPDRQGV  
QQQFKGALYCLLGNHSGVCLANLHDWDCIVQTPAIVSSGLSQAMSLEKPSIVRLFDDLA  
EKIHRQYETIGLDFTIPKSCVEIAELLQQSKNPSINQILLSPKIKEGIKRQEQKNADAL  
RNYENLVDTLLDGVEQRNLPWKFEHIGIGLLSLLLRDDRVLPLRAIRFFVENLNHDAIVV  
RKMAISAVAGILKQLKRTHKKLTINPCEISGCPKPTQIIAGDRPDNHWLHYDSKTI PRK  
KEWESSCFVEKTHWGYTWPKNMVYAGVEEQPKLGRSREDMTEAEQIIFDHFSDPKFVE  
QLITFSLSEDRKGDKFNPRRFCLFKGIFRNFDDAFLPVLKPHLEHLVADSHESTQRCVA  
EIIAGLIRGSKHWTFEKVEKLWELLCPLLRRTALSNIITVETYNDWGACIATSCESTRDPRKL  
HWFELLESPLSGEGSFVDACRLYVLQGGLAQQEWRVPELLHRLKYLEPKLTQVYKN  
VRERIGSVLTYIFMIDVSLPNTTPTISPHVPEFTARILEKLPKPLMDVDEEIQNHVMEENG  
IGEEDERTQGIKLLKTIKWLMSAGRSFSTAVTEQLQLLPLFFKIAPVENDNSYDELKR  
DAKLCLSLMSQGLLYPHQVPLVLQVLKQTARSSSWHARYTVLTYLQTMVFNLFIFLNNE  
DAVKDIRWLVISLLEDEQLEVREMAATTL SGLLQCNFLTMDSPMQIHFEQLCKTKLPKKR  
KRDPGSVGDITPSAELVKRHAGVLGLGACVLSPPYDVPTWMPQLLMNLSAHLNDPQPIEM  
TVKKTLSNFRRTHHDNWQEHKQQFTDDQLLVLTDLVSPCYA

>Q03393

MSTEGGRRRCQAQVSRRISFSASHRLYSKFLSDEENLKLFGKCNNPNHGHNKVVVTVH  
GEIDPATGMVMNLADLKKYMEEAIMQPLDHKNLMDVVPYFADVSTTENAVYIWDNLQK  
VLPVGVLYKVKVYETDNNIVVYKGE

>Q01782

MTAPTVPVALVTGAAKRLGRSIAEGLHAEGYAVCLHYHRSAAEANALSATLNARRPNSAI  
TVQADLSNVATAPVSGADGSAPVTLFTRCAELVAACYTHWGRCDVLVNNASSFYPTPLLR  
NDEDGHEPCVGDREAMETATADLFGSNAIAPYFLIKAFHRFAGTPAKHRGTNYSI INMV  
DAMTNQPLLGTYIYTMAGALEGLTRSAALELAPLQIRVNGVGPGLSVLVDDMPPAVWEG  
HRSKVPLYQRDSSAAEVSDVVI FLCSKAKYITGTCVKVDGGYSLTRA

>P17219

MITRPIILVILCYAILMIVQSFVPKAVALKRKPDVGGFMVEDQRTHKSHNYMMKRANDV  
LGDKENVRPNPYTEPFDPTSPEELSALIVDYANMIRNDVILLDNSVETRTRKRGNIQV

ENQAI P D P P C T C K Y K K E I E D L G E N S V P R F I E T R N C N K T Q Q P T C R P P Y I C K E S L Y S I T I L K  
R R E T K S Q E S L E I P N E L K Y R W V A E S H P V S V A C L C T R D Y Q L R Y N N N

>Q9UHX1

M A T A T I A L Q V N G Q Q G G G S E P A A A A A V V A A G D K W K P P Q G T D S I K M E N G Q S T A A K L G L P P L T  
P E Q Q E A L Q K A K K Y A M E Q S I K S V L V K Q T I A H Q Q Q Q L T N L Q M A A V T M G F G D P L S P L Q S M A A Q  
R Q R A L A I M C R V Y V G S I Y Y E L G E D T I R Q A F A P F G P I K S I D M S W D S V T M K H K G F A F V E Y E V P  
E A A Q L A L E Q M N S V M L G G R N I K V G R P S N I G Q A Q P I I D Q L A E E A R A F N R I Y V A S V H Q D L S D D  
D I K S V F E A F G K I K S C T L A R D P T T G K H K G Y G F I E Y E K A Q S S Q D A V S S M N L F D L G G Q Y L R V G  
K A V T P P M P L L T P A T P G G L P P A A A V A A A A A T A K I T A Q E A V A G A A V L G T L G T P G L V S P A L T L  
A Q P L G T L P Q A V M A A Q A P G V I T G V T P A R P P I P V T I P S V G V V N P I L A S P P T L G L L E P K K E K E  
E E E L F P E S E R P E M L S E Q E H M S I S G S S A R H M V M Q K L L R K Q E S T V M V L R N M V D P K D I D D D L E  
G E V T E E C G K F G A V N R V I I Y Q E K Q G E E E D A E I I V K I F V E F S I A S E T H K A I Q A L N G R W F A G R  
K V V A E V Y D Q E R F D N S D L S A

>Q8TB72

M N H D F Q A L A L E S R G M G E L L P T K K F W E P D D S T K D G Q K G I F L G D D E W R E T A W G A S H H S M S Q P  
I M V Q R R S G Q G F H G N S E V N A I L S P R S E S G G L G V S M V E Y V L S S S P A D K L D S R F R K G N F G T R D  
A E T D G P E K G D Q K G K A S P F E E D Q N R D L K Q G D D D S K I N G R G L P N G M D A D C K D F N R T P G S R Q  
A S P T E V V E R L G P N T N P S E G L G P L P N P T A N K P L V E E F S N P E T Q N L D A M E Q V G L E S L Q F D Y P  
G N Q V P M D S S G A T V G L F D Y N S Q Q Q L F Q R T N A L T V Q Q L T A A Q Q Q Y A L A A A Q Q P H I A G V F S A  
G L A P A A F V P N P Y I I S A A P P G T D P Y T A A G L A A A A T L A G P A V V P P Q Y Y G V P W G V Y P A N L F Q Q  
Q A A A A A N N T A S Q Q A A S Q A Q P G Q Q V L R A G A G Q R P L T P N Q G Q Q Q A E S L A A A A A A N P T L A  
F G Q G L A T G M P G Y Q V L A P T A Y Y D Q T G A L V V G P G A R T G L G A P V R L M A P T P V L I S S A A A Q A A A  
A A A A G G T A S S L T G S T N G L F R P I G T Q P P Q Q Q Q Q P S T N L Q S N S F Y G S S S L T N S S Q S S S L F S  
H G P G Q P G S T S L G F G S G N S L G A A I G S A L S G F G S S V G S S A S S A T R R E S L S T S S D L Y K R S S  
S L A P I G Q P F Y N S L G F S S S P S P I G M P L P S Q T P G H S L T P P P S L S S H G S S S L H L G G L T N G S G  
R Y I S A A P G A E A K Y R S A S T S S L F S S S S Q L F P P S R L R Y N R S D I M P S G R S R L L E D F R N N R F P  
N L Q L R D L I G H I V E F S Q D Q H G S R F I Q Q K L E R A T P A E R Q M V F N E I L Q A A Y Q L M T D V F G N Y V I  
Q K F F E F G S L D Q K L A L A T R I R G H V L P L A L Q M Y G C R V I Q K A L E S I S S D Q Q V I S E M V K E L D G H  
V L K C V K D Q N G N H V V Q K C I E C V Q P Q S L Q F I I D A F K G Q V F V L S T H P Y G C R V I Q R I L E H C T A E  
Q T L P I L E E L H Q H T E Q L V Q D Q Y G N Y V I Q H V L E H G R P E D K S K I V S E I R G K V L A L S Q H K F A S N  
V V E K C V T H A S R A E R A L L I D E V C C Q N D G P H S A L Y T M M K D Q Y A N Y V V Q K M I D M A E P A Q R K I I  
M H K I R P H I T T L R K Y T Y G K H I L A K L E K Y Y L K N S P D L G P I G G P P N G M L

>P08178

M T D K T S L S Y K D A G V D I D A G N A L V G R I K G V V K K T R R P E V M G G L G G F G A L C A L P Q K Y R E P V L  
V S G T D G V G T K L R L A M D L K R H D T I G I D L V A M C V N D L V V Q G A E P L F F L D Y A T G K L D V D T A S  
A V I S G I A E G C L Q S G C S L V G G E T A E M P G M Y H G E D Y D V A G F C V G V V E K S E I I D G S K V S D G D V  
L I A L G S S G P H S N G Y S L V R K I L E V S G C D P Q T T E L D G K P L A D H L L A P T R I Y V K S V L E L I E K V  
D V H A I A H L T G G G F W E N I P R V L P D N T Q A V I D E S S W Q W P E V F N W L Q T A G N V E H H E M Y R T F N C  
G V G M I I A L P A P E V D K A L A L L N A N G E N A W K I G I I K A S D S E Q R V V I E

>P0A7D7

M Q K Q A E L Y R G K A K T V Y S T E N P D L L V L E F R N D T S A G D G A R I E Q F D R K G M V N N K F N Y F I M S K  
L A E A G I P T Q M E R L L S D T E C L V K K L D M V P V E C V V R N R A A G S L V K R L G I E E G I E L N P P L F D L  
F L K N D A M H D P M V N E S Y C E T F G W V S K E N L A R M K E L T Y K A N D V L K K L F D D A G L I L V D F K L E F  
G L Y K G E V V L G D E F S P D G S R L W D K E T L E K M D K D R F R Q S L G G L I E A Y E A V A R R L G V Q L D

>P25995

MSYLIKNGWILNENGEKTQADIRVTGETITAI GKLDATDNETVIDAKGLLVSPGFVDLHV  
HFREPGGEKKETIETGAKAAGRGGYTTVAAMPNTRPVPDTKEQMEWVQNR IKETSCVRVL  
PYASITIRQIGDEMTNFEALKEAGAFATDDGVGIQTAGMMYEAMKRAAIDKAI VAHCE  
DNSLIYGGSVHEGTF SKANGLNGIPSVCE SVHIARDVLLL GANCHYHVCHISTKESVRV  
RDAKKAGIRVTAEVSPHLLLLCDEDI PGLDNTNYKMNPP LRS PEDRAALIEGLLDGTIDFI  
ATDHAPHTEEKNT EMKLAPFRNCR LRSIPASLHTLCQKWQLVTEAADLTYMTIKPCEA  
FGLPYGTLQTGQAADITLIDLEKEAVIDKETFLSKGKNTPFNGISCTGWPVATIAAGKLA  
YEEGRLVK

>P0A7E1

MYYPFVRKALFQLDPERAHEFTFQQLRRITGTPFEALVRQKVPKPVNCMGLTFKNPLGL  
AAGLDKDGECIDALGAMGFGSIEIGTVTPRPQPGNDKPRLFRLVDAEGLINRMGFNNLGV  
DNLVENVKKAHYDGV LGINIGKNKDT PVEQ GKDDYLICMEKIYAYAGYIAINISSPNTPG  
LRTLQYGEALDDLLTAIKNKQNDLQAMHHKYVP IAVKIAPDLSEEELIQVADSLVRHNID  
GVIATNTTLDRLVQGMKNCDQTGGLSGRPLQLKSTEIRRRLSLELNGRLPIIGVGGIDS  
VIAAREKIAAGASLVQIYSGFIFKGPPLIKEIVTHI

>P0A7E3

MKPYQRQFIEFALSKQVLKFGFETLKSGRKSPYFFNAGLFNTGRDLALLGRFYAEALVDS  
GIEFDLLFGPAYKGIPIATTTAVALAEHHDLDLPYCFNRKEAKDHGEGGNLVGSALQGRV  
MLVDDVITAGTAIRESMEIIQANGATLAGVLISLDRQERGRGEISAIQEVERDYNCKVIS  
IITLKDLIAYLEEKPEMAEHLAAVKAYREEFGV

>P39765

MNQKAVILDEQAIRRALTRIAHEMIERNKGMNNCILVGIKTRGIYLAKRLAERIEQIEGN  
PVTVGEIDITLYRDDLSKKTSNDEPLVKGADIPVDITDQKVLVDDVLYTGRTVRAGMDA  
LVDVGRPSSIQLAVLVDRGHRELPIRADYIGKNIPTSKSEKVMVQLDEVDQNDLVAIYEN  
E

>P20742

MRKDRLHLCLVLLLILLSASDSNSTEPQYMLVPSLLHTEAPKKGCVLLSHLNETVTVS  
ASLESGRENRSFLTDLVAEKDLFHCVSFTLPRISASSEVAFLSIQIKGPTQDFRKRNTVL  
VLNTQSLVQVQTDKPMYKPGQTVRFRVVSVDENFRPRNELIPLIYLENPRRNR IAQWQSL  
KLEAGINQLSFPLSSEPIQGSYRVVVQTESGGRIQHPFTVEEFVLPKFVQVQPKIISI  
MDEKVNITVCGEYTYGKVPGLATVSLCRKLSRVLNCDKQEVCEEFSQQLN SNGCITQQV  
HTKMLQITNTGFEMKL RVEARIREEGTDLEVTANRISEITNIVSKLKFVKVDSHFRQGIP  
FFAQVLLVDGKGVPIPNKLF F ISVNDANYYSNATTNEQGLAQFSINTTISV NKLFRVRF  
TVHPNLCFHYSWAEDHQGAQHTANRVFSLSGSYIHLEPVAGTLP CGHTETITAHYTLNR  
QAMGELSEL SFHYLIMAKGVI VRS GHTL PVE SGMKGSFALSFPVESDVAP IARMI FA  
ILPDGEVVDSEKFEIENCLANKVDLSFSPAQSPASHAHLQVAAAPQSLCALRAVDQSV  
LLMKPEAELSVSSVYNLLTVKDLTNFPDNVDQQEEEQGHCPRPFFIHNGAIYVPLSSNEA  
DIYSFLKGMGLKVFTNSKIRKPKSCSVIPSVSAGAVGQGYGAGLG VVERPYVPQLGTYN  
VIPLNNEQSSGPVPETVRSYFPETWIWELVAVNSSGVAEVGVTVPDTIT EWKAGAFCLSE  
DAGLGISSTASLRAFQPPFFVELTMPYSVIRGEVFTLKATVLNLYLPKCIRVSVQLKASPAF  
LASQNTKGEESYICGSERQTL SWTVTPKTLGNVNFVSAEAMQSLELCGNEVVEVPEIK  
RKDTVIKTLLVEAEGIEQEKTFSSMTCASGANVSEQLSLKLPSNVVKESARASF SVLGD I  
LGSAMQNIQNLLQMPYGCGEQNMVLFAPNIYVLNLYLNETQQLTQEIKAKAVGYLITGYQR  
QLNYKHQDGSYSTFGERYGRNQNTWLTAFLVKTFAQARSYIFIDEAHITQSLTWLSQM  
KDNGCFRSSGSLNNAIKGVEDEATLSAYVTIALLEIPLPVTNP IVRNALFCLESANV  
AKEGTHGSHVYTKALLAYAFSLGKQONREILNSLDKEAVKEDNLVHWERPQRPKAPVG

HL YQPQAPS AEVEMTSYVLLAYLTAQPAP TSGDLTSATNIVK WIMKQNAQGGFSSTQDT  
VVALHALSRYGAATFTRTEKTAQVTVQDSQTFSTNFQVDN NNNLLLLQQISLPELPG EYVI  
TVTGERCVYLQTSMKYNILPEKEDSPFALKVQTVPQTC DGHKAHTSFQISLTISYTG NRP  
ASNMVIVDVKMVSGFIPLKPTVKMLERSSSSVSRTEVSNH VLIYVEQVTNQTLSFSFMVL  
QDIPVGD LKPAIVKVYDY YETDES VVAEYIAPCSTDTEHGNV

>P07256

MLRVTVTSKTVSNQFKRSLATAVATPKAEVTQLSNGI VVATEHNPSAHTASVGVVFGSGAA  
NENPNYNGVSNLWKNIFLSKENS AVAAKEGLALSSNISRDFQSYIVSSLP GSTDKSLDFL  
NQSFIIQQKANLLSSSNFEATKKS VLKQVQDFEENDHPNRVLEHLHSTAFQNTPLSLPTRG  
TLESLENLVVADLESFANNHFLNSNAV VVG TGNIKHEDLVNSIESKNLSLQTG TKPVLKK  
KAAFLGSEVRLRDDTL PKAWISLAVEGEPVNSPNYFVAKLAAQIFGSYNAFEPASRLQGI  
KLLDNIQEYQLCDNFNHFSLSYKDSGLWGFSTATRNV TMIDDLIHFTLKQWNRLTISVTD  
TEVERAKSL LKLQLGQLYESGNPVNDANLLGAEVLIKGSKLSLGEAFKKIDAITVKDVKA  
WAGKRLWDQDIAIAGTGQIEGLLDYMRIRSDMSMMRW

>P00127

MGMLELVGEYWEQLKITVVPVAAAEDDDNEQH EEKAAEGEEKEEENGDEDEDEDEDED  
DDDDDEDEEEEEEVTDQLEDLREHFKNTEEGKALVHHYEECAERVKIQQQPGYADLEHK  
EDCV EEFFHLQH YLDTATAPRLFDK LK

>P00128

MPQSFTSIARIGDYILKSPVLSKLCVPVANQFINLAGYK KLGKLFDDLIAEENPIMQTAL  
RRLPEDES YARAYRIIRAHQTELTHHLLPRNEWIKAQEDVPYLLPYILEAEAAA KEKDEL  
DNIEVSK

>Q7SIC2

DTSSLIVEDAPDHVRP YVIRHYSHARAVTVDTQLYRFYVTGPSSGYAFTLMGTNAPHSDA  
LGVLP HIHQHYENFYCNKGSFQLWAQSGNETQQTRVLSSGDYGSVPRNVTHTFQIQDPD  
TEMTGVI VPGGFEDLFY YLGTNATDTHTPIYIPSSSDSSSTTG PDSSTISTLQSF DVYAE  
LSFTPRTDTVNGTAPANTVWHTGANALASTAGDPYFIANGWGP KYLNSQYGYQIVAPFVT  
ATQAQDTNYTLSTISMSTTPSTVTVPTWSFPGACAFVQVEGRVVVQIGDYAATELGSGDV  
AFIPGGVEFKYYSEAYFSKVLV FVSSGSDGLDQNLVNGGEEWSSVSFPADW

>Q8JGM4

MWRRRARS GGGGGGGGAAPRCRWWPAVLALLAAALPAARSRSLYSPSDPLELLGADTA  
ERRLLGSPSAWAVEFFASWCGHC IHFAPTWRALAE DVREWRPAVMIAALDCADEANQQVC  
ADFGITGFPTLKF FRAFSKKAEDGIRIAHPTATVADLRRAIITNLEQSGDAWPPACPPLE  
PASAE EVR SFFHRNTERYLALIFEQSNSFVGREVALDLLQYENVAVRRVLSSEELVEKF  
GVTTTFPSAYLLLRNGSF SRLPVHAEARSFYTYLQLTSGVTRGSYRLNVTGSAINETRAL  
QPAQADR SKVYVADLESTVHYTLRVEAGRPAVLAGAQLAALKCYVATLAKYFPGRPSVQT  
FLQSLDSWLRNWTEPEL PRSALKEAVKNKEDASPAAVLP TNVTWVGCRCGSEPHFRGYPCG  
LWTIFHLLTVQAAQGGPDEELPLEVLN TMRCYVKHFFGCQECAQHFEAMAAKSMDQVKS R  
REAVLWLWSSHNEVNARLAGGDTEDPQFPKLQWPPDMCPQCHREERGVHTWDEAAVLSF  
LKEHFSLGNLYLDHAIPIMAGEEAAA SARLSTAGLREKEEERKEE EEEGEKETEKPHR  
EGETGRPGSSELRRPSIVRRNPRLRALGEDIVDLDSFSEQHFKSKALRAAGRHRRLSKRD  
TVALHHDAGWERLQVPESRE EEEEEGGVLRSPWLRV LGLGFSRLDVS LCIALYFLSSMCL  
LGMYTFFRLRTRARKGRPGFPVA

>Q46920

MSSYANHQALAGLTLGKSTDYRDTYDASLLQGVPRLNRDPLGLKADNLPFHGTDIWTLY  
ELSWLNAKGLPQVAVGHVELDYTSVNLIIESKSFKLYLNSFNQTRFNNWDEVQRQTLERDLS  
TCAQGKISVALYRLDELEGQPIGHFNGTCIDDQDITIDNYEFTTDYLENATCGEKVVEET  
LVSHLLKSNCLITHQPDWGSLOIQYRGRQIDREKLLRYLVFSFRHHNEFHEQCVERIFNDL  
LRFQCQPEKLSVYARYTRRGGLDINPWRSNSDFVPSTTRLVQR

>P29079

MENFFSILGGMGMATESFVRLINHRTKATKDQEYLNLYVLFNHATVPDRYAYILDRSEEN  
PMPFLDDIEKQNLRLPNFIVLTCNTAHYFFFEELQAATDIPILHMPREAAANELVQRHTTG  
RVAILGTEGSMKAGIYEREVKNLGFETVIPDTALQEKINYLIYHEIKESDHLNQELYEIE  
LEEAEVERLNCEKVILGCTELSLMNEFAEDNHYPVIDAQSILADRTIERALAEERNEALDTV  
SEK

>O00559

MAITQFRLFKFCTCLATVFSFLKRLICRSRGRKLSGDQITLPTTVDYSSVPKQTDVEEW  
TSWDEDAPTSVKIEGGNGVATQQNSLEQLEPDYFKDMTPTIRKTQKIVIKKREPLNFGI  
PDGSTGFSSRLAATQDLPIHQSSSELGDLDTWQENTNAWEEEEEDAAWQAEVLRQQKLAD  
REKRAAEQQRKKMEKEAQRLMKKEQNKIGVKLS

>P03040

MEQRITLKYAMRFGQTKTAKDLGVYQSAINKAIHAGRKIFLTINADGSVYAEVKKPFPS  
NKKTTA

>Q8JFQ4

MAEVLEFRVPAGSAQTLLVWGLEPTVGLEHSLFSVFSKFGLLYSVRVHSNAAVAGPGCYA  
I IKFYSAADASRAQHACNGQRLFQNSPLKVCVCTKQKGFQQQVLALNSNKCQELANHYLG  
FNGWSSRIITLQNVSGFDDENEVGGKRSVRYLCAVEVTLPNHGVRTRGVGLGEADVESG  
EDPLEFGTATRRVQKLAVGKALSSAFQKILLVVLESKVAVEYNHAAEEPTDSLTEEELE  
GLVQVSELPLEPFDLEEEVLSDLTLDELVPWEVPSN

>P33228

MTKQPPIAKADLQKTQGNRAPAAVKNSDVISFINQPSMKEQLAAALPRHMTAERMIRIAT  
TEIRKVPALGNCDTMSFVSAIVQCSQLGLEPGSALGHAYLLPFGNKNEKSGKKNVQLIIG  
YRGMIDLARRSGQIASLSARVVREGDEFSEFGLDEKLIHRPGENEDAPVTHVYAVARLK  
DGGTQFEVMTRKQIELVRSLSKAGNNGPWVTHWEEMAKKTAIRRLFKYLPVSIETQRAVS  
MDEKEPLTIDPADSSVLTGEYSVIDNSEE

>P51607

MEKERETLQVWKQRVGQELDSVIAFWMEHSHDQEHGGFFTCLEGRDQVYDHLKYVWLQGR  
QVWMYCRLYRTFERFRVELLDAKAGGEFLLSYARVAPPGKKCAFVLTQDGRPVKVQRT  
IFSECFYTMAMNELWKVTGEMHYQREAVEMMDQIIHWVREDPAGLGRPQLSGTLATEPMA  
VPMMLLNLVEQLGEEDEEMTDKYAELGDWCAHRILQHVQRDQVVLLENVSEDGKELPGCL  
GRHQNPGHSTLEAGWFLQYALRKGDPKLRHIIDKFLLLPFHSGWDPEHGGLFYFQDADD  
LCPTQLEWNMKLWVPHTEAMIAFLMGYRDSGDPALLNLFYQVAEYTFHQFRDPEYGEWFG  
YLNQEGKVALTIKGGPFKGFHVPRCLAMCEQILGALLQRLGPAPLGSLPAVPTREGSK

>Q99P87

MKNLSFPLLLFFLVPPELLGSSMPLCPIDEAIDKKIKQDFNSLFPNAIKNIGLNCWTVSS  
RGKLASCPEGTAVLSCSCGSACGSWDIREEKVCHCQCARIDWTAARCKLQVAS



>Q99P86

MKPTLCFLFILVSLFPLIVPGNAQCSFESLVDQRKEALSREQPKTISCTSVTSSGRLAS  
CPAGMVVTGCACGYGCGSWDIRNGNTCHCQCSVMDWASARCCRMA

>P26394

MMIVIKTAIPDVLILEPKVFGDERGFFFESYNQQTFEELIGRKVTFVQDNHSSKKNVLR  
GLHFQRGENAQGKLVRCVAVGEVFDVAVDIRKESPTFGQWVGNLSAENKRQLWIPEGFAH  
GFVTLSEYAEFLYKATNYSPSSSEGSILWNDEAIGIEWPFSQLPELSAKDAAAPLLDQAL  
LTE

>P14169

MKLLITGGCGFLGSNLASFALSQGIDLIVFDNLSRKGATDNLHWLSSLGNFEFVHGDIN  
KNDVTRLITKYMPDSCFHLAQVAMTTSIDNPCMDFEINVGGLNLLLEAVRQYNSNCNII  
YSSTNKVYGDLEQYKYNETETRYTCVDPKPNYDESTQLDFHSPYGCCKGAADQYMLDYAR  
IFGLNTVFRHSSMYGGRQFATYDQGWVGFQKAVEIKNGINKPFTISGNGKQVRDVLH  
AEDMISLYFTALANVSKIRGNAFNIGGTIVNSLSLLELFLKLELYCNIDMRFTNLPVRES  
DQRVVFADIKKITNAIDWSPKVSADKGVQKMYDWTSSI

>Q9U6Y8

MRSSKNVIKEFMRFKVRMEGTVNGHEFEIEGEGEGRPYEGHNTVKLKVTKGGPLPFAWDI  
LSPQFQYGSKVYVKHPADIPDYKCLSFPPEGFKWERVMNFEDGGVVTVTQDSSLQDGCFIY  
KVKFIGVNFPSDGPVMQKKTMGWEASTERLYPRDGVKGEIHKALKLKDGGHYLVEFKSI  
YMAKKPVQLPGYYYYVDSKLDITSHNEDYTIVEQYERTEGRHHLFL

>P22670

MATQAYTELQAAPPPSQPPQAPPQAQPQPPPPPPAAPQPPQPPTAAATPQPQYVTELQS  
PQPQAQPPGGQKQYVTELPAVPAPSQPTGAPTPSPAPQYIVVTVSEGAMRASETVSEAS  
PGSTASQTGVPTQVVQQVQGTQQRLLVQTSVQAKPGHVSPQLTNIQVPQQALPTQRLVV  
QSAAPGSKGGQVSLTVHGTQQVHSPPEQSPVQANSSSSKTAGAPTGTVPQQLVHGVQQS  
VPVTQERSVVQATPQAPKPGPVQPLTVQGLQPVHVAQEVQQLQQVVPVHVYSSQVQYVEG  
GDASYTASAIRSSTYSYPETPLYTQTASTSYEEAAGTATQVSTPATSQAVASSGSMPLYV  
SGSQVVASSASTGAGASNSSGGGGGGGGGGGGGGGGGGSGSTGGGGSGAGTYVIQGGYM  
LGSASQSYSHTRASPATVQWLLDNYETAEGVSLPRSTLYCHYLLHCQEQLKLEPVNAASF  
GKLIRSVFMGLRTRRLGTRGNSKYHYGLRIKASSPLLRLMEDQQHMAMRGQPFSSQKQRL  
KPIQKMEGMTNGVAVGQPPSTGLSDISAQVQQYQQFLDASRSLPDFTELDLQGKVLPEGV  
GPGDIKAFQVLYREHCEAIVDVMVNLQFTLVETLWKTFRWYNLSQPSEAPPLAVHDEAEK  
RLPKAILVLLSKFEPVLQWTKHCDNVLYQGLVEILIPDVLRIPIPSALTQAIRNFAKSLES  
WLTHAMVNIPEEMLRVKVAAGAFATLRRYTSLNHLAQAARAVLQNTAQINQMLSDLNR  
VDFANVQEQASWVCRCEDRVVQRLEQDFKVTLQQQNSLEQWAAWLDGVVSQVLKPYQGSA  
GFPKAAKLFLLKWSFYSSMIRDLTLSAASFSGFHLIRLLYDEMYYLIEHRVAQAKGE  
TPIAVMGEFANLATSINPLDPDKDEEEEEEEEESEDELPODISLAAGGESPALGPETLEPP  
AKLARTDARGLFVQALPSS

>P32170

MTTQLEQAWELAKQRFAAVGDVEEALRQLDRLPVMHCWQGDDVSGFENPEGSLTGGIQ  
ATGNYPGKARNASELRADLEQAMRLIPGPKRLNLHAIYLESPTVSRDQIKPEHFKNWVE  
WAKANQLGLDFNPSCFSHPLSADGFTLSHADDSIRQFWIDHCKASRRVSAYFGEQLGTPS  
VMNIWIPDGMKDIITVDRLAPRQLLAALDEVISEKLNPAHHIDAVESKLFGIGAESYTVG  
SNEFYMGYATSRQTALCLDAGHFHPTEVISDKISAAMLYVPQLLLHVSRRPVRWSDHVVL  
LDDETQAIASEIVRHDLFDRVHIGLDFFDASINRIAAMVIGTRNMKKALLRALLEPTAEL

RKLEAAGDYTARLALLEEQKSLPWQAVWEMYCQRHDTFAGSEWLESVRAEYKEILSRRG

>P0A7I7

MQLKRVAEAKLPTPWGDFLMVGFEEELATGHDHVALVYGDISGHTPVLARVHSECLTGDAL  
FSLRCDGCFQLEAALTQIAEEGRGILLYHRQEGRNIGLLNKIRAYALQDQGYDTVEANHQ  
LGFAADERDFTLCADMFKLLGVNEVRLLTNNPKKVEILTEAGINIVERVPLIVGRNPNE  
HYLDTKAEKMGHLLNK

>Q92H62

MVKEIDINKLLAQENNALNTILSQVNELCKQNKQLQGLIEIQNETKELEKEHNRSLPWFK  
RFVKTVSNVKYILIKSEEQLTNEAIKYNNKILKIDIDNKIYNIAEKSAPLKQALQEEIEKN  
FKDLTKKDLKSKDQRRARLSEVFFFSYKSKPERFSALHMTNPLQFINAEALEKQYNSLNATKQ  
NIQNLISANSNIKELKEIQKQVAEIRAEPHTFFFEKLNNIWQNVKNVFNNSQVLAQNK  
ESNTRTIRKIDEQLYKTKHKFEELIENKERNIKDIIAKLPDNEKLQKIVSNLTNHMASQK  
EPILANASLAKPLENNITPPSPLPENNIPSPPPPPPPSPLPENNIPSSPPPPPPPLPEN  
NIPSPPPPPPPPPPPMAPAQAEATLSKPIESTTVKLANQPRPSIDTSDLMREIAGPKKL  
KKVEFDPNTPGKPVASHSHSKPAQNVNALSGLSIFARRAVIKVSDSSSESSEDSGNWSDVSV  
NRNKSMLKTKGERDAKMTTHAQKINNRSQNPFSVR

>Q96NA2

MEPRRAAPGVPGWSREAAGSASAAELVYHLAAGALGTELDLARRFGPEAAAAGLVPLVVR  
ALELLEQAAGVPAPDSLQVSAQPAEQELRRLREENERLRRELRAQEQEERALLRQLKEVT  
DRQRDELRAHNRDLRQRGQETEALQEQQLRLLLVNAELRHKLAAQTLRAAQDRERERQ  
QPGEAATPQAKERARGQAGRPGHQHQEQEPEWATAGAGAPGNPEDPAEAAQQLGRPSEAGQ  
CRFSREEFEQILQERNELKAKVFLKKEELAYFQRELLTDHRVPGLLLEAMKVAVRKQRKK  
IKAKMLGTPEEAESSEDEAGPWILLSDDKGDHPPPPESKIQSFFGLWYRGKAESSEDETS  
SPAPSKLGEEEAQPPSPAPDPPCSALHEHLCLGASAAPEA

>P32445

MFLRTQARFFHATTKKMDFSKMSIVGRIGSEFTEHTSANNNRYLKYSIASQPRRDGQTNW  
YNITVFNEPQINFLTEYVRKGALVYVEADAANYVFERDDGSKGTTLSLVQKDINLLKNGK  
KLEDAEGQENAASSE

>P14148

MEAVPEKKKKVATVPGTLKKKVPAGPKTLKKKVPVAVPETLKKKRRNFAELKVKRLRKKFA  
LKTLRKARRKLIYEKAKHYHKEYRQMYRTEIRMARMARKAGNFYVPAEPKLAFFVIRIRGI  
NGVSPKVRKVLQLLRLRQIFNGTFVKLNKASINMLRIVEPYIAWGYPNLKSVNELIYKRG  
YGKINKRIALTDNSLIARSLGKFGIICMEDLIHEIYTVGKRKFKEANNFLWPFKLSSPRG  
GMKKKTTHFVEGGDAGNREDQINRLIRRMN

>Q8VVE2

MALDIERIKEELSQATVLELQQLIDALKEAWGVTAAPVAVAAAPAAGAAAAPAEKTEF  
DVILKEAGAKKLEVIKELRAITGLGLKEAKDLAEKGGPVKEGVSKQEAEEIKKKLEAVGA  
VVELK

>P63177

MSEMIYGIHAVQALLERAPERFQEVFILKGREDKRLLPLIHALESQGVVIQLANRQYLDE  
KSDGAVHQGI IARVKPGRQYQENDLPDLIASLDQPFLLILDGVTDPHNLGACLRSAADAAG  
VHAVIVPKDRSAQLNATAKKVACGAAESVPLIRVTNLRARTMRMLQEENIWIIVGTAGEADH  
TLYQSKMTGRLALVMGAEGEGMRRLTREHCDELISIPMAGSVSSLNVSVATGICLFEAVR

QRS

>P37744

MKMRKGIILAGGSGTRLYPVTMAVSKQLLPYDKPMIYYPLSTLMLAGIRDILIIISTPQD  
TPRFQQLLDGDSQWGLNLQYKVPSPDGLAQAFIIGEEFIGGDDCALVLDGNIFYGHDLP  
KLMEAAVNKESGATVFAYHVNDPERYGVVEFDKNGTAISLEEKPLEPKSNYAVTGLYFYD  
NDVVQMAKNLKP SARGELEITDINRIYLEQGRLSVAMMGRGYAWLDTGTHQSLIEASNFI  
ATIEERQGLKVSCEEIAFRKGFIDVEQVRKLAVPLIKNNYGQYLYKMTKDSN

>P00669

MALKSLVVLPLLVLVLLLVRVQPSLGKESAAAKFERQHMDSGNSPSSSSNYCNLMMCCRK  
MTQGKCKPVNTFVHESLADV KAVCSQKKVTCKNGQTNCYQSKSTMRITDCRETGSSKYPN  
CAYKTTQVEKHIIVACGGKPSVPVHF DASV

>P0A8V0

MELIFLGT SAGVPTRTRNVTAILLNLQHPTQSGLWLFDCGEGTQHQLLHTAFNPGKLDKI  
FISHLHGDHLFGLPGLLCSRSMSGIIQPLTIYGPQGIREFVETALRISGSWTDYPLEIVE  
IGAGEILDDGLRKVTAYPLEHPLECYGYRIEEHDKPGALNAQALKAAGVPPGPLFQELKA  
GKTITLEDGRQINGADYLAAPVPGKALAI FGDGTGPCDAALDLAKGVDVMVHEATLDITME  
AKANSRGHSSTRQAATLAREAGVGKLIITHVSSRYDDKGCQHLLRECRSIFPATELANDF  
TVFNV

>Q8LGU7

MEKKKAMQIEGYPIEGLSIGGHETCIIFPSLRIAFDIGRCPHRAISQDFLFI SHSHMDHI  
GGLPMYVATRGLYKMKPPTIIVPASIKETVESLFEVHRKLDSSSELKHNLVGLDIGEEFII  
RKDLKVKAFKTFHVIQSQGYVVYSTKYKLLKEYIGLSGNEIKNLKVS GVEITDSIITPEV  
AFTGDTTSDFFVDETNADALKAKVLVMESTFLDDSVSVEHARDYGHIIHSEIVNHAEKFE  
NKAILLIHFSARYTVKEIEDAVSALPPPLEGRVFALTQGF

>P03051

MTKQEK TALNMARFIRSQTLTLEKLNELDADEQADICESLHDHADEL YRSCLARFGDDG  
ENL

>P03041

MELTSTRKKANAITSSILNRIAIRGQRKVADALGINESQISRWKGFIPKMGMLLAVLEW  
GVEDEELAE LAKKVAHLLTKEKPQDCGNSFEA

>P37351

MKKIAFGCDHVGFILKHEIVAHLVERGVEVIDKGTWSSERTDYPHYASQVALAVAGGEVD  
GGILICGTGVGISIAANKFAGIRAVVCSEPYSAQLSRQHNDTNVLAFGSRVVGLELAKMI  
VDAWLGAQYEGGRHQORVEAITAIEQRRN

>P17904

MKNNADYIEMKVPAQPEYVGIIRLTL SGVASRMGYTYDEIEDLKI AVSEACTNAVQHAYK  
EDKNGEVSIRFGVFEDRLEVI VADEGDSFDFDQKQDDLGPYTPSHTVDQLSEGGLGLYLM  
ETLMDEVRVQNHSGVTVAMTKYLNGERVDHDTTIKNYETN

>P0AGL7

MRIPRIYHPEPLTSHSHIALCEDAANHIGRVLRMGPGQALQLFDGSNQVFD AEITSASKK  
SVEVKVLEQGIDDRSPLHIHLGQVMSRGEKMEFTTIQKSIELGVSLITPLFSERCGVKLD

SERLNKKLQQWQKIAIAACEQCGRNRVPEIRPAMDLEAWCAEQDEGLKLNHPRASNSIN  
TLPLPVERVRLLIIGPEGGLSADEIAMTARYQFTDILLGPRVLRTE'TTALTAITALQVRFG  
DLG

>P46849

MKRMIALDGAQGEQQILRSALSLSMITGQPF'TITSIRAGRAKPGLLRQHLTAVKAATE  
ICGATVEGAELGSQRLLEFRPGTVRGGDYRFAIGSAGSCTLVQLQTVLPALWFADGPSRVEV  
SGGTDNPSAPPADFIRRVLEPLLAKIGIHQQ'TTLLRHGFYPAGGGVVATEVSPVASFNTL  
QLGERGNIVQMRGEVLLAGVPRHVAEREIATLAGSFS'LHEQNIHNLPRDQGPNTVSLEV  
ESENITERFFVVGKRVSAEVVAAQLVKEVKRYLASTAAVGEYLADQLVLPALAGAGEF  
TVAHPSCHLLTNIAVVERFLPVRFS'L'IETDGVTRVSI E

>P68732

MKEEKRSSTGFLVKQRAFLKLYMITMTEQERLYGLKLEVL RSEFKEIGFKPNHTEVYRS  
LHELLDDGILKQIKVKKEGAKLQEVVLYQFKDYEA AKLYKKQLKVELDRCKKLI EKALSD  
NF

>O31466

MVIATDDLEVACPKCERAGEIEGTPCPACSGKGVILTAQGYTLLDFIQKHLNK

>P0AG74

MNTYSITLPWPPSNNRYRHNRRGRTHVSAEQAYRDNVARI IKNAMLDIGLAMPVKIRIE  
CHMPDRRRRDLNQLKAAFDALTKAGFWLDDAQVVDYRVVKMPVTKGGRLELTI TEMGNE

>P0A814

MAIILGIDPGSRVTGYGVIRQVGRQLSYLGS GCIRTKVDDLPSRLKLIYAGVTEIITQFQ  
PDYFAIEQVFMKNADSALKLGQARGVAIVA AVNQELPVFEY AARQVKQ'TVVGIGSAEKS  
QVQHMVRTLLKLPANPQADAADALAIATHCHVSQ NAMQMSESRNLNARGRLR

>Q8WXG8

MPTQLEMAMDTMIRIFHRYSGKARKRFKLSKGELKLLLQRELTEFLSCQKETQLVDKIVQ  
DL DANKDNEVDFNEFVVMVAALTVACNDYFVEQLKKK GK

>P33764

MARPLEQAVAAIVCTFQ'EYAGRCGDKYKLCQAE LKELLQKELATWTPTEFREC'DYNKFMS  
VLDTNKDCEVDFVEYVRS'LACLCLYCHEYFKDCPSEPPCSQ

>P06703

MACPLDQAI GLLVAIFHKYSGREGDKHTLSK KELLKELIQKELTIGSKLQDAE IARLMEDL  
DRNKDQEVNFQ'EYVTF'L GALALIYNEALKG

>P05109

MLTELEKALNSIIDVYHKYSLIKGNFHAVYRDD LKLLLETECPQYIRKKGADVWFKELDI  
NTDGAVNFQ'EFLILVIKMGVA AHKKSHEESHKE

>P24479

MSKVSPTETERCIESLLAVFQRYAGREGDNLKLSKKEFR'FMNTELASF'TKNQKDP AVVD  
RMMKRLDINSDGQLDFQ'EFLNLI GGI AVACHDALLVQPPHP

>P80511

MTKLEEHLEGIVNIFHQYSVRKGFDTLSKGELKQLLTKELANTIKNIKDKAVIDEIFQG  
LDANQDEQVDFQEFISLVAIALKAAHYHTHKE

>Q15043

MKLLLLLHPAFQSCLLLLTLLGLWRTPPEAHASSPGAPAI SAASFLQDLIHRYGEGDSLTLQ  
QLKALLNHLVDVGVGRGNVTQHVQGHRNLSTCFSSGDLFTAHNFSQRSRIGSSELQEF CPT  
ILQQLDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKK  
TFYKRLLLLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYVSKSAVVFGGFYLFFFTEKI  
LKILLKQKNEHHHGHSHYASESLPSKKDQEEGVMEKLNQNGDLDHMIPQHCSSELDGKAPM  
VDEKVIVGSLSVQDLQASQSACYWLKGVRYSDIGTLAWMITLSDGLHNFIDGLAIGASFT  
VSVFQGISTSVAILCEEFPHELGDVIVILLNAGMSIQQALFFNFLSACCCYLGLAFGILAG  
SHFSANWIFALAGGMFLYISLADMFPENVEVCQEDERKGSILIPFI IQNLGLLTGFTIMV  
VLTMYSGQIQIG

>P81608

MKLLLLLCLGLTLASSHKEAGQDVVTSNFDASKIAGEWYSILLASDAKENIEENGSMRVF  
VEHIRVLDNSSLAFFKQKRVNGECTDFYAVCDKVG DG VYTVAYYGENKFRLLLEVNYSDYV  
ILHLVNVNGDKTFQLMEFYGRKPDVPEPKLKDKFVEICQQYGI IKENI IDLTKIDRCFQLR  
GSGGVQESSAE

>P40847

MEAPKMELKSYKRKNASLSPSSPAKAQRTHLSLEEKIKLMRLVVRHKHELVDKRTSEFY  
AKIARIGYEDEGLAIHTESACRNQIISIMRVYEQRLAHRQPGMKTTPPEEDELQLCDEWK  
ARLSELQOYREKFLVGKRKDCNDEINERLKKLTEEQQNVDMLVAKVNF LSKHLHDNEEK  
LMQVNAKMDEVLAEKRLQQLLDHNDLLSKLEPPSAYAPHGVNMGTMGMANMGMANMNAIR  
GGLHSSISP NLGDH

>P0C1U6

MAITKINDCFELLSMVTYADKLSLIKKEFSISFEEFAVLTYISENKEKEYYLKDI INHL  
NYKQPQVVKAVKILSQEDYFDKRRNEHDERTVLIILVNAQQRKKIESLLSRVNKRIT EANN  
EIEL

>Q9F0R1

MSKINDINDLVNATFQVKKFFRDTKKKFNLYEEIYILNHILRSESNEISSKEIAKCSEF  
KPYYLTKALQKLDKLLSKKRSLODERTVIVYVTDQKANIQKLI SELEEYIKN

>P21673

MAKFVIRPATAADCSDILRLIKELAKYEMEEQVILTEKDLEDGFGEHPFYHCLVAEVP  
KEHWTPEGHSIVGFAMYYFTYDPWIGKLLYLEDFFVMSDYRFGIGSEILKNLSQVAMRC  
RCSSMHFLVAEWNEPSINFYKRRGASDLSSEEGWRLFKIDKEYLLKMATEE

>Q96F10

MASVRIREAKEGDCGDILRLIRELAEFEKLSQVKISEEALRADGFGDNP FYHCLVAEIL  
PAPGKLLGPCVVGYGIYYFIYSTWKGRTIYLEDIYVMP EYRGQIGSKI IKKVAEVALDK  
GCSQFRLAVLDWNQRAMDLYKALGAQDLTEAEGWHFFCFQGEATRKL LAGK

>P35155

MGLDIVNWKAIVEALLYAAGDEGLTKKQLLTVLEIEEPELNTIMADVADEYRGDTRGIEL  
IEYADTYMLSTKKDFAPYLKLLIEVPSKGLSQASLEVLAIVSYKQPI TRAEIEEIRGVKS  
ERILHSLVAKALLCEVGRADGPGRAILYGTTPTFLEQFGLKTLDEL PPLPENAEEDVLQE

EADLFFENFNQTFEDIK

>Q80UF4

MAKSPGNSTLED SLGQYQRSLRERANRSIHQLKCALREVDVTVEEDALDPSTSINVENED  
TGVAWHELQHSHAVNQLKALLRQQTNKENETSPPRRRKLSPSRPSECDDGSMP TMHNLVP  
IINDQSQYIHHLEAEVKFCKDELSGMKNRVQVVVLENERLQQELKSQRPEETLREQTFLD  
ASGNMQNSWIMTRED SRVDEAAKRPFSHGDAETGKTASTGDANKWKLELERLKLTYEAKT  
DLLESQMLLRKDLAEYQKTCEDLKERLKHKESLLAASASSRVGGLCLKCAQHEAVLSQT  
HSNVHIQTIERLTKERDDLMSVLVSVRSSLAEAQKRETSAYEQVKHAVQMTEEANFEKTK  
ALIQCEQLKSELERQTERLEKELASQQEKRAVEKEMIKKEVAREREDAESKMLILSQNIA  
KLEAQVEKVTREKTA AVSHLEEIQNHVASQEMDVTKVCGEMRFQLNKTKMEKDEVEKEHR  
EYKAKSHKDLEMKVQEI EKLRLELSESEQHVEQEQQAARARQECLRVTELLGEAERQLH  
LTRLEKDSIQQSFSNEAKAQAQAQQREQELTQKIQQMETQHDKTESEQYLLLLTSQNTFL  
TKLKEECCLLAKKLEKVSLSRSQIVRLS QEKRYLCDKLEKLQKRNDELEEQCIQHGRVH  
ETMKERLRQLDKHGQATAQQLVQLLNKQNQLLLERQNLSEEVARLRAQLPSMPQSDC

>P09367

MAAQESLHVKTPLRDSMALS KVAGTSVFLKMDSSQPSGSFKIRGIGHLCKMKAKQGCKHF  
VCSSVVQI WGSRMGRSHSGDEQPHVRSQALLPDTSPPLTAGNAGMATAYAARRLGLPAT  
IVVPSTTPALTIERLKNEGATVEVVGEMLDEA IQLAKALEKNNGWVYISPFDDPLIWEG  
HTSLVKELKETLSAKPGAIVLSVGGGGLLCGVVQGLREVGWEDVPIIAMETFGAHSFHAA  
VKEGKLVTLPKITSVAKALGVNTVGAQTLKLFYEHPIFSEVISDQEA VTAIEKFVDDEKI  
LVEPACGAALAAVYSGVVCRLQAEGR LQTPLASLVVIVCGGSNISLAQLQALKAQLGLNE  
LLK

>Q14242

MPLQLLLLLL ILLGPGNSLQLWDTWADEAEKALGPLLARDRRQATEY EYLDYDFLPETEPP  
EMLRNSTDTTPLTGPGTPESTTVEPAARRSTGLDAGGAVTELTTEL ANMGNLSTDSAAME  
IQTTQPAATEAQTTQPVPTEAQTTPLAATEAQTTRLTATEAQTTPLAATEAQTTPPAATE  
AQTTQPTGLEAQTTAPAAMEAQTTAPAAMEAQTTPPAAMEAQTTQT TAMEAQTTAPEATE  
AQTTQPTATEAQTTPLAAMEALSTEPSATEALSMEPTTKRGLFIPFSVSSVTHKGIPMAA  
SNLSVNYPV GADPHISVKQCLLAILILALVATIFFVCTVVLAVRLSRKGHMYPVRNYSPT  
EMVCISSLLPDGGEGPSATANGGLSKAKSPGLTPEPREDREGDDLTLHSFLP

>P78330

MVSHSELRKL FYSADAVCFDVDSTVIREEGIDELAKICGVEDAVSEMTRRAMGGAVPFKA  
ALTERLALI QPSREQVQRLIAEQPPHLTPGIRELVSRLQERNVQVFLISGGFRSIVEHVA  
SKLNIPATNVFANRLKFYFNGEYAGFDETOPTAESGGKGVIKLLKEKPFHFKKIIMIGDG  
ATDMEACPPADAFIGFGGNVIRQQVKDNAKWYITDFV ELLGELEE

>Q8LAS8

MASGLSEIGSTKMF DGYNKRYKHFSETLGCSMTFSIYFPPSASSSHKSPVLYWLSGLTCT  
DENFIIKSGAQRAASTHGIALVAPDTSPRGLNVEGEADSYDFGVGAGFYLNATQEKWKNW  
RMYDYVVKELPKLLSENFSQLDTTKASISGHSMGGHGALTIYLRNL DKYKSVSAFAPITN  
PINCAWQKAFTNYLGDNKA AWEEDATCLISKYNNLSATILIDQGEN DQFYPDQLLPSK  
FEEACKKV NAPLLLRLHPGYDHSYF IATFIEDHISHHAQALEL

>Q56YA5

MDYMYGPGRRHHLFVPGPVNIPEPVIRAMNRRNEDYRSPAIPALTKT LLEDVKKIFKTTSG  
TPFLFPTTGTGAWESALTNLSPGDRIVSFLIGQF SLLWIDQQKRLNFNVDVVE SDWGQG

ANLQVLASKLSQDENHTIKAICIVHNETATGVTNDISAVRLLLDHYKHPALLLVLDGVSSI  
CALDFRMEDEWGVVVALTGSQKALSPLTGLGIVCASPKALEATKTSKSLKVVFFDWNDYLFK  
YKLGTYWPTYPSIQLLYGLRAALDLIFEEGLENI IARHARLGKATRLAVEAWGLKNCTQK  
EEWISNTVTAVMPPHIDGSEIVRRRAWQRYNLSLGLGLNKVAGKVFRIGHLGNVNELQLL  
GCLAGVEMILKDVGYPPVVMGSGVAAAASYLQHHIPLIPSR I

>P84187

LDYVYGPGRRAMNSPAVPALTKVLLLEDVKKALTNLSPGDRLLLLVDMDEWGVVVALTGSQ  
KALSFPPTGMGLVCASPRVFFDWDKDYLRTYWHYDQALDLELAVEAWGLSNRYNLSLGLGLN  
KVAGGKVFRDVGYPVK

>P84188

HLFVPGPVNIPDQVLRLLLEDVKKLASRLRSDSQHTIKLLDAYRVFFDWDKDYLLKVFERNV  
NTLLKDLGYPVKPLIPSR

>Q91VW3

MSGLRVYSTSVTGSREIKSQQSEVTRILDGKRIQYQLVDISQDNALRDEMRTLGNPKAT  
PPQIVNGNHYCGDYELFVEAVEQDTLQEFKLA

>O60187

MDEAFGDSLSTDYRWLGHSHFDSHPSAGDSIYFDSLDEDEDAPSRTARIDRIAELLDGLND  
EQISELVNGVNSTTIKENTKKEISNPNDSTRLEQIPGSNNLFLDPRHQLGDNSQNAQR  
HHEPSFNSEKASYTSTPYKNVAPKVIDSPSARHMHSNSPSPFPSQSHTSSYDQSPKGQLR  
DNISVPNQODGLDPEVFNQOSKETKKSQVPPSRNVPPVTRPNQYNPEPNFSLSSGYPQ  
QHFSQPELQNRNVHLETVPESYPVPPSGYPLTSSSTCVSSISQPIQSTDCQKAQENLSNNK  
QMSSNDQDIDPFKQAITDLPPSFVNIIVLEMNATIQSLSNQCQQRDKQIENITKQLLMNQ  
DYCPTTMTSTTVSTPLCPPKRFPKSTKDFKEQKPDTKQVRSATISNDFNLKGNRYNEKSQ  
IAVPSEIRVQLSTLDAILLQFEHLRKELTQARKEIQILRHTSQNGDQESNESSKNAITTK  
TTDKGNKENTMLNDGSTAPAKNDIRNVINTNNLDAKLSDESELMIEKNKSYSTPASSTI  
PTFHTSQPLTSLNMPDSRFNLAKEKQLYYRRLGLQHIDQQCSVETANMLKTVLVQLNIPFA  
IFPSTIGQVRRQLQQGRRLYQWARNIHYLIYEENMRDGLVSKQCLADMLKKIRELKKRSL

>Q992I2

MAGLNPSQRREVVSILSLTSNVNISHGDLTP IYERLTNLEASTEELLHRSISDISTTVSN  
ISANLQDMTHTLDDVTANLDGLRTTVTALQDSVSI LSTNVTDLTNRSSAHAAI LSSLQTT  
VDGNSTAI SNLKS DISSNGLAITDLQDRVKSLESTASHGLSFSPPLSVADGVVSLDMDPY  
FCSQRVSLTSYSAEAQLMQFRWMARGTNGSSDTIDMTVNAHCHGRRTDYMSSTGNLTVT  
SNVLLTFDLSDITHIPSDLARLVPSAGFQAASFVDSFTRDSATHAYQAYGVYSSSRV  
FTITFPPTGGGTANIRSLTVRTGIDT

>O30917

MESLLNRLYDALGLDAPEDPELLI IDDG IQVYFNE SDHTLEMCCPFMPLPDDILTLQHFL  
RLNYTSAVTIGADADNTALVALYRLPQTSTEEELTGFE LFI SNVKQLKEHYA

>Q8S3N1

METDSIDSVIDDDEIHQKHQFSSTKSQGGATVVISPATSVYELLECPVCTNSMYPPIHQC  
HNGHTLCSTCKSRVHNRCPCTCRQELGDIRCLALEKVAESLELPCKYYNLGLGIFPYYSK  
LKHESQCNFRPYSCPYAGSECAAVGDI TFLVAHLRDDHKVDMHTGCTFNHRYVKSNPREV  
ENATWMLTVFQCFGQYFCLHFEAFQLGMAPVYMAFLRFMGDEDDARNYTY SLEVGGSGRK  
QTWEGTPRSVRD SHRKVRD SHDGLIIQRNMAFFSGGDKKELKLRVTGR IWKEQQNPDSG

VCITSMCSS

>P11978

MPNDNKTPNRSSTPKFTKKPVTPNDKIPEREKKSNEVKTPKIPLFTFAKSKNYSRSTAI  
HTSPHQPSDVKPTSHKQLQQPKSSPLKKNYNYSFPHSNLEKISNSKLLSLLRSKTSAGRI  
ESNNPSHDASRSLASFETAFSRHAQQQTSTFNSKPVRTIVPISTSQTNNSFLSGVKSL  
SEEKIRDYSKEILGINLANEQPVLEKPLKKGSADIGASVISLTKDKSIRKDTVEEKKEEK  
LNIGKNFAHSDLSVPKVSAGDSGISPEESKARSPGIAPNAIQTEVYGINEESTNERLE  
INQEKPVKLDENSANSTVASALDTNGTSATTETLTSKIVPSPKKVAIDQDKITLHDEKT  
LAPSKHQPIITSEQMKEDADLKRMEILKSPHLSKSPADRPQGRNRNRFSTRDEETTKLA  
FLVEYEQENNYNSTSRSTEKKNMNTSAKNKNGENKIKGRPPEIMSTEAHVNKVTEET  
TKQIQSVRIDGRKVLQKVQGESHIDSRNNTLNVTPSKRPQLGEPNPMKHKHPNEGRTPN  
ISNGTINIQQKLEPKEIVRDILHTKESSEAKKTIQNPLNKSQNTALPSTHKVTQKKDIK  
IGTNDLFQVESAPKISSEIDRENVKSKDEPVSKAVESKSLNLFNSVLKAPFIKSESKPF  
SSDALSKKANFLETIASTEKPENKTDKVSLSQPVASASKHEYSDNFPVSLSQPSKKSAN  
HTEDEQIEKKKICRGRMNTIITHPGKMELVVSDSDSSDNDSLTDLESLSGESNEIK  
VTNDLDTSAEKDQIQAGKWFDPVLDWRKSDRELTKNILWRIADKTTYDKETITDLIEQGI  
PKHSYLSGNPLTSVTNDICSVENYETSSAFFYQQVHKKDRLQYLPLYAVSTFENTNTEK  
NDVTNKNINIGKHSQEQNSSAKPSQIPTVSSPLGFEEETKLSSTPTKSNRRVSHSDTNSS  
KPKNTKENLSKSSWRQEWLANLKLISVSLVDEFPSSELSDSDRQINEKMQLLKDFANNL  
KSAISNNFRESDIILKGEIEDYPMSSSEIKIYYNELQNKPDAKKARFWSFMKTQRFVSNM  
GFDIQKSCEPVSISTSVKPHVVEPEHMADAKIMPKDILQITKKPLMVKNVKPSSPPDVKS  
LVQLSTMETKTLPEKKQFDSIFNSNKAIIIPGNGKHAENISLSFSRPASYGYFSVGKRV  
PIVEDRRVKQLDDITDSNTTEILTSVDVLGTHSQGTGTQQSNMYTSTQKTELEIDNKDSVT  
ECSKDMKEDGLSFVDIVLSKAASALDEKEKQLAVANEIIRSLSDVEMRNEIRITSLQGD  
TFTKKCLENARSQISEKDAKINKLMEKDFQVNKEIKPY

>Q9Y3P8

MNQADPRLRAVCLWTLTSAAMSRGDNCTDLLALGIPSITQAWGLWVLLGAVTLLFLISLA  
AHLQWTRGRSRSHPGQGRSGESVVEEPLYGNLHYLQTGRLSQDPEPDQQDPTLGGPARA  
AEEVMCYTSLQLRPPQGRIPGPGTPVKYSEVVLDSSEPKSQASGPEPELYASVCAQTRRAR  
ASFDPQAYANSQPAAS

>Q04964

MQNSQDYFYAQNRCCQQQAPSTLRVTMAEFRVPLPPMAEVPMLSTQNSMGSSASASAS  
SLEMWEKDLEERLNSIDHDMNNKFGSGELKSMFNQKVEEMDF

>P24702

MKLTNLALAFITLFGASAVAFADHDHKKADNNSVEKLVVQVQQLDPVKGNKDVGTVEIT  
ESAYGLVFTPHLHGLAQGLHGFHIIHQNPSCPEKEDGKLVAGLGAGGHWDPKETKQHGY  
WSDNAHLGDLPALFVEHDGSATNPVLAPRLKLLDEVKGHSLMIHEGGDNHSDHPAPLGGG  
GPRMACGVK

>P15453

MKSLFIASTMVLMAFPFAFAESTTVKMYEALPTGPGKEVGTVVISEAPGGLHFKVNMEKLT  
PGYHGFHVHENPSCAPGEKDGKIVPALAAGGHYDPGNTHHHLGPEGDGHMGLDPLRLSANA  
DGKVSETTVVAPHLKLAELIKQRLMVHVGGDNYSKPEPLGGGGARFACGVIE

>P80174

MATVKAVCVLKGEDPVKEPVKGPVKEPVKGIIFYEQQNGPVTLSGSITGLTEGKHGFHV



HEFGDNTNGCTSAGAHFNPPGKNHGGPQDNERHVGD LGNVIANKEGVAEVCIKDSLISLT  
GSQSIIGRTMVVHEKEDDLGKGGNDESLKTGNAGSRLACGVVGI AKL

>P20379

MIRLSAAAALGLAAALAASPALAQTSATAVVKAGDGKDAGAVTVTEAPHGVL LKLELKGL  
TPGWHA AHFHEKGC GTPDFKSAGAHVHTAATTVHGLLNPDANDSGDL PNI FAAAADGAAT  
AEIYSPLVSLK GAGGRPALLDADGSSIVVHANPDDHKTQP IGGAGARVACGV I K

>Q07182

MVAKAVCVINGDAKGTVYFEQEDACAPVKVCGEITGLNKGQHGFHVHEFGDNTNGCMSSG  
PHFNPLNKEHGAPT DENRHLGDLGNI EAPGDGPTKVC INDSK I TLFGENS I VGR TVV VHA  
DPDDL GKG GHEL SKSTGNAGAR I GCGVIGICK I

>P0A608

MPKPADHRNHA AVSTSVLSALFLGAGAA LLSACSSPQHASTVPGTTPS IWTGSPAPSGLS  
GHDEESPGAQSLTSTLTAPDGTKVATAKFEFANGYATVTIATTVGKLT P GFHGLHIHQV  
GKCEPNSVAPTGGAPGNFLSAGGHYHVP GHTGTPASGDLASLQVRGDGSAMLVTTTDAFT  
MDDL LSGAKTA I I IHAGADNFANIPPERYVQVNGTPGPDETTLT TGDAGKRVACGVIGSG

>P07509

MVKAVAVVRGDSNVKGTVIFEQESAPTTITTYDISGN DPNAKRGFHIHTFGDNTNGCTS  
AGPHFNPHGTT HGDRTAEVRHVGD LGNIETDAQNAKGTVTDNLVKLIGPESVIGRTVVV  
HAGTDDL GKG GNEESLKTGNAGPRPACGVIGISQ

>P00446

MNKA KTL LFTALAFGLSHQALAQDLTVKMTDLQTKPVGTIELSQNKYGVVFTPELADLT  
PGMHGFHIHQNGSCASSEKDGKVV L GGAAGGHYDPEHTNKHGF PWTDN HKGDL PALFVS  
ANGLATNPVLAPRLTLKELKGHA IMIHAGGDNHSDMPKALGGGGARVACGV I Q

>P07505

MAAHTILASAPSH TTFSLISPFSSPTNALSSSLQSSSFNGLSFKLSPTTQSLSLSTSA A  
SKPLTIVAATK KAVAVLKGTSNVEGVVTLTQEDDGPTTVNVRISGLAPGKHGFHLHEFGD  
TTNGCMSTGPHFNPD KKT H GAP EDEVRHAGDLGNIVANTDGVAEAT IVDNQIPLTGPN SV  
VGRALVVHELEDDL GKG GHEL SPTTGNAGGRLACGVVGLTPV

>P41963

MMIASFAIFLSHI IFITYATSNQRYFKPNMHNMTITIRRTITKTATAIAVLHSDNGNIN  
GTIHFQQDKNSTTISGEIKGLTPGLHGFHVHQYGD TTNGCISAGPHFNPNKTHGDP TDE  
MRHVGD LGNI VAGADGTAHIDISDKHVQLLGPNSI IGRSLVVHADQDDL GKG VGD K KDES  
LKTGNAGGRVACGIVAI SA

>Q08420

MVAFLFCNLLL VACGSVTWTMSDTGESGVDLADRLDLVEKIGDTHSKDLEIWMELGKQRE  
ADAREMHAVCRVQPSAMLPDPQPQITGLVLFRQLGPFSSRLEASFNLEGFPAEQNTSNHAI  
HVHEFGDLSQGCESTGPHYNPLGVPHPQH PGDFGNFVVRDGR LWKHRMGLATSLAGPHSI  
LGRAVVVHAGEDDLGKGGNQASVQNGNAGRRLACCVGTSNSEAWESQTKERKKRRRESE  
CKTT

>Q9X6W9

MGVHKLEPKDHLKPQNLEGISNEQIEPHFEAHYKGYVAKYNEIQEKLADQNFADR SKANQ

NYSEYRELKVEETFNYMGVVLHELIFGMLTPGGKGEPSEALKKKIEEDIGGLDACTNELK  
AAAMAFRGWAILGLDIFSGRLVVNGLDAHNVYNTGLIPLIVIDTYEHAYVVDYKNKRPP  
YIDAFFKNINWDVVNERFEKAMKAYEALKDFIK

>P80735

MLSRLFAPKVTVSAHCDLPCGVYDPAQARIEAESVKAVQEKMAGNDDPHFQTRATVIKEQ  
RAELAKHHVSVLWSDYFKPPHFEEKYPELHQLVNDTLKALSAAKGSKDPATGQKALDYIAQ  
IDKIFWETKKA

>Q965H3

MSSNLTSNEMSSTSAIVEPPEAVKGNERDKSTRRSTSQVVRPEKHEVENALEDCSSSSL  
PKEAQYYAKLDKKLEKGDPRSQFYEAVRLSADIFAHKFEKAVCSRQTFEPTNSI IKVLNT  
AEEEMLHEKVVPLPVSSKLQYYLNRGRYDTIFDRDEQLQRTADPMADEPDHVEKRVTSIL  
EQASREMEEGEVEPVFYDGSDEDQELPIDLGAMRNLQRTNKFAARSSRMAARRGGRPGYR  
GAFRGAARGAPSRPPAPAAEVAPETPVAAPMAPAAPAAPATPEAAPAAEVMDSIATEMP  
QESAVDL SNVSAATEMDTSKEGEASRPTSEKKKKIRTTEMDRLMSMDLGPKDGGRVGELG  
HMWPESRRRPAAPLPETPAAQPRKSLPRRAAEKKKPEDSDAAEEQEVEMVDNDASTSTP  
RNARGGRGGGNRRRSRRGQKRTSGGSGKLVEPKKEPVDEPAEKIPKRSEAAPEVPATATT  
KEAPPSTSSSPDPATPATPASSDSRSDSPKIRAMIFSLTGSPPESETPPVLQQEQVIS  
TAAPTAGRHPNIIQQVPHINRIPPQPLRRLTAPQAPPASQPEEPPVQQTVPVVKVELASA  
PAPIVRDPQSTEPVPPAMP TLVENNHEATLILPPNKTSDYTRWNAQDLINWVRLLI TNNV  
DSTIAIMVREEFDGETLACLVLDDDFRKEVPIPYGHYKMKIYGTEVLNHYRTEKYQADL  
RKFHEELAAWKAQQR

>P82385

MISETIRSGDWKGEKHVPVIEYEREGELVKVKVQVGKEIPHPNTTEHHIRYIELYFLPEG  
ENFVYQVGRVEFTAHGESVNGPNTSDVYTEPIAYFVLKTKKKGKLYALSVCNIHGLWENE  
VTLE

>P06535

MKDVSKNQEENISDTALTNELIHLLGHSRHDWMNKLQLIKGNLSLQKYDRVFEMIEEMVI  
DAKHESKLSNLKTPHLAFDFLTFNWKTHYMTLEYEVLGEIKDLSAYDQKLAKLMRKL FHL  
FDQAVSRESENHLTVSLQTDHPDRQLILYLDFHGAFADPSAFDDIRQNGYEDVDIMRFEI  
TSHECLIEIGLD

>Q96R06

MWRVKKLSLSLSPSPQTGKPSMRTPLRELTLPQALTNISGKRSPACSSSLTPSLCKLGLQE  
GSNNSSPVDFVNNKRTDLSSEHFSHSSKWLETCQHESEDEQPLDPIQISSSTPKTSEEAVD  
PLGNYMVKTIIVLVPSPGLQQQDMIFEARLDTMAETNSISLNGPLRTDDL VREEVAPCMGD  
RFSEVAAVSEKPIFQESPSHLLLEESPPNPCSEQLHCSKESLSSRTEAVREDLVPSESNF  
LPSSVLWLS PSTALAADFRVNHVDPEEEIVEHGAMEEREMRFP THPKESETEDQALVSSV  
EDILSTCLTPNLVEMESQEAPGPAVEDVGRILGSDTESWMSPLAWLEKGVNTSVMLLENLR  
QSLSLPSMLRDAAGTTFSTCSVGTWFTSPAPQEKSTNTSQTGLVGTKHSTSETEQLLC  
GRPPDLTALSRHDLEDNLLSSLVILEVLSRQLRDWKSQ LAVPHPETQDSSTQTD TSHSGI  
TNKLQHLKESHEMGQALQQARNVMQSWVLISKELISLLHLSLLHLEEDKTTVSQESRRAE  
TLVCCCFD LKKLRAKLQSLKAERE EARHREEMALRGKDAAEIVLEAFCAHASQRISQLE  
QDLASMREFRGLLKAQTQLVGLHAKQEELVQQTVSLTSTLQQDWRSMQLDYTTWTALLS  
RSRQLTEKLT VKSQALQERDVAIEEKQEVSRVLEQVSAQLEECKGQTEQLELENSRLAT  
DLRAQLQILANMDSQLKELQSQHTHCAQDLAMKDELLCQLTQSNEEQAAQWQKEEMALKH  
MQAELQQQAVLAKAVRDLKETLEFADQENQVAHLELGQVECQLKTTLEVLRRERSLQCEN

LKDTVENLTAKLASTIADNQEODLEKTRQYSQKLGLLTEQLQSLTLFLQTKLKEKTEQET  
LLLSTACPPTQEHPLPNDRTFLGSILTAVADEEPESTFPVPLLGSDKSAFTRVASMVSLQP  
AETPGMEESLAEMSIMTTELQSLCSLLQESKEEAIRTLQRKICELQARLQAQEEQHQEVQ  
KAKEADIEKLNQALCLRYKNEKELQEVIOQQNEKILEQIDKSGELISLREEVTHLTRSLR  
RAETETKVLQEQALAGQLDNCQPMATNWIQEKVWLSQEVDKLRVMFLEMKNEKEKLMIKF  
QSHRNILEENLRSDKELEKLDIVQHIYKTLLSIPEVVRGCKELQGLLEFLS

>P21170

MSDDMSMGLPSSAGEHGVLRSMQEVAMSSQEASKMLRTYNIAWWGNNYDVNELGHISVC  
PDPDVEPEARVDLAQLVKTTREAQOQRLPALFCFPQILQHRLRSINAAFKRARESYGYNGDY  
FLVYPIKVNQHRRVIESLIHSGEPLGLEAGSKAELMAVLAHAGMTRSVIVCNGYKDREYI  
RLALIGEKMGMHKVYLVIEKMSAIAIVLDEAERLNVVPRLGVRARLASQGSQKQSSGGEK  
SKFGLAATQVLQLVETLREAGRLDSLQLLHFHLGSMANIRDIATGVRESARFYVELHKL  
GVNIQCFDVGGLGVDYEGTRSQSDCSVNYGLNEYANNI IWAIGDACEENGLPHPTVITE  
SGRAVTAHHTVLSNIIGVERNEYTVPTAPAEDAPRALQSMWETWQEMHEPGTRRSLREW  
LHDSQMDLHDIHIGYSSGIFSLQERAWAEQLYLSMCHEVQKQLDPQNRARHP I IDELQER  
MADKMYVNFSLFQSMPPDAWGIDQLFPVLPLEGLDQVPERRAVLLDITCDSGAIIDHYIDG  
DGIATTMPPEYDPENPPMLGFFMVGAYQEILGNMHNLFGDTEAVDVFVFPDGSVEVELS  
DEGDTVADMLQYVQLDPKTLTQFRDQVKKTDLDAELQQQFLEEFEAGLYGYTYLEDE

>Q32MG2

MSPLECSECFGDQLLHKTYTWHLTLHSRPNFTRKRDTRSESLIPVNVILPQRGTEPFRLR  
LHNLYSTPRCSRQAALPRMSRRVASQHSYPLNRFSSMPFDPMERPTSQADLELDYNPPRV  
QLSDEMVFVQDGRWVNESCRLOPPYFSPSSFHKLHRRRLAKEYQLQEENKSLRDNRA  
LRDENKALRKENKILQVFWEEHKVTLGHEESQTSLLHKDTTSQEVVKRDNTTLPAQRSK  
ESTLQIREENRALQQLLEQRQAYWAQAEENAASTEEGKSTSSPKEESHNSGLLPDQSTN  
HSSPFEDPKVPPTTQEDSKTLRALREMVNLSGASGEEDGKVGPNLPDSAQPLQLLREMN  
QALQALQEENRLLQEENRALHILREEHRVFEENKALWENNKLKLQQRVLDITVTEVTAR  
MEMLIEELYAFMPAKNNKDPKKPSRV

>P18297

MEGGRLGCAVCVLTGASRGFGRALAPQLAGLLSPGSVLLLLSARSDSMLRQLKEELCTQQP  
GLQVVLAAADLGTESGVQQLLSAVRELPRPERLQRLLLINNAGTLGDVSKGFLNINDLAE  
VNNYWALNLTSMCLTTGTLNAFSNSPGLSKTVVNISSLCALQPFKGWGLYCAGKAARDM  
LYQVLAVEEPSVRVLSYAPGPLDTNMQQLARETSMDEPELRSRLQKLNSEGELVDCGTSQA  
KLLSLLQRDTFQSGAHVDFYDI

>P32573

MNTANTLDGKQVTEGSRPDLFKGKVAFVTGGAGTICRVQTEALVLLGCKAAIVGRDQER  
TEQAAGKISQLAKDKDAVLAIANVDVRNFEQVENAVKKTVEKFGKIDFVIAGAAGNFVCD  
FANLSPNAFKSVVDIDLGSFNATAKACLKELKSKSGSILFVSATFHYYGVPFQGHVGAAK  
AGIDALAKNLAVELGPLGIRSNCIAPGAIDNTEGLKRLAGKKYKEKALAKIPLQRLGSTR  
DIAESTVYIFSPAASYVTGTVLVVDGGMWHLGTYFGHELYPEALIKSMTSKL

>P48607

MMTPMWISLQKVLVLLFAFFATYEAKEYERIIKELFTITNDEGVVLFNTSADSAPFMP  
TQHDDPTQKQKQKQSPPIPETNRHYHQYHSLIQPDQYFKVQRSPNGKLNLFVNDTFVSL  
QRTDTEVQSEQPIPPRHPSDTFVFPDSPAIAKYRPPQSPARPLRNDTKEHNPCAKDESQHL  
RNFCTNVDDYPDL SGLTHKLNKNNFAKFFSNDLQPTDVSSRVGGSDERFLCRSIRKLVYPK  
KGLRADDTWQLIVNNDEYKQAIQIEECEGADQPCDFAANFPQSYNPICKQHYTQQTLASI

KSDGELDVVQNSFKIPSCCKCALKTG

>Q84KI6

MAHLLSTSCSMKVSPSEKLSKCNWIGSTKYPMSTQQTSSKSAFKSLVHQRNNTQKLTVV  
RATTVPLNQETKAESGTSSFENNGNTSGRKRVMVIGGDGYCGWATALHLSKKNYDVCIVD  
NLVRRFLFDHQGLDSLTPIASIQNRIRRWQGLTGKTIDLHVGDICDFEFLAETFKSFEPD  
TVVHFGEQRSAPYSMIDRSRAVYTTQNNVIGTINVLFAIKEFSEECHLVKLGTMGEYGTP  
NIDIEEGFITITIHNGRTDTLPYPKQASSFYHLSKVHDSHNIAF'TCKAWGIRATDLNQGVV  
YGVMTTEETAMHEELCNRFDYDAVFGTALNRFVCVQAAVGHPLTVYKGGQTRGYLDIRDTV  
QCVELAIANPAKLGFRVFNQFTEQYSVRDLAALVTKAGEKLGKLNVEETISVNPNRVEAEE  
HYYNKHTKLAELGLKPHLLSDSLLDSVLNFAVQYKDRVDTKQIMPSVSWKKIGVKPQTL  
RA

>P05707

MNQVAVVIGGGQTLGAFLLCHGLAAEGYRVAVVDIQSDKAANVAQEINA EYGESMAYGFGA  
DATSEQSVLALSRGVDEIFGRVDLLVYSAGIAKAAFISDFQLGDFDRSLQVNLVGYFLCA  
REFSRLMIRDGIQGRIIQINSKSGKVGSKHNSGYSAKFGGVGLTQSLALDLAEYGITVH  
SLMLGNLLKSPMFQSLLPQYATKLGKIKPDQVEQYYIDKVPLKRGCDYQDVLNMLLFYASP  
KASYCTGQSINVTGGQVMF

>P38985

MANTGCLSPGAFLLSKVPEFFQTANEKHITVRLTAKRLIEHDPVEGNLEFDSTNHPDYDVS  
KKASEISVSSRSREYPLLIRMSYGSKDKTKCSTVVKASELDQFWQEYSSVFKGGMQNL  
IKKKKKKSKNGTISKTKKKNKVAKKN

>P37455

MLNRVVLVGRLLTKDPELRYTPNGAAVATFTLAVNRFTTNQSGEREADFINCVTWRRQAEN  
VANFLKKGSLAGVDGRLQTRNYENQQGQRFVTEVQAESVQFLEPKNGGGSGSGGYNEGN  
SGGGQYFGGGQNDNPFQGNQNNQRNQGNSFNDDPFANDGKPIDISDDDLPF

>P54622

MQHTRRMLNPLLTLGRNLPARGATTTTAAAPAKVEKTVNTVTILGRVGADPQLRGSQEHF  
VVTFSVATHNTNYKYENDWAQRTDWHRVVVFKNLRLDTVLEYLKKGQRTMVQGKITYPEI  
TDQQGNQKTSTSI IADDVLFRRDANN

>P0AGE0

MASRGVNKVILVGNLQDPEVRYMPNGGAVANITLATSESWRDKATGEMKEQTEWHRVVL  
FGKLAEVASEYLRKGSQVYIEGQLRTRKWTQSGQDRYTTEVVVNVGGTMQMLGGRQGGG  
APAGGNI GGGQPQGGWQPQQPQGGNQFSGGAQSRPQQSAPAAPSNEPPMDFDDDI PF

>P0A611

MAGDTTITIVGNLTADPELRFTPSGAAVANFTVASTPRIYDRQTGEWKDGEALFLRCNIW  
REAAENVAESLTRGARVIVSGLRQKRSFETREGEKRTVIEVEVDEIGPSLRYATAKVNKA  
SRSGGFSGSRPAPAQTSSASGDDPWGSAPASGSFSGGDEPPF

>Q9KH06

MARGLNQVFLIGTLTARPDMPRYTPGGLAILDLNLAGQDAFTDESGQEREVPWYHRVRLLG  
RQAEMWGDLLKQGLIFVEGRLEYRQWEKDGKSEVQVRAEFIDPLEGRGRETLEDARG  
QPRRLRALNQVILMGNLTRDPDLRYTPQGTAVVRLGLAVNERRRGQEEERTHFLEVQAWR  
ELAEWASELRKGDGLLVIGRLVNDSWTSSSGERRFQTRVEALRLERPTRGPAQAGGSRPP

TVQTTGGVDIDEGLEDFPPEEDLPF

>P80645

MSLNMFWFLPTHGDGHYLGTEEGSRPVDHGYLQQIAQAADRLGYTGVL IPTGRSCEDAWL  
VAASMI PV TQRLKFLVALRPSVTSPTVAARQAATLDRLSNGRALFNLVTGSDPQELAGDG  
VFLDHSERYEASAEFTQVWRLLQRETVD FNGKHIHVRGAKLLFP AIQQPYPPLYFGGSS  
DVAQELAAEQVDLYLTWGEPPPELVKEKIEQVRAKAAAHGRKIRFGIRLHVIVRETNDEAW  
QAAERLISHLDDETIAKAQAAFARTDSVGGQORMAALHNGKRDNLEISPNLWAGVGLVRGG  
AGTALVGDGPTVAARINEYAALGIDSFVLSGYPHLEEA YRVGELLFP LLDVAIPEIPQPQ  
PLNPQGEAVANDFI PRKVAQS

>P80644

MRVITLAGSPRFPSSSSLL EYAREKLNGLDVEVYHWNLQNFAPEDLLYARF DSPALKTF  
TEQLQQADGLIVATPVYKAAYSGALKTL LLDLLPERALQ GKVVLP L ATGGTVAHLLAVDYA  
LKPVL SALKAQEILHG VFADDSQVIDYHHRPQFTPNLQTRLDTALETFWQALHRRDVQVP  
DLLSLRGNHAHA

>P50225

MELIQDTSRPPLEYVKG VPLIKYFAEALG PLQSFQARPDDLLISTY PKSGTTWVSQ I LDM  
IYQGGDLEKCHRAPIFMRVPFLEFKAPGIPSGMETLK DTPAPRLLKTHLPLALLPQTLLD  
QKVKVVYVARNAKDVAVSYYHFYHMAKVHPEPGTWDSFLEKFMVGEVSYG SWYQH VQEWW  
ELSRTHPVLYLFYEDMKENPKREIQKILEFVGRSLPEETVDFMVQHTSFKEMKKNPMTNY  
TTVPQEFMDHSISP FMRKGMAGDWKTTFTVAQNERFDADYAEKMAGCSLSFRSEL

>P49887

MMDSSSEHDYEEYFDEF R GILLYKQFIKYWDNVEAFQARPDDLVI AAYPKSGTTW I SEVVC  
MIYAEGDVKKCRQDAIFNRVPFLECRNDKMMNGVKQLEEMNSPRIKTHLPPRLLPASFW  
EKRCMKMICR NAKDVAVSYYYFFLMVANHPDPGSFPEFVEKFMQGV PYGSWDHVKSW  
WEKSTDPRI LFI FYEDMKEDIRKEVLKLIHFLGRKPSEELVDKIKHTSFQEMKNNPSTN  
YTMLPEEIMNQKVS PFMRKGISGDWKNHFTVALNESFDKHYQQQMKGSTLQLRTEI

>Q06520

MSDDFLWFEGIAFP TMGRSETLRKVRDEFVIRDEDV IILTYPKSGTNWLA EILCLMHSK  
GDAKWIQSVPIWERSPWVESEIGYTALSETESPRLFSSHLPIQLFPKSFSSKAKVIYLM  
RNPRDVLVSGYFFWKNMKFIKKPKSWE EYFEWFCQGTVLYG SWFDHIHG WMPMREEKNFL  
LLSYEELKQDTGRTIEKICQFLGKTLEPEELNLI LKNSSFQSMKENKMSNYL LSVDYVV  
DKAQLLRKGVSGDWKNHFTVAQAEDFDKLFQEK MADLPRELFPWE

>P28645

MALNLPVSTPFQCRRLPSFSPRQTPSRRSPKFFMASTLSSSSPKEAESLKKPFSPPREV  
HVQVTHSMPQEKIEIFKSLEGWAEENLLVHLKPV EKCWQPQDYLPDPASEDFRDQVKEIQ  
ERAKEIPDDLYVVLVGD MITEEALPTYQTMLNTLDGAKDETGASPTSWAVWTRAWTAEEN  
RHGDLLNKYLYLSGRVDMRSIEKTIQYLI GSGMDPR TENNPYLGFVYTSFQERATFVSHG  
NSARLAKEHGD LKMAQICGIIASDEKRHETAYTKIVEKLF EIDPDATVLAFA DMMKKKIS  
MPAHLMYDGRDDNLF D HFSAVAQR LGVY TAKDYADILEFLVGRWEVEKLTGLSSEGQKAQ  
DYVCSLPPRI RLEERARERAKQAPSMPFSWIFDRQVKL

>O00506

MAHLRGFANQHSRVDPEELFTKLDRI GKGSFGEVYKGI DNHTKEVVAIKI IDLEEADEI  
EDIQQEITVLSQCDSPYITRYFGSYLKSTKLWI IMEYLG GGSALD L LKPGPLEETYIATI

LREILKGLDYLHSEKIHARDIKAANVLLSEQGDVKLADFGVAGQLTDTQIKRNTFVGTTPF  
WMAPEVIKQSAYDFKADIWSLGITAIELAKGEPNSDLHPMRVLFLLIPKNSPPTLEGQHS  
KPFKEFVEACLNKDPRFRPTAKELLKHKFITRYTKKTSFLTELIDRYKRWKSEGHGEES  
SESDSIDGEAEDGEQGP I WTFPPTIRPSPHSKLHKGTALHSSQKPAEPVKRQPRSQCLST  
LVRPVFGELEKHKKQSGGSGVGALEELENAFSLAEESCPGISDKLMVHLVERVQRF SHNRN  
HLTSTR

>Q13043

METVQLRNPPRRQLKKLDEDSLTKQPEEVFDVLEKLGEGSYGSVYKAIHKETGQIVAIKQ  
VPVESDLQEI I KEI SIMQQCDSPHVVKYYSYFKNTDLWIVMEYCGAGSVSDI IRLRNKT  
LTEDEIATILQSTLKGLEYLHFMRKIHRDIKAGNILLNTEGHAKLADFGVAGQLTDTMAK  
RNTVIGTFFWMAPEVIQEIGYNCVADIWSLGITAIEMAEGKPPYADIHPMRAIFMIPTNP  
PPTFRKPELWSDNFTDFVKQCLVKSPQRATATQLLQHPFVRSKAGVSI LRDLINAMDV  
KLKRQESQQREVDQDDEENSEEDEMDSGTMVRAVGDEMGTVRVASTMTDGANTMIEHDDT  
LPSQLGTMVINAEDDEEEEGTMKRRDETMQPAKPSFLEYFEQKEKENQINSFGKSVPGPLK  
NSSDWKIPQDGDYEFLLKSWTVEDLQKRLALDPMMEQEIIEIRQKYQSKRQPI LDAIEAK  
KRRQONF

>P08078

MSLVSVHNEWDPLEEVIVGTAVGARVPTADRSVFAVEYAGDYESQEQIPSGAYPDRVLKE  
TEEELHVLAAELTKLGVTVRRPGPRDHSALIKTPDWE TDGFHDY CPRDGLLSVGQTI IET  
PMALRSRFLSLAYKDLLLEYFASGSRWLSAPKPRLTDDSYAPQAPAGERLTDEEPVFDA  
ANVLRFGTDL LYLVS DSGNELGAKWLQSAVGDTYTVHPCKRKYASTHVDSTIVPLRPLV  
LTNPSRVNDENMPDFLRSWENITCPELVDIGFTGDKPHCSVWIGMNLVVRPDLAVVDRR  
QTALIRLLEKHKGMNVLPLQLTHSRTLGGGFHCATLDVRRRTARETYQF

>P50427

MPRPRPLLLAVMAATLADI I LAADPAPAGPAPRPPNFLLIMADDLGIGDLGCYGNKTLRT  
PHLDRLAREGVKLTQHLLAAAPLCTPSRAAFLTGRYPPRSGMAAHGRVGVYLF TASSGGLP  
PSEVTMARLLKGRGYATALIGKWHLGLSCRGATDFCHHPLRHGFDRFLGVPTNL RDCRP  
GAGTVFGPALRVFAAGPLAALGASLAAMAAARWAGLARVPGWALAGTAAAMLAVGGPRSA  
SCLGFRPANCFMLMDDLAVAQRPTDYGGLTRRLADEAALFLRRNRARPFLLFLSFLHVHTA  
HFADPGFAGRS LHGAYGDSVEEMDWGVRVLAALDELGLARETLVYFTSDHGAHVEELGP  
RGERMGGSSNGVFRGGKGNWEGGVRVPCLVWRPRELSPGRVVAEPTSLMDVFP TVARLAG  
AELPGDRVIDGRDLMP LLRGDAQRSEHEFLFHYCNAYLQAVRWHNGSAVWKAFFYF TPNFA  
PAGANGCFSTHVCLCAGPAHVTAHDPPLFLDLTRDPGERRPLTPEAEPRHREVLDAIDAA  
ARAHRARLRPAPDQLAPRHLMWKPWLQLWGGGGAGGAGAQQDSDGHAHGDGSHAHDDPGH  
AQDRGDDDAHYGGHATTRTQATPR

>O80605

MSDSVSI SVPYRNLKKEIELETVTKHRQNESGSSSFSESASPSNHSDSADGESVSKNCSL  
VTLVLSCTVAAGVQFGWALQLSLLTPYIQT LGISHAFSSFIWLCGPITGLVVQPFVGIWS  
DKCTSKYGRRRPFI L VGSFMISIAV I IIGFSADIGYLLGDSKEHCSTFKGTRTRAAVFI  
IGFWLLDLANNTVQGPARALLADLSGPDQRNTANAVFCLWMAIGNILGFSAGASGKWQEW  
FPFLT SRACCAACGNLKAFFLLAVVFLTICTLVTIYFAKEIPFTSNKPTRIQDSAPLLDD  
LQSKGLEHSKLNNGTANGIKYERVERDTEQFGNSENEHQDETYVDGPGSVLVNLLTSLR  
HLPPAMHSVLI VMALTWLSWFPFFLFDTDWMGREVVYHGDP TGDLSHMELYDQGVREGALG  
LLLNSVVLGISSFLIEPMCQRMGARVVWALSNTVFACMAGTAVISLMSLSDDKNGIEYI  
MRGNETTRTAAVIVFALLGFPLAITYSVPF SVTAEVTADSGGGQGLAIGVLNLAIVIPQM  
IVSLGAGPWDQLFGGNLPAFVVLASVAFAAGVIALQRLPTLSSSFKSTGFHIG

>Q9FE59

MATSDQDRRHRVTRNRPPIARPSTSSSRPVVSPPRSKVSKRVLLRVASVACGIQFGWALQ  
LSLLTPYVQELGIPHAWASVIWLCGPLSGLFVQPLVGHSSDRCTSKYGRRRPFIVAGAVA  
ISISVMVIGHAADIGWAFGDREGKIKPRAIVAFVLGFWILDVANMTQGPCRALLDLTE  
NDNRRTRVANGYFSLFMAVGNVLGYATGSYNGWYKIFTFTKTVACNVECANLKSIFYIDV  
VFIAITTTILSVSAAHEVPLASLASEAHGQTSQTDEAFLSEIFGTFRYFPGNVWIILLVTA  
LTWIGWFPPFILFDTDWMGREIYGGEPNIGTSYSAGVSMGALGLMLNSVFLGITSVLMEKL  
CRKWGAGFVWGISNILMAICFLGMIITSFVASHLGYIGHEQPPASIVFAAVLIFTILGIP  
LAITYSVPYALISIRIESLGLGQGLSLGVLNLAIVIPQVIVSVGSGPWDQLFGGGNSPAL  
AVGAATGFIGGIVAILALPRTRI QKPIPLP

>Q57573

MKWDEIGKNIAKEIEKEILPYFGRKDKSYVVGTSPPSGDETEIFDKISEDIALKYLKSLNV  
NIVSEELGVIDNSSEWTVVIDPIDGSFNFINIGIPFFAFCFGVFKNNEPYGLTYEFLTKS  
FYEAYKKGKAYLNGRKKIKVKDFNPNNIVISYYPSSKIDLEKLRNKVKRVRIFGAFGLEMC  
YVAKGTLDAVFDVRPKVRAVDIASSYIICKEAGALITDENGDELKFDLNATDRLNIVAN  
SKEMLDIILDLL

>O33832

MDRLDFSIKLLRKKVGHLLMIHWGRVDNVEKKTGFKDIVTEIDREAQRMIVDEIRKFFPDE  
NIMAEEGIFEKGDRLWIIDPIDGTINRVHGLPNFISISLAYVENGEVKLGVVHAPALNETL  
YAEEGSGAFFNGERIRVSENASLEECVSTGSYVDFTGKFIERMEKRTRRIRILGSAALN  
AAYVGAGRVDFFVTWRINPWDIAAGLIIVKEAGGMVTDVSGKEANAFSKNFIFSNGLIHD  
EVVKVVNEVVEEIGGK

>Q8ZU79

MKILVTNDDGVHSPGLRLLYQFALS LGDVDVVAPE SPKSATGLGITLHKPLRMYEVDLCG  
FRAIATSGTPSDTVYLATFGLGRKYDIVLSGINLGDNTSLQVILSSGTLGAAFQAALLGI  
PALAYSAYLENWNE LLNKEAVEIMGAVVSSSTASYVLKNGMPQGV DVISVNFPRRLGRGV  
RAKLVKA AKLRYAQVVERVDPRGVRYWLYGRDLAPEPETDVYVVLKEGGIAITPLTLN  
LNAVDAHREVDMDSLNRMVEYINASL

>P96112

MRILVTNDDGIQSKGIIVLAELLSEEHEVFVAPDKERSATGHSITIHVPLWMKKVFISE  
RVVAYSTTGT PADCVKLAYNVVMDKRVDLIVSGVNRGPNMGMDILHSGTVSGAMEGAMMN  
IPSAIAISSANYESPDFEGAARFLIDFLKEFDLSLLDPFTMLNINVPAGEIKGWRFTRQSR  
RRWNDYFEERVSPFGEKYYWMMGEVIEDDDRDDVDYKAVREGYVSITP IHPFLTNEQCLK  
KLREVDYD

>P00957

MSKSTAEIRQAFLDFFHSGKHQVVASSSLVPHNDPTLLFTNAGMNQFKDVFLGLDKRNY  
RATTSQRCVRAGGKHNDLENGYTARHHTFFEMLGNFSFGDYFKHDAIQFAWELLTSEKW  
FALPKERLWVTVYESDDEAYE IWEKEVGI PRERIIRIGDNKGAPYASDNFWQMGDTGPCG  
PCTEIFYDHDHIWGGPPGSPEEDGDRIE IWNIVFMQFNQADGTMEPLPKPSVDTGMG  
LERIAAVLQHVNSNYDIDLFRTLIQAVAKVTGATDLSNKS LRVIADHIRSCAF LIADGVM  
PSNENRGYVLRRIIRRAVRHGNMLGAKETFFYKLVGPLIDVMGSAGEDLKRQQAQVEQVL  
KTEEEQFARTLERGLALLDEELAKLSGDTLDGETAFRLYD TYGFPVDLTADVCRERNIKV  
DEAGFEAAMEEQRRRAREASGFGADYNAMIRVDSASEFKGYDHLNGLKVTALFVDGKAV  
DAINAGQEAVVLDQTPFYAESGGQVGDKGELKGANFSFAVEDTQKYGQAIGHIGKLAAG

SLKVGDAVQADVDEARRARIRLNHSATHLMHAALRQVLGTHVSQKGSVNDKVLRFDFSH  
NEAMKPEEIRAVEDLVNTQIRRNLP IETNIMDLEAAKAKGAMALFGEKYDERVRVLSMGD  
FSTELCGGTHASRTGDI GLFRI I SESGTAAGVRRIEAVTGEGAIATVHADSDRLSEVAHL  
LKGDSNNLADKVRSVLERTRQLEKELQQLKEQAAAQESANLSSKAIDVNGVKLLVSELSG  
VEPKMLRTMVDDLKNQLGSTI I VLATVVEGKVSLIAGVSKDVTDRVKAGELIGMVAQQVG  
GKGGRPDMAQAGGTDAALPAALASVKGWVSAKLQ

>Q9D495

MATRPQPLGMEPEGSADLLHGPEGARGQYGSTQK IEDLMDMVKKLQKVGSLERIEVLIN  
RINEVQQAKKKASEELGEAQTVDNLQKELDLLREEKVRLKDILNRKEETLRIMQLHCQE  
KESEAQRKHSMLQECCKERISFLNSQIDKEKAKLRKLRLDFEEHLETMSQHKDTLEFHKP  
EHLTKEMCVLDSSKEQLLKEEKLKMKVLEDVRQRLCALGGPEGSSSLIEGLFLRSHEAAA  
AMQMFKDENKKAEEFLEAAAQHEQLQQRCHQLQQRQLKEELEKHGVQILAHSTQNEE  
DSSWRMASPKPVEVHEETAQDQERPSSRT

>Q505B8

MERHGVAAPPVELKDQEPPIAVESGEHRQSENHEETPGSVAPSASCQLPGPFSSLDSSIE  
TLKKAQELIENINESRQKDHALMTNFRDSLKMKVSDLTEKLEERMYQVYSHHSKI I QER  
LQFTQKMAKINHLEMELKQVCQTVETVYKDL CVQSEVPTCEEQNYKDGE

>Q7TN83

MVLTMASQDVQNFQPLSSWLSRVYEALQQAGDAL SASLVLLSKHDSALS DKPEQDLDA  
QIQQTYLEDEEQDHDGSP EASSLFLEEDHFSLSNSDLQDSVQTASPTLGQQAEDSSSVI  
PPWPSKIPGAPKPQPVLS SIAEEDHHSERQRCGRQHSGTLEKVNGRKQVNSFGDDEEPS  
TSSEDEDVTKQFKI SVRSQSFRSGVSEKGTTELEQKIKCKRLLCTHQEDSAEGSACE  
DLDRTSQLSYSEILSYEDRPI SILPQSPFESRNVRHHGPCRPEMGMVRS LGRPCADGVLE  
TETAFVSRGFEDSYATHSSSLWSPEEQDGTSLQVPHRLLEPISKCGDL DVI FEYRAVTQK  
LTVTIVRAQGLPDKDRSGVNSWQVHIVLLPSKKQRGKTNIQRGPNPVFKEKVTF TKLEPR  
DVASCAVRFRLYAARKMTRERMMGEKLFCLSHLHPEGEMKVTLVLEPRSNLSSGESPLSP  
SVVSHSDSASSTQSLSHGGVPELLVGLSYNATTGRLSVEMIKGSHFRNLAANRAPD TYGK  
LFLNLCVQEMSRCKTSIRRGQPNPVYKETFVVFQVALFQLSDVTLMISIYSRRTMKRKEM  
IGWVALGQNSSGEEEQEHWEEMKESKGQQTCTRWHTLLES

>P24546

MDYYDRIRELTKNVPVELVDFEQPRDLARTPTQASSNFITNKEQGDWAEDLVTRAINENS  
KNFVAVKYGKSDNLVAGENGFDTFYQDFQTELDITGKRPDLLIFKKTDFDTTLGFDVSQI  
PHHQITDYVKKAIAGIEVRS SAFLIDKYEEAMQVRTQRFTIEIAFQTRDKILAEFLDVL DH  
PSRSKYITLLNTLTLETISIFDFKVPGWSNERLIEVNNL FKRLKVAIKEIQKRDYLSIT  
PKVEDIKVVYKWIETFNVPHFYFQVFFDKVYGISFEQILTII SNSDNDGVIF SVEKDVQN  
QNKTTIKINSKTGYPIASKVDEPTHE SIRKEMDRGRLLFYVTFKGGTAYLDLDNLRTILG  
IEEAEF

>P70985

MNTQKPFENHLKSVDDLKTTYEEYRAGFIAFALEKNKRSTPYIERARALKVAASVAKTPK  
DLLYLEDIQDALLYASGISDKAKKFLTEDDKKESINNLIENFLEPAGEEFIDELIFRYLL  
FQGDSLGGTMRNIAGALAQKLTRAIISALDIANIPYKWLDSRDKKYTNWMDKPEDDYEL  
ETFAKGISWTINGKHRTL MYNITVPLVKKNVDICLFNCEPEIYTPQKVHQQPEKYLLLGE  
LKGIDPAGADEHWKTANTALTRIRNKFSEKGLSPKTI F IGAAIEHSM AEEIWDQLQSGS  
LTNSANLTKTEQVGS LCRWIINI



>Q45488

MKIDITDYNHADEILNPQLWKEIEETLLKMPHLHVKASDQASKVGSILFDVPGTNQYIKDE  
LVPKHWKNNIPIPKRFDFLGTDIDFGKRDTLVEVQFSNYPFLNNTVRSELFHKSNMDID  
EEGMKVAIIITKGHMFPASNSSLYEQAQNQLNSLAEYNVFDVPIRLVGLIEDFETDIDI  
VSTTYADKRYSRITIKRDTVKGKVIDTNTPNTRRRRKRGTIVTY

>P23940

MEVEKEFITDEAKELLSKDKLIQQAYNEVKTSICSPIWPATSKTFTINNTEKNCNGVVP  
KELCYTLLLEDTYNWyREKPLDILKLEKKKGGPIDVYKEFIENSELKRVMFEFETGNISSA  
HRSMNKLGLLGLKHGEIDLAIILMPIKQLAYYLTDRTVNFEELEPYFELTEGQPFIFIGFN  
AEAYNSNVPLIPKGS DGM SKRSIKKWKDKVENK

>P09357

MKQTRNFDEWLSTMTDTVADWTYYTDFPKVYKNVSSIKVALNIMNSLIGSKNIQEDFLDL  
YQNYPEILKVVPLLIKRLRDTIIVKDPKDFYFDFSKRNYSIEEYTMFLEKSGIFDLLQ  
NHLVSNLVDYVTGVEVGM D TNGRKNRTGDAMENIVQSYLEAEGYILGENLFKEIEQNEIE  
EIFSVDLSAITNDGNTVKRFDFVIKNEQVLYLIEVNFYSGSGSKLNETARSYKMI AEETK  
AIPNVEFMWITDQGQWYKAKNNLRETFDILPFLYNINDLEHNILKLNK

>P04390

MSLRSDLINALYDENQKYDVCGIISAEGKIYPLGSDTKVLSTIFELFSRPIINKIAEKHG  
YIVEEPKQQNHYPDFTLTKPSEPNKKAIDIKTTYTNKENEKIKFTLGGYTSFIRNNTKN  
IVYFPDQYIAHWIIGYVYTRVATRKS SLKTYNINELNEIPKPKYKGVKVF LQDKWVIAGDL  
AGSGNTTNI GSIHAHYKDFVEGKGI F DSEDEF LDYWRNYERTSQLRNDKYNNISEYRNWI  
YRGRK

>P36433

MTEFFSGNRGEWSEPYALFKLLADGQLYLGDSQLNKLGI VMPILSILRQEKNYESSYILH  
NNSQNIIVTYNNEKFTVPI SGFQEKAVLLLSEIKNASGNRAFSIPSIDDFLKKLGFTHLS  
ASSSSKSDIHI VVHDLRTGITPTLGF SIKSQLGSPATLLNASKATNFTFKIYNLKDQKIE  
YINSLSGIKEKIKEIFSQDGKLEFVKVESCKFSNNLT LIDTKLPEILAEMILLYSSKLN  
KIDDVTEHISRLNPLNYNLSCNHNYEYKVKHFLNDVALGMRPDDVWL GQYDATGGYL VV  
KEDGELL CYHIYSKNSFEDYLYCNTKFDTPSSSRHDFGHIYQVNHDFFIKLN VQIRFL

>P00643

MSKISNALGRKDGNSGYTRVVGN AELGQLLSRVQATVISNGNELERLITQRCNLIENIDV  
FIEDTTRGNNVQNGVYLCLKKTFKKSKKYAESVKGIEPDMLIFIVESYRVCKVIELKDGD  
AFDTKKSQGEKEHLEK FATLFGAKIPFVTDYYICSFNQNDKKLIMAGFKGVFSLEHILTG  
KELCQILGISYQEILDIRRRDTEENFAYLIAEMMKIPEVREEVKKHF

>P31032

MNPLFTQERRIFHKLLDGNILATNNRGVVSNADGSNTRSFNIAKGIADLLHSETVSERL  
PGQTSGNAFEAICSEFVQSAFEKLQHIRPGDWNVKQVGSRRNRLEIARYQQY AHLTALAKA  
AEENPELAAALGSDYTTIPDIIVTRNLIADAEINRNEFLVDENIATYASLRAGNGNMPLL  
HASISCKWTIRSDRAQNARSEGLNLVRNRKGR LPHIVVVTAEPTPSRISSIALGTGEIDC  
VYHFALYELEQILQSLNYEDALDFYIMVNGKRLKDISDLPLDLAV

>P50187

MTELPLQFAEPDDDLERV RATLYSLDPDGDRTAGVLRD TLDQLYDQRTGRWNFDQLHKT  
EKTHMGTLVEINLHREFQFGDGFETDYEIAGVQVDCKFSMSQGAWMLPPESIGHICLVIW

ASDQQCAWTAGLVKVI PQFLGTANRDLKRRLTPEGRAQVVKLWPDHGKLEENLLLH I PGD  
VRDQIFSAKSSRGNQHGGQARVNELFRRVHGRLIGRAVIATVAQQDDFMKRVRGSGGARS I  
LRPEGII IILGHQDNPKVANDLGLPVPRKGQVVAARVPADEGDQRQTAEIQGRRWAVAV  
PGDPIVEAPVVPRKSAE

>P23657

MSHPDLNKLLELWPHIQEYQDLALKHGINDIFQDNGGKLLQVLLITGLTVLPGREGNDV  
DNAGQEYELKSINIDLTKGFSTHHMNPVI IAKYRQVPWIFAIYRGIAIEAIYRLEPKDL  
EFYYDKWERKWYSDGHKDINNPKIPVKYVMEHGTKIY

>P05104

MALDLVDYEQKARDAVKAFWGNREARQKQIESGKADQGERAGVTGGKNMDGFLALVLDV  
IKANGLAHAIEIHQNRAMLTLPGYFRPTKLWDLVVIYKGEI IAAIELKSHVGPSFSNNFNN  
RTEEAIGTAHDLWTAYREEAFGKQPRPFVGLMMVEDAPESRRPVRDSSPHFPVFEEFKG  
ASYLTRYDLLCQRLVQEQLYTTAAVIAAERSAVDTGNFTELSSMTSLKTFVSALAGHIAA  
EAARLG

>O67050

MGKEYFLKVALREAKRAFEKGEVPGAIIVKEGEIISKAHNSVEELKDPTAHAEMLAIKE  
ACRRLNTKYLEGCELYVTLEPCIMCSYALVLSRIEKVIFSALDKKHGGVVSFVNLDEPT  
LNHRVKWEYYPLEEASELLSEFFKCLRNNII

>P27623

MKKVITYGTFDLLHWGHIKLLERAKQLGDYLVVAISTDEFNLQKQKAYHSYHRKLILE  
TIRYVDEVIPEKNWEQKKQDIIDHNIDVFMGDDWEGKFDLKDQCEVVYLPRTEGI STT  
KIKEE IAGL

>P03409

MAHFPGFGQSLLFGYPVYVFGDCVQGDWCPISGGLCSARLHRHALLATCPEHQITWDPID  
GRVIGSALQFLIPRLPSFPTQRTSKTLKVLTPPIHTTTPNIPPSFLQAMRKYSPPFRNGYM  
EPTLGQHLPTLSFPDPGLRPQNLTYTLWGGSVVCMYLYQLSPPITWPLLPHVIFCHPGQLG  
AFLTNPYKRIEELLYKISLTTGALIIILPEDCLPTTLFQPARAPVTLTAWQNGLLPFHST  
LTTPLGIWTFDGTPMISGPCPKDQPSLVLQSSSFIFHKFQTKAYHPSFLLSHGLIQYS  
SFHSLHLLFEEYTNIPISLLFNEKEADDNDHEPQISPGGLEPPSEKHFRETEV

>Q86XR7

MGIGKSKINSCPLSLSWGKRHSVDTS PGYHESDSKKS EDLSLCNVAEHSNTTEGPTGKQE  
GAQSVEEMFEEEEAEVFLKFVILHAEDDTDEALRVQNLLQDDFGIKPGIIFAEMPCGRQ  
HLQNLDDAVNGSAWTILLTENFLRDTWCNFQFYTSLMNSVNRQHKYNSVIPMRPLNNPL  
PRERTPFALQTINALEEESRGFPTQVERIFQESVYKTQQT IWKETRNMVQRQFIA

>P56279

MAECPTLGEAVTDHPDRLWAWKVFVYLDEKQHAWLPLTIEIKDRLQLRVLLRREDVVLGR  
PMTPTQIGPSLLPIMWQLYPDGRYRSSDSSFWRVLYHIKIDGVEDMLLELLPDD

>P53999

MPKSKELVSSSSSGSDSDSEVDKLLKRKKQVAPEKPVKKQKTGETSRALSSSKQSSSRD  
DNMFQIGKMRYSVRDFKGVLDIREYWMDEGEMKPGRKGISLNPEQWSQLKEQISDI  
DDAVRKL

>P0AGG2

MSQALKNLLTLLNLEKIEEGLFRGQSEDLGLRQVFGGQVVGQALYAAKETVPEERLVHSF  
HSYFLRPGDSKPIIYDVETLRDGNFSARRVAAIQNGKPIFYMTASFQAPEAGFEHQKT  
MPSAPAPDGLPSETQIAQSLAHLPLPPVLKDKFICDRPLEVRPVEFHNPLKGHVAEPHRQV  
WIRANGSVPDDLRVHQYLLGYASDLNFLPVALQPHGIGFLEPGIQIATIDHSMWFHRPFN  
LNEWLLYSVESTSASSARGFVRGEFYTQDGVLVASTVQEGVMRNHN

>P05452

MELWGAYLLLCLFSLLTQVTTEPPTQKPKKIVNAKKDVVNTKMFELKSRLDTLAQEVAL  
LKEQQALQTVCLKGTKVHMCKFLAFTQTKTFHEASEDCISRGGTLSTPQTGSENDALYEY  
LRQSVGNEAEIWLGLNDMAAEGTWVDMTGARIAYKNWETEITAQPDGGKTENCAVLSGAA  
NGKWFDKRCRDQLPYICQFGIV

>P04445

MNKTELIKAIQAQDTELTVSVSKMLASFEEKITTTETVAKGDKVQLTGFLNIKPVARQARKG  
FNPQTQEALAIAPSVGVSVKPGESLKKAAEGLKYEDFAK

>P03740

MAFRMSEQPRTIKIYNLLAGTNEFIGEGDAYIPPHTGLPANSTDIAPPDIPAGFVAVFNS  
DEASWHLVEDHRGKTVYDVASGDALFISELGPLPENFTWLSPGGEYQKWNGTAWVKDTEA  
EKLFRIREAEETKKSMLQVASEHIAPLQDAADLEIATKEETSLEAWKKYRVLLNRVDT  
TAPDIEWPAVPVME

>P01137

MPPSGLRLLLLLLLPLLWLLVLTGPRPAAGLSTCKTIDMELVKRKRIEAIRGQILSKLRLA  
SPPSQGEVPPGPLPEAVLALYNSTRDRVAGESAEPEPEPEADYYAKEVTRVLMVETHNEI  
YDKFKQSTHSIYMFFNTSELREAVPEPVLLSRAELRLLRLKLVKVEQHVELYQKYSNNSWR  
YLSNRLAPSDSPEWLSFDVTGVVRQWLSRGGIEGFRLSAHCSDSRDNTLQVDINGFT  
TGRRGDLATIHGMRPFLLLMATPLERAQHLQSSRHRRALDTNYCFSSTEKNCCVRQLYI  
DFRKDLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNPGASAAPCCVPQA  
LEPLPIVYVGRKPKVEQLSNMIVRSCKCS

>Q99041

MDSRNMLVVYSVNLEKKLNAAAHTIEYQTQKLVLRGQIFSLKVMLNRPLQSHDELKLI  
FNTGHNMPFYTVELDPMTSYRSKGWQVKIAKQSGVEVVLNVI SAANAVVGRYTMNVNEFD  
AGVFFLLLLNPWCSDSVFMASEEDRAEYVLNDTGYMYMGFAKQIKEKPWTFGRRLRSTLEL  
LLPIVDPPFGAQGNAEPVLVSRAICTMMCAANNFGVLVGNWTGDYSNGTAPYVWASSVPIL  
QQHYITRMPVRFQGCWVFSGLVTTALRAVGIPARSVTNFESAHDTEKNLRVDIYLDES GK  
TIPHLLTKDSVWNFMWTDAMMKRQDLPOGHGQVLDSTPQEI SEGQFRIGPSPVSAIRQ  
GLVQFMYDITTFVFTVNGDKYIWLVKQNQERERRMSHRCGDCASIGKNISTKMVGENRRQ  
DITLHYKFPEGSPEERKAMEKASGKRPPDKLNSRTLHISVLQNSVELGHPINLTIVLKRK  
TATPQNVNISCSLDLQTYTGNKKTNLGVIQKTVQIQGQSEVSLSMDSSFYIYKLG MVDD  
EMVIKGFIIAEIVDSGERVATDTTLCFLYSAFSVEMPSTSKVNQPLTITCNFKNTLP IPL  
TNIKFSVESLGLNNMKSWEQETVPPGKTINFQIECTPVKGTGNPRKFIVKFISRQVKEVHA  
EKVVLITK

>P0A847

MKFELDTTDRARRGRLVFDRGVVETPCFMPVGTGTVKGMTPEEVEATGAQIILGNTFH  
LWLRPGQEIMKLGDLHDFMQWGPILTDSGGFQVFSLGDIRKITEQGVHFRNPINGDPI  
FLDPEKSMEIQYDLGSDIVMIFDECTPYPADWDYAKRSMEMSLRWAKRSRERFDSLGNKN

ALFGIIQGSVYEDLRDISVKGLVDIGFDGYAVGGLAVGEPKADMHRILEHVCPQIPADKP  
RYLMGVGKPEDLVEGVRRGIDMFDVMPTRNARNHGLFVTDGVVKIRNAKYKSDTGPLDP  
ECDCYTCRNYSRAYLHHLDRCNEILGARLNTIHNLRYRQLMAGLRKAIIEEGKLESFVTD  
FYQRQGREVPPLNVD

>P82354

ECENTECPRACPGEYEFDEDCNTCVCKGCDDAQCRCS SDANGCESFCTCNTRCSAADEC  
NPRCTCK

>P0AGF6

MHITYDLPVAIDDIIEAKQRLAGRIYKTGMPRSNYFSERCKGEIFLKFENMQR TG SFKIR  
GAFNKLSSLTDAEKRRKGVVACSAGNHAQGVSLSCAMLGIDGKVVMPKGAPKSKVAATCDY  
SAEVVLHGDNFNDTIAKVSEIVEMEGRIFIPPYDDPKVIAGQGTIGLEIMEDLYDNDVI  
VPIGGGLIAGIAVAIKSINPTIRVIGVQSENVHGMAASFHSGEITTHRTTGT LADGCDV  
SRPGNLTYEIVRELVDIVLSEDEIRNSMIALIQRNKVVTEGAGALACAALLSGKLDQY  
IQNRKTVSIIISGGNIDLSRVSQITGFVDA

>P07097

MSTPSIVIASARTAVGSFNAGAFANTPAHELGATVISAVLERAGVAAGEVNEVILGQVLP  
GEGQNPARGAAMKAGVPQEATAWGMNQLCGSGLRAVALGMQQIATGDASIIVAGGMESMS  
MAPHCAHLAGGVKMGDFK MIDTMIKDGLTDAFYGYHMGTTAENVAKQWQLSRDEQDAFAV  
ASQNKAEAAQKDGFRKDEIVPFI V KGRKGDITVDADEYIRHGATLDSMAKLRPAFDKEGT  
VTAGNASGLNDGAAAALLMSEAEASRRGIQPLGRIVSWATVGVDPKVMGTGPIPASRKAL  
ERAGWKIGDLDLVEANEAFAAQACAVNKDLGWDP SIVNVNGGAI AIGHPIGASGARILNT  
LLFEMKRRGARKGLATLCIGGGMGVAMCIESL

>P10599

MVKQIESKTAFQEALDAAGDKLVVDF SATWCGPCKMIKPPFFHSLSEKYSNVIFLEVDVD  
DCQDVASECEVCKMPTFFQFFKKGQKVGEFSGANKEKLEATINELV

>Q9S7B5

MASSCLFNASVSSLNPKQDP IRRHRSTSLRHRPVVISCTADGNNIKAPIETAVKPPHRT  
EDNIRDEARRNRSNAVNPFSAKYVPFNAAPGSTESYSLDEIVYRSRSGLLDVEHDMEAL  
KRFDGAYWRDLFDSRVGKSTWPYGSVWSKKEWVLP EIDDDDIVSAFEGNSNLFWAERFG  
KQFLGMNDLWVKHCGISHTGSFKDLGMTVLVSVQVNR LRKMKRPVVGVCAS TGD TSAALS  
AYCASAGIP SIVFLPANKISMAQLVQPIANGAFVLSIDTDFDGC MKLIREITAE LPIYLA  
NSLNSLRLEGQKTAAIEILQQFDWQVPDWVIVPGGNLGN IYAFYKGFKMCQELGLVDRIP  
RMVCAQAANANPLYLHYKSGWKDFKPM TASTTFASAIQIGDPVSIDRAVYALKKCN GIVE  
EATEEELMDAMAQADSTGMFICPHTGVALTALFKLRNQGV IAPTDRTVV VSTAHGLKFTQ  
SKIDYHSNAIPDMACRFSNPPVDVKADFGAVMDVLKSYLGSNTLTS

>P80969

MATTNNKNTITITEKVYVRVRLANEADISHIYKLFYQIHEYHNYTHLYKATESSLCDLLFK  
ANPNPLFYGPSVLLLEVSPTPFENTKKDEKFKPVLKTFDLRATVEDKEAEFFKSKSCGDE  
KEDVFIAGYAFFYANYSCFYDKAGIYFESLYFRESYRKLGMGGLLFGTVASIAANNGFAS  
VEGIVAVWNKKSDFYVNMGVEIFDEFYRGLVGDALQKYADKEKV

>P58753

MASSTSLPAPGSRPKKPLGKMADWFRQTL LKKPKRPN S PESTSSDASQPTSQDSPLPPS  
LSSVTSPSLPPTHASDSGSSRSKDYDVCVCHSEEDLVAAQDLVSYLEGSTASLR CFLQL

RDATPGGAIVSELQALSSSHCRVLLITPGFLQDPWCKYQMLQALTEAPGAEGCTIPLLS  
GLSRAAYPPELRFMYVVDGRGPDGGFRQVKEAVMRYLQTL

>P50591

MAMMEVQGGPSLGQTCVLIIVFTVLLQSLCVAVTYVYFTNELKQMQDKYSKSGIACFLKE  
DDSYWDPNDEESMNPCWQVKWQLRQLVRKMILRTSEETISTVQEKQONISPLVREERGPO  
RVAAHITGTRGRSNTLSSPNSKNEKALGRKINSWESSRSGHSFSLNLHLRNGELVIHEKG  
FYIYISQTYFRFQEEIKENTKNDKQMVQYIYKYTSYDPDILLMKSARNSCWSKDAEYGLY  
SIYQGGIFELKENDRIFVSVTNEHLIDMDHEASFFGAFLVG

>P13453

MSIQRLGYLGFEVADVRSWRTFATTRLGMMEEASASETEATFRIDSRAWRLSVSRGPADDY  
LFAGFEVDSEQQLQEVKESLQAHGVTVKVEGGELIAKRGLGLISCTDPFGNRVEIYYGA  
TELFERPFASPTGVSGFQTDGQGLGHYVLSVADVDAALAFYTKALGFQLADVIDWTIGDG  
LSVTLYFLYCNGRHHSFAFAKLPKSKRLHFMQLQANGMDDVGLAYDKFDAERAVVMSLGR  
HTNDHMISFYGATPSGFAVEYGWGAREVTRHWSVVRVDRISIWGHKFQAPA

>Q9APM5

MTYDKAELVALDKKYVWHHLTQHKNFEPAIYVKGEGMRITDIDGKTYLDAVSGGVWTVNV  
GYGRKEIVDAVAKQMMEMCYFANGIGNVPTIKFSEKLIKMPGMSRVYLSNSGSEANEKA  
FKIVRQIGQLKHGGKKTGILYRARDYHGTTIGTLSACGQFERKVQYGPFPAGFYEPDCD  
VYRSKFGDCADLGVKMAKQLEEVILTVPDELGAVIVEPMTAGGGILVPPAGYYETIREI  
CDKYELLLIIDEVVCGLGRTGKWFQYQHFNVQPDIVTMAKGVASGYAPISCTVTTEKVFQ  
DFVNDPADTDAYFRDISTFGGCTSGPAAALANIEIERENLLENCTKMGDRLLLEGLKGLM  
AKHPIIGDVRGKGLFAGIEIVKDRATKEPIAEAVANAMVGAQKQAGVLIGKTSRSFREFN  
NTLTLCPALIAATEADIDEIVAGIDKAFTTVEQKFG

>P40414

MEKIKEKLNLSLKESESWQEKYEELREQLKELEQSNTEKENEIKSLSAKNEQLDSEVEKL  
ESQLSDTKQLAEDSNLRSNNENYTKKNQDLEQQLEDSEAKLKEAMDKLKEADLNSEQMG  
RRIVALEEERDEWEKKCEEFOQSKYEEAQKELDEIANSLNL

>P15846

MDAIIKKMQAMKIEKDNALDRADAAEEKVRQITEKLERVEEELRDTQKKMMQTENDLKA  
QEDLAAATSQLEEKQVQEAEEVAALNRRMTLLEEEELERAERLKIATEKLEETHNV  
DESERVRKVMENGSFQDEERANTIEAQLKEAQMMLAEADRKYDEVARKLAMVEADLERAE  
ERAEAGENKIVELEEEELRVVGNLKSLEVSEEKALQREDSYEEQIRTISSRLKEAETRAE  
FAERSVQKLQKEVDRLEDELVHEKERYKAISEELDSTFQELSGY

>P07636

MELWVSPKECANLPGLPKTSAGVIYVAKKQGWQNRTRAGVKGGKAI EYNANSLPVEAKAA  
LLLQRQGEIETSLGYFEIARPTLEAHDYDREALWSKWDNASDSQRRLAEKWLPVQAADDEM  
LNQGISSTKTAFAFVAGHYQVSASTLRDKYYQVQKFAKPDWAAALVDGRGASRRNVHKSEF  
DEDAWQFLIADYLRPEKPAFRKCYERLELAAREHGWSIPSRATAFRRIQQLDAMVVACR  
EGEHALMHLIPAQQRTVEHLDAMQWINGDGYLHNVFVRWFNGDVIRPKTWFQDVKTRKI  
LGWRCDVSENIDSIRLSFMDVVTRYGIPEDFHITIDNTRGAANKWLTGGAPNRYRFKVK  
DDPKGLFLLMGAKMHWTSVVAGKQGWQAKPVERAFVGGLEEYVDKHPALAGAYTGPNPQ  
AKPDNYGDRAVDAELFLKTLAEGVAMFNARTGRETEMCGGKLSFDDVFEREYARTIVRKP  
TEEQRMLLLPAEAVNVSRKGEFTLVKGGSLKGAKNVYYNMALMNAGVKKVVVRFDPQQL  
HSTVYCYTL DGRFICEAECLAPVAFNDAAAAGREYRRRQKQLKSATKAAIKAQKQMDALEV

AELLPQIAEPAAPESRIVGIFRPSGNTERVKNQERDDEYETERDEYLNHSLDILEQNRK  
KAI

>Q6PIZ9

MSGISGCPFFLWGLLALLGLALVISLIFNISHYVEKQRQDKMYSYSSDHTRVDEYYIEDT  
PIYGNLDDMISEPMDENCYEQMKARPEKSVNKMQEATPSAQATNETQMCYASLDHSVKGK  
RRKPRKQNTHFSDKDGDEQLHAIDASVSKTTLVDSFSPESQAVEENIHDDPIRLFGLIRA  
KREPIN

>Q9BQ50

MGRAGSPLPRSSWPRMDDCGSRSRCSPTLCSLRTCYPNGNITMSEAPRAETFFVFLDLEA  
TGLPSVEPEIAELSLFAVHRSSLENPEHDESGALVLPVLDKLTLCMCPERPFTAKASEI  
TGLSSEGLARCRKAGFDGAVVRTLQAFLSRQAGPICLVAHNGFDYDFPLLCAELRRLGAR  
LPRDTVCLDTLPALRGLDRAHSHGTRARGRQGYSLGSLFHRYFRAEPSAAHSAEGDVHTL  
LLIFLHRAAELLAWADEQARGWAHIEPMYLPDDPSLEA

>P0AE01

MLQNIRIVLVETSHTGNMGSVARAMKTMGLTNLWLVNPLVKPDSQAIALAAGASDVIGNA  
HIVDTLDEALAGCSLVVGTARSRTLPWPMLDPRECGLKSVAEAANTPVALVFGREVRVGL  
TNEELQKCHYHVAIAANPEYSSNLAMAVQVIAYEVRMAWLATQENGEQVEHEETPYPLV  
DDLRFYGHLEQTLATGFIRENHGQVMNKLRLRFTTRARPESQELNILRGILASIEQQN  
KGNKAE

>P42390

MAFAPKTSSSSSLSSALQAAQSPPLLLRRMSSTATPRRRYDAAVVVTTTTTARAAAAAVT  
VPAAPPQAPAPAPVPPKQAAAPAERRSRVSDTMAALMAKGTAFIPYITAGDPLATTA  
EALRLLDGCADVIELGVPCSDPYIDGPIIQASVARALASGTTMDAVLEMLREVTPELSC  
PVVLLSYKPIMSRSLAEMKEAGVHGLIVPDLPYVAHSLWSEAKNNNLELVLLTTPAIP  
EDRMKEITKASEGFVYLVSVNGVTGPRANVNPRVESLIQEVKKVTNKPVAVGFGISKPEH  
VKQIAQWGADGVIIGSAMVRQLGEAASPKQGLRRLEEYARGMKNALP

>P39440

MTQHSPYSSAMAEQRHQEWLRFVELLRQSYDKDLHLPLQLMLTPDEREALGTRVRIIEE  
LLRGEMSQRELKNELGAGIATITRGSNSLKSAPVELRQWLEQILLGAQR

>P07649

MSDQQQPPVYKIALGIEYDGSKYWGQRQNEVRSVQEKLEKALSQVANEPITVFCAGRTD  
AGVHGTGQVVHFETTALRKDAAWTLGVNANLPGDIAVRWVKTVPDDFHARFSATARRYRY  
I IYNHRLRPAVLSKGVTHFYEPLDAERMHRAAQCLLGENDFTSFRAVQCQSRTPWRNVMH  
INVTRHGYPVVVDIKANAFVHHMVRNIVGSLMEVGAHNQPESWIAELLAAKDRTLAAATA  
KAEGLYLVAVDYPDRYDLPKPPMGPLFLAD

>P15157

MLSLLLLALPVLASRAYAAPAPVQALQQAGIVGGQEAPRSKWPVQVSLRVRDRYWMHFCG  
GSLIHPQWVLTAAHCLGPDVKDLATLRVQLREQHLYYQDQLLPVSRIVHPQFYIIQTGA  
DIALLELEEPVNISSRVHTVMLPPASETFPPGMPCWVTGWGDVDNDEPLPPFPKQVKV  
PIMENHICDAKYHLGAYTGDDVRIIRDDMLCAGNTRRDSCKGDSGGPLVCKVNGTWLQAG  
VVSWEDEGCAQPNRPGIYTRVTYYLDWIHHYVPPKP

>P01407

LTCVTDKSFGGVNTEECAAGQKICFKNWKKMGPKLYDVKRGCTATCPKADDDGCVKCCNT  
DK

>Q9Y7F0

MAPVVQQPAPSFKKTAVVDGVFEEVTLQYKKGWVLLAFIPLAFTFVCPSEIIAYSEAVK  
KFAEKDAQVLFASDSEYTWLAWTNVARKDGGIGKVDFPVLADTNHSLSRDYGVLEEEG  
VALRGIFLIDPKGVLRQITINDLPVGRSVEESLRLLEAFQFTEKYGEVCPANWHPGDETI  
KPSPEASKEYFNKVNK

>P21762

MLVTKLAPDFKAPAVLGNNEVDEHFELSKNLKGNGAILFFWPKDFTFVCPTEIIAFDKRV  
KDFQEKGFNVIGVSIQSEVHFVFAWKNTFVEKGGIGQVTFPMVADITKISIRDYDVLFEAA  
IALRGAFLLIDKNMKVRHAVINDLPLGRNADEMLRMVDALLHFEHGEVCPAGWRKGDGKM  
KATHQGVAEYLLKENS IKL

>Q7YZT0

MSIFPTRDSRDLSSRRRSLIDWEFPQMALVPLDQVFDWAERSRQSLHDDIVNMHRNLFSL  
EPFTAMDNAFESVMKEMSAIQPREFHPELEYTQPGELEDFLKDAYEVGKDGRHLHFVYFNV  
KNFKAAEITIKADKNKLVVRAQKSVACGDAAMSESVGRSIPLPPSVDRNHIQATITDDV  
LVIEAPVNEPNYKAIKLSPEKGLAIQPSVQERQLAVKNKEGLEIVTAEDGSKKIHLELK  
VDPHFAPKDVKVVAKGNKVYVHGVGTGKEEKTENASHSEHREFYKAFVTPEVVDASKTQAE  
IVDGLMVVEAPL FK

>P08405

MESQQLSQHSPNSHGSACASVTSKEVHTNQDPLDVSASKTEECEKASTKANSQQTTTPAS  
SAVPENPHHASPQPASVPPPQNGPYQQMMTQONQANPSGWSFYGHPSMIPYTPYQMSPM  
YFPPGPQSQFPQYPSVGTPLSTPSPESGNTFTDSSSADSDMTSTKKYVRPPMLTSPND  
FPNWVKTYIKFLQNSNLGGIIPVNGKPVQRITDDELTFLYNTFQIFAPSQFLPTWVKDI  
LSVDYTDIMKILSKSIEKMQSDTQEANDIVTLANLQYNGSTPADAFETKVTNIIDRLNND  
GIHINNKVACQLIMRGLSGEYKFLRYTRHRHLNMTVAELFLDIHAIYEEQQGSRNSKPNY  
RRNPSDEKNDSRSYTNNTTKPKVIARNPQKTNNSSKSKTARAHNVSTSNNSPSTDNDSISKS  
TTEPIQLNNKHDLHLRPETY

>P04177

MPTSPASPQPKGFRRVAVSEQDAKQAEAVTSPRFIGRRQSLIEDARKEREAAAAAAAAAV  
ASSEPGNPLEAVVFEERDGNVNLNLLFSLRGTKPSSLSRAVKVFETFEAKIHHLETRPAQ  
RPLAGSPHLEYFVRFEVPSGDLAALLSSVRRVSDDVSAREDKVPWFPRKVSSELDKCHHL  
VTKFDPDLDLHDPGFSQVYRQRKLI AEIAFYQYKHGEP I PHVEYTAEEIATWKEVYVTL  
KGLYATHACREHLEGFQLLERYCGYREDSIPQLEDVSRFLKERTGFQLRPVAGLLSARDF  
LASLAFRVFQCTQYIRHASSPMHSPEPDCHELLGHVPMPLADRTFAQFSQDIGLASLGAS  
DEEIEKLSTVYWFVTFEFLCKQNGELKAYGAGLLSSYGELLHSLSEPEVRAFPDPTAAV  
QPYQDQTYQPVYFVSESNDAKDKLRNYASRIQRPFVSKFDPYTLAIDVLDSPHTIQRSL  
EGVQDELHTLAHALSAIS

>P04693

MFQKVDAYAGDPIILTLMERFKEDPRSDKVNLSIGLYYNEGDIIPQLQAVAEAEARLNAQP  
HGASLYLPM EGLN CYRHAIA PL LFGADHPVLKQQRVATIQT LGGSGALKVGADFLKRYFP  
ESGVVWSDPTWENHVAIFAGAGFEVSTYPWYDEATNGVRFNDLLATLKTLPARSIVLLHP  
CCHNPTGADLTNDQWDAVIEILKARELIPFLDIAYQGFAGMEEDAYAIRAIASAGLPAL  
VSNSFSKIFSLYGERVGGLSVMCEDAEAAAGRVLGQLKATVRRNYSSPPNFGAQVVAAVLN

DEALKASWLAEEVEMRTRILAMRQELVKVLSTEMPERNFYLLNQRGMFSYTGLSAAQVD  
RLREEFGVYLIASGRMCVAGLNTANVQRVAKAFAAVM

>P95468

MLGNLKPQAPDKILALMGEFRADPRQGKIDLGVGVIKDATGHTPIMRAVHAAEQRMLETE  
TTKTYAGLSGEPEFQKAMGELILGDGLKSETTATLATVGGTGALRQALELARMANPDLRV  
FVSDPTWPNHVSIMNFMGLPVQTYRYFDAETRQVDFEGMKADLAAAKKGMVLLHGCCHN  
PTGANLTLQWAEIASILEKTGALPLIDLAYQGFQDGLLEEDAAGTRLIASRIPVFLIAAS  
CSKNFGIYRERTGCLLALCADAATRELAQGAMAFLNRQTYSFPPFHGAKIVSTVLTTPPEL  
RADWMAELEAVRSGMLRLREQLAGELRDLSDRFGFVAEHRGMFSRLGATPEQVKRIKE  
EFGIYMVGDSRINIAGLNDNTIPILARAIIEVGV

>Q00234

MASVEPIKTFEIRQKGPVETKAERKSIRDLNEEELDKLIEAWRWIQDPARTGEDSFFYLA  
GLHGEPFRGAGYNNSHWGGYCHHGNILFPTWHRAYLMAVEKALRKACPDVSLPYWDESD  
DETAKKGIPLIFTQKEYKGNPLYSYTFSERIVDRLAKFPDADYSKPPQGYKTCRYPYSG  
LCCQDDIAIAQOHNNFLDANFNQEQITGLLNSNVTSWLNLGQFTDIEGKQVKADTRWKIR  
QCLLTHEEYTVFSNNTSAQRWNDEQFHPLESGGKETEAKATSLAVPLESPHNDMHLAIGGV  
QIPGFNVQYAGANGDMGENDTASFDPIFYFHHCFFIDYLFWTWQTMHKKTDASQITILPE  
YPGTNSVDSQGPTPGISGNTWLTLDTPDPFRENGDKVTSNKKLLTLKDLPHYTKAPTSGT  
GSVFNDVPRNLNYPLSPPILRVSGINRASIAGSFALAI SQTDHTGKAQVKGIESVLSRWHV  
QGCANCQTHLSTTAFVPLFELNEDDAKRKHANNELAVHLHTRGNPGGQVRVNVTVGTMR

>P42326

MTQFDKQYNSIIKDIINNGISDEEFDVTRTKWSDGTPAHTLSVLSKQMRFDNSEVPIILTT  
KKVAWKTAIKELLWIWQLKSNDVNDLNMGMVHIWDQWKQEDGTIGHAYGFQLGKKNRSLN  
GEKVDQVDYLLHQLKNNPSSRRHITMLWNPDELDAMALTPCVYETQWYVKGKLLHLEVRA  
RSNDMALGNPFNVFQYNVLQRMIAQVTGYELGEYIFNIGDCHVYTRHIDNLKIQMEREQF  
EAPELWINPEVKDFYDFTIDDFKLIYKXHGDKLLFEVAV

>P00471

MKQYQDLIKDIFENGYETDDRTGTGTIALFGSKLRWDLTKGFPAVTTKKLAWKACIAELI  
WFLSGSTNVNDLRLIQHDSLIIQKTVWDENYENQAKDLGYHSGELGPYIGKQWRDFGGVD  
QIIIEVIDRIKKLPNDRRQIVSAWNPALKYMALPPCHMFYQFNVRNGYLDLQWYQRSVDV  
FLGLPFNIASYATLVHIVAKMCNLIIPGDLIFSGGNTHIYMNHVEQCKEILRREPKELCCEL  
VISGLPYKFRYLSTKEQLKYVLKLRPKDFVLMNYSVSHPPKIGKMAV

>P12461

MTVSPNTAEQAYLDLCKRIIDEGEHRPDRGTGTGKSLFAPPQLRFDLSNDTFPLLTTKKV  
FSKGIIEHELLWFVAGSTDAKILSEKGVKIWEGNGSREFLDKLGTHRREGDLGPVYGFQW  
RHFGAEYKDCSDYTGQGFQDQDVIKKLKTNPYDRRIIMSAWNPDPFAKMALPPCHVFC  
QFYVNFPTSSPDNPKQAKTAKPKLSCLLYQRSCDMGLGVPFNIAASYALLTKMIAHVVD  
MDCGEFIHTLGDHVVLDHIDALKEQFERIPKQFPKLVKEERKNEIKSIDDFKFEDFEI  
VGYEPYPPKMKMSV

>P04818

MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTLVFG  
MQARYSLRDEFPLLTTKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDS  
LGFSTREEGDLGPVYGFQWRHFGAEYRDMESDYSGQVDQLQRVIDTIKTNPDDRIIMC  
AWNPRDLPLMALPPCHALCQFYVNVNSELSCQLYQRSGDMGLGVPFNIAASYALLTYMIAHI



TGLKPGDFIHTLGDAAHYLNHIEPLKIQLOREPRPFPKLRILRKVEKIDDFKAEDFQIEG  
YNPHPTIKMEMAV

>P19368

MTYADKIFKQNIQNILDNGVFSENARPKYKDGQTANSKYVTGVSFVTYDLQKGEFPITTLR  
PIPIKSAIKELMWIYQDQTSেলাILEEKYGVKYWGEWIGDGTIGQRYGATVKKYNIIGK  
LLDGLAKNPWNRNIINLWQYEDFEETEGLLPCAFQTMFDVRRREQDQIYLDATLIQRSN  
DMLVAHHINAMQYVALQMMIAKHFSWKVGVKFFYFVNNLHIYDNQFEQANELVKRTASDKE  
PRLVLNVPDGTNFFDIKPEDFELVDYEPVKPQLKFDLAI

>P0A0M5

MYNPFDEAYHGLCEEILEIGNRRDDRTHGTISKFGHQLRFDLTKGFPLLTTKKVSFKLV  
ATELLWFIKGDTNIQYLLKYNNNIWNWAFENYVQSDDYHGPDMTDFGHRSQDPEFNEQ  
YKEEMKKFKERILNDDAFAKKYGNLGNVYQKQWRDWEDKNGNHYDQLKSVIQQIKTNPNS  
RRHIVSAWNPTEIDSMALPPCHTMFQFYVQEGKLNQCQYQRSADIFLGVPFNIAASYALLT  
HLVAKECGLEVGEFIHTFGDAHIYSNHMDAIHTQLSRDSYLPPQLKINTDKSIFDINYED  
LELINYESHPAIKAPIAV

>Q96B02

MASMQKRLQKELLALQNDPPPGMTLNEKSVQNSITQWIVDMEGAPGTLYEAGEKFQLLFKF  
SSRYPFDSQPVMFTGENIPVHPHVYSNGHICLSILTEDWSPALSVQSVCLSIISMLSSCK  
EKRRPPDNSFYVRTCNKNPKKTKWVYHDDTC

>Q07130

MSRFVQDLKAMSQDQASQFQEVIRQELELSVKKELEKILTTAPSHEFEHTKKDLGFRK  
LFHRFLQEKGPSVDWGKIQRPPEDSIQPYEKIKARGLPDNVSSVLNKLVVVKLNGGLGTS  
MGCKGPKSLIGVRNENTFLDLTVQQIEHLNKTYD TDVPLVLMNSFN TDEDTKKILQKYNH  
CRVKIYTFNQSRYPINKESSLPVAKNVSYSGENTEAWYPPGHGDIYASFYNSGLLDTFI  
GEGKEYIFVSNIDNLGATVDLYILNHLMNPPNGKPCFVMEVTNKTRADVKGGLTQYEG  
KLRLVEIAQVPKAHVDEFKSVSKFKIFNTNNLWISLAAVKRLQEQNAIDMEIVNPKTLD  
GGLNVIQLETAVGAAIKSFENSLGINVPRSRFLPVKTTSDLLLVMNSLYSLNAGSLTMSE  
KREFPTVPLVKLGSSFTKVQDYLRRFESIPDMLELDHDLTVSGDVTFGKNVSLKGTVIIIA  
NHGDRIDIPPGAVLENKIVSGNLRILDH

>P38572

MASAAAATTEKGSPPVVGLLVMGNI I ILLSGLALFAETVWVTADQYRIYPLMGVSGKDDV  
FAGAWIAIFCGFSFFVVASFGVGAALCRRRSMILTYLILMLIIYIFECASCITSYTHRDY  
MVSNSPLITKQMLTFYSADSNQGRELTRLWDRIMIEQECCGTS GPMDWVNFTSAFRATP  
EVVFPWPPLCCRRTGNFIPVNEEGCRLGHLDFTKGCFEHIGHAIDSYTWGISWGF  
LAWTLPVMLIAMYFYTTL

>P70881

MGKVYVFDHPLIQHKLTYIRDKNKTGTFEFRELVDVATLMAFEITRDLPLEEVEIETPVS  
KARAKVIAGKKLGVIPILRAGIGMVDGILKLIPAAKVGHIGLYRDPQTLKPVYVVKLPS  
DVEERDFIIVDPMLATGGSAAVAIDALKKRGAKSIFMCLIAAPGRVKAVETAHPDVDIY  
IAALDERLNDHGYIVPGLGDAGDRLFGTK

>P0A8F0

MKIVEVKHPLVKHKLGLMREQDISTKRFRLEASEVGSLLTYEATADLETEKVTIEGWNGP  
VEIDQIKGKKITVVPILRAGLGMMDGVLENVPSARISVVGMYRNEETLEPVYFQKLVSN

IDERMALIVDPMLATGGSVIATIDLLKKAGCSSIKVLVLAAPGIAALEKAHPDVELYT  
ASIDQGLNEHGYIIPGLGDAGDKIFGTK

>O82827

MFPIKKRKAIKNNNINAAQIPKHIAIIMDGNGRWAKQKKMPRIKGHYEGMQTVKKITRYA  
SDLGVKYLTLYAFSTENWSRPKDEVNYLMKLPGLDFLNTFLPELIEKNVKVETIGFIDDL  
DHTKKAVLEAKEKTKHNTGLTLVFALNYGGRKEIISAVQLIAERYKSGEISLDEISETHF  
NEYLFTANMPPELLIRTSGEERLSNFLIWQCSYSEFVVIDEFWPDFNEESLAQCISIQ  
NRHRRFGGL

>Q8RU27

MAGSSVTPPLLKDELDIVIPTIRNLDFLEMWRPFFQPYHLIIVQDGDPSKIINVPEGFD  
YELYNRNDINRILGPKASCISFKDSACRCFGYVMVSKKKYIYTIDDDCFVAKDPSGKDINA  
LEQHIKNLLCPSTPHFFNTLYDPYREGADFVRGYPFMSREGAATAVSHGLWLNIPDYDAP  
TQLVKPRERNTRYVDAVMTIPKGTLPFCMGNLAFDRELIGPAMYFGLMGDQPIGRYDD  
MWAGWCIKVICDHLGLGVKTGLPYIWHKASNPFVNLKKEYKGIYWQEEIIPFSQSATLP  
KDCTSVQQCYLELSKQVKEKLSTIDPYFTKLADAMVTWIEAWDELNPTGEGGLAKLPSRTA  
PESRLH

>P23202

MMNNNGNQVSNLSNALRQVNIIGNRNSNTTTDQSNINFESTGVNNNNNNSSNNNNVQN  
NNSGRNGSQNNDNENNIKNTLEQHRQQQAFSDMSHVEYSRITKFFQEOPLEGYTLFSHR  
SAPNGFKVAIVLSELGFHYNTIFLDFNLGEHRAPEFVSVNPNARVPALIDHGMDNLSIWE  
SGAILLHLVNKYYKETGNPLLSDDLADQSQINAWLFFQTSGHAPMIGQALHFRYFHSQK  
IASAVERYTDEVRRVYGVEMALAEERREALVMELDTENAAAAYSAGTTPMSQSRFFDYVW  
LVGDKLTIADLAFVWNNVDRIGINIKIEFPEVYKWKHMMRRPAVIKALRGE

>P0A8F4

MTDQSHQCVIIGIAGASASGKSLIASTLYRELREQVGDHIGVIPEDCYYKDQSHLSMEE  
RVKTNVDHPSAMDHSLLEHLQALKRGSALDLPVYSYVEHTRMKETVTVPEPKKVIILEGI  
LLLTARLRDELNFSIFVDTPLDICLMRRIKRDVNERGRSMDSVMAQYQKTVRPMFLQFI  
EPSKQYADIIVPRGGKNRIAIDILKAKISQFFE

>Q8MKG2

MKLAITITLAILALCCSPASAEICQSFADIQGLFLGTPASFEEAVEPFKPDADMKAATT  
QLKTLVDLFLPKNTKDSILKLMDKIAKSPLCA

>Q06318

MKIAITITVVMLSICCSSASSDICPGFLQVLEALLMESESGYVASLKPFPNGSDLQAGT  
QLKRLVDLTPQETRINIMKLTEKILTSPCKQDLRF

>P02779

MKLAITLALVTLALLCSPASAGICPRFAHVNIENLLLGTSPSSYETSLKEFEPDDTMKDAGM  
QMKKVLDLSPQTTRENIMKLTEKIVKSPLCM

>Q9WXR9

MFLGEDYLLTNRAAVRLFNEVKDLPVDPHNHLDAKDIVENKPNWDIWEVEGATDHYVWE  
LMRRCGVSEEYITGSRSNKEKWALAKVFPFVGNPTYEWIHLDLWRRFNIKKVISEETA  
EEIWEETKKKLPEMTPQKLLRDMKVEILCTTDDPVSTLEHHRKAKEAVEGVTILPTWRPD  
RAMNVDKEGWREYVEKMGERYGEDTSTLDGFLNALWKSHEHFKEHGCVASDHALLEPSVY

YVDENRARAVHEKAFSGEKLQDEINDYKAFMMVQFGKMNQETNWTQLHIGALRDYRDS  
LFKTLGPDSSGGDISTNFLRIAEGRLYFLNEFDGKLIKIVLYVLDPTHLP TIST IARAFPNV  
YVGAPWWFNDSPFGMEMHLKYLASVDLLYNLAGMVTDSRKLKLSFGSRTEMFRRVLSNVVG  
EMVEKGQIPIKEARELVKHVS YDGP KALFFG

>P35775

MKSFVLATCLLGFAQIIYADNKELKIIIRKDVAECLRTL PKCGNQ PDDPLARVDVWHCAMA  
KRGVYDNPDP AVIKERSMKMCTKIIITDPANVENCKKVASRCVDRETQGP KSNRQKAVNII  
GCALRAGVAETT VLARKK

>P22203

MSSAITALTPNQVNDELNKMQAFIRKEAEEKAKEIQLKADQEYEIEKTNIVRNETNNIDG  
NFKSKLKKAMLSQQITKSTIANKMRLKVL SAREQSLDGI FEETKEKLSGIANNRDEYKPI  
LQSLIVEALLKLLLEPKAIVKALERDVDLIESMKDDIMREYGEKAQRAPLEEIVISNDYLN  
KDLVSGGVVSNASDKIEINNTLEERLKL LSEEALPAIRLELYGPSKTRKFFD

>O69056

MTDVTGAPADVLHTL FHS DQGGHEQVVL CQDRASGLKAVIALHSTALGPALGGTRFY PYA  
NEAEAVADALNLARGMSYKNAMAGLEHGGGKAVIIGDPEQIKSEELLLAYGRFVASLGGR  
YVTACDVGTYVADMV VARECRWTTGRSPENGGAGDSSVLT SFGVYQGMRAAAQHLW GDP  
TLRDRTVGIAGVGKVGHHLVEHLLAEGAHVVVTDVRKDVVRSLTERHPSVVAVADTDALI  
RVENLDIYAPCALGGALNDETVPVLTAKVVCGAANNQLAHPGVEKDLADRGI LYAPDYVV  
NAGGVIQVADELHGFD FDRCKAKAAKIYDTTLAIFARAKEDGIPAAAAADRIAEQRMAEA  
RARR

>P03122

METACERLHVAQETQMQLIEKSSDKLQDHILYWTAVRTENTLLYAARKKGVTVLGHCRVP  
HSVVCQERAKQAIEMQLSLQELSKTEFGDEPWSLLDTSWDRYMSEPKRCFKKGARVVEVE  
FDGNASNTNWYTVYSNLYMRTE DGWQLAKAGADGTGLYYCTMAGAGRIYYSRFGDEAARF  
STTGHSVRDQDRVYAGVSSSTSSDFRDRPDGVWVASEGPEGDPAGKEAEPAPVSSLLGS  
PACGPIRAGLWVRDGP RSHYPNF PAGSGGSILRSSSTPVQGTVPVDLASRQEEEEQSPD  
STEEEPVTLPRRTTNDGFHLLKAGGSCFALISGTANQVKCYRFRVKKNHRHRYENCTTTW  
FTVADNGAERQQAQILITFGSPSQRQDFLKHVPLPPGMNISGFTASLDF

>P19062

MNDSSVIYRAIVTSKFRTEKMLNFYNSIGSGDPKNTIFITFGRSEPWSSNENEVGFAPPY  
PTDSVLGVTD MWTHMMGTVKVLP SMLDAVIPRRDWGDTRYDPDYTFRINDIVVCNSAPYN  
ATESGAGWL VYRCLDVPDTGMCSIASLTDKDECLKLGKWTSPARSMTPEGRGDAEGTI  
EPGDGYVWEYLFEIPPDVSINRCTNEYIVVPWPEELKEDPTRWGYEDNLTWQQDDFGLIY  
RVKANTIRFKAYLDSVYFPEAALPGNKGFRQISIIITNPLEAKAHPNDPNVKAEKDYDPE  
DLMRHSGEMIY MENRPP IIMAMDQTEEINILFTF

>P10927

MFIQEPKKLIDTGEIGNASTGDILFDGGNKINSDFNAIYNAFGDQRKMAVANGTGADGQI  
IHATGYQKHSITEYATPVKVGTRHDIDTSTVGKVI IERGELGDCVEFINSGSISVTN  
PLTIQAIDSIGVSGNLVVTSPYSKVTLRCISSDNSTSVWNYSIESMFGQKESPAEGTWN  
ISTSGSVDIPLFHRTEYNMAKLLVTCQSV DGRKIKTAEINILVDTVNSEVISSEYAVMRV  
GNETEED EIANIAFSIKENYVTATISSSTVGMRAAVKVIATQKIGVAQ

>P10929

MSLLNNKAGVISRLADFLGFRPKTGDIDVMNRQSVGSVTISQLAKGFYEPNIESAINDVH  
NFSIKDVGTTIITNKTVGSPEGVSTQTDYWAFSGTVTDDSLPPGSPITVLVFGLPVSATTGM  
TAIEFVAKVRVALQEAIASFTAINSYKDHPDGSKLEVTYLDNQKHVLSTYSTYGITISQ  
EIIISESKPGYGTWNLGAQTVTLDNQQTPTVIFYHFERTA

>P10930

MSNNTYQHVSNESRYVKFDPTDTNFPPEITDVHAAIAAISPAAGVNGVDPDASSTTKGILFI  
PTEQEVIDGTNNTKAVTPATLATRLSYPNATETVYGLTRYSTNDEAIAGVNNESSITPAK  
FTVALNNAFETRVSTESSNGVIKISSLPQALAGADDTTAMTPLKTQQLAIKLIQIAPSE  
TTATESDQGVVQLATVAQVRQGTLRREGYAI SPYTFMNSSSTEYKGVIKLGTQSEVNSNN  
ASVAVTGATLNGRGSTTSMRGVVKLT TTTAGSQSGGDASSALAWNADVIQQRGGQIIYGTL  
RIEDTFTIANGGANITGTVRMTGGYIQGNRIVTQNEIDRTIPVGAIMMWAADSLPSDAWR  
FCHGGTVSASDCPLYASRIGTRYGGNPSNPGLPDMRGLFVRGSGRGSHTNPNVNGNDQF  
GKPRLGVGCTGGYVGEVQIQQMSYHKHAGGFGEHDDLGAFGNTRRSNFBVGTGRKGLDWDNR  
SYFTNDGYEIDPESQRNSKYTLNRPELIGNETRPWNIISLNYIIKVKE

>P35837

MADPSLNNPVVIQATRLDASILPRNVFSKSYLLYVIAQGTVDVGA IAGKANEAGQGAYDAQ  
VKNDEQDVELADHEARIKQLRIDVDDHESRITANTKAITALNVRVTAEGEIASLQTNVS  
ALDGRVTTAENNISALQADYVSKTATTSSQLASPLNVTTSSYVGGKKVLGARQTGWTAAT  
GTANKGVFDADLTFAVSDTYTQSEIQAIANALITERRRTKALEDALRAHGLID

>P69543

MIKVEIKPSQAQFTTRSGVSRQGKPYSLNEQLCYVDLGNEYPVLVKITLDEGQPAYAPGL  
YTVHLSSEFKVQFGSLMIDRLRLVPAK

>P03672

MNIQITFTDSVRQGTSAKGNPYTFQEGFLHLEDKPFPLQCQFFVESVIPAGSYQVPYRIN  
VNNGRPELAFDFKAMKRA

>P20313

MAGFKKKVYTSGLGTAEPYAYLSKPDYGNNEERGFGNPRGVYKVDLTLNPKDPRCQAMVDE  
IVKTHEEAYAAAVEEFEANPPQVQRGKKPLTPYEGDMPFFDNGDGTTFKFKCYASFQDK  
KTKETKHINLVVVD SKGKKIQEVP IIGGGSKLKVKYSLVPYKWN TAVGASVKLQLESVML  
VELATFGGGGEDEWADEVEDGGYTASESRQSRDEQEWQEDEHEETPDDEDF

>P0C6B6

MIQVLLVTICLAVFPYQGSSIIILESGNVNDYEVVYPEKVTALPKGAVQQKYEDAMQYEFK  
VNGEPVVLYLEKNKELFSENYSETHYSLDGREITTYPSVEDHCYHGR IQNDADSTASIS  
ACNGLKGHFKL RGKTYLIEPLKLPNSEAHAVFKYENVEKEDEAPQMCVTE TNWESDLPI  
KKTSQLNPLLEKRCIELVMVADHRMYTKYDGDKTEISSKIYEIANNLNVDYRPMKIRVA  
LIGTEIWSTGNLSKVTL SADETLD SFGEWRRERDLLKRKSHDNVQLLTGMIFNEKIEGRAY  
NKSMCDPKRSVGI VRDHRTRPHLVANRMAHGLGHNLGIHHDGDCSCGANS CIMSATVSN  
EPSSRFSDCSLNQYSNDIIYNPWT SYCLYNEPSKTDIVSPPVCGNYYLEVGEDCDCGPPA  
NCQNPCDATTCKLTPGSQCAEGLCCAQCKFIEEGTVCRVAKGDWDDHCTGQSGDCPWI  
GYYG

>P0C6E3

QRYPYKYIELFLVVDNRMVTKYNGDLDKIKTR IYELVNILNEIYRPLYIRVALVGIEFW  
CNKDLINVKSASSVTLASFANWRESVLPNRTSHDNAQLLTAIVFNRGVIGSAYPAGMCDP

NRSVGTVDHSEINLQVAITMAHEIGHNLGMGHDNNSCTCGGYSCIMLPALSDQPSKYFS  
NCSYIQYRDFIMNQDPQCILNEPSGTDIVSPPVCGNDILEVGEECDGCPRNCQDPCCNA  
ATCKKYSWVQCESGECDDQCRFKGAGTECRRAMGDDPGGRCTGQSADCPRN

>P32510

MALDGSSGGGNSVETLLIVAIIVVIMAIMLYYFWWMPRQQKKCSKAEECTCNNGSCSLKT  
S

>P27383

MMGKGFEMMVASAIRAAGINPDELMEKANTLVHNLNYQLDRFGQRLDSIDSRLSVIEKAL  
DISPAEKPDNQPELTGITFEEDNNDQ

>Q66104

MERAIQGNDTREQANGERWDGGSGGITSPFKLPDESPSWTEWRLYNDETNSNQDNPLGFK  
ESWGFVKVVFKRYLRYDRTEASLHRVLSWTGDSVNYAASRFLGANQVGCTYSIRFRGVS  
VTISGGSRTLQHLCEMAIRSKQELLQLTPVEVESNVSRCPEGIETFKKES

>Q77DJ5

MEASYERGRPRAARQHSRDGHDHVRARSSSRENYRGEYRQSRASQVRVPTVFHKKRVE  
PLTVPPAPKDICPTLKKGFCLDSSFCCKDHQLESITDRELLLLLIARKTCGSVEQQLNITA  
PKDSRLANPTADDFQEEGPKITLLTLIKTAEHWARQDIRTIEDSKLRALLTLCVMTTRK  
FSKSQLSLLCETHLRREGLGQDQAEVLEVYQRLHSDKGGSFEEALWQQWDRQSLIMFIT  
AFLNIALQLPCESSAVVVGLRTLVPQSDNEEASTNPGTCSWSDEGTP

>P08558

MSNTVTLRADGRLFTGWTSVSVTRSIESVAGYFELGVNVPPTDLSGLAPGKKFTLEIGG  
QIVCTGYIDSRRRQMTADSMKITVAGRDKTADLIDCAAVYSGGQWKNRTLEQIARDLCAP  
YGVTVRWELSDKESAAFPGFITLDHSETVYEALVRASRARGVLMTSNAAGELVFSRAAST  
ATDELVLGENLLTLDFFEDFRDRFSEYTVKGYARANGAEGDDIDAKSIVSRKGTATDSV  
TRYRPMIIADSKITAKDAQARALREQRRRLAKSITFEAEIDGWTRKDGQLWMPNLLVTI  
DASKYAIKTTELLVSKVTLIILNDQDGLKTRVSLAPREGFLVPVESDRKNRKGDSNGGID  
ALVEDYYRRHPEKTPPWKE

>P05928

MEQAPEDQGPQREPHNEWTLELLEELKNEAVRHFPRIWHLGLGQHIYETYGDTWAGVEAI  
IRILQQLLFIHFRIGCRHSRIGVTQQRARRANGASRS

>P47142

MSALPPVYSFPPLYTRQPNLSTRRQQISTWIDIISQYCKTKKIWYMSVDGTVINDNELDS  
GSTDNDDSKKISKNLFNEDIQRSVSQVFIDEIWSQMTKEGKCLPIDQSGRRSSNTTTTR  
YFILWKSLSWASLILQWFEDSGKLNQVITLYELSEGDETVNWEFHRMPESLLYYCLKPL  
CDNRNATMLKDENDKVIAIKVV

>P10104

MTDIVLNDLPFVDGPPAEGQSRISWIKNGEEILGADTQYGSEGSMNRPTVSVLRNVEVLD  
KNIGILKTSLETANSDIKTIQGILDVSGDIEALAQIGINKKDISDLKTLTSEHTEILNGT  
NNTVDSILADIGPFNAEANSVYRTIRNDLLWIKRELQYTGQDINGLPVVGPNPSSGMKHR  
IINNTDVITSQGIRLSELETKFIESDVGSLTIEVGNLREELGPKPPSFSQNVYSRLNEID  
TKQTTVESDISAIKTSIGYPGNNSIITSVNTNTDNIASINLELNQSGGIKQRLTVIETSI  
GSDDIPSSIKGQIKDNTTSIESLNGIVGENTSSGLRANVSWLNQIVGTDSSGGQPSPPGS

LLNRVSTIETSVSGLNNAVQNLQVEIGMNSAGIKGQVVALNTLVNGTNPNGSTVEERGLT  
NSIKANETNIASVTQEVNTAKGNISSLQGDVQALQEAGYIPEAPRDGQAYVRKDGWVFL  
STFLSPA

>P08793

MTQEHNAAVLDLNPSTLIFVNGKKVIDTNPDPLECTLLTYLREKLRRLCGTKLGCGE  
CGACTVMSRIDTLTNRKHIHAVNACLTPVCAMHGSAVTTVEGIGSTRTRLHPVQERLAK  
AHGSQCGFCTPGIVMSMYALLRNLSSQPSMKDLEIAFQGNLCRCTGYRPILEGYKTF  
GAMGDKCKVNGKCGEGMENGDMVDDKLFKSEFVFPDPSQEPFPPPELQLNKDWS  
QTLVYKGERATWYRPGNLEDLLKIKAQFPEAKLVVGNTEIGVEVKFKHFLYPVLVNP  
TKVKEMIDVQELEDSIYFGASVSLMDIDRILRSSIEKLPHEHQTRFFQCAVNMLHYFAG  
KQIRNVASLGGNIMTGPSISDMNPVLMAGAVKFKVAKYVEGQIKYREVCMASGFFTG  
YRKNVIEPTEILVGLYFPKTLHQYVVAFAKQAKRRDDDIAIVNAAINVIDPR  
SITVVKVYMAFGGMAPTTVLATRTADIMVKQQWNKVLMERVVENLCAELPLAPSAPG  
GMIAYRRSLVVSLSLFFKAYLTITQQLIKSGILPQDLSLPQEELSGSDVVFHTP  
ALKSAQLFEKVSNKQSECDPIGRPKIHASALKQATGEAIYCDDMPRMENELYLAL  
VLSTKAHAKILSIDASEALAMPGVHAFSSKDI TQHENEVGPVVFHDEEVFASDM  
VYCQGVIGAIADNPNFSSKTARKVTIEYEDIKPVII TIEQAIEHKSYPDYPRFTE  
IGDVEKAFSEADHVYEGSCRMGGQEHFYLETHASLAVPRDS DEIEIFCSTQHP  
SEVQKLVAHVLSSTSAHRVVCRAKRLGGGFGGKESRAIAVALPVALACH RLRRP  
IRCMLDRDEDMMITGTRHPFLFKYKIAFTSEGRITGCYIECYNNAGWSMDLSFSV  
LERAMFHFENCYKIPNIKVGGWVCKTNLPSNTAFRFGGPGMFAGEHIRDVARILGK  
DYLEIMKQNFYKEGDITHYQQKLDNFPIEKCFYDCLQQSNYYQKRKEIEEFNRN  
HRWRKRGISLVPTKYGIAFGVSHLNQAGALINIYADGSVLLSHGGVEIGQGLHTK  
MIQCCARALQIP IEFIHISETATDKVPNTSPTAASSGSDLNGMAVLDA  
CEKLNKRLAPIKEANPNGSWTEWINKAYFERVLSATGFYRMPDIGYDPVQNP  
NALMYNYFTNGVGS SIVEIDCLTGDHQVLS TDIVMDIGSSLNPAIDIGQIEG  
AFMQGYGLFTLEEMIYSPQGVLYSRGPGMYKLPGFADIP GEFNVTILTGAAN  
PRAVYSSKAVGEPPLFIGCSVFFAIKEAITSARLMNGLSEDFKLESP  
ATSARIRMACQDEFTNLIEQPPAGSYVPWNIVP

>P0A9M5

MSEKYIVTWDMLQIHARKLASRLMPSEQWKGIIAVSRGGLVPGALLARELGIRH  
VDTVCISSYDHDNQRELKVLKRAEGDGEGFIVIDDLVDTGGTAVAIREMYPKA  
HFVTIFAKPAGRPLVDDYVVDIPQDTWIEQPWDMGVVFPPI SGR

>Q9NQW7

MPPKVTSELLRQLRQAMRNSEYVTEPIQAYIIPSGDAHQSEYIAPDCRRAFV  
SGFDGSA GTAIITEEHAAMWTDGRYFLQAAKQMDSNWTLMKMGLKDTPTQED  
WLVSVLPEGSRVGV DPLIIPDYWKKMAKVLRSAGHHLIPVKENLVDKIWTDR  
PERPCKPLLTGLDYTGISWKD KVADLRLKMAERNVMWVVTALDEIAWLFN  
LRGSDVEHNPVFFSYA IIGLETIMLFIDGDRIDAPSVEHLLLDLGLEAEYR  
IQVHPYKSI LSELKALCADLSPREKVWVSDKASYAVSE TIPKDHRCMPYTP  
ICIAKAVKNSAESEGMRRRAHIKDAVALCELFNWLEKEVPKGGVTEI  
SAADKAEEFRRQQADFDVLSFPTISSTGPNGAI IHYAPVPE TNRTL  
SLDEVYLIDSGAQY KDGTDTVTRTMHFGTPTAYEKECFYVLKGHIAV  
SAAVFPPTGTKGHLLDSFARSALWDSGLDYLHGTGHGVGSFLNVHEG  
PCGISYKTF SDEPLEAGMIVTDEPGYYEDGAFGIRIENVV LVVPVKTKY  
NFNRGSLTFEPLTLVPIQTKMIDVDSLTDKECDWLNNYHLTCRDVIGKEL  
QKQGRQEALEWLIRETQPI SKQH

>Q9QY93

MSTAGDGERGTVGQEDSAAARPFRRFSPEPTLEDIRRLHAEFAAERDWEQFH  
QPRNLLLAL VGEVGE LAELFQWKS DTEPGPQAWPPKERAALQEELSDVLI  
YLVALAARCHVDLPQAVIS

KMDTNRQRYPVHLSRGSACKYTDLPRGTISENQAVGAGDPASELRDQAST

>O74237

MSASIPDIKLSGHLMP SIGFGCWKLANATAGEQVYQAIKAGYRLFDGAEDYGNEKEVGD  
GVKRAIDEGLVKREEIFLTSKLNWNYHDPKNVETALNKTLADLKVDYVDLFLIHFPIAFK  
FVPIEEKYPPGFYCGDGNFVYEDVPILETWKALEKLVAAAGKIKSIGVSNFPGALLLDLL  
RGATIKPAVLQVEHHPYLQQPKLIEFAQKAGVTITAYSSFGPQSFVEMNQGRALNTPTLF  
AHDTIKAIKAAKYNKTPAEVLLRWAAQRGIAVIPKSNLPERLVQNRSFNTFDLTKEDFEEI  
AKLDIGLRFNDPVDWDNIPIFV

>P39849

MEIKAAIVRQKNGPFLLEHVALNEPAEDQVLVRLVATGLCHTDLVCRDQHYPVPLPMVFG  
HEGAGVVERVGS AVKVKVQPGDHVVLTFYTCGSCDACLSGDPTSCANSFGPNFMGRSVTGE  
CTIHDHQGAEVGASFFGQSSFATYALS YERN TVKVTKDVPLELLGPLGCGIQTGAGSVLN  
ALNPPAGSAIAIFGAGAVGLS AVMAAVVAGCTTI IAVDVKENRLELASELGATHIINPAA  
NDPIEAIKEIFADGVPPVLETSGLPVLTQAILSSAIGGEGIVGAPPMGATVPVDINFL  
LFNRKLRGIVEGQSSISDIFIPRLVELYRQKFPFDKLIKFPFDEINRAAEDSEKGVTLK  
PVLIRIG

>P31434

MKISDGNWLIQPLNLIHPLQVFEVEQQDNEMVVYAAPRDVRETRWQLDTPFLTLRFFSP  
QEGIVGVRIEHFQ GALNNGPHYPLNILQDVKVTIENTERYAEFKSGNLSARVSKGEFWSL  
DFLRNGERITGSQVKNNGYVQDTMNRQNYMFERLDLGVGETVYGLGERFTALVRNGQTV  
TWNRDGGTSTEQAYKNIPFYMTNRGYGVLVNHQPQCVSFEVGESEKVSQVQFSVESEYLEYF  
VIDGPTPKAVLDRYTRFTGRPALPPAWSFGLWLTTSFTTNYDEATVNSFIDGMAERNLPL  
HVFHFDCFWMKAFQWCDFEWDPLTFPDPEGMIRRLKAKGLKICVWINPYIGQKSPVFKEL  
QEKGYLLKRPDGLWQWDKWQPLAIYDFTNPDACKWYADKLGKLVAMGVDCFKTDFGER  
IPTDVQWFDGSDPQKMHNYAYIYNELVWVNLKDTVGEAAVLFARSASVGAQKFPVHWG  
GDCYANYESMAESLRGGLSIGLSGFGFWSHDIGGFENTAPAHVYKRWCAFGLLSSHSRLH  
GSKSYRVPWAYDDESCDVVRFFTQLKCRMPYLYREAARANARGTPMRRAMMEFPDDPA  
CDYLDRQYMLGDNVMVAPVFTEAGDVQFYLP EGRWTHLWHNDEL DGSRWHKQQHGFLSLP  
VYVRDNTLLALGNNDQRPDYVWHEGTAFLHFLNLQDGHEAVCEVPAADGSVIFTLKAARTG  
NTITVTGAGEAKNWTLC LRNVVKVNLQDGSQA ESEQGLVVKPQGNALTITL

>P20222

MKSTPFFYP EAIVLAYLYDNEGIATYDLYKKVNAEFP MSTATFYDAKKFLIQEGFVKERQ  
ERGEKRLYLTEKGKLF AISLKTAIETYKQIKKR

>Q57622

MLSDYEEFLRLEKARKIILEILNEKGRDALYDLSGLSGGFLIDEKDKALLNTYIGSSYFA  
EKVNEYGLKHLGGDENDKCVGFNRTSSAILATILALKPKKVIHYLPELPGHPSIERSCKI  
VNAKYFESDKVGEILNKIDKDTLVIITGSTMDLKVIELENFKKVIN TAKNKEAIVFVDDA  
SGARVRLLFNQPPALKLGADLVVTSTDKLM EGP RGGLLAGKKELVDKIYIEGTFGLEAQ  
PPLLAGIYRALKNFNLERIRKA FERAKNFDSLKIEKLNKELKAIDDNINIVYERTPTGFV  
IKRVYKDDTINIKKLI EIGFNLLKNYGIITITVAGMPGASKSLRIDLTSRDAERIDNYI  
IKAIVESIKMAFKS

>Q97ST4

MDIRQVTEIAMI EEQNFDIRTITMGISLLDCIDPDINRAAEKIYQKITTKAANLVAVG  
EIAAELGPIVNRVSVTPISLIGAAATDATDYVVLAKALDKAAKEIGVDFIGGFSALVQK

GYQKGDEILINSIPRALAETDKVCSSVNI GSTKSGINMTAVADMGR I IKETANLSDMGVA  
KLVVFNANAVEDNPFMAGAFHGVGEADVI INVGVS GPGVVKRALEKVRGQSFDVVAETVKK  
TAFK ITRIGQLVGMASERLGV EFGIVDL SLAPTPAVGDSVARVLEEMGLETVGTHGTTA  
ALALLNDQVKKGGVMACNQVGGLSGAFIPVSEDEGMIAAVQNGSLNLEKLEAMTAICSVG  
LDMIAIPEDTPAETIAAMIADAAAIGVINMKT TAVRI I PKGKEGDMIEFGLLGTAPVMK  
VNGASSVDFISRGGQIPAPIHSFKN

>P44774

MINKDTQLCMSLSGRPSNFGTTFFHNYLYDKLGLNF IYKAFTTQDIEHA IKGVRALGIRGC  
AVSMPFKETCMPFLDEIHP SAQAIESVNTIVNDNGFLRAYNTDYIAIVK LIEKYHLNKNA  
KVIVHGSGGMKAVVA AFKNSGF EKLKIYARNVKTGQYLAALYGYAYINSLENQQADILV  
NVT SIGMKGGKEEMDLAFPKAFIDNASVAFDVVAMPVETPFIRYAQARGKQ TISGAAVIV  
LQAVEQFELYTHQRPSDELIAEAAA FARTKF

>P44868

MLDIVLYEPEIPQNTGNI IRLCANTGFRLHLIEPLGFTWDDKRLRRSGLDYHEFAEIKRH  
KTFEAFLESEKPKRLFALTTKGC PAHSQVVKLGDYLMFGPETRGIPMSILNEMPMEQKI  
RIPMTANSRSMNLSNSVAVTVYEAWRQLGYKGAVNLPEVK

>Q7A161

MAKQATMKNAALKQLTKDADEILHLIKVQLDNL TLPSCPLYEEVLDTQMFG LQKEVDFAV  
KLGLVDREDGKQIMLRLEKELSKLHEAFTLV

>P0A8I8

MKLQLVAVGTKMPDWVQTGFTEYLRRFPKDMPFELIEIPAGKRGNADIKRI LDKEGEQM  
LAAAGKNRIVTLDIPGKPWDTPLAAELERWKLDGRDVSLLIGGPEGLSPACKAAA EQSW  
SLSAL TLPHP LVRVLVAESLYRAWSITTNHPYHRE

>P12994

MKLI SNDLRDGDKLPHRHVFNMGYDGDNI SPHLAWDDVPAGTKSFVVT CYDPDAPTGS  
WWHWVVNLPADTRVLPQGF GSGLVAMPDGLVQTRTDFGKTGYDGAAPPKGETHRYIFTV  
HALDIERIDVDEGASGAMVGFNVH FHS LASASITAMFS

>P67809

MSSEAE TQPPA APPA PALSAADTKPGTTGSGAGSGGPGGLT SAAPAGGDKKVIATKVL  
GTVKWFNVNRNGYGF INRNDTKEDV FVHQTA I KKNPRKYLR SVGDGETVEFDVVEGEKGA  
EAANVTGPGGVPVQGSKYAADRNHYRRYPRRRGPPRNYQQNYQNSESGEKNESSESAP EG  
QAQQRYPYRRRRFPYMRPYGRRPQYSNPPVQGEVMEGADNQGAGEQGRPVRQNM YRG  
YRPRFRRGPPRQRQPREDCNEEDKENQGETQGQPPQRRYRRNFYRRRRPENPKPQDG  
KETKAADPPAENS SAPEAEQGGAE

>P31545

MQYKDENGVNEPSRRRLKLVIGALALAGSCPVAHAQKTQSAPGTLSPDARNEKQPFYGEH  
QAGILTPQQAAMMLVAFDVLASDKADLERLFRLLTQRFAFLTQGGAAPE TPNPRLPPLDS  
GILGGYIAPDNL TITLSVGHSLFDERFGLAPQMPKKLQKMTRFPNDSLDAALCHGDVLLQ  
ICANTQD TVIHALRDI IKHTPDLLSVRWKREGFISDHAARSKGKETP INLLGFKDGTANP  
DSQNDKLMQKV VVVTADQQEPAWTIGGSYQAVRLIQFRVEFWDRTP LKEQQTIFGRDKQT  
GAPLGMQHEHDVDPDYASDPEGKVIALDSHIRLANPRTAESESSLMLRRGYSYSLGVTNSG  
QLDMGLLFVCYQHDLKGF LTVQKRLNGEAL EYVKPIGGGYFFALPGVKDANDYFGSAL  
LRV



>P0AB52

MQKIVIVANGAPYGSESLFNLSRLAIALREQESNLDLRLFLMSDAVTAGLRGQKPGEGYN  
IQQMLEILTAQNVPVKCKTCTDGRGISTLPLIDGVEIGTLVELAQWTLASADKVLTF

>P0A6D5

MDVTAKYELIGLMAYPIRHSLSPMQNKALEKAGLPFTYMAFEVDNDSFPGAIEGLKALK  
MRGTGVSMPNKQLACEYVDELTPAAKLVGAINIVNDDGYLRGYNTDGTGHIRAIKESGF  
DIKGTKMVLGAGGASTAIGAQGAIEGLKEIKLFNRRDEFFDKALAFQRVNENTDCVVT  
VTDLADQQAFAEALASADILTNGTKVGMKPLENESLVNDISLLHPGLLVTECVYNPHMTK  
LLQQAQQAGCKTIDGYGMLLWQGAEQFTLWTGKDFPLEYVKQVMGFGA

>Q8ZNP1

MANFPASLLIILNGKSADNQPLREAITLLRDEGIQIHVRVTWEKGAQRYVDEARRLGVET  
VIAGGGDGTINEVSTALIQRDGVAPALGLLPLGTANDFATSAGIPEALDKALKLAIAGN  
AMEIDMAMVNDKTCFINMATGGFGTRITTEPEKLKAALGGVSYLIHGLMRMDTLTPDR  
EIRGENFHWQGDALVIGIGNRQAGGGQQLCPTALINDGLLQLRIFTGEELLPALFSTLT  
QSDDNPNIIDGASAWFDIHAPHEITFNLDGEPLSGQEFHIEVLPGALRCRLPPDCPLLR

>P37128

MTQQITLIKDKILSDNYFTLHNITYDLTRKDGEVIRHKREVVYDRGNGATILLYNTKKKTV  
VLIRQFRVATWVNGNESGQLIESCAGLLDNDEPEVCIRKEAIEETGYEVGEVRKLFELYM  
SPGGVTELIHFFIAEYSDNQRANAGGGVEDEDIEVLELPPFSQALEMIKTGEIRDGKTVLL  
LNYLQTSHLMD

>O31562

MTSVNLSYPIGEYKPREISISKEQKDKWIQVLEEVPAKPKQAVEVMTDSQLDTPYRDGGWT  
VRQVVHHLADSHMNSYIRFKLSLTEETPAIRPYDEKAWSELKDSKTADPSGSLALLQELH  
GRWTALLRRTLTDQQFKRGFYHPDTKEIITLENALGLYVWVSHHHIAHITELSRRMGWS

>P64496

MKGATYTVTVTNNNSNGVSVDYETETPMTLLVPEVAAEVIKDLVNTVRSYDTENEHDVCGW

>P37478

MDKKILVVDDEKPIADILEFNLRKEGYEVHCAHDGNEAVEMVEELQPDILLLDIMLPNKD  
GVEVCREVRKKYDMPIMILTAKDSEIDKVIKLEIGADDYVTKPFSTRELLARVKANLRRQ  
LTTAPAEIEPSSNEIHIGSLVIFPDAYVVSKRDETIELTHREFELLHYLAKHIGQVMTRE  
HLLQTVWGYDYFGDVRTVDVTVRRLREKIEDNPSHPNWIIVTRRGVGYLLRNPEQD

>P83144

KKLTEVKHIIQGRKGFVVEKSKPKPYFLTDGTMVTPANKQAVQSGKSLGIYLETANKAHI  
RPLIR

(3) 1619 hetero-oligomer

>P04229

MVCLKLPGGSCMTALTVTLMVLSSPLALAGDTRPRFLWQLKFECHFFNGTERVRLLECI  
YNQEEVSRFSDVGEYRAVTELGRPDAEYWNQKDLLEQRRAAVDTYCRHNYGVGESFTV  
QRRVEPKVTVYPSKTQPLQHNNLLVCSVSGFYPGSIEVRWFRNGQEEKAGVVSTGLIQNG  
DWTFTLVMLETVPRSGEVYTCQVEHPSVTSPLTVEWRARSESAQSKMLSGVGGFVLGGLL  
FLGAGLFIYFRNQKGHSLQPTGFLS

>P28067

MGHEQNQGAALLQMLPLLWLLPHSWAVPEAPTMPWPDDLQNHTFLHTVYCQDGSPSVGLS  
EAYDEDQLFFFDQSONTRVPRLPEFADWAQEQGDAPAILFDKEFCWMIQQIGPKLDGKI  
PVSRGFPIAEVFTLKPFEFGKPNLTVCFVSNLFPMLTVNWHHDHSPVVEGFGPTFVSAVD  
GLSFQAFSYLNFTPEPSDIFSCIVTHEIDRYTAIAYWVPRNALPSDLENVLCGVAFGLG  
VLGIIVGIVLIIYFRKPCSGD

>P28068

MITFLPLLLGLSLGCTGAGGFVAHVESTCLLDDAGTPKDFTYCISFNKDLLTCWDPEENK  
MAPCEFGVNLNSLANVLSQHLNQKDTLMQRLRNGLQNCATHTQPFWGSLTNRTRPPSVQVA  
KTTTFNTREPVMLACYVWGFYPAEVTITWRKNGKLVMPHSSAHKTAQPNGDWTYQTLSHL  
ALTPSYGDTYTCVVEHIGAPEPILRDWTPGLSPMQTLKVSVAVTLGLGLIIFSLGVISW  
RRAGHSSYTPLPGSNYSEGWHIS

>P06340

MALRAGLVLGFHMTLLSPQEAGATKADHMGSYGPAFYQSYGASGQF'THEFDEEQLFSV  
DLKKSEAVWRLPEFGDFARFDPQGGLAGIAAIIKAHLDILVERSNRSRAINVPRTVLPK  
SRVELGQPNILICIVDNIFFPVINITWLRNGQTVTEGVAQTSFYSPDHLFRKFHYLFPV  
PSAEDVYDCQVEHWGLDAPLLRHVELQVPIPPDAMETLVCALGLAIGLVGFLVGTVLI I  
MGTYVSSVPR

>P13765

MGSGWVPWVALLVNLTRLDSMTQGTDSPEDFVIQAKADCYFTNGTEKVQFVVRVIFNL  
EEYVRFDSVDVGMFVALTKLQPDQAEQWNSRLDLLERSRQAVDGVCRHNYRLGAPFTVGRK  
VQPEVTVPERTPLHQLHLLHCSVTGFYPGDIKIKWFLNGQEEERAGVMSTGPIRNGDWT  
FQTVVMLEMTPELGHVYTCLVDHSSLLSPVSVIEWRAQSEYSWRKMLSGIAAFLLGLIFLL  
VGIVIQLRAQKGYVRTQMSGNEVSRVLLPQSC

>P01903

MAISGVPVLGFFIIIAVLMQAQESWAIKEEHVIIQAEFYLNPDQSGEFMFDGDEIFHVD  
MAKKETVWRLEEFGRFASFEAQGALANIAVDKANLEIMTKRSNYTPIITNVPEVTVLTNS  
PVELREPVLICFIDKFTPPVNVNWTWLRNGKPVTTGVSETVFLPREDHLFRKFHYLPLFLP  
STEDVYDCRVEHWGLDEPLLKHWFEFDAPSPLPETTENVCALGLTVGLVGI IIGTIFIIK  
GVRKSNAEAERRGPL

>P08195

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAEKNGLVKIKVAEDEAEAAAAAKF  
TGLSKEELLKVAGSPGWVTRWALLLLFWLWLGMLAGAVVIVRAPRCRELPAQKWWHT  
GALYRIGDLQAFQGHGAGNLAGLKGRLDYLSLKVKGVLVLPVGHKNQKDDVAQTDLLQID  
PNFGSKEDFDSLQSAKKKSIRVILDLTNPYRGENSWFSTQVDTVATKVKDALEFWLQAG  
VDGFQVRDIENLKDASSFLAEWQNIKTGFSEDRLLIAGTNSSDLQQILSLESNKDLLLLT  
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLP  
GTPVFSYGDEIGLDAAALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKQSEDPGSLLS  
LFRRLSDQRSKERSLLHGDFHAFSAGPGLFSYIRHWDQNERFLVVLNFGDVGLSAGLQAS  
DLPASASLPKADLLLSTQPGREEGSPLELERLKLPEHEGLLLRFPYAA

>P29958

MTSSYMLKAAAIAFGVIVATAAVPSPASGREHDGGYAALIRRASYGVPHITADDFGSLG  
FGVGIVQAEDNICVIAESVVTANGERSRWFATGPDADVVRTTSSTQAIDDRVAERLLEG

PRDGVRAPCDDVRDQMRGFVAGYNHFLRRTGVHRLTDPACRGKAWVRPLSEIDLWRTSWD  
SMVRAGSGALLDGI VAATPPTAAGPASAPEAPDAAAIAAALDGT SAGIGSNAYGLGAQAT  
VNGSGMVLANPHFPWQGAERFYRMHLKVPGRYDVEGAALIGDPIIEIGHNRTVAWSHTVS  
TARRFVWHRLSLVPGDPTSYYVDGRPERMRARTVTVQTGSGPVSRTFHDTRYGPVAVVPG  
TFDWT PATAYAITDVNAGNNRAFDGWL RMGQAKDVRALKAVLDRHQFLPWVNVIAADARG  
EALYGDHSVVPRTGALAAACIPAPFQPLYASSGQAVLDGSRSDCALGADPDAAVPGILG  
PASLPVFRDDYVTNSNDSHWLASPAAPLEGFPRI LIGNERTPRSLRTRLGLDQIQRLAG  
TDGLPGKGFTTARLWQVMFGNRMHGAELVRDDLVALCRRQPTATASNGAIVDLTAACTAL  
SRFDERADLDSRGAHLFTEFLAGGIRFADTFEVTDPVTRPAPFWNTTDPVVRTALADACN  
GSPASPSTRSVGDIHTDSRGERRIPIHGGRGEAGTFNVIITNPLVPGVGYQPQVHGT SFVM  
AVELGPHGSPGRQILTYAQSTNPNSPWYADQTVLYSRKGWDTIKYTEAQIAADPNLRVYR  
VAQRGR

>Q9UGJ0

MGSAVMDTKKKKDVSSPGGSGGKKNASQKRRSLRVHIPDLSSFAMPLLDGDLEGGSGKHSS  
RKVDSFPGGSPSKGFFSRGPQPRPSSPMSAPVRPKTSPGSPKTVFPFSYQESPPRSRR  
MSFSGIFRSSSKESPNSNPATSPGGIRFFSRSRKTSGLSSSPSTPTQVTKQHTFPLESY  
KHEPERLENRIYASSSPPDTGQRFCPSSFQSPTRPPLASPTHYAPSKAAALAAALGPAEA  
GMLEKLEFEDEAVEDSESGVYMRFMRSKCYDIVPTSSKLVVFDTTLQVKKAFFALVANG  
VRAAPLWESKQSFVGM LTTITDFINILHRYYSKSPMVQIYELEEHKIETWRELYLQETFKP  
LVNISPDASLFDVYSLIKNKIHR LPVIDPISGNALYILTHKRILKFLQLFMSDMPKPAF  
MKQNLDELGIGTYHNIAFIHPDTPIIKALNIFVERRISALPVVDES GKVVDIYSKFDVIN  
LAAEKTYNLNDITVTQALQHR SQYFEGVVKCNKLEILETIVDRIVRAEVHRLVVVNEADS  
IVGIIISLSDILQALILTPAGAKQKETETE

>Q9MYP4

MELAELEQALRRVPGSRGGWELEQLRPEGRGPTTADTPSWSSLGGPKHQEMSFLEQGESR  
SWPSRAVTTSSERSHGDQGNKASRWTRQEDVEEGPPGPREGPQSRPVAESTGQEATFPK  
ATPLAQAAPLAEVDNPPTERDILPSDCAASASDSNTDHLDLGIEFSASAASGDELGLVEE  
KPAPCPSPEVLLPRLGWDDDELQKPGAQVYMHFMQEHTCYDAMATSSKLVIFDTMLEIKKA  
FFALVANGVRAAPLWDSKKQSFVGM LTTITDFILVLRHYRSPLVQIYEIEEHK IETWREI  
YLQGCFKPLVSI SPNDSLFEAVYALIKNRIHR LPVLDPVSGAVLHILTHKRLLKFLHIFG  
TLLPRPSFLYRTIQDLGIGTFRDLAVVLETAPILTALDIFVDRRVSALPVVNETGQVVGL  
YSRFDVIHLAAQQTYNHLD MNVGEALRQRTL CLEGLVLSQPHE TLGEVIDRIVREQVHRL  
VLVDETQHLLGVVSLSDILQALVLS PAGIDALGA

>P84887

MRWLDKFGESLSRSVAHKTSRRSVLRSVGLKLMVGSFAFVLPVLPVARAAGGGGSSSGADHI  
SLNPDLANEDEVNSCDYWRHCAVDGFLCSCCGGTTTTCP PGSTPSPISWIGTCHNPHDGK  
DYLISYHDCCGKTACGRCQCN TQTRERPGYEFFLHNDVNWCMANENSTFHCTTSVLVGLA  
KN

>P84888

MKSKFKLTTAAAMLGLMVLAGGAQAQDKPREVL TGGHSVSAPQENRIYVMDSVFMHLTES  
RVHVYDYTNGKFLGMVPTAFNGHVQVSN DGKKIYTMTTYHERITRGKRS DVVEVWDADKL  
TFEKEISLPPKRVOGLNYDGLFRQTTDGK FIVLQNASPATSIGIVDVAKGDYVEDVTAAA  
GCWSVIPQPNRPRSFMTICGDGGLLTINLGEDGKVASQSRSKQMF SVKDDPIFIAPALDK  
DKAHFVSYGNYVSADFSGDEVKVDGPWSLLNDEDKAKNWVPGGYNLVGLHRASGRMYVF  
MHPDGKEGTHKFPAAE IWMMDTKTKQRVARIPGRDALSM TIDQQRNLM LTLDDGGNVNVYD  
ISQPEPKLLRTIEGAAEASLQVQFHPVGGV

>P24182

MLDKIVIANRGEIALRILRACKELGIKTVAVHSSADRDLKHVLLADETVCIGPAPSVKSY  
LNIPAIISAAEITGAVAIHPGYGFLSEANANFAEQVERSGFIFIGPKAETIRLMGDKVSAI  
AAMKKAGVPCVPGSDGPLGDDMDKNRAIAKRIGYPVLIKASGGGGGRGMRVVRGDAELAQ  
SISMTRAEAKAAFSNDMVMEKYLENPRHVEIQVLADGQGNAIYLAERDCSMQRRHQKVV  
EEAPAPGITPELRRYIGERCAKACVDIGYRGAGTFEFLFENGEFYFIEMNTRIQVEHPVT  
EMITGVDLIKEQLRIAAGQPLSIKQEEVHVRGHAVECRINAEDPNTFLPSPGKITRFHAP  
GGFGVRWESHIYAGYTVPPYYDSMIGKLIICYGENRDVAIARMKNALQELIIDGIKTNVDL  
QIRIMNDENFQHGGTNIHYLEKKLGLQEK

>Q07340

MPLTGLEIYKQLPKKNCGECGTPTCLAFAMNLSGKASLDSCPYVSDAAREALDAAAAPP  
IAKVVLGAGPTAVEMGDETELEFRHDKRFYHETAIAIQVSDNLSSEELKAKVEAINGLNFD  
RVGQHYTIQAIAIRHDADDPAAFKAAVASVAAAATQLNLVLMADDPDVLKEALAGVADRKP  
LLYAATGANYEAMTALAKENNCPLAVYGNGLLEELAEVLVDKIVALGHKQLVLDPGARETSR  
AIADFTQIRRLAIKKRFRSFGYP IIALTTAANPLDEVLQAVNYVTKYASLVVLR TDAKEH  
LLPLLSWRQNLTYTDPQVPIRVEEKLNEIGAVNENSPVYVTTNFSLTYYSVEGEIESTKIP  
SYLLSVDTDGLSVLTAYADGKFEAEKIAAVMKKVDLDNKKVRHRIIPGAVAVLK GKLED  
LTGWEVIVGPREASGIVAFARANLAS

>Q07341

MAVQILRDRSRAAVQKVVLGATKDQGGTRSHTIVVGGDAALPFHHFEGEIVNRPVIGMEV  
QDIVPDWPDVLKDPFTDVINEPGRWAQKCVAEYGADLIYKLDGADPEGANHSVDQCVAT  
VKEVLQAVGVPLVVVCGDVEKDHEVLEAVAEAAAAGENLLLGNAEQENYKSLTAACMVHK  
HNI IARSPLDINICKQLNILINEMNPLDHDIVIDPSIGGLGYGIEYSFSIMERIRLGALQ  
GDKMLSMPVIC TVGYEAWRAKEASAPVSEYPGWGKETERGILWEAVTATALLQAGAHILL  
MRHPEAVARVKENIDQLMVSNAI

>Q60411

MLCLLLLLCLGLASLGGPLKKYVENSQMQITVPEKIRSVKRGVSESEVSYKIVIENTTYIV  
NLVRKMFLPHDFQVYSYDSAGIMKPFEDYSQNFQCYQGHIEGFPTSLASISTCAGLRGLL  
QFETVSYGIEPLKSSIGFEHVIYPVKHDNEKSQYLKKSINVKNVVYKIKSIKSSVRTHYI  
EMHII VEKNLYKHMGGNTATVTEKIFQLVGLMNAFFSTLNLTVILASLELWIDENKIPTT  
GDVNELLHAFQKWKKSYLVLPHDVAFLLVYRESPSYIGAI FQGMICNTSYGGGIALHSK  
TITLDSFGVILVQLLSVSMGIAYDNADLCRCRGAICLMSPEAVFSSGMKMF SNCSVKAFK  
LFTSSQVSQCLQNPYLEPVYRSNPVCGNNRVEQGEDCDCGSQEECQDTCDAATCRLKS  
TSRCAQGPCCNQCEFKTKGEVCRESTDECDLPEYCNSSGACQEDLYVINGHRCANEWEI  
CMNGRCLSGKAQVQETFGTEMEMGSVDCFEQLNTKNDITGNCGILSPGNYKACGASNWKC  
GKLI CSYDKSEILRNKEGMTIYANISGHICVSI EYPPGHAKSALMWVRDGTVCGPSEVCR  
QQQCVSSSYLGYDCTPATCSDHGVCNNKRHCHCNPTVYPPNCETQDSTKPGGSVDSGNLR  
YEP IPEYFVEGAYHTKSRKWPFLLIIPFFVIFSVLVATVVKVYQKKKWKTEDYANDEN  
IESESEPKSSKVSSK

>Q28660

MLRVLFLLCGLSGLRTKENSERLHVQVTVPEKMRSVTSEGFETEVEVYNIVIEGKTYTLNL  
MQKLF LPRDFRVYGYDSTGIMKDLEQQFQNFQCYQGFVEGYPNMVI VSTCTGLRGLLQF  
ENVTYGIEPLESSIGFEHVIYQVKKNESISLYAEKEVEFRDLPYKVQSVQPREFSQYIE  
MHVVVEKNLYKHMGSdTAVVSQKIFQLIGL TNAVFTSFNIT IILSSLELWIDENKISTTG  
DANELLYRFLKWKKSYLVLPHDVAFLLVYREIAKYVGATFQGMCDINYSGGVALHHPKT

ISLES LAI I LAQLLSLSMGIAYDDINKCKCPG SVCIMNPEAIHSSGVK IFSNCSIEDFSR  
FISKQKSQCLQNLPRLEPFYKQDAVCGNSIVEAGEMCDGTAEECGRAVPICCNSATCRL  
EVGSQCAEGECCENCTFKERQSCRPPVGECDLFEYCNGTSALCPDDIVIQNGHPCGENQ  
WICVDGSCISPPEQCKSIFGEEVEGGTPECYEELNAMADIILGICGITHDGYKKCESG NR  
KCGKLMCKHTTENIIDIKNATI IYANVSGSICLSLEYKPDHLDAAKMWPNGAVCGSNKI  
CRDKACVETTYVNLGCTLQNCNQGICNSLQHCHCNPTFLPPNCSAVDERWAGGSVDSGN  
FQGGGVPGIGGLTSVGT PPFIPGVPGVRRYMEDVYQTAKPTRWPFLLIPFFIILGALIA  
ILVKVQFQRKKWKTEDYTSDEQFESDSELKE

>Q63202

MWLLLLLLSGLSRLGGLSEPQTEGTREKLHVQVTVPEKIRSI TSEGYETQVTYSLKIEGK  
TYILNLMQKAFLPPNFRVYSYDSTGIMRPLEQKFQNICYFQGYIEGYPNSMVIVSTCTGL  
RGVLQFGNVSYGIEPLESSSGFEHVIYQVEPKKGD TLLYAEKMDMLRDPQYKIRSIKPQR  
TVSHYLEIHIVVEKQMF EHI GADTAVVTQKIFQLIGLTNAIFAPFNLTVILSSLEFWMDE  
NKI STTG DANKLLYRFLKWKQSYLVLRPHDMAFLLVYRDTTDYVGATYQGKMC DKNYAGG  
VALHPKAVTLES LAI ILVQLLSLSMGVAYDDVNTCQCGVPI CVMNPEALHSSGVRSFSNC  
SMEDFSKFIVSQSSHCLQNPQLQPSYKMAVCGNGELEE EGEVCDGQEGCDDKPPCCNP  
TTCQLSEGSTCSTGSCCDASCNLKAKGELCRPANQEC DVTEYCNGTSEVCEEDFFVQDGH  
PCAEQKWICINGTCQSGAQQCRDLFGTDADYGTKECYSELNSKSDISGSCGITPTGYKDC  
APNDRMCGKLI CIYQSEDILKMRS AIVIYANISGQICISLEYPPGHKESK KMCVRDGTVC  
GSGKVCLNQECVEDTFLNYDCTPEKCNHHGVCNKKKHCHCEPTYLPPDCKNTEDTWP GGS  
VDSGNQQR AESISPARSYVASAYRSKSARWPFLLIIPFYVVLVLI GMLVKVYSQRKKWRM  
DDFSSEEQFESESESKD

>P35611

MNGDSRAAVVTSPPPPTTAPHKERYFDRVDENNPEYLRERNMAPDLRQDFNMMEQKKRVSM  
ILQSPAFCEELESMIQEQFKKGNPTGLLALQQIADFM TTNV PNVYPAAPQGGMAALNMS  
LGMVTPVNDLRGSDS IAYDKGEKLLRCKLA AFYRLADLFGWSQLIYNHITTRVNSEQEHF  
LIVPFGLLYSEVTASSLVKINLQGDIVDRGSTNLGVNQAGFTLHSAIYAARPDVKCVVHI  
HTPAGA AVSAMKCGLLPISPEALS LGEVAYHDYHGILVDEEEKVLIQKNLGP KSKVLILR  
NHGLVSVGESVEEAFYYIHNLVVACEIQVRTLASAGGPDNLVLLNPEKYKAKSRSPGSPV  
GEGTGSPPKWQIGEQEF EALMRMLDNLGYRTGYRYPALREKSKKYS DVEVPASVTGYS  
FASDGDSTGCSPLRHSFQKQREKTRWLNSGRGDEASEEGQNGSSPKSKTKWTKEDGHRT  
STSAV PNL FVPLNTNPKEVQEMRNKIREQNLQDIKTAGPQSQVLCGVVMDRSLVQGELVT  
ASKAIEEKEYQPHVIVSTTGP NPFTTLDRELEEYRREVERKQKGSEENLDEAREQKEKS  
PPDQPAVPHPPPSTPIKLEEDLVPEPTTGDDSDAATFKPTLPDLSPDEPSEALGFPMLEK  
EEEAHRPPSPTEAPTEASPEPAPDPAPVAEEAAPS AVEEGAAADPGSDGSPGKSPSKKKK  
KFRTPSFLKSKKKKSDS

>P35612

MSEETVPEAASPPPPQGPYFDRFSEDDPEYMR LNRNRAADLRQDFNLMEQKKRVTMILQS  
PSFREELEGLIQEQMKKGNNSSNIWALRQIADFMAS TSHAVFPTSSMNVSMMPINDLHT  
ADSLNLAKGERLMRCKISSVYRLLDLYGWAQLSDTYVTLRVSKEQDHF LISPKGVSCSEV  
TASSLIKVNILGEVVEKGSSCFPVDTTGFCLHSAIYAARPDVRCI IHLHTPATAAVSAMK  
WGLLPVSHNALLVGDMAYYDFNGEMEQEADRINLQKCLGPTCKILVLRNHGVVALGDTVE  
EAFYKIFHLQAACEIQVSALSSAGGVENLILLEQE KHRPHEVGSVQWAGSTFGPMQKSRL  
GEHEFEALMRMLDNLGYRTGYTYRHPFVQEKTKHKSEVEIPATVTAFFVEEDGAPVPALR  
QHAQKQKQEKTRWLNTPN TYLRVNVADEVQRSMGSPRPKTTWMKADEVEKSSSGMPIRIE  
NPNQFVPLYTDPQEVLEMRNKIREQNRQDVKSAGPQS QLLASVIAEKSRSPSTESQLMSK  
GDEDTKDDSEETV PNPFSQLTDQELEEYKKEVERKKLELDGEKETAPEEPGSPAKSAPAS

PVQSPAKEAETKSPLVSPSKSLEEGTKKTETSKAATTEPETTQPEGVVVNGREEEQTAEE  
ILSKGLSQMTTSADTDVDTSKDKTESVTS GPMSPEGSPSKSPSKKKKKFRTPSFLKSKK  
KEKVES

>Q9UEY8

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQ  
ILQSPAFREDLECLIQEOMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPIN  
DLPGADTSSYVKGEKLTRCKLASLYRLVDFLFGWAHLANTYISVRSKEQDHI I I I PRGLS  
FSEATASNLVKVNII GEVVDDQGSTNLKIDHTGFS PHAAIYSTRPDVKCVIHIHTLATAAV  
SSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGSPCKVLVLRNHGVVALG  
ETLEEAHFHYIFNVQLACEIQVQALAGAGGVNDLHVLDQKQYKAFTYTVAAASGGGGVNMGS  
HQKWKVGEIEFEGLMRTLNDLGYRTGYAYRHPLIREKPRHKS DVEIPATVTAFFS FEDDTV  
PLSPLKYMAQRQREKTRWLNPNPTMYKVNVP EESRNGETSPRTKITWKAEDSSKVS GG  
TPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRDYDLKTAGPQS QLLAGIVVDKPPSTMQF  
EDDDHGPPAPPNPF SHLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS  
PQNVPEKLEENHELFSKSFISMEVPMVMVNGKDDMHDVEDELAKRVSRLSTSTT IENIEI  
TIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNKKKKEKVEA

>Q8R534

MERLKLKGIPEHWCIRLVAMLLAIIFLPSTFCDIGSVYNSSYETVIPERLPGKGGKDPG  
GKVSYMLLMQGGKQLLHLEVKGHPENNFVYSYHNGILRQEMPLLSQDCHYEGYMEGVP  
GSFVSVNICSGLRGVLIKEETS YGIEPMLSSKNFEHVLYTMEHQPVVSCSVTPKDSPGDT  
SHPPRSRKPDLLVLTDWWSHTKYVEMFVVVNHQR FQMWSNINETVQAVMDI IALANSF  
TRGINTEVVVLVGLEI WTEGDP I EVPVDLQTTLRNFNFWRQEKLVGRVRHDVAHLIVGHRP  
GENEQAFLRGACSGEFAAAVEAFHHEDVLLFAALMAHELGHNLGIQHDHPTCTCGPKHF  
CLRGEKIGKDSGFSNCSDDHFLRFLHDHRGVCLLDEPGRQSRMRAANCGNGVVEDLEQC  
DCGSDCDKSQCCDENCKLKGNSVCSTELCCFKCNFKKEGDVCRPADGPCDLEEYCNGTSA  
ACPSDRKAQDGSKCHESFLCFNGQCMDPTFQCSRIFGHGSRASADYCYTSLNSRGDQFGN  
CGSSSQFPKKYTKCSDKNVMCGKLICTEVAFLPQIQPNLLLLQVPE TEDWCWSVAVFD MR  
DSLHEEYVKDNTYCGKDKVCKNSICEDFTPFSPSPSKQCNKHGVCNDLGNCHCSFGFA  
PPDCKEEGTGGSVDSGPAVNLSNDSSPGPNSTQSSTEELIILNKLIVLAVILVLMILLI I  
ICIIISAYTKSETASEAGPSELEELPEGEKEEQEEVLP EEAKGEEEELEYGKEEAEEQGAV  
EEEGAEANEAAA EKKDEDEEEGEE

>P39180

MKRHLNTCYRLVWNHMTGAFVVASELARARGKRGGVAVALSLAAVTSLPVLAADIVVHPG  
ETVNGGTLANHDNQIVFGTTNGMTISTGLEYPDNEANTGGQWVQDGGTANKTTVTS GGL  
QRVNPGGSVSDTVISAGGGQSLQGRAVNTTLNNGGEQWMHEGAIATGTVINDKGWQVVKPG  
TVATD TVVNTGAEGGPAENGDTGQFVRGDAVRTTINKNGRQIVRAEGTANTTVVYAGGD  
QTVHGHALD TTLNGGYQYVHNGGTASDTVVNSDGWQIVKNGGVAGNTTVNQGR LQVDAG  
GTATNVTLKQGGALVTSTAATVTGINRLGAFSVVEGKADNVVLENGGRLDVLTGHTATNT  
RVDDGGTLDVRNNGTATTVMGNGGVLLADSGAAVSGTRSDGKAFSIGGGQADALMLEKG  
SSFTLNAGDTATD TTVNGLFTARGGTLAGTTTLNNGAILT LSGKTVNNDTLTIREGDAL  
LQGGSLTGNGSVEKSGSGTLTVSNTTLTQKAVNLNEGTLTLNDSVT TTDVIAQRGTALKL  
TGSTVLNGAIDPTNVTLASGATWNIPDNATVQSVVDDL SHAGQIHFTSTRTGKFPATLK  
VKNLNGQNGTISLRVRPDMAQNADRLVIDGGRATGKTILNLVNAGNSASGLATSGKGIQ  
VVEAINGATTEEGAFVQGNRLQAGAFNYSLNRDSDESWYLRSENAYRAEVPLYASMLTQA  
MDYDRIVAGSRSHQTVNGENNSVRLSIQGGHLGHDNNGGIARGATPESSGSYGFVRLEG  
DLMRTEVAGMSVTAGVYGAAGHSSVDVKDDGSRAGTVRDDAGSLGGYLNLVHTSSGLWA  
DIVAQGTRHSMKASSDNDFRARGWGLGSLETGLPFSITDNLMLLEPQLQYTWQGLSLDD

GKDNAGYVKFGHGSAQHVFRAGFRLGSHNDMTFGEGETSSRAPLRDSAKHSVSELPVNWWVQ  
PSVIRTFSSRGMVRGTSTAGSGMTFSPSQNGTSLDLQAGLEARVRENITLGVQAGYAHS  
VSGSSAEGYNGQATLNVTF

>Q9M6E9

MKFETTKNKLHGNAYYQAQFQDP IKFTTGSATPASYNQF IDALRERLTGGLIYGIPVLRD  
PSTVEKPNQYVTVVELSYSDTVS IQLGIDL TNAYVVAYRAGSESSFFRNAPASASTYLFTG  
TQQYSLPFDGNYDDLEKWAHQSRQRI SLGLEALRQGIKFLRSGASDDEE IARTLIVIIQM  
VAEAARFRYVSKLVVISLSNRAAFQDPDPSMLSLENTWEPLSRAVQHTVQDTFPQNVTLIN  
VRQERVVVSSLSHPSVSALALMLFVCNPLNATQSPLLIRSVVEQSKICSSHYEPTVRIGG  
RDGLCVDVSDNAYNNGNPI IILWKCKDQLEVNQLWTLKSDKTIRSKGKCLTTYGYAPGNVY  
MIYDCSSAVAEATYWDIWDNGTI INPKSGLVLSAESSMGGTLTVQKNDYRMRQGWRGTGN  
DTSPFVTSIAGFFKLCMEAHGNSMWLDVCDITKEEQWAVYPDGSIRPVQNTNCLTCEE  
HKQGATIVMMGCSNAWASQRWVFKSDGTIYNLYDDMVMVKSSDPSLKQI IILWPYTGAN  
QMWATLF

>Q9NP73

MKCVFVTGTTSFDDLIACVSAPDSLQKIESLGYNRLILQIGRGTVVPEPFSTESFTLDV  
YRYKDSLKEDIQKADLVI SHAGAGSCLETLEKKGKPLVVVINEKLMNNHQLELAKQLHKEG  
HLFYCTCSTLPGLLQSMDSLTKCYPPGQPEKFS AFLDKVVGLQK

>P53178

MGIIEEKALFVTCGATVPFPKLVSCVLSDEFQELIQYGFVRLIIQFGRNYSSEFEHLVQ  
ERGGQRESQKIPIDQFGCGDTARQYVLMNGKLVIGFDFSTKMQSIIRDYSDLVISHAGT  
GSILD SRLNLKPLIVCVNDSLMDNHQQIADKFVVELGYVWSCAPTETGLIAGLRASQTEK  
LKPFVSHNPSFERLLVETIYS

>Q96F25

MVCVLVLAAGAVAVFLILRIWVVLRSMDVTPRESLSILVVAGSGGHTTEILRLLGSLS  
NAYS PRHYVIADTDEMSANKINSFELDRADRDP SNMYTKYYIHRIPRSREVQQSWPSTVF  
TTLHSMWLSFPLIHRVKPDLVLCNGPGTCVPICVSALLLGGILGKVIIVYVESICRVET  
LSMSGKILFHLSDYFIVQWPALKEKYPKSVYLGRIV

>P38242

MKTAYLASLVLIVSTAYVIRLIAAILPFFHTQAGTEKDTKDGVNLLKIRKSSKKPLKIFVF  
LGSGGHTGEMIRLLENYQDLLLGSIVYLGYSDEASRQRF AHFIKKFGHCKVKYYEFMKA  
REVKATLLQSVKTIIGTLVQSFVHVVRIRFAMCGSPHLFLLNGPGTCCIIISFWLKIMELL  
LPLLGS SHIVYVESLARINTPSLTGKILYWVVEFIVQWQELRDNYLPRSKWFGILV

>P28039

MQSPWKILTVAPLFLLLSLQSSASPANDDQSRP SLSNGHTCVGCVLVVSVIEQLAQVHNS  
TVQASMERLCSYLPEKLF LKTTCYLVIDKFGSDI IKLLSADMNADV VCHTLEFCQNTGQ  
PLCHLYPLPKETWKFTLQKARQIVKKSPILKYSRSGSDICSLPVLAKICQKIKLAMEQSV  
PFKDVDSDKYSVFP TLRGYHWRGRDCNDSDESVPYGRRPNNWDVHQDSNCNGIWGVDPKD  
GVPEYKFKCEGSQPRGII LLGDSAGAHFHI SPEWITASQMSLNSFINLPTALTNELDWPQ  
LSGATGFLDSTVGIKEKSIYLR LWRNHCNHRDYQNI SRNGASSRNLLKFI ESLSRNKVL  
DYP AIVIYAMIGNDVCSGKSDPVPAMTTPEKLYSNVMQTLKHLNSHLPNGSHVILYGLPD  
GTFLWDNLHNRYPHPLGQLNKDMTYAQLYSFLNCLQVSPCHGWMSNKT LR TLTSERAEQL  
SNTLKKIAASEKFTNFNLFYMDFAFHEIIQEWQKRGQPWQLIEPVDGFHPNEVALLLLA  
DHFWKKVQLQWPQILGKENPFPNPQIKQVFGDQGGH

>Q10567

MTDSKYFTTTTKKGEIFELKAELNSDKKEKKKEAVKKVIASMTVVGKDVSALEFPDVVNCMQT  
DNLELKKLVYLYLMNYAKSQPDMAIMAVNTFVKDCEDPNPLIRALAVRTMGCIRVDKITE  
YLCEPLRKCLKDEDYPVVRKTAAVCVAKLHDINAQLVEDQGFLDTLKDLISDSNPMVVANA  
VAALSEIAESHPSSNLLDLNPQSINKLLTALNECTEWGQIFILDCLANYMPKDDREAQSI  
CERVTPRLSHANSVVLSAVKVLKFMEMLSKDLDDYGTLLKKLAPPLVTLLSAEPELQY  
VALRNINLIVQKRPEILKHEMKVFFVKYNDPIYVKLEKLDIMIRLASQANIAQVLAELKE  
YATEVDVDFVRKAVRAIGRCAIKVEQSAERCVSTLLDLIQTKVNYVVQEAIIVVIKIDIFRK  
YPNKYESVIATLCENLDSLDEPEARAAAMIWIVGEYAERIDNADELLESFLEGFHDESTQV  
QLQLLTAIVKLFKKTPTETQELVQQVLSLATQSDNPDRLDRGYIYWRLLSTDPVAAKEV  
VLAEKPLISEETDLIEPTLLDELICYIGTLASVYHKPPSAFVEGGRGVVHKSLLPRTASS  
ESAESPETAPTGAPPGEQPDVIPAQGDLLGDLNLDLGGPPVSGPPLATSSVQMGAVDLLG  
GGLDSLMDPEPEGIGGTNFVAPPTAAVPANLGAFIGSGLSDLFDLTSVGTLSGSYVAPK  
AVWLPAKAKGLEISGTFTRQVGSISMDLQLTNKALQVMTDFAIQFNRSFGLAPAAPLQ  
VHAPLSPNQTVESLPLSTVGSVMKMEPLNQLQVAVKNNIDVFYFSTLYPLHILFVEDGK  
MDRQMFLATWKDIPNENEAQFQIRDCPLNAEAASSKLQSSNIFTVAKRNVEGQDMLYQSL  
KLTNGIWWLAELRIQPGNPSCTDLELSLKCRAPEVSOHVYQAYETILKN

>P36000

MPPLDKRIKKFLKDSIRIAPKISGKGELSELRTGLVSVQYPQTRKDAIKKTIQQMTLKGKDV  
SSLFPDVLKNIATIDVEQKKLVYLYVMNYAETHPELCLAVNTFITDAQDPNPLIRCMAI  
RTMSMIRVDKILEYIETPLRRTLHDDNAYVRKTAVICVAKLFLQNKDLCVELGVVEDLVN  
ALDDSNPLVIANATAALIEIHNMDMDAVDLSSLIQSHVSQFLLALNECTEWARI I I LGTL  
SEYSAKDSLEAQDIDRVTAHLQHVNPVAVLATIKVIVRNLPQIEYSSNSLIMKRLSSAF  
VSLMSTPPEMQYVALKNIRIILEKYPELLTKELRIFVVKFNDPLYVKLEKIDILVRLVDP  
SNLKQCTLLLTELKEYAMEYEPEFVSRAIQALSQLGIKYAQESFVSKVLDILLELLERQD  
TIKDDCCISLCDLLRHCPGNDKMAKQVCAVFNWTSNPEVLLQSDIAKCNVWLLGQHPNN  
FSDLESKINIFIENFVQEEALQMSLLMTIVRLHATLTGSMLQSVLELATQQTHELDVRD  
MAMMYWRCLSMPPNESLVNDLCQNKLPMISNTLEKFSPEVLEKLLMELGTISSIYFKPDS  
NRRKGKKYVQNIIVKKGHIEELESMAKNEISSKANDDVLLDFDERDDVTNTNAGMLNLTLT  
LGDLDLDFDFGSPEDATQINTNDTKAVQGLKELKLGGSNGISSGGKNNPDVSGGNIVSQ  
DLLDLF

>O43747

MPAPIRLRELIRTIRTARTQAEEREMIQKECAAIRSSSFREEDNTYRCRNVAKLLYMHMLG  
YPAHFGQLECLKLIASQKFTDKRIGYLGAMLLDERQDVHLLMTNCKNDLNHSTQFVQG  
LALCTLGCMGSEMCRDLAGEVEKLLKTSNSYLRKKAALCAVHVIRKVPPELMEFLPATK  
NLLNEKNHGVVHTSVVLLTEMCERSPDMLAHFRKLVLPQLVRLILKNLIMSGYSPEHDVSGI  
SDPFLQVRILRLLRILGRNDDSSSEAMNDILAQVATNTETSKNVGNAILYETVLTIMDIK  
SESGRLVLAINILGRFLLNNDKNIRYVALTSLKTVQTDHNAVQRHRSTIVDCLKDLVDS  
IKRRAMELSFALVNGNIRGMMKELLYFLDSCEPEFKADCASGIFLAAEKYAPSKRWHID  
TIMRVLTTAGSYVRDDAVPNLIQLITNSVEMHAYTVQRLYKAILGDYSQQPLVQVAAWCI  
GEYGDLLVSGQCEEEEP IQVTEDEVLDILESVLISNMSTSVTRGYALTAIMKLSRFTCT  
VNRKIKVSVIYGSSIDVELQQRAVEYNALFKKYDHMRSALEMPVMEKVTNNGPTEIVQ  
TNGETEPAPLETKPPPSGPQPTSQANDLLDLLGGNDITPVIPTAPTSKPSSAGGELLDLL  
GDINLTGAPAAAPASVVPQISQPPFLLDGLSSQPLFNDIAAGIPSITAYSKNGLKIEFT  
FERSNTNPSVTVITIQASNSTELDMTDFVQAAVPKTFQLQLLSPSSSIVPAFNTGTITQ  
VIKVLNPQKQQLRMRIKLTYNHKGSAQDLAEVNNFPPQSQW



>Q12028

MGSSLSRFSFIKDVIRGAKTLADERAIITKQSAKIRTKLRDDHLPHEKRRVNIQKLLYLYIILG  
EKTHFGQVESINLIASDDFVVKRLGYLAATLLLLDESEDLLTLLTNMLNNDLHHPNKYAVS  
LALTSLGFLSSPELARDLYPDVENI IKNSRDPFLLKALQCAAKLIFKDVSLLEIFNIED  
ITKILSSHSICTHGVLLGVTKIIQSILLIIGLNRKKDEDEDEDEGDIDYSNDILSPLSLLLRD  
FFIRLENMNSKNIIEPGYDVQIGICDPFLQCEIIYTLKLYFQVGEILLNSNNVLDYKDNFCDL  
LTRIATNTDSTKNSGQAILYETVKTIFSLDLNQPLRVLGINILAKFLAGKDNNTKYVSLN  
TLLKVVQPQPTAVQRHRKFI SHCLQDTRVVSIRMRALLESFAILLDDSNLVELVNELMKFLA  
KQDEDSKDLIIYTTIDHLIDTFDTRVVKDESWKLDVFFNILKLVGSFINYEKINDILIIIN  
NTSQLSDKSEFLRKMLTISLNGTSAEISEENIGWQLVLIWCIGEYGDVLVNEGNKNGADI  
INESSITDYLLTLQELYTATNLKIIYILTAALKLSVRFHDAKNIEKLRQLILSYTDSTD  
LSLQMKSNQYEIFFNQISVKKIILETMPKFEKITEEQDNGKALSKNLISNEPVDLLSDL  
LGEDSKAESKASTGDNVKNPIDILEEIFGEKNDIAQVPKNANKEESINHSSAVEANSVTL  
PLDANKIYDSSSLNVYASLLSANSGLAHLDLFYQAKSLISDLKTFCAVPKAQKLTGQLY  
PSSTINASQICKQSLKISGSGKLLRVKLDLDFHLNGSSSITNEQFDHKFDETL

>Q9BXS5

MSASAVYVLDLKGKVLICRNYRGDVMSEVEHFMPILMEKEEEGMLSPILAHGGVRFMWI  
KHNNLYLVATSKKNACVSLVFSFLYKVVQVFSEYFKELEEEESIRDNFVIIYELLDELMDF  
GYPQTTDSKILQEYITQEGHKLLETGAPRPPATVTNAVSWRSEGIKYRKNEVFLDVIESVN  
LLVSANGNVLRSIEVGSIKMRVFLSGMPELRLGLNDKVLFDNTGRGKSKSVELEDVKFHQ  
CVRLSRFENDRTISFIPPDGEFELMSYRLNTHVKPLIWIIEVSVIEKSHSRIEYMIKAKSQ  
FKRRSTANNVEIHIPVPNDADSPKFKTTVGSVKWVPENSEIVWSIKSFPGGKEYLMRAHF  
GLPSVEAEDKEGKPPISVKFEIPYFTTSGIQVRYLKIIEKSGYQALPWVRYITQNGDYQL  
RTQ

>Q00776

MASAVYFCDHNGKPLLSRRYRDDIPLSAIDKFPILLSDLEEQSNLIPPCLNHNGLEYLFI  
QHNDLYVVAIVTSLSANAAAIFTFHLKLVESVSDYKLTVEEESIRDNFVIIYELLDEVMD  
YGIPQITETKMLKQYITQKSFKLKVSAAKKRNATRPPVALTNSVSWRPEGITHKKNEAFL  
DIVESINMLMTQKGQVLRSEIIGDVKVNKLSGMPDLKLGINDKGIFSKYLDDDTNIPSA  
SATTSDNNTETDKKPSITSSSATNKKKVNIIELEDLKFHQCVRLSKFENEKIIITFIPPDGK  
FDLMNYRLSTTIKPLIWCVDVNVQVHSNSRIEIHCKAKAQIKRKSTATNVEILIPVDDAD  
TPTFKYSHGSLKYVPEKSAILWKIRSFPGGKEYSMSAELGLPSISNNEDGNRTMPKSNAE  
ILKGPVQIKFQIPYFTTSGIQVRYLKINEPKLQYKSYPPWVRYITQSGDDYTIRLT

>P47795

MIHSLFLMNGGGAVFLEKHRSVVSRSVCAYLLEAQLKAGQPENVAPVLATPHHYLVSTH  
RHGISFVAVIQAEVPLFVIEFLHRVAETLQDYFGECSEASIKDNVVIYELLEEMLDNG  
FPLATESNILKELIKPPTILRSVNSITGSSNVGDQLPTGQLSNIPWRRVGVKYTNNEAY  
FDVTEEIDAIIDKSGSTVFAEIQGVIDACIKLTGMPDLTSLFLNPRLLDDVSFHPCVRFK  
RWESERVLSFIPPVGNFRMSYHVNSQNLVAIPVYVKHNINFRDDGSGTGFWDITIGPKQT  
MGKVVENILVIIHMPKVVLNMTLTAQAQGNFTFDPVTKVLIWDIGKIIILPKLPTLKGLINL  
QSGEAKPEENPTLNIQFRIQQLAVSGLKVNRLDMYGERYKPFKGVKYVTKAGKFQVRT

>P61966

MMRFMLLSRQGLRLQKWYLAATSDKERKKMVRELMQVVLARKPKMCSFLEWRDLKVVYK  
RYASLYFCCAIEGQDNELITLELIHRYVELLDKYFGSVCELDIIFNFEKAYFILDEFMGLG  
GDVQDTSKKSVLKAI EQADLLQEEDESPRSVLEEMGLA

>P35181

MTQLKYLLLVSRQGKIRLKKWYTAMSAGEKAKIVKDLTPTILARKPKMCNIEYNDHKVV  
YKRYASLYFIVGMTDPVDNELLTLEIHRFVETMDTYFGNVCELDIIFNFVSKVYDILNEM  
IMCDGSIAESSRKEVLHHVTVMDTMSNDNLERVLS

>O95782

MPAVSKGDGMRGLAVFISDIRNCKSKEAEIKRINKELANIRSKFKGDKALDGYSKKKYVC  
KLLFIFLLGHIDDFGHMEAVNLLSSNKYTEKQIGYLFISVLVNSNSELIRLINNAIKNDL  
ASRNPTFMCLALHCIANVGSREMGEAFAADIPRILVAGDSMDSVKQSAALCLLRLYKASP  
DLVPMGEWTARVVHLLNDQHMGVVTA AVSLITCLCKKNPDDFKTCVSLAVSRLSRIVSSA  
STDLDQDYTYFVFPAPWLSVKLLRLLQCYPPPEDAAVKGRLEVECLETVLNKAQEPPKSKKV  
QHSNAKNAILFETISLIHYDSEPNLLVRACNQLGQFLQHRETNLRYLALESMTLASSE  
FSHEAVKTHIDTVINALKTERDVSVRQRAADLLYAMCDR.SNAKQIVSEMLRYLETADYAI  
REEIVLKVAIIAEKYAVDYSWYVDTILNLIRIAGDYVSEEVWYRVLQIVTNRDDVQGYAA  
KTVFEALQAPACHENMVKVGYYILGEFGNLIAGDPRSSPPVQFSLHLSKFHLCSVATRAL  
LLSTYIKFINLFPETKATIQQVLRAGSQLRNADVQLQRAVEYLTLSVASTDVLATVLE  
EMPPFPERESSILAKLKRKKGPGAGSALDDGRRDPSSNDINGGMEPTPSTVSTPSPSADL  
LGLRAAPPPAAPPASAGAGNLLVDVFDGPAAPSLGPTPEEAFLESELEPPAPESPMALLA  
DPAPAADPGPEDIGPPIPEADELLNKVCKNNGVLFENQLLQIGVKSEFRQNLGRMYLFY  
GNKTSVQFQNFSPVTVHPGDLQTHLAVQTKRVAAQVDGGAQVQVNLIECLRDFLTPPLL  
SVRFYGGAPQALTLKLPVTINKFFQPTEMAAQDFQQRWKQLSLPQQEAKIFKANHPMD  
AEVTKAKLLGFGSALLDNVDPNPNFVVGAGIIQTKALQVGCLLRLEPNAQAQMYRLTLRT  
SKEPVSRLCELLAQOF

>Q86KI1

MSMNVNTPNIAKTSMRGLTNFISDLRNSPSKENEKRVTKEMAHIRKEFKENKNIDGYQR  
RKYVCKLVYMYMLGYELDFGHMEAVTLLSSTKFSEKQIGYIALGILLNEQHEMLPLIINS  
FKEDLLARSDYFQSLALAAICNIGGKEVAEFLSPLIQKLLIANTSSPMVKKRCALAILRM  
NRKHIGLVTPDSWVERLVSVLDEPDFGVLTSLMSLLIELASENPIGWEPaipkVIHLLKK  
I I INKEFPKEYVYVYHVTCPWLVKLLKFLRYFPAPDDSQGGKVLGEILTAVFAQSES  
AKA GTVNHNKNSLNAVLFEA INLI IHLDNDPVLLKQTSLLLGRFITVKE TNIRYLGLEAMSHFA  
SLSNETSIMIKKYQDVTLLSLKSDSISIRRRALDLYGMCDKNTCKHIVAEELLSYLQTAD  
YAI REELVIKIANLAEKFASNYSWYVDVILQLITTAGDFVSDDIWFRVVKIVTNHEDIQA  
YAASTVFNALQSRNCHE TLIKVGGYILGEFGHLIADNPQSSPLVQFNILHSKFNTCGAPT  
KALLLSTYAKFVNLFPELTQQTQEVFKQHQS YIDAEIQQRACEYLNLTSLNEDLMQTVLD  
VIPAFIDAKDNSNTTNTANNSNMINSQDSKISSGGFNQSPQPSQQQQQQPPQQQAQL  
QQNVSSNGLDLDLDPFGLGLGNQQQQQQPVQQAQPVYQQQQQAESFSPVQSDTVSSFGQQ  
QQQQQGGFSSPTIQASSPISSGSDPMQIKILASYKRLCLVSEGVLYEDSMLQVGLKSE  
YQSGQGRMLLYGNSSAFPLTNFNVTLSNIAGLTLQFQSIAPVVIQPKAQLQPPVTFSC  
TSEFTESPVITINFLTPGKPITITLRLPIVISKFFEPLRLSSGDF FARWKTISGKPLEIQEI  
FKSTKPIDIQSYNRVIEGLNITVLKQVDPNPNIVASCLFPFGSNGQPINSYIRIETNP  
QANMCRLTIRSQSATLTNTIKNLLISHLQ

>P38065

MDRKKTLINSSVSNNNSTIKGLQLFIADLRSAQQAQEQEKR IQSEIVKIKQHFDAAKKKQ  
GNHDLRGGYQRKKYVAKLAYIYITSNTTKLNEILFGLEQTVLELLKSSIFSEKFIGYMTLE  
LLYERSEVVAKVNDEVNYQLMKDLSSSDDNFVMLALNFVGVGELTNRLAYNDDITTG  
VFKILRSPTSSIYLLKKKSALSFLALLKSNHSILTEDLQRKQLWIQRILSLLDDTENYRL  
TLATIPLIEFIAKYIDPSYCTRLLPQLTEILYNCVVVGTSRSSDNQFPLEYTFANMPNP  
WLITKVVSLLSILIASPTERDSGSLQLQTNIDNELLNKLKRCVSVAIELGTRQAQDP  
MERIVQN

TVLFSLINFASKLDPSDEAISNSVTALCSLLTSKEINIRYLTLDSLVLKLCSSSGKPAIDA  
VRYKNLDMIFHLLNTERDSSIVRKVVDDLTYFTDVENVKIIVDGLLQYILSPKNLAEPQI  
KSDIAVKIAAILTEKYATDINWFVIIISLQLLSLTSNTTINDDEIWQRLCQIVVNNPSLHRI  
TCERLVDYLCKKQASEAIKAAAFLLGEYSSLIITDRISSANLFTLFAEKYFSAPNVAKAM  
ILTTMIKLYKTSPEIGSNVIKFFQLELNSLDIELQTRSFEYLNIIQLAKVNGNTDILQIL  
FEPMPFNSKSNPLLKRLGSLPASAGSTTLINTPSEASSSTPDLLSKRANSSRSIMVPMP  
PPSRRTIDDVNSKISSSEDFSGKDSYYSRQILAPNWREGFTRMISHKQGVLF'TSSLMKV  
FYRITTPDAQOPYVFHISLAFINLTEWEITGLSTQIIPSKTQGNPEYLMNINTPSTATI  
GPHKRAEQSYEVSIRKPFVEDSPILAIHFKCGGSTNTINLKTAIGMTTTLISSDVNPSM  
HLNLAQFISRWKTLSDALGKEGEYQKSGIKLNKDFRKVETISLEDEGLLLLTQTVKRLGFD  
IVDQTSVRSTLFFVSGIIHTKSEGNFGLMKIQYQVNGTVNVTCKTTTAGPLAKYIVECIK  
NVLTK

>P27351

MSDQKVFARYKANEIVTDLQHFVKKFKFSNITRRKNALRKIIANLVLGNYGEMSVLFSSEL  
LKFQWQIEDDLEVKRICHEYIRVIGALKPQQAREALPFIMDDFKSRDEKLQIMALRTLVLV  
PVKELSDQAFDCIISLVNHKSPPEQVTRTAIYALLDLDEIDHERVLGLSSILHDIVKAQS  
SSPEVIVAALHTLYSHEKNANMEPFRIPLELAFDMLELLPELNEWNKATVLEVLTTSVV  
PQHYLDTHEMIELALPYLQQVNTYVVLNSLKFIMYLLNYVDVIKETAELKLSNSVIALLD  
KPPQLQFLVLRNVILLLLSRESSLLRLDISYFFIEYNDPIYIKDTKLECLYLLANKETLP  
RILEELEQYATDIDIQMSRKSVAIGNLAVKLDEDSVHDCVAVLLDLLEFGVDYVVQEII  
SVFRNILRKYPNFKANVTELVKHTEVVQEPESKNAMIWIITQYSDVIPNYLELFRVFS  
NMFSETLEVQFSILNSAIKFFIRSPTKETEELCMDLLKGCIDHENNPDLRDKTLMYWRLL  
SLTKTSRISNAITFESLKSVDGELPLIEMNTKLDPTVLEELELNIGTIVSIYLPVSHI  
FRLNKTLLPQSPILNPNKDLLPVVGNFPPPTGANRDRQNSESQSSTKSRKTAMMDYDK  
PAEKINQLKGRKSSSNPSSKLSRKPSTLLRKLKSMKRPFS

>P35603

MIGGLFVYNHKGVELISRIYRDDVTRNAVDAFRVNVIHARQQVRSPVTNMARTSFFHVKR  
GNVWICAVTRQNVNAAMVFEFLKRFADTMQSYFGKLNENVKNNFVLIYELLDEILDGFGY  
PQNTDPGVLKTFITQQGVRTADAPVPVTKEEQSQITSQVTGQIGWRREGIKYRRNELFLD  
VIEYVNLMLNQGGQVLSAHVAGKVAMKSYLSGMPECKFGINDKITIEGKSKPGSDDPNKA  
SRAAVAIDDCQFHQCVKLTKFETEHAISFIPPDGEYELMRYRTTKDIQLPFRVIPLVREV  
SRNKMEVKKVVVKS NFKPSLLAQKLEVRIPTPNTPSGVQLICMKGKAKYKAGENAIVWKIK  
RMAGMKESQISAEIDLSTGNVEKKNRPPVSMNFEVFPFAPSGLKVRYLKVFEPKLNYS  
DHDVIKVVRYIGRSGLYETRC

>P54672

MISALFLMNGKGEVLIISRIYRDDISRGVANAFRLEVIGSQETRSPVKLIGSTSFMYIKVG  
NIYIVGVSRQNVNACMVFEVLHQLVDIFKSYFDNLDEDSIRNNFVLVYELLDEILDGFGY  
QNCSTDLKLYITQGQGLKSLDKLQDKISKITIQATGTPWRTPDIKYKRNELYIDVV  
ESVNLMSAEGNILRADVSGQVMMKCFLSGMPECKFGMNDKVIDREKSTNGGSAARSGA  
RRANGIEIDDITFHQCVRLGKFDSDRTVSFIPPDGEFELMRYRTTEHINLPFKVIPVRE  
MGRTRLECSVTVKSNFSSKMFGANVKVIIPTPKNTAVCKIVVAAGKAKYMPEQDAIWRIR  
RRFPGDTEFTLRAEVELMASVNLDDKKAWSRPPISMEFQVTFMFTASGFVSRFLKVVEKSNY  
TPIKVVRYLTKAGTYQNR

>Q99186

MISGVLVYSSRGELVLNKKFFKNSLKRSDIFRVQVINNLDVRSFVLTGSTTFHHIRSR  
HGDNLWLVTITRSNANSAAIWEFLYKLDVAMNAYRLDREELKEEFMIVHEMLDIMLGGN

GIPIDTELNSVIAQMSVKPVRNMGGLLDSPDGNDVLSSSSSPTSSAGELHFPKFLTKRSS  
SFLGQGDSTSDFYDNKKITWRPKGI IHKKDEVFLYVNERINILVSRDGSILKSYVDGTID  
ITTHLSGTPICRFGLNDSLGMQSEDEKKWLAQQQRHSGSDFGNKNFIPKAAAGSVLLEDC  
KFHECVSLDKFNRNHI IEFVPPDGSMELMKYHVRDNINLPFKVTP IVTHSTRDNEIDYRI  
TLKSLFPGKLSAKDVVLHIPVPPSTVDCKISVSNHGCKFVPEENAMIWRFNKYNGLTENT  
LSAVTVSTSDTTQLNLQQWTRPPI SLEFEVMMFNSNSGLVVRYFTISGKDSKHRAVKWIKY  
ISKAGSYEVRY

>P53680

MIRFILIQRNAGKTRLAKWYMQFDDDEKQKLIIEVHAVVTVRDAKHTNFVEFRNFKII YR  
RYAGLYFCICVDVNDNMLAYLEAIHNFVEVLNEYFHNVCELDILVFNFYKVYTVVDEMF LA  
GEIRETSQTKVLKQLLMLQSLE

>Q00381

MAVQFILCFNKQGVVRLVRWFDVHSSDPQRSQDAIAQIYRLISSRDHKHQSNFVEFSDST  
KLIYRRYAGLYFVMGVDLLDDEPIYLCHIHLFVEVLDAFFGNVCELDILVFNFYKVYMIMD  
EMFIGGEIQEISKDMLLERLSILDRLD

>Q9Z1T1

MSSNSFAYNEQSGGEEAAELGQEATSTISPSGAFGLFSSDWKKNEDLKQMLESNKDSAKL  
DAMKRIVGMIAKGKNASELFPVAVKNVASKNIEIKKLVVYVYLVR YAEEQQDLALLSISTF  
QRALKDPNQLIRASALRVLSSIRVPI IVPVMM LAIKEASADLSPYVRKNAAHAIQKLYSL  
DPEQKEMLIEVIEKLLKDKSTLVAGSVVMAFEEVCPDRIDL IHRNYRKL CNLLVDVEEWG  
QVVI IHMLTRYARTQFVSPWREDGGLEDNEKNFYESEEEEEKEKSSRKKSYAMDPDHRL  
LIRNTKPLLQSRNAAVVMAVAQLYWHISPSEAGVISKSLVRLLR SNREVQYIVLQNIAT  
MSIERKGMFEPYLSFYVRSTDPMTIKTLKLEILTNLANEANISTLLREFQTYVRSQDKQ  
FAAATIQTIGRCATSISEFTETCFNGLVCLLSNRDEIVVAESVVV IKKLLQM QPAQHGEI  
IRHMAKFLDSITVVARASILWLI GENCERVPKIAPDVLRKMAKSFTSEDDLVLKQILNL  
AAKLYLTNSKQTKLLTQYIILNLGKYDQNYDIRDRTRFIRQLIVPNEKSGALSKYAKKIFL  
APKPAPLLESPFKDRDRFQLGTL SHTLN I KASGYLELSNWPEVAPDP SVRNVEVIESAKE  
WTPLGKTKKEKPMKKFYSESEEEEEDEDEDEDEEEEEKEDEDEENPSDSSSDSESGSGSESG  
DTGTEDSSEDSSSGQDSETGSQAEARQKVAKRNSKTKRKS DSENREKKNENSKASESS  
EESSSMEDSSSESESESGSDSEPAPRNVAPAKERKPQQRHPPSKDVFLDLDDFNPVST  
PVALPTPALSPSLIADLEGLNLSTSSSVINVESTPVFVPTKTHELLHRMHGKGLAAHYCFP  
RQPCIFSDKMVSQITL TNTSDRKIENIHIGGKGLPVGMMHAFHPIDSLEPKGSVTVSV  
GIDFC DSTQTASFLCTKDDCFNVTLOPPV GELLSPVAMSEKDFKKEQGTLTGMNETSAT  
LIAAPQNFTPSMILQKVVNVANLGAVPSSQDNVHRFAARTVHSGSLMLVTVELKEGSTAQ  
LIINTEKTVIGSVLLRELKPVLSQG

>Q13367

MSAAPAYSEDKGG SAGPGEPEYGHDPASGGIFSSDYKRHDDLKEMLDTNKDSLKLEAMKR  
IVAMIARGKNASDLFPVAVKNVACKNIEVKKLVVYVYLVR YAEEQQDLALLSISTFQRGLK  
DPNQLIRASALRVLSSIRVPI IVPIMMLAIKEAASDMSPYVRKTAAHAI PKLYSLSDSQK  
DQLIEVIEKLLADKTTLVAGSVVMAFEEVCPERIDL IHNRYRKL CNLLIDVEEWGQVVI I  
SMLTRYARTQFLSPTQNESLLEENA EKAFY GSEEEDEAKGAGSEETAAAAAPSRKPYVMDP  
DHRLLLRNTKPLLQSRSAAVVMAVAQLYFHLAPKA EVGVI AKALVRLLR SHSEVQYVVLQ  
NVATMSIKRRGMFEPYLSFYIRSTDP TQIKILKLEVL TNLANETNIPTVLREFQTYIRS  
MDKDFVAATIQAIGRCATNIGRVRDTCLNGLVQLLSNRDELVVAESVVV IKKLLQM QPAQ  
HGEI IKHLAKLTDNIQVPMARASILWLI GEYCEHVPR IAPDVLRKMAKSFTAEEDIVKLQ  
VINLAAKLYLTNSKQTKLLTQYVLSLAKYDQNYDIRDRARFTRQLIVPSEQGGALSRHAK

KLFLAPKPAPVLESSFKDRDHFQLGSLSHLLNAKATGYQELPDWPEEAPDPSVRNVEVPE  
WTKCSNREKRKEKEKPFYSDSEGESGPTESADSDPESESESDSKSSSESGSGESSESDN  
EDQDEDEEKGRGSESEQSEEDGKRKTKKKVPERKGEASSSDEGSDSSSSSESEMTSESE  
EEQLEPASWSRKTPPSSKSAPATKEISLLDLEDFTPPSVQPVSPPAIVSTSLAADLEGLT  
LTDSTLVPSSLSPVSGVGRQELLHRVAGEGLAVDYTFSRQPFSGDPHMVSVHIFHSNSSD  
TPIKGLHVGTPKLPAGISIQEFPEIESLAPGESATAVMGINFCDSTQAANFQLCTQTRQF  
YVSIQPPVGELMAPVFMSENEFKKEQGKLMGMNEITEKLMMLPDTCRSDHIVVQKVTATAN  
LGRVPCGTSDEYRFAGRTLTTGGSLVLLTLDARPAQAAQLTVNSEKMVIGTMLVKDVIQAL  
TQ

>P46682

MVDSIHRIASALDTAKVITREAAAVATSKLGESSYTYYSQNINPQQLVTLNLSRNSREVR  
DAMKRIISIMASDDSDIDVQLYFADVVKNIITNDTKVKRLIHLYLLRFAENDPNLTLLSI  
NSLQKSLSDSNSELRCFALSALSDMKMSSLAPIILHTVKKLVTDPSAMVRGEVALAI IKL  
YRAGKNDYHEELLDILKELMADTDPKVISCAVLAYKECYADHLELLHGHFRRYCRI IKQL  
DSWSQSYLIELLIKCYCKQYLPKPTVVDKSSEGSRSCPLPKYNEIEYPSYEVVNDPDL  
LFLQSLNCLIYSSNPTVILSCCNALYQLASPLQMKNTKFI EALVRTVTMTENQGNKEMLL  
QAIHFLSILDQTLFLPYTKKFYVFPKDP IVASIWKI QILSTLINESNVKEIFKELKYVA  
SAHFPEENVVIMAVKSLSRCGQLSTSWESHVMKWLIDHMESHNLASVLDAYVNVIRMLVQ  
KNPTKHLRIIFKLADLLTVQTSADNARAGIVWLFGEIASIEFKICPDVLRRLIQNFSNE  
GPETRCQILVLSAKLLSYDIDNFKQAQVTGSEENNQNPPYYDFSGSRISQMYNAVLYLAK  
YDDEFDIRDRARMISSLFDGKYEIVSLLLQAPKPTARSDDFIVSARLETHTPEIKEFFR  
MLPWNTEITEVGETGNDIREGAELKDYNKYKKSFSQSFITNNSARSFTSSSSNAKLTGIN  
DGDSNSISGKGNVNTFTSQNGKKYRLQSLDEFFSDIPERKSKPRKI IKVVEESSDEDEDE  
SEESSDDDEYSDSLGTSSSGTSSSHLEL

>O14617

MALKMVKGSIDRMFDKNLQDLVRGIRNHKEDEAKYISQCIDEIKQELKQDNIAVKANAVC  
KLTYLQMLGYDISWAAFNII EVMSASKFTFKRIGYLAASQSFHEGTDVIMLTNQIRKDL  
SSPSQYDTGVALTGLSCFVTPDLARDLANDIMTLMSTKPYIRKKAVLIMYKVFLLKYPES  
LRPAFPRLKEKLEDPDPGVQSAAVNVICE LARRNPKNYLSLAPLFFKLMTSSTNNWVLIK  
I IKLFGALTPLEPRLGKKLIEPLTNLIHSTSAMSLLYECVNTVIAVLISLSSGMPNHSAS  
IQLCVQKLRILIEDSDQNLKYLGLLAMSILKTHPKSVQSHKDLILQCLDDKDESIRLRA  
LDLLYGMVSKKNLMEIVKKLMTHVDKAEGTTYRDELTKIIDICSQSNYQYITNFEWYIS  
ILVELTRLEGTRHGHILAAQMLDVAIRVKAIRKFAVSQMSALLDSAHLASSTQRNGICE  
VLYAAAAWICGEFSEHLQEPHHTLEAMLRPRVTTLPGHIQAVYVQNVVKLYASILQQKEQA  
GEAEGAQAVTQMLVDRLPQFVQSADLEVQERASCILQLVKHIQKLQAKDVPVAEEVSALF  
AGELNPVAPKAQKKVPVEGLDLDAWINEPLSDSESEDERPRAVFHEEEQRRPKHRPSEA  
DEEELARRREARKQE QANNPFYIKSSPSPQKRYQDTPGVEHIPVVQIDLSVPLKVPGLPM  
SDQYVKLEEEERRHRQKLEKDKRRKRKEKEKKGKRRHSSLPTESDEDIAPAQQVDIVTEE  
MPENALPSDEDDKDPNDPYRALDIDLKPLADSEKLP IQKHNTEETSKSPEKDVPMVEKK  
SKKPKKKEKKEKERDKEKKEKKEKSSPKPKKKKHRKEKEERTKGGKSKKQPPGSEE  
AAGEPVQNGAPEEEQLPPESSYSLLAENSYVKMTCDIRGSLQEDSQVTVAIVLENRSSSI  
LKGMELSVLDL NARMAR PQGSSVHDGVPVFPQLPPGVSNEAQYVFTIQSIVMAQKLGKT  
LSFIAKNDEGATHEKLDLFRHLHFCSSYLITTPCYSDAFKLLSGDLSMSSIKVDGIRMS  
FQNL LAKICFH HHSVVERV DSCASMYRSIQGHHVCLLVKKGENSVSVDGKCS DSTLLS  
NLLEEMKATLAKC

>P54362

MALKKVKGNFFERMFDKNLTDLVRGIRNNKDNEAKYISTCIEEIKQELRQDNISVKCNAV

AKLTYIQMLGYDISWAGFNIIEVMSSSRFTCKRIGYLAASQCFHPDSELLMLTTNMIRKD  
LNSQNQYDAGVALSGLSCFISPDLSRDLANDIMTLMSSSTKPYLRMKAVLMMYKVFLRYPE  
ALRPAFPKLEKELEDPDPGVQSAAVNVICELARKNPKNYLPLAPIFFKLMTTSTNNWMLI  
KIIKLFGALTPLEPRLGKKLIEPLTNLIHSTSAMSLLYECINTVIAVLISISSGMPNHS  
SIQLCVQKLRILIEDSDQNLKYLGLLAMSILKTHPKSVQAHKDLILACLDDKDESIRLR  
ALDLLYGMVSKKNLMEIVKRLLLGHMERAEGSAYRDELLYKVIEICAQSSYLVTNFEWYL  
TVLVELIQLEAGSRHGRLIAEQLLDVAIRVPVVRQFAVNEMTNLLDTFTVSAQSNSMYEV  
LYAAAWIVGEFAGELEDAEKTNLNILLRPLLPGHIQGVYVQNVIKLFARLATTCLELQDL  
PGLVTLCDHVLDKLOHFNSSDIEVQERANSACMLIEMLRNQLSTSTDAMAMDTTTEGGI  
PPLAIEIVQEMTLLFTGELIPVAPKAQRKVPLPDGLDLDEWINAPPPEDAASSSSSEHDK  
DELFVSATQAGTGADGGEKRRQSLELTPEQLERQRMARLIEQSNNPHYLKSTPTASGASN  
ADQYDNIDDIPITELPLDMEGVAALRVGITKRSKYLQEQAAQGSKDGGKKHKKGKSK  
KAKNKVAYNSSSESEGEKPLHIVNTTLDMPGVSMSDSEDKDGKYPNDPHRALDIELD  
ITEFEAPAVRSASKKSAADKENLKT PADLAGGGNAAKDRKKDKDKDKERKVKREHRESK  
RERKEAAVQPVIDLIDADTPSPSHISATSNNNTSTVLPDAPKHHKKKKKKEKTDEA  
PDALATATGSSIIDVGGEEASEVASKVHKKKKKKEKSQRKEKKKASESASVSAIVSIGDY  
EQPLGISTPSKEIL

>Q08951

MTSLYAPGAEDIRQLRPFPGFFFEKSLKDLIKGIRSHNETPEKLDQFFKQVLSECREEVN  
SPDLNSKTNVAVLKLTYLEMYGFDMAWCNFHILEVMSSNKLQKRVGYLAASQSFYKSDI  
LMLATNLLKKDLKYDGNNDVVVGVIALSGLSTIITPSLARDIADDLFTMLNSTRPYIRKK  
AITALFKVFLQYPEALRDNFDFKFSKLDLDDDI SVVSAAVSVICELSKKNPQPF IQLSPLL  
YEILVTIDNNWIIIRLLKLFNTLSQVEPKLRKLLPKILELMESTVATSVIYESVNCIVK  
GNMLEEDDFETAMACLERLHTFCDSQDPNLRYSICILFYKIGKINTDFISRFDQLIRLL  
SDVDVSIRSKAIELVEGIVDEDNLKAI VQTLMKQFVDEDVVILQTGSIVYEKSKRIP III  
PENYKIKMVNVIISICADNYSSVNDFEWYNAVIMDLAMLCQDISDKSLGSKIGEQRNL  
MIKVPSMREVTIANI IKLISNDNINKQLPTVLRCEIWCLEFSTLVENGNDLIKIMTENI  
SYYSHSVQEVLLILALVKVFSNWCNNFQEDKRFEIKMVLKELIEFFENLSYSSTFEVQERS  
VEVLEFLRLSLEALEEDTEGLPMLLSEVLPSSFFNAYELAPIARGTQLKLAVDENLDLETP  
FLTKEAADELLEQKSDAISDLMSDISMDEQVELKFVDDSDTSYEEKEKLDDFENPFEIE  
REKERMSNPYYLGEEDERTKNSKDLDDLNEEESSDKKPETIRLNRTDNLNLSLSTTE  
ISRKKKKGKKNRVQVLSDEPVEAAPKRKDAFQKPHDNHSTQNPLKDK INLRMHSQLE  
NFDFSNGQSSNAGRGSQEEGNLRKEDELELSRLEANLIVKDEKDNLSDTEEVIVIKKKK  
KGKSKSKNKLKTKAKNSPEPNEFLRDQSTDI

>P38153

MYLSFYITDTKNKLI FQYLLGATAPSFKHLWTRVRTTCPQLLEDSSSDYLDHSMVGRDL  
EVYKYFSVINKLNYWCLASTSKSKGPLDCFTFLETIDRILLEYFDKDKLSIKKIVNNYDR  
ISLIFNCCVEAGEPNVSDMLVYVNIKEAVPERSDL SKFISSTAHLNQQAVQLPQQRQQQL  
QQNQISRGSNSLIENEEIVPWRTSRASKHENNELYVDLLET FHVVFEEKKSHLRLLTGSI  
HGIVDVRSYLNDNPLVAVKLNMTMGNDIGIPSLHDCVEINDGVFSPSNITFIPPDGKFRLL  
EYSVDLSSQVKQSGVRMNSIGLMSLHFQNGLGKDSDEFELSLNIENFKKVSQVDDLKIDL  
QFNVENADPNEIAYKIKILRNTHGRFENSIIMGQGQWIFDKSTATGTVPVLRGCIEYENT  
GPNFTTKVDLQTVSLEYSYIQSASGIYVEAIDIVSGLTIGKNTKLYKGAKYKTQTGNFQ  
VRL

>P47064

MIHAVLIFNKKCQPRLVKIFYTPVDLPKQKLLLEQVYELISQRNSDFQSSFLVTPPSLLLS  
NENNNDEVNNEIDIQIIYKNYATLYFTFIVDDQSELAAILDLIQTFVESLDRCFTEVNELD

LIFNWQTLESVLEEIVQGGMVIETNVNRIVASVDELNKAEESTDSKIGRLTSTGFGSALQ  
AFAQGGFAQWATGQ

>Q9Y6B7

MPYLGSEDVVKELKKALCNPHIQADRLRYRNVIQRVIRYMTQGLDMSGVFMEMVKASATV  
DIVQKKLVYLYMCTYAPLKPDLALLAINTLCKDCSDPNPMVRGLALRSMCSLRMPGVQEY  
IQQPILNGLRDKASYVRRVAVLGCAMHNLHGDSEVDGALVNELYSLLRDQDP I VVVNCL  
RSLEEILKQEGGVVINKPIAHHLLNRMSKLDQWGQAEVLNFFLLRYQPRSEEEELFDILNLL  
DSFLKSSSPGVVMGATKFLFLILAKMFPHVQTDVLRVVKGPLLAACSSSERELCFVALCHV  
RQILHSLPGHFSSHYKKFFCSYSEPHYIKLQKVEVLCELVNDENVQQVLEELRGYCTDVS  
ADFAQAAIFAIGGIARTYTDQCVQILTELLGLRQEHITTVVVQTFRDLVWLCPCQCTEAVC  
QALPGCEENIQDSEGKQALIWLGVHGERIPNAPYVLEDFVENVKSETFFPAVKMELLTAL  
LRLFLSRPAECQDMLGRLLLYCIEEEKDMAVRDRGLFYRLLLVGIDEVKRILCSPKSDP  
TLGLLEDPAERPVSNSWASDFNTLVPVYGKAHWATISKCQGAERCDELPKTSFSAASGPL  
IPEENKERVQELPDSGALMLVPNRQLTADYFEKTWLSLKVAHQVLPWRGEFHPDTLQMA  
LQVVNIQTIAMSRAGSRPWKAYLSAQDDTGCLFLTELLLEPGNSEMQISVKQNEARTETL  
NSFISVLETVIGTIEEIKS

>Q9UPM8

MSDIVEKTLTALPGLFLQNPQGGGPAAAKASFSSRLGSLVRGITALTSKHHEEKLIQQEL  
SSLKATVSAPTTTLKMMKECMVRLIYCEMLGYDASFGYIHAIKLAQQGNLLEKRVGYLAV  
SLFLHESHELLLLLLLVNTVVKDLQSTNLVEVCMALTVVSQIFPCEMIPAVLPLIEDKLQHS  
KEIVRRKAVLALYKFHLIAPNQVQHIIHIKFRKALCDRDVGVMAASLHIYLRMIKENS  
KDLTGSEFVTILKQVVGKLPVEFNYHVSVPAPWLQIQLLRILGLLGKDDQRTSELMYDVL  
ESLRRRAELNHNVTYAILFECVHTVYSIYPKSELLEKAAKICIGKFVLSPKINLKYLGLKAL  
TYVIQQDPTLALQHOMTIIIECLDHPDPIIKRETLELLYRITNAQNITVIVQKMLEYLHQS  
KEEYVIVNLVGGKIAELAKEYAPDNAWF IQTMNAVFSVGGDMHPDIPNNFLRLLAEGFDD  
ETEDQQLRLYAVQSYLTLDMENVFYPQRFLQVMSWVLGEYSYLLDKETPEEVIKLYKL  
LMNDSVSSETKAWLIAAVTKLTSQAHSSNTVERLIHEFTISLDTCMRQHAFELKHLHENV  
ELMKSLLPVDRSCEDLVVDASLSFLDGFVAEGLSQGAAPYKPPHQEQEELKSQEKVLNFE  
PYGLSFSSSGFTGRQSPAGISLGSVSGNSAETGLKETNSLKLEGIKKLWGKEGYLPKKE  
SKTGDESGALPVPQESIMENVDAQAITKKDQSQVLTQSKEEKEKQLLASSLFFVGLGSESTI  
NLLGKADTVSHKFRRSKVKAKSGETTSTHNMTCSFSSLSNVAYEDDYSENTLHDTGD  
KELKKFSLTSELLDSESLTELPLVEKFSYCSLSTPSLFFANNMEIFHPPQSTAASVAKES  
SLASSFLEETTEYIHSNAMEVCNNETISVSSYKIWKDDCLLMVSVTNKSGLELKSADLE  
IFPAENFKVTEQPGCLPVMEEASTKSFOYSVQIEKPFTEGNLTGFI SYHMDTHSAQLE  
FSVNLSSLDFIRPLKISSDDFGKLWLSFANDVKQNVKMSESQAALPSALKTLQQKLRHLHI  
IEIIGNEGLLACQLLPSIPCLLHCRVHADVLALWFRSSCSTLPDYLLYQCQKVMES

>Q2PWT8

MISQFFILSSKGDPLIYKDFRGDSGGRDVAELFYRKLTLGLPGGESPVVMYHDDRHF IHIR  
HSGLYLVATTSENVSPFSLLELLSRLATLLGDYCGSLNEG TISRNVALVYELLEDEVLDYG  
YVQTTSTDMRLNFIQTEAAVSKPFSLFDLSSVGLFGAETQQNRVAPSSAASRPVLSRSRSD  
QSQKNEVFLDVVERLSVLIASNGSLLKVDVQGEIRLKSFLPSSSEICIGLTFEEFCVGKSE  
LRGYGPGIRVDEVSFHSSVNLDEFESHRIHLHQPQGELTMRYQLSDDLPSPLPFRLFP  
SVQWDQGSGRQLQVYLKLRCDLPPKSQALNIHLHLPLPRGVVLSLQELSSPDQKAELEGGA  
LHWDLPRVQGSQLSGLFQMDVPLQGGPPSRGPSAPPLGLGPASLSFELPRHTCSGLQ  
VRFLRLSFSACGNANPHKWVRHLSHSNAYVIRI

>Q9Y587

MIKFFLMVKNKQGQTRLKSKYYEHVDINKRTLLETEVIKSKLSRSNEQCSFIEYKDFKLIYR  
QYAALFIVVGVNDTENEMAIYEFIHNFVEVLDEYFSRVSELDIMFNLDKVHIIIDEMVLN  
GCIVETNRARILAPLLIILDKMSES

>Q07908

MTITKQTGQVAVADGTVVTPPEGFQAAGVNAAGLRYSKNDLGVILCDVPASAAAVYTQSHF  
QAAPLKVTQASLAVEQKLQAVIVNRPCANACTGAQGLKDAYEMRELCAKQFGLALHHVAV  
ASTGVI GEYLPMEKIRAGIKQLVPGVMTADAEAFQTAILTTDTVMKRACYQTTIDGKTVT  
VGGAAKSGSMIHPNMATMLAFITTDANVSSPVLHAALRSITDVSFNQITVDGDTSTNDMV  
VVMASGLAGNDELTPDHPDWENFYEARKTCEDLAKQIAKDGEKATKLI EVRVRGAKTDE  
EAKKIAKQIVGSNLVKTAVYGADANWGRIGAI GYSDAEVNPDNDVAIGPMVMLKGSEP  
QPFSEEEAAAYLQOETVVIEVDLHIGDGVGVAVGCDLTYDYVKINASYRT

>Q04728

MRISSLLQRSKQLIDKYALYVPKTGSFPKGFVGYTASGVKKNGLDLGVILNTNKS  
STAAAVFTTNKFKAAPVLTSSKVKLETARGKNINAI VVNSGCANSVTGDLGMKDAQVMIDL  
VNDKIGQKNSTLVMSTGVI GQRLQMDKISTGINKIFGEEKFGSDFNSWLVAKSICTTDT  
FPKLVTSRFLKPSGTEYTLTGMAKGAGMICPNMATLLGFIVTDLP IESKALQKMLTFATT  
RSFNCISVDGDMSTNDTICMLANGAIDTKEINEDSKDFEQVKLQVTEFAQRLAQLVVRDG  
EGSTKFVTVNVKNALHFEDAKIIAESISNSMLVKTALYGDANWGRILCAIGYAKLNDLK  
SLDVNKINVSFIATDNSEPRELKL VANGVPQLEIDETRASEILALNDLEVSVDLGTGDQA  
AQFWTCDL SHEYVTINGDYRS

>Q9DG12

MATPAAVNPSEMGTDLPGPVSMGAVVAGQVRMTGAMPGRGGRSAGMDFDDEDEGEGP  
SKFSRYDDDDQIPGDKERYARENHSEIERRRRNKMTQYITELSDMVPTCSALARKPDKLTI  
LRMAVSHMKSMRGTGNTSTDGAYKPSFLTEQELKHLILEAADGFLFVVAE TGRVIYVSD  
SVTPVLNHPQSEWFGSTLFEQVHPDDVDKLRQLSTSENSMTGRILDLKTGTVKKEGQQS  
SMRMCMSRRSFI CRMRCGSAPLDHISLNRSSMRKRYRNLGSPSKEGEAQYSVVHCTGY  
IKAWPPAGMTIPDEDETEAGQTSKYCLVAIGRLQVTS SPVSMNMGLSVPTFLSRHNSDG  
IITFVDPRCINVI GYQPQDLLGKDILEFCHPEDQSHLRESFQQVVKLKGQVLSVMYRFRM  
KNREWMLIRTSSFTFQNPYSDEIEYI ICTNTNVKQLQQQQQAELEVHQRDGLTAYDLSQV  
PVSGVSAGVHESGKTIDKTESLFSQERDPRFSDIYTGISTSEKKMMVPSSTSGGQQLYSQ  
GSPFQPGHSGKSFSSSVIHVPGVNDIQSTAGSAGQNL SQISRQINTGQVSWSGNRPPFSG  
QQIPAQSNKAQSSPFGIGSSHSYQADPSSYSPLSSPATSSPSGNAYSNLANRNTAFDVS  
ESSQSGGQFQGRPSEVWSQWQSQHHSQQAGDPPHPTQASQTEVFQDMLPMPGDPTQGTN  
YNIEDFADLGMFPPFSE

>O15945

MDEANIQDKERFASRENHCEIERRRRNKMTAYITELSDMVPTCSALARKPDKLTI LRMAV  
AHMKALRG TGNTSSDGTYKPSFLTDQELKHLILEAADGFLFVVS CDSSGRVIYVSDSVTPV  
LNYTQSDWYGTSLYEHIIHPDDREKIREQLSTQESQNA GRILDLKSGTVKKEGHQSSMRLS  
MGARRGFI CRMVGNVNPESMVS GHLNRLKQRNSLGP SRDGTNYAVVHCTGY IKNWPPTD  
MFPNMHMERD VDDMSSHCCLV AIGRLQVTSTAANDMSG SNNQSEF ITRHAMDGKFTFVDQ  
RVLNILGYTPTELLGKICYDFFHPEDQSHMKESFDQVLKQKGMF SLLYRARAKNSEYVW  
LRTQAYAF LNPHYTDEVEYIVCTNSSGKTMHGAPLDAAA AHTPEQVQQQQQQQEQHVYVQ  
AAPGVDYARRELTPVGSATNDGMYQTHMLAMQAPT PQQQQQQQRPGSAQTTPVGYTYDT  
THSPYSAGGSPPLAKIPKSGTSPTPVAPNSWAALRPQQQQQQQPVTEGYQYQQTSPARS  
PSGPTYTQLSAGNGNRQQAQPGAYQAGPPPPPNAPGMWDWQQAGGHPHPHPTAHPHHPH  
AHPGGPAGAGQPQEQEFSDMLQMLDHTPTTFEDLNINMFSTPFE



>P79832

MDSSIPDIPDDSLGLGAGGAQASSSACCAKRVNKRRAAPDFDDDDDGSKLFRCDGDDGGGG  
DKERFARENHSEIERRRRNKMTAYITELSDMVPTCSALARKPKLTLIRMAVSHMKSRLG  
SGNTAADGTYKPSFLTDQELKHLILEAADGFLFVVSCESGRVVVSDSLTPVLNQSQSDW  
LGSSLYDQLHPDDGDKLREQLSTAESNNTGRMLDLKTGTVKKEGQQSSVRMCMGARRSFI  
CRMRCGSCPVEPMSMNRLNFLRSRNRNGLGPPKDGEPQYVVVHCTGYIKSWPPTGVNLT  
EEADNILGSRYCLVAIGRLQVTSCPSDTMNSISVPEFISRHNCQGLFTFVDHRCMATV  
GYQPQELLGKNILELAHPEDQELLRDSFQQVVKLGQVLSVMFRFLSKTRDVLWIRTSS  
TFQNPFSSEEIEYIICTNANVKQLQQQAELGGGRDGLYEAGQVTLQMPVQAVTAAGTD  
HSKTMDKAEMHPSMYPNPDAQFLPSTASAPGVP IYPQDNMNYTTANRSNDTYSR SVGMAP  
QMVPQSHSAGQVLAQMSRQNGAPPSNSSPLQGGAAVSWPGPAAGARPPFNNQVVPQAGK  
ALSPQFAMGSFVGGSSSFGAMPTTAAPTPTMGANYPNINPRATLNTNGYDGLGSGQQFP  
SRAVEAVWPQWQGOQAQNRAEQHPHTQNNQPDIFPDVLAAMLQDPANFNNDDFEIP IYPS  
FNE

>Q12406

MTLNRKCVVIHNGSHRTVAGFSNVELPQCIIPSSYIKRTDEGGAEFIFGTYNMIDAAAE  
KRNQDEVYTLVDSQGLPYNWDALQMWRYLQYDQLKVSPEELPLVITMPATNGKPDMAIL  
ERYYELAFDKLNVVVFQIVIEPLAIALSMGKSSAFVIDIGASGCNVTPIIDGIVVKNVAV  
RSKFGGDFLDFQVHERLAPLIKEENDMENMADEQKRSTDVWYEASTWIQQFKSTMLQVSE  
KDLFELERYYYKEQADIYAKQQEQKQMDQQLQYTALTGSPNNPLVQKKNFLFKPLNKTLT  
LDLKECYQFAEYLFKPLISDKFSPEDGLGPLMAKSVKKAGASINSMKANTSTNPNGLGT  
SHINTNVGDNNSTASSSNI SPEQVYSLLLTNV IITGSTSLIEGMEQRIKEL SIRFPQYK  
LTTFANQVMMDRKIQGWLGALTMANLPSWSLWKWYSKEDYETLKRDRKQSQATNATN

>Q05123

MAPFRQDSILIIYPRSQTTLVQFGLNEETFVPELEIPTQIYRTTRQDGSYTYHSTNKDN  
KAELIKPIQNGEIIDISAFQTFLRLIFVVSILSDRANKNQDAFEAELSNIPLLLI THHSWS  
QSDLEIITQYVFESLEINNLIQLPASLAATYSMISLQNCIIIDVGTHHTDIIPVDYAQL  
DHLVSSIPMGQSINDSLKLLPQWDDQIESLKKSPIFEVLSDDAKKLSSFDGNEED  
EDEGTLNVAEIIITSGRDTREVLEERERGQVKVKNVNSDLEFNTFWDEKNEIKVGKQRFQ  
GCNNLIKNI SNRVGLTLDNIDDINKAKAVWENIIIVGGTTSISGFKEALLGQLLKDHLII  
EPEEEKSKREEEAKSVLPAATKKKSKFMTNSTAFVPTIEYVQCPTVIKLA KYPDYFPEWK  
KSGYSEIIFLGAQIVSKQIFTHPKDTFYITREKYNMKGPAALWDVQF

>Q8GGJ7

MEHQTSRRNFLKIAGSSAAVAGAGLVSGNANAAPAKVNVGASTLPYPITAVGKAKGLKVD  
APVSFNYPDASSPCVAIKMGQPTPGGVPNNDIVAHSILCTHMGCVPVSYDASAKTFKCPC  
HFSVFDPDNHGQMVCGQATENLPQIQLSYNAANDTFTAIGVTGLIYGRQSNIL

>Q13510

MPGRSCVALVLLAAAVSCAVAQHAPPWTEDCRSTYPPSGPTYRGAVPWYTINLDLPPYK  
RWHELMMLDKAPMLKVI VNSLKNMINTFVPSGKVMQVVDEKLPGLLGNFPGFEEEMKGI  
AVTDIPLGEIISFNIFYELFTICTSIVAEDKKGHLIHGRNMDFGVFLGWNINNDTWVITE  
QLKPLTVNLDQFRNNTVFKASSFAGYVGMGTGFKPGLFSLTLNERFSINGGYLGILEWI  
LGKKDAMWIGFLTRTVLENSTSYEEAKNLLTKTKILAPAYFILGNGQSGEGCVITRDRKE  
SLDVYELDAKQGRWVYVQTNDRWKHPFFLDDRRTPAKMCLNRTSQENISFETMYDVLST  
KPVNLKLTVYTTLIDVTKGQFETYLRDCPDPCIGW

>Q47898

MRI IYKQQTMMNNRRDFIKKLG IATAAIAINPLEAKNLLDTSEPKT'TNKP I V L S T W N F G L  
HANVEAWKVL SKGGKALDAVEKGVRLVEDDPTERSVGYGGRPDRDGRVTLDACIMDENYN  
IGSVACMEHIKNPISVARAVMEKTPHVMLVGDGALEFALSQGFKKENLLTAESEKEWKEW  
LKTSQYKPIVNIENHDTIGMIALDAQNLSGACTTSGMAYKMHGRVGDSP IIGAGLFDVN  
EIGAATATGHGEEVIRTGTHLVVELMNQGRTPQQACKEAVERIVKIVNRRGKNLKD I Q V  
GFIALNKKGEYGAYCIQDGFNFVHDQKGNRLET'PGFALK

>P20933

MARKSNLPVLLVFPFLLCQALVRCSSPLPLVVNTWPFKNATEAAWRALASGGSALDAVESG  
CAMCEREQCDGSGVFGGSPDELGETTLDAMIMDGT'TMDVGAVGDLRR I K N A I G V A R K V L E  
HTTHTLLVGESATTF AQSMGF INEDLSTSASQALHSDWLARNCPNYWRNVIPDPSKYCG  
PYKPPGILKQDIP I H K E T E D D R G H D T I G M V V I H K T G H I A A G T S T N G I K F K I H G R V G D S P I  
PGAGAYADDTAGAAAATGNGDILMRFLPSYQAVEYMRRGEDPTIACQKVISRIQKHFPEF  
FGAVICANVTGSYGAACNKLSTFTQ'FSFMVYNSEKNQPT'EEKVDCI

>Q9ZSD6

MGGWSIALHGGAGDIPFSLPPERRKPREEGLRHCLQIGVEALKAQKPPLDVVELVVRELE  
NIEHFNAGIGSVLTNSGTVEMEASIMDGNTMKCGAVSGLSTVLNPI SLARLVMDKTPHIY  
LAFQGAQDFAKQQGVETVDSHLITAEINVERLKLAI EANRVQVDYSQYNYPEPVKDDAEK  
ELPLTNGDSQIGTVGCVAVD SHGNLASATSTGGLVNKMVGRIGDTPLIGAGTYANELCAV  
SATGKGEEIIRATVARDVAALMEFKGLSLKEAADFVIHERTPKGT'VGLIAVSAAGEIAMP  
FN'TTG MFRACATEDGYSEIAIWPTT

>O02467

EKNMPIVIT'TWSFTNASQKAWEV LKDEGKALDAVEQGGIVCENEQCDRTVGYGGSPDEDG  
ETTLDAFIMDGMTMNVGAVAALRR I K S A I S V A R H V M E Y T T H S F L A G E L A T K F A V E M G F K E  
ESLSTDESRELWSKWRFEKQCQPNFRKNV K P D P R K H C G P Y H K K R N F V D Y I H P E V F V V D Q Y  
NHDTIGMVAVDSKGDVAAGTSTNGAKFKIPGRVGDSP I P G A G A Y A D N T V G G A A A T G N G D T  
MMRFLPSFLAVEEMRRGASPANAAKTAIKRISAHHPDFMGAVIALSKNGQYGAACNGIET  
FPFVVQDKTRKT'FEVVTIKC

>O04057

MASYHSKAAFLCLFLLVSFNIVSSASNDGLLRVGLKKIKLDPENRLAARVESKDAEILKA  
AFRKYNPKGNLGESSD'TDIVALKNYLDAQYYGEIAIGTPPQKFTVIFDTGSSNLWVLCCEC  
LFSVACHFHARYKSSRSSSYKKNGT'SASIRYGTGAVSGFFSYDNVKGDLVVKEQV'FIEA  
TREPSTFLVAKFDGLLGLGFQEIAVGNAPVWYNMVEQGLVKEPVF'SFWLNRNVEEEEEG  
GEIVFGGVDPKHYRGKHTYVPVTQKGYWQFDMGDV'LIDGEP'TGFCDGGCSA I A D S G T S L L  
AGPTPVITMINHAI G A K G V V S Q Q C K A V V A Q Y G Q T I M D L L L S E A D P K K I C S Q I N L C T F D G T  
RGVSMGIESVVDENAGKSSDSLHDGMCSVC'EMTVVWMQNQLRQNQTKERI INYINELCDR  
MPSPMGQSAVDCGQLSSMPTVSFTIGGKIFDLAPEEYILKVGEGPVAQCISGFTAFDIPP  
PRGPLWILGDVFMGRYHTV'FD'FGKLRVGSAAEA

>P80357

MLVMRPAQAADLPQVQRLAADSPVGV'TSLPDDAERLRDKILASEASFAAEVSYNGEESYF  
FVLEDSASGELVGC SA I V A S A G F S E P F Y S F R N E T F V H A S R S L S I H N K I H V L S L C H D L T G N  
SLLTSFYVQRDLVQSVYAELNSRGRLLFMASHPERFADAVVVEIVGY'SDEQGESPFWNAV  
GRNFFDLNYIEAEKLSGLKSRTFLAELMPHYPIYVPLLPDAAQESMGQVHPRAQIT'FDIL  
MREGFETDNYIDIFDGGPTLHARTSGIRSI AQSRVVPVKIGEAPKSGRPYLV'TNGQLQDF  
RAVVL'DLDWAPGKPVALSVEAAEALGVGEGASVRLVAV

>P80358

MIVRPVTSADLPALIELARSTGTGLTTLTPANEQRLQHRVSWAEKAFRGEAERGDADYLFV  
LEDDAGKVVGISAIAGAVGLREPWYNYRVGLTVSASQELNIHREIPTLFLANDLTGNSEL  
CSLFLHADHRSGLNGKLLSRARFLFIAEFRHLFGDKLIAEMRGMSEDEGRSPFWESLGRH  
FFKMEFSQADYLTGVGNKAFIAELMPKFPLYTCFLSEEARGVIGRVHPNTEPALAMLKAE  
GFSYQGYVDIFDAGPAIEAETDKIRAI AESQNLVLAVGTPGDDAEPYLIHNRKREDCRIT  
AAPARAAAGTLVVDPLTAKRLRLSAGASVRVPLSAQKRG

>Q13535

MGEHGLELASMIPALRELGSATPEEYNTVVQKPRQILCQFIDRILTDVNVVAVELVKKTD  
SQPTSVMLLDFIQHIMKSSPLMFVNVVSGSHEAKGSCIEFSNWIITRLLRIAATPSCHLLH  
KKICEVICSLFLFKSKSPAIFGVLTKEQLQFEDLVYLHRRNVMGHAVEWPVMSRFLS  
QLDEHMGYLOSAPLQLMQMNLFEIEVTLMLVLTRIIAIVFFRRQELLLWQIGCVLLEYG  
SPKIKSLAISFLTELFQGLPAQPASTFFSSFLELLKHLVEMDTDQLKLYEEPLSKLIK  
TLFPFEAEAYRNIIEPVYLNMLLEKLCVMFEDGVLMLKSDLLKAALCHLLQYFLKFVPAG  
YESALQVRKVYVRNICKALLDVLGIEVDAEYLLGPLYAALKMESMEIEEIQCQTQQENL  
SSNSDGISPKRRRLSSSLNPSKRAPKQTEEIKHVDMNQKSIKWSALKQKAESLQISLEYS  
GLKNPVIEMLEGIADVVLQTLALCTVHCSHQNMNCRTFKDCQHKSKKKPSVITWMSLDFY  
TKVLKSCRSLLESVQKLDLEATIDKVVKIYDALIYMQVNSSFEDHILEDLCGMLSPLWIY  
SHSDDGCLKLTTFANLLTLSCRISDSYSPQAQSRVFLTLFPRRIFLEWRTAVYNWAL  
QSSHEVIRASCVSGFFILLQQNSCNRVPKILIDKVKDDSDIVKKEFASILGQLVCTLHG  
MFYLTSSLTEPFSEHGVDLFCRNLKATSQHECSSLKASVCKPFLFLKKKIPSPVKL  
AFIDNLHHLCKHLDFREDETDVKAVALGTLNLMEDPKDVRVAFSGNIKHILESLSDEG  
FIKELFVLRMKEAYTHAQISRNNELKDTLILTTGDI GRAAKGDLVFPALLHLLHCLLSKS  
ASVSGAAYTEIRALVAAKSVKLQSFSSQYKKPICQFLVESLHSSQMTALPNTPCQNADVR  
KQDVAHQREMAINTLSEIANVFDFPDLNRFLTRTLQVLLPDLAAKASPAASALIRTLGKQ  
LNVNRREILINNFYKIFSHLVCSCSKDELERALHYLKNETEIELGSLLRQDFQGLHNELL  
LRIGEYHQVFNGLSILASFSSDDPYQGPDIISPELMADYLQPKLLGILAFFNMQLLS  
SSVGIEDKMMALNSLMSLMKLMGPKHVSSVRVMMTTLRTGLRFKDDFPELCCRAWDCFV  
RCLDHACLGSLLSHVIVALPLIHIQPKETAAIFHYLIENRDAVQDFLHEIYFLPDHPE  
LKKIKAVLQEURKETSESTDLOTTLQLSMKAIQHENVVRIHALTSLKETLYKNQEKLIK  
YATDSETVEPIISQLVTVLLKGCQDANSQARLLCGECLGELGAIDPGRLDFTTETQGKD  
FTFVTGVEDSSFAYGLLMELTRAYLAYADNSRAQDSAAAYIQELLSIYDCREMETNGPGH  
QLWRRFPEHVREIILEPHLNTRYKSSQKSTDWSGVKPIYLSKLGSNFAEWSASWAGYLIT  
KVRHDLASKIFTCCSMMKHDFKVTIYLLPHILVYVLLGCNQEDQQEVYAEIMAVLKHDD  
QHTINTQDIASDLQQLSTQTVFSLMDHLTQWARHKFQALKAIEKCPHKSNNRNVDSMVST  
VDYEDYQSVTRFLDLIPQDTLAVASFRSKAYTRAVMHFESFITEKKQNIQEHLGFLQKLY  
AAMHEPDGVAGVSAIRKAEP SLKEQILEHESLGLLRDATA CYDRAIQLEPDQI IHYHG VV  
KSMLGLGQLSTVITQVNGVHANRSEWTDENLTYRVEAAWKL SQWDLVENYLAADGKSTTW  
SVRLGQLLSAKKRDI TAFYDSLKLVRAEQIVPLSAASFERSYQRGY EYIVRLHMLCEL  
EHSIKPLFQHSPGDSSQEDSLNWWARLEMTQNSYRAKEPILALRRALLSLNKRDPYNEMV  
GECWLQ SARVARKAGHHQTAYNALLNAGESRLAELYVERAKWLWSKGDVHQALIVLQKGV  
ELCFPENETPPEGKNMLIHGRAMLLVGRFMEE TANFESNAIMKKYKDVTA CLPEWEDGHF  
YLAKYYDKLMPMVTDNKMEKQGD LIRYIVLHFGRSLQYGNQFIYQSMRMLTLWLDYGTK  
AYEWEKAGRSRDRVQMRNDLGKINKVITEHTNYLAPYQFLTAFSQLISRICHSHDEVFVVL  
MEIIAKVFLAYPQQAMWMMTAVSKSSYPMRVNRCKEILNKAIHMKKSLEKFGDATRLTD  
KLELECNKPV DGSSTLSMSTHFKMLKLV EEFSEILIPLQSVMIPTLPSILGTHANH  
ASHEPFPGHWAYIAGFDDMVEILASLQKPKKISLKGSDGK FYIMMCKPKDDL RKCRLME  
FNSL INKCLRKAESRRRELHIRTYAVIPLNDECGIIEWVNNTAGLRPILTKLYKEKGVY

MTGKELRQCMLPKSAALSEKLVKVFREFLLPRHPPIFHEWFLRTPDPTSWYSSRSAYCRS  
TAVMSMVGYILGLGDRHGENILFDSLGTGECVHVDNCLFNKGETFEVPEIVPFRLTHNMV  
NGMGPMGTEGLFRACEVTMRLMRDQREPLMSVLKTFLLHDPLVEWSKPVKGHASKAPLNET  
GEVVNEKAKTHVLDIEQRLQGVIKTRNRVTGLPLSIEGHVHYLIQEATDENLLCQMYLW  
TPYM

>P97302

MSVSESAVFAYESSVHSTNVLLSLNDQRKKDVLCDVTVLVEGQRFRAHRSVLAACSSYFH  
SRIVGQTD AELTVTLPEEVTVKGFELIQFAYTAKLILSKDNVDEVCRCEVFLSVHNIEE  
SCFQFLKFKFLDSTSEQQECARKKCFSSHCQKADFKFSFSEQKDL EIDEADEFLEKKRVQ  
TPQCDSTRRCQGSVKASPLQDSVVSQACQSLCTDKDGALALPSLCPKYRKFQKAFGTDKIR  
TLESGVRDVHTASVQPNETSELECFGGAQGCADLHVILKCEGMKAAMESEDTEGQDPSPQ  
CPAEQPQGTPLPQDSAGPHGLYSLSALHTYEQSGDVAFAVQSKTVKTEKPLSRPDAQDE  
KPSENQDLYLKSSMGPKEDSSSLASEDRSSVEREVAEHLAKGFWSDICSTDSPCQMQLSP  
TVAKDGPEQGYRQRSECPWLGIRISESPEPGQRTFTTLLSSVNCPISTLSSEGCSNLE  
IGNYDYVSEPQQEPCPYACVISLGDSETDTEGDSSESCSAREQDCEVKLPFNAQR IISLS  
RNDFQSLKMHKLTPEQLDCIHDRRRSKNRIAAQRCRKRKLDLCIQNLESEIEKLQSEKE  
SLLKERDHILSTLGETKQNLTLGLCQQVCKEAAALSPEQIQILAKYSASDCPLSFLISEK GK  
STPDGELAFSTVFSVDVPPPTAPPPCGRGSSAASQELVQESPPTTAAAPEQATLLEPCRQ  
SAGISDFCQQMSDKCTTDE

>P97303

MSVDEKPGSPMYVYESTVHCANILLGLNDQRKKDILCDVTLIVERKEFRAHRAVLAACSE  
YFWQALVGQTKDDL VVSLPEEVTARGFGPLLQFAYTAKLLLSRENIREVIRCAEF LRMHN  
LEDSCFSFLQTLNREDGLFVCRKDSACQRPQEDHGNSAGEEEEEETMDSETARMACA  
TDQMLPDPISFEATAIPVAEKEEALLPESEVPTDTKENSEKGALTOYPRYKKYQLACTKN  
VYSAPSHGTSGFASTFSEDS PGNSLKPGLPMGQIKSEPPSEETEEESITLCLSGDETDIK  
DRPGDVEMDRKQPSPARTPSTRTGAACLDRSRVSSPCLRSLFGITKGVESTGLPSTSQ  
QPLVRSSACPFNKGISQGLKTDYTPLAGNYGQPHVGQKDVSNFAMGSPLRGPGPETLCE  
FSSSPCSQGARFLATEHQEPGLMGDMYNQVRPQIKCEQSYGTNSSDSESGSFSEADSESC  
PVQDRGQEVKLPFPVDQITDLPRNDFQMMIKMHKLTSEQLEFIHDRRRSKNRIAAQRCR  
KRKLDLCIQNLECEIRKLVCEKEKLLSERNHLKACMGELLDNFSCLSQEVCRDIQSPEQIQ  
ALHRYCPVLI PMPDLPGASVNPVPGVEQSLAPSPCAVGGVPCCLEPGAAPPGLPWVPSN  
TSENCTSGRRLEGS DPGTF SERGPPEAR SQSVTVDFCQEMTEKCTTDEQPRKDYA

>Q94F62

MERRLMIPCFFWLILVLDLVLRVSGNAEGDAL SALKNSLADPNKVLQSWDATLVTPCTWF  
HVT CNSD NSVTRVDLGNANLSGQLVMQLGQLPNLQYLELYSNNITGTIPEQLGNLTELVS  
LDLYLNNLSGPI PSTLGRLLKRLRFLRLNNSLSGEIPRSLTAVLTLQVLDLSNNPLTGDI  
PVNGSFLFTPI SFANTKLTPLPASPPPI SPTPPSPAGSNRITGAIAGGVAAGAALLFA  
VPAIALAWRRKKPQDHFFDVPAEEDPEVHLGQLKRFSLRELQVASDNFSNKNILGRGGF  
GKVYKGR LADGTLVAVKRLKEERTQGGELQFQTEVEMISMAVHRNLLRLRGFCMTPTERL  
LVYPYMANGSVASCLRERPEQPPLDWPKRQR IALGSARGLAYLHDHCDPKI IHRDVKAA  
NILLDEEFEAVVGD FGLAKLMDYKDTHTVTTAVRGTIGHIAPEYLS TGKSSEKTDVFGYGV  
MLLELITGQRAFDLARLANDDDVMLLDWVKGLLKEKKLEALVDVDLQGNYKDEEVEQLIQ  
VALLCTQSSP MERPKMSEVVRMLEGDGLAERWEEWQKEEMFRQDFNYPTHHPAVSGWII G  
DSTSQIENEYPSGPR

>Q99728

MPDNRQPRNRQPRI RSGNEPR SAPAMEPDGRGAWAHSRAALDRLEKLLRCSRCTNII LREP

VCLGGCEHIFCSNVCSDCIGTGCPVCYTPAWIQDLKINRQLDSMIQLCSKLRNLLHDNEL  
SDLKEDKPRKSLFNDAGNKKNSIKMWFSPRSKKVRYVVSASVQTQPAIKKDASAQQDSY  
EFVSPSPPADVSERAKKASARSQKQKKTAEINQKWNLEAEKEDGEFDSKEESKQKLV  
SFCSQPSVISSPQINGEIDLLASGSLTESECFGSLTEVSLPLAEQIESPDTKSRNEVVTP  
EKVCKNYLTSKKSLENNKGRGHHNRLSSPISKRCRTSILSTSGDFVKQTVPSENIPLP  
ECSSPPSCKRKVGGTSGRKNNSMDEFISLSPGTPPSTLSSSSYRRVMSSPSAMKLLPNM  
AVKRNHRGETLLHIASIKGDI PSVEYLLQNGSDPNVKDHAGWTPLEACNHGHLKVVVELL  
LQHKALVNTTGYQNDSPHDAAKNGHVDIVKLLLSYGASRNAVNIFGLRPVDYTDDESMK  
SLLLLPEKNESSASHCSVMNTGQRRDGPLVLI GSGLSSEQQMLSELAVILKAKKYTEF  
DSTVTHVVVPGDAVQSTLKCMLGILNGCWILKFEWVKA CLRKRVCEQEKEYE IPEGPRRS  
RLNREQLLPKLFDGCYFYLWGTFFKHHPKDNLIKLVTAGGGQILSRKPKPDSVDTQTINTV  
AYHARPDSQRFCTQYIIYEDLCNYHPERVRQGVVWKPSSWFIDCVMSFELLP LDS

>P82251

MGDTGLRKRREDEKSIQSQEPKTTSLQKELGLISGISIIVGTIIGSGIFVSPKSVLSNTE  
AVGPCLIIWAACGVLATLALCFAELGTMITKSGGEYPYLMEAYGPIPAYLFSWASLIVI  
KPTSFALICLSFSEYVCAPFYVCGKPPQIVVKCLAAAAILFISTVNSLSVRLGSYVQNI  
TAAKLVIVAVIIISGLVLLAQGNTKNFNSFEQAQLSVGAI SLAFYNGLWAYDGWNQLNY  
ITEELRNPNRNLPLAIIIGIPLVTACYILMNVSYFTVMTATELLQSQA VAVTFGDRVLYP  
ASWIVPLFVAFSTIGAANGTCFTAGRLIYVAGREGHMLKVL SYISVRRLTPAPAIIFYGI  
IATIYIIPGDINSLVNYFSFAAWLFYGLTILGLIVMRFTRKELERP IKVPVVIPVLMTLI  
SVFLVLAPIISKPTWEYLYCVLFI LSGLLFYFLFVHYKFGWAQKISKPI TMHLQMLMEVV  
PPEEDPE

>Q9F6X5

MRLAYWMEYEGTAHHGVGR IANSMRNVHAVFHAPQGGDYVNAIFAMLDRTPNFPAMTTSV  
SGTDLARGTIRLPDTRLQVEERVHPDLIVVVASCSTILLQENLEIAAQHAGLQCEVMVYD  
ANPYRMQEI VAAESLFTDLVKRFAKQPQRTERPTVNI LGPASLGFHARHDLISLRRMLKT  
LGLEVNVVAPWGASIA DLRRLPAAWLT IAPYRELGLRAAIYLEE QFGVPALLDAPIGVQP  
TLRWIERLRELLAQAGADVMPPLTAFSLDGM SAPSAVPWFARTADMSFSGKPAFVFGD  
ATHVVGVT RFLRDELGMP IAGAGTYVKHQADWVREQLTGYVDEVLV TDEFQVVADRIAAL  
RPELVCGTQMERHTSRRYDLNCMVISPPTHIENHLLAYRPF LGFDGADVIADEVYTTCTL  
GMEKHLIDLFGDAGLDLPEKTERTPVAEPAPVAATVESPQPQNEPA IAVASAPSLTSAPA  
TPTPAAVVDPVWAADAEAMLK KVPFFVRGRVGRGNVEKYARQRGHAVITAEVLLAAKEELG  
A

>Q9ZGE8

MKLAYWMEYEGTALS GITRVAGSMQKVHTVIHGPQGDGYVNMYSMLERFHTIPPFTLSTI  
GRREMAQGSRRARLVETVRRVDAQHQPDVIVITPTCSSTLLQEDLLAVARTLGKQTKAKLI  
VPNVNAFRDLEHRAMDDFLTQIVAEFATEQPKTEQFSVNLIGPSYLG FHLHDMQEIRSM  
LES LGVAVNAVI PYGASIKTLQELTKAHLNICLYHEYGQSACELLKEKFGIDYIVATPIG  
IRLTSQFVKAIGERAGLPVESYIRQNLAPSGTIARF TKSVDSL SALFGKRAVVF GDYSHA  
VGMTHLLREIGVRVWAGTYMKTMEKAFQASIGGLADEVFCDDFQEISHKIRDTHPDIV  
LGTQMERHSAARFNFCIVISSPAHILNFPLFPAPVLGYQGMTRMLDTINSTIKLGLEEH  
LVNMFGE DSPGMGEEDTAQE QVAVTSDMPKAPDKTTAGEGELKWD AEATKALKQV PFFVR  
GKVQRNTENYARERGYSEVTLEVIYAAKAYFESKSNQGER

>Q9JPA3

MQLTLWTYEGPPHVGAMRVATALDDVHYVLHAPQGDYADLLFTMIERLPRRPPVYTYTTF  
QARDLGGDTAELFKTACSQAFERFRPNAMLVGASCTAE LIQDDPGGLARALALP IPVVPL

ELPSYQRKENWGASETfYQVVRTLAgPRAPAPGTPrPAREPGAKPCCNLLGPTALGFRHR  
DDVREITGLLNELGIEVRTVAPLGASADDIARLGEADFNvVLYPETAQQAAGWLQRFFGQ  
PFTKTIPIGVKATKAFIAEVLQLAGLPADTPLPDALSRSPWYSRSVDSTYLTKRVFIFG  
DATHAIAAARVATEEMGFTTVVGLGTYsREFARDVRDAAKHYGVEALITDDYLEVEAKVAE  
LHPELVLTGTQMERHIAKRLGVPCAVISAPVHVQDFPARYSPQMGFEganVLFDSWVHPLM  
MGLEEHLLTMFRGDFEFHDGAAASHLGRAAVPPPAAPAPAAESSDVPVAEATATAAATV  
AAPAASAPITVAQWAPDAQKELQKIPFFVVRGKARRNTERFAAERGLATITVETLYDAKAH  
FGR

>Q9F6X6

MFLNPVVPNGYYNLRGGAMQSKATPIREDGIYHSFCGLVSVGWLYQKIKDSFFLILGHTT  
CAHLLQNTLGMIFARPRFAVSLLEESDLSSSQPDISAQIEEIKREHHPsvIFLLSSCTP  
EVMKVEFEGLAASVSTPEVPVLFVPASGLDYTFsQSEDSVLQALIPFCPPAPPDDKRvVF  
LGSVNDAIADDFsLEAARLGIPVAGFLPASHFTelPPiGPGTVIAPLQPYLHKTATQLRN  
ERGCTVLSsLFPFGPDGTRRFWEDLAAQFGMQVDLSEREAAAWERIKHHTDLLRGKKIFF  
ASDTLMELPLARFLKACGAEVVECSTPYINRRFHAAELAALDGVRLVEQANFHRQLRTIT  
ETKPDLIISNIITTNPLVGQGTVAKWGTEYCFLPiHGwAGVNNLVTSFTRALQRHARLDP  
LGSdPIWLTGMMPGSSGGVISLQS

>Q9ZGE9

MERVERENGCFHTFCPIASVAWLHRKIKDSFFLIVGTHTCAHFIQTALDVMVYAHsRFGF  
AVLEESDLVSASPTeelGKVvVQVvDEWHPKVIFVLSTCSVDILKMDLEVSCKDLSTRFG  
FPVLPASTSGIDRSFTQGEDAVLHALLFPVpKEAPAVEPVEEKPRWFSFGKESEKEKAE  
PARNLVLIgAVTDSTIQQLQWELKQLGLPKVDVFPDGDIRKMPVINEQTVVVPLQPYLND  
TLATIRRERRAKVLSTVFPiGPDGTARFLEAICLEFGLDTSRIKEKEAQAWRDLEPQLQI  
LRGKKIMFLGDNLLELPLARFLTSCDVQVVEAGTPYIHSKDLQqELELLKERDVRIVESP  
DFTKQLQRMQeYKPDLVVAGLGICNPLEAMGFTTAWsIEFTFAQIHGFVNAIDLKLF'TK  
PLlKRQALMEHGWAeAGWLE

>Q00618

MHGIKRKQWTKELLRQKRvQDEKKIYDYRSLTENVLNMNRDEKIYSIEALKKTSELLEKNP  
EFNAIWNyRRDIIASLASELEIPFWDKELVFVMMLLKDYPKVYWIWNHRLWVLKHYPTSS  
PKVWQTElavvNKLLEQDARNYHGWHYRRIVVGNIESITNKSLDKEEFeyTTIKINNnIS  
NYSAWHQrvQII SRMFQKGEVGNQKEYIRTEISYIINAMFTDAEDQSVWFYIKWFIKNDI  
VCKTLDEQeYlKMLKDLRENILLINDEIEFSGKQNIWCLKILLVLEDILEEKEALTERS  
SEQYLvQLIDADPLRKNRYLHLLLEQHK

>Q48847

MANTNKRLAVIFGDVTLGLKGPDFHYLFSYQTTGGPEsLRIQgKEWLYRSPKPTFWRATTD  
NDRGNQFPLKSGMWLAADQFIACQSITVAIDGQTIPLPIAPENNRYSGRETAQEVTVTYT  
YQTIITTPQTTVEVSyTIQASGKIRVAVTYHGQAGLPSLpVFGlRFVMPTPATRFIYQGLS  
GETYPDRMAGGIAGEYEVTGLPVTPYLVPQDCGVHMATDWVTIYRQAVLdNCLHEPVETG  
LKFkMVDQPFafSCLPYTAEELenATHHSELpAPHRTVLNLLGAVRGVGGIDSWGSdVEV  
AYQIDATQDRHFefeISF

>Q02604

MAYTNNQLHVIYGDGSLGLQGANFHYLFSYERGGLESLVVNDKEWLYRTPTPMFWRATTD  
NDHGSGFSVksAQWYAADKFSTCQDIELTVDDQPVTPPLPIAPLNKYTDHEIATKVSLAY  
HFVTTTTVPSTIVTVTYTVTADGQINIATHYSGQSDLPelPAFGLRFIMP'TTATGFdyTGL  
SGETYPDRLAGATHGQFHVDSLpVTPYLVPQECGMHQTEQVTVTRSTTQNNADHDNTPF

SLTFSQTDAPFAFSCLPYTAAELENATHMEELPLARRTVLSIYGAVRGGIDSWGTDVE  
APYHILANQDIDFSFNIHF

>O00327

MADQRMDISSSTISDFMSPGPTDLLSSSLGTSVDCNRKRKGSSTDYQESMDTDKDDPHGR  
LEYTEHQGRIKNAREAHSQIEKRRRDKMNSFIDELASLVPTCNAMSRKLDKLTVLRMAVQ  
HMKTLRGATNPYTEANYKPTFLLSDELKHLILRAADGFLFVVGCDRGKILFVSESVFKIL  
NYSQNDLIGQSLFDYLHPKDIKVKVKEQLSSSDTAPRERLIDAKTGLPVKTDITPGPSRLC  
SGARRSFFCRMKCNRPSVKVEDKDFPSTCSKKKADRKSFCCTIHSTGYLKSWPPTKMGLDE  
DNEPDNEGCNLSCLVAIGRLHSHVVPQPVNGEIRVKSMEYVSRHAIDGKFFVVDQRATAI  
LAYLPQELLGTSCYEYFHQDDIGHLAECHRQVLQTRKITTNCYKFKIKDGSFITLRSRW  
FSFMNPWTKEVEYIVSTNTVVLANVLEGGDPTFPQLTASPHSMDSMLPSGEGGPKRTHPT  
VPGIPGGTRAGAGKIGRMIAEEMEIHRIIRGSSPSSCGSSPLNITSTPPPDASSPGGKKI  
LNGGTPDIPSSGLLSGQAQENPGYPYSDSSSILGENPHIGIDMIDNDQGSSSPSNDEAAM  
AVIMSLLEADAGLGGPVDFSDLPWPL

>Q52439

MTRVAMAQKTAELIQEFAWPAQPVSPQLQHEVEQFYREQLLDHNNYNAWFDLLEQDIH  
YWMPIRTTRIKRENDKEYIPAGANAHFDENHETMRGRIRQRTSELNWAEDPLSRTRHIVS  
NVIVRETDTPATLEVASAFLVYRNRLERQVDIFAGERRDVLRRANGLGFKIARRTILID  
QSTILANNLSVFF

>P37333

MSSAIKEVQGAPVKWVTNWTPEAIRGLVDQEKGLLDPRIYADQSLYELELERVFGRSWLL  
LGHESHVPETGDFLATYMGEDPVVMVRQKDKSIKVFLNQCRHRGMRICRSDAGNAKAFTC  
SYHGWAYDIAGKLVNVPFEKEAFCDKKEGDCGFDKAEWGPLQARVATYKGLVFANWDVQA  
PDLETYLGDARPYMDVMLDRTPAGTVAIGGMQKWVIPCWNKFAAEQFCSDMYHAGTTTHL  
SGILAGIPPEMDSQAQIPTKGNQFRAAWGGHSGSWYVDEPGSLLAVMGPKVTQYWTEGP  
AAELAEQRLGHTGMPVRRMVGHMTIFPTCSFLPTFNNIRIWHPRGPNEIEVWAFTLVDA  
DAPAEIKEEYRRHNIRNFSAGGVFEQDDGENWVEIQKGLRGYKAKSQPLNAQMGLGRSQT  
GHPDFPGNVGYVYAEAAARGMYHHWMMSEPSWATLKP

>Q17192

MKILLAIALMLSTVMWVSTQQPQRVHTYCGRHLARTLADLCWEAGVDKRSQAQFASYGSA  
WLMPLYSEGRGKRGIVDECCLRPCSVDVLLSYC

>A5HZZ9

MPFVNKQFNYKDPVNGVDIAYIKIPNAGQMOPVKAFKIHNKIWIPIPERDTFTNP EEGDLN  
PPPEAKQVPVSYDSTYLSTDNEKDNYLKGVTKLFERIYSTDLGRMLLTSIVRGIPFWGG  
STIDTELKVIDTNCINVIQPDGSYRSEELNLVIIGPSADI IQFECKSFGHEVLNLTRNGY  
GSTQYIRFSPDFTFGFEESLEVDTNPLL GAGKFATDPAVTLAHEL IHAGHRLYGIAINPN  
RVFKVNTNAYYEMSGLEVSFEELRTFGGHDAKFIDSLQENEFRLYYNKFKDIASTLNKA  
KSIVGTTASLQYMKNVFKEKYLLSEDTSGKFSVDKLFKDKLYKMLTEIYTEDNFVKFFKV  
LNRKTYLNFDAVKF INIVPKVNYTIYDGFNLRNTNLAANFNGQNT EINNMF'TKLKNFT  
GLFEFYKLLCVRGIITSKTKSLDKGYNKALNDLCIKVNNWDLFFSPSEDNFTNDLNKGEE  
ITSDTNIEAAEENISLDLIQQYYLTFNFDNEPENIS IENLSSDIIGQLELMPNIERFPNG  
KKYELDKYTMFHYLRAQEFEHGKSRIALTNSVNEALLNPSRVYTFSSDYVKKVKNKATEA  
AMFLGWVEQLVYDFTDETSEVSTTDKIADITIIIPYIGPALNIGNMLYKDDFVGALIFSG  
AVILLEFIPEIAIPVLGTFALVSYIANKVLTVQTDNALS KRNEKWDEVYKIVTNWLAK  
VNTQIDLIRKKMKEALENQAEATKAIINYQYNQYTEEEKNNINFNIDDLSSKLNESINKA

MININKFLNQCSVSYLMNSMIPYGVKRLLEDFDASLKDALLKYIYDNRGTLIGQVDRKDK  
VNNTLSTDIPFQLSKYVDNQRLLSSTFTEYIKNIINTSILNLRYESNHLIDLRSYASKINI  
GSKVNFDPIDKNQIQLFNLESSKIEVILKNAIVYNSMYENFSTSFWIRIPKYFNSISLNN  
EYTIINCMENNSGWKVSLSNYGEIIWTLQDTQEIKQRVVFYKYSQMINISDYINRWIFVTIT  
NNRLNNSKIYINGRLIDQKPI SNLGNIHASNNIMFKLDGCRDTHRYIWIKYFNLFDKELN  
EKEIKDLYDNQSNIGILKDFWGDYLYQYDKPYMLNLYDPNKYVDVNNVVGIRGYMYLKGPR  
GSVMTTNIYLNSSLYRGTKFI IKKYASGNKDNIVRNNDRVYINVVVKNKEYRLATNASQA  
GVEKILSALEIPDVGNLSQVVVMKSKNDQGITNKCKMNLQDNNGNDIGFIFGHQFNNAK  
LVASNWNRYRQIERSSRTLGCSEWEIFVDDGWGERPL

>P33719

MRTQVLFILVVLAVMASGDDTAHVYCGRRLATMLLYVCDNQYQVKRPPYISSENEGYGKW  
WLERQRARQLDEARGKRQGIIVEECNKPCTENELLGYCYK

>Q17196

MMKTAVMFIILVVVISLTYSSSEEQEVARTYCGRHLANILAYVCFGVEKRGGAQYAPYWQET  
YLRSRKGPVVDCECFRCKLEVLKSFVFFFC

>P33721

MKVMFVIVLVCMAAASSAGRGARRYCGRVLADTLAYLCPMEEEVEKRSGAQYARYGWQS  
PESREGARGKRGVVDECCYNSCTLDVLLSYC

>P10844

MPVTINNFNYNDPIDNNNIIMMEPPFARGTGRIYKAFKITDRIWIIPERYTFGYKPEDFN  
KSSGIFNRDVCEYYDPDYLTNDKKNIFLQTMIKLFNRKSKPLGEKLEMIINGIPYLG  
DRRVPLEEFNTNIASVTVNKLISNPGEVERKKGIFANLIIFGPGPVLNENETIDIGIQNH  
FASREGFGGIMQMKFCPEYVSVFNNVQENKGASIFNRRGYFSDPALILMHELHVLHGLY  
GIKVDLPIVFNKFFMQSTDAIQAEELYTFGGQDPSIITPSTDKSIYDKVLQNFQIV  
DRLNKVLVCSIDPNININIKYKFKDKYKFVEDSEGKYSIDVESFDKLYKSLMFGFTETN  
IAENYKIKTRASYFSDSLPPVKIKNLLDNEIYTIIEEGFNISDKDMEKEYRGQNKAINKQA  
YEEISKEHLAVYKIQMCKSVKAPGICIDVDNEDLFFIADKNSFSDDLKSKNERIEYNTQSN  
YIENDFPINELILDITLISKIELPSENTESLTDFNVDVPVYEQPAIKKIFTDENTIFQY  
LYSQTFLDIRDISLTSFDDALLFSNKVYSFFSMDYIKTANKVVEAGLFAGWVKQIVND  
FVIEANKSNTMDKIADISLIVPYIGLALNVGNETAKGNFENAFEIAGASILLEFIPELLI  
PVVGAFLLESYIDNKNKI IKTIDNALTKRNEKWSMDYGLIVAQWLSTVNTQFYTIKEGMY  
KALNYQAQALEEIKYRYNIYSEKEKSNINIDFNDINSKLNEGINQAIDNINNFINGCSV  
SYLMKKMIPLAVEKLLDFDNTLKKNLLNYIDENKLYLIGSAEYKSKVKNYKLTIMPFDL  
SIYTNDTILIEFMKNYSEILNMIILNLRKYKDNMLIDLSGYGAKVEVYDGVLELNDKNQFK  
LTSSANSKIRVTQONQNIIFNSVFLDFSVSFWIRIPKYKNDGIQNYIHNEYTIINCMKNNS  
GWKISIRGNRIIWTLLIDINGKTKSVFFFEYNIREDISYINRWFFVTITNNLNNAKIYING  
KLESNTDIKDIREVIANGEIIFKLDGDIIDRTQFIWMKYFSIFNTELSQSNIERYKIQSY  
SEYLKDFWGNPLMYNKEYYMFNAGNKNSYIKLKKDSPVGEILTRSKYNQNSKYINYRDLY  
IGEKFIIRKSNSQSINDDIVRKEDYIYLDFFNLNQEWVYTYKYFKKEEELFLAPISD  
SDEFYNTIQIKEYDEQPTYSCQLLFKKDEESTDEIGLIGIHRFYESGIVFEEYKDYFCIS  
KWYLKEVVRKPYNLKLGCNWQFIPKDEGWTE

>P18640

MPITINNFNYSDPVDNKNILYLDTHLNTLANEPEKAFRITGNIWVIPDRFSRNSNPNLNK  
PPRVTSPKSGYYDPNYLSTSDKDPFLKEI IKLFRINSREIGEELIYRLSTDIPFPGNN  
NTPINTFDFDVFNSVDVKTRQGNWVKTGSINPSVIITGPRENIIDPETSTFKLTNNTF



AAQEGFGALSIIISISPRFMLTYSNATNDVGEGRFSKSEFCMDPILILMHELNHAMHNLYG  
IAIPNDQTISSVTSNIFYSQYNVKLEYAEIYAFGGPTIDLIPKSARKYFEEKALDYRSI  
AKRLNSITTANPSSFNKYIGEYKQKLIRKYRFVVESSGEVTVNRNKFVELYNELTQIFTE  
FNYAKIYNVQNRKIYLSNVYTPVTANILDDNVYDIQNGFNIPKSNLNVLFMGQNLNRP  
LRKVNPNMMLYLFTKFCHKAIDGRSLYNKTLDCRELLVKNLTLDPFIDISDVKTDIFLRK  
DINEETEVIYYPDNVSDVQVILSKNTSEHGQLDLLYPSIDSESEILPGENQVFYDNRTQN  
VDYLSNYYYYLESQKLSDNVEDFTTFRSIEEALDNSAKVYTYFPTLANKVNAGVQGGLFLM  
WANDVVEDFTTNILRKDTLDKISDVSAIIPYIGPALNISNSVRRGNFTEAFVAVTGVTILL  
EAFPEFTIPALGAFVIYSKVQERNEIKTIDNCLQRKRWKDSYEWMMGTWLSRIITQF  
NNISYQMYDSLNYQAGAIKAKIDLEYKKYSGSDKENIKSQVENLKNSLDVKISEAMNNIN  
KFIRECSVTYLFKNMLPKVIDELNEFDRNTKAKLINLIDSHNILLVGEVDKLLKAVNNSF  
QNTIPFNIFSYTNNSSLKDIINEYFNNINDSKILSLQNRKNTLVDTSGYNAEVSEEGDVQ  
LNPIFPDFDKLGSSGEDRGKVIIVTQENINIVNSMYESFSISFWIRINKWVSNLPGYTIID  
SVKNNSGWSIGIISNFLVFTLQONEDSEQSINFSDISNAPGYNKWFFVTVTNNMMGM  
KIYINGKLIDTIKVKELTGINFSKTITFEINKIPDTGLITSDSDNINMWIRDFYIFAKEL  
DGKDINILFNSLQYTNVVKDYWGNDLRYNKEYYMNIDYLNRYMYANSRQIVFNTRRNN  
DFNEGYKIIKIRIRGNTNDTRVRGGDILYFDMTINNKAYNLFMKNETMYADNHSTEDIYA  
IGLREQTKDINDNIIFQIQPMNNTYYYASQIFKSNFNGENISGICSIGTYRFRLGGDWYR  
HNYLVPTVKQGNYSALLESTSTHWGFVPVSE

>P26735

MKLVILLVVVSAMLVLGGAQTASQFYCGDFLARTMSILCWPDPMPKRSQSQYAGYGWPWLP  
PFSSSRGKRGIVDECCYRPTTDLVCLKLYCDKQITI

>P26736

MKLLGFFLSWVSVCAIVSASEEGHIYCGRYLAYKMADLCWRAGFEKRSVAHYAGYGWPLL  
PSLSEERGKRGIADECCLQPCTNDVLLSYC

>P19321

MTWPVKDFNYSDPVNDNDILYLRIPQNKLIITTPVKAFMITQNIWVPERFSSDTNPSLSK  
PPRPTSKYQSYDPSYLSSTDEQKDTFLKGIKLFKRINERDIGKKLINYLTVGSPFMGDS  
STPEDTFDFTRHTTNAIVEKFEKFSWVKNITITPSVLIIFGPLPNILDYASLTLQGGQSN  
PSFEGFGTSLKVAPEFLTLFSDVTSNQSSAVLGSIFCMDPVIALMHETHSLHQLYG  
INIPSDKRIRPQVSEGGFSQDGNVQFEELYTFGGLDVEIIPQIERSQLREKALGHYKDI  
AKRLNINKTIPSSWISNIDKYKIFSEKYNFDDKNTGNFVVIDKFNLSYSDLTNVMS  
VYSSQYNVKNRTHYFSRHYLPVFANILDDNIYTIRDGFNLTKGNFNIENSGQNIERNPA  
LQKLSSESVDLFTKVCLRLTKNSRDDSTCIKVKNNRPLPYVADKDSISQEIFENKIITDE  
TNVQNYSDKFSLDESILDGQVPINPEIVDPLLPNVNMEPLNLPGEEIVFYDDITKYVDYL  
NSYYYYLESQKLSNNVENITLTTSVEEALGYSNKIYTFPLSLAEKVNKGVAQLFLNwane  
VVEDFTTNIMKKDTLDKISDVSVIIPYIGPALNIGNSALRGNFNQAFATAGVAFLLGFP  
EFTIPALGVFTFYSSIQEREKIKTIENTLEQRVWRKDSYQWVSNWLSRIITQFNHIN  
YQMYDSLQYQADAIKAKIDLEYKKYSGSDKENIKSQVENLKNSLDVKISEAMNNINKFIR  
ECSVTYLFKNMLPKVIDELNKFDLRTKTELINLIDSHNILLVGEVDRLKAKVNESFENTM  
PFNIFSYTNNSSLKDIINEYFNSINDSKILSLQNKKNALVDTSGYNAEVRVGDVNLNTI  
YTNDFKLSSSGDKIIVNLNNNILYSIAIYENSSVFWIKISKDLTNSHNEYTIINSIEQNS  
GWKLCIRNGNIEWILQDVNRKYKSLIFDYSESLSHTGYTNKWWFFVTITNNIMGYMKLYIN  
GELKQSQKIEDLDEVKLDKTIVFGIDENIDENQMLWIRDFNIFSKELSNEDINIVYEGQI  
LRNVIKDYWGPNLKFDEYYYIINDNYIDRYIAPESNVLVLVQYPDRSKLYTGNPITIKSV  
SDKNPYSRILNGDNIILHMLYNSRKYMIIRDTDTIYATQGGECSONCVYALKLQSNLGN  
GIGIFSINKNIVSKNKYCSQIFSSFRENTMLLADIYKPRFWSFKNAYTPVAVTNYETKLLS

TSSFWKFISRDPGWVE

>P21808

MNRPVFLVLLLTGFLCIAAQEANVAHHYCGRHLANTLADLCWDTSVVEKRSESSLASYSSR  
GWPWLPTPNFNKRAIKKRGVVDECCIQPCTLDVLTATYC

>Q00496

MPKINSFNYPNDPVNDRTILYIKPGGCQEFYKSFNIMKNIWIIPERNVIGTTPQDFHPPTS  
LKNGDSSYYDPNYLQSDEEKDRFLKIVTKIFNRINNLSGGILLEELSKANPYLGNDNTP  
DNQFHIGDASAVEIKFSNGSQDILLPNVIIMGAEPDLFETNSSNISLRNNYMPNHRFGS  
IAIVTFSPEYSFRFNDNCMNEFIQDPALTLMHელიHSLHGLYGAKGITTKYTITQKQNP  
ITNIRGTNIEEFLTFGGTDLNIITSAQSNDIYTNLLADYKKIASKLSKVQVSNPLLNPKY  
DVFEAKYGLDKDASGIYSVNINKFNDFKFLYSFTEFDLRTKFKQVKCRQTYIGQYKYFKL  
SNLLNDSIYNISEGYNINNLKVNFRGQANLNPRIITPITGRGLVKKIIRFCKNIVSVKG  
IRKSICIEINNGELFFVASSENSYNDNINTPKEIDDTVTSNNNYENDLDQVILNFNSESA  
PGLSDEKLNLTIQNDAYIPKYDSNGTSDIEQHVDVNELNVFFYLDAQKVEGENNVNLTSS  
IDTALLEQPKIYTFSSSEFINNVNKPVQAALFVSWIQQVLVDFTTTEANQKSTVDKIADIS  
IVVPYIGLALNIGNEAQKGNFKDALELLGAGILLEFEPELLIPTILVFTIKSFLGSSDNK  
NKVIKAINNALKERDEKWKEVYSFIVSNWMTKINTQFNKRKEQMYQALQNQVNAIKTIE  
SKYNSYTLLEKNELTNKYDIKQIENELNQKVSIAMNNIDRFLTESSISYLMKIINEVKIN  
KLREYDENVKTYLLNYIIQHGSILGESQQELNSMVTDTLNN SIPFKLSSYTDDKILISYF  
NKFFKRIKSSSVLNMRYKNDKYVDTSGYDSNININGDVYKYPNKNQFGIYNDKLEVNI  
SQNDYIIYDNKYKNFSISFWVRIPNYDNKIVNVNNEYTIINCMRDNNSGWKVS LNHN EII  
WTFEDNRGINQKLA FN YGNANGISDYINKWIFVTITNDRLGDSKLYINGNLIDQKSILNL  
GNIHVS DNILFKIVNCSYTRYIGIRYFNIFDKELDETEIQTLYSNEPNTNILKDFWGNYL  
LYDKEYYLLNVLKPNNFIDRRKDSTLSINNIRSTILLANRLYSGIKVKIQRVNNSSTNDN  
LVRKNDQVYINFVASKTHLFLYADTATTNKEKTIKISSSGNRFNQVVMNSVGNCTMNF  
KNNNGNIGLLGFKADTVVASTWYETHMRDHTNSNGCFWNFISEEHWQEK

>P30996

MPVAINSFNYPNDPVNDTILYMQIPYEEKSKKYYKAFEIMRNWVIIPERNVIGTNP SDFD  
PPASLKNSSAYYDPNYLTTDAEKDRYLKTTIKLFKRINSNPAGKVLLQEISYAKPYLGN  
DHTPIDEFSPVTRTTSVNIKLSTNVESMLLNLLVLGAGPDIFESCCYPVRKLI DPDVVY  
DPSNYGFGSINIVTFSPEYETFNDISGGHNSSTESFIADPAISLAHELIALHGLYGAR  
GVTYEETIEVKQAPLMIAEKPIRLEEFLTFGGQDLNIITSAMKEKIYNNLLANYEKIATR  
LSEVNSAPPEYDINEYKYDFQWKYGLDKNADGSYTVNENKFNEIYKKLYSFTESDLANKF  
KVKCRNTYFIKYEFLKVPNLLDDDIIYTVSEGFNIGNLAVNNRGQSIKLNPKIIDSIPDKG  
LVEKIVKFKSVIPRKGTKAPPRLCIRVMNSELFFVASESSYNENDINTPKEIDDTTNLN  
NNYRNNDDEVILDYNSQTIPQISNRTLNTLVQDNSYVPRYDSNGTSEIEEYDVVDFNVFF  
YLHAQKVEGETNISLTSIDTALLEESKDIFFSSEFIDTINKPVNAALFIDWISKVIRD  
FTTEATQKSTVDKIADISLIVPYVGLALNIIIEAEKGNFEEAFELLGVGILLEFVPELTI  
PVILVFTIKSYIDSYENKKAIKAINNSLIEREAKWKEIYSWIVSNWLTRINTQFNKRKE  
QMYQALQNQVDAIKTAIEYKNNYTSDEKNRLESEYNINNIEEELNKKVSLAMKNIERFM  
TESSISYLMKLINEAKVGKLLKYDNHVKSDLLNYILDHRSILGEQTNELSDLVTSTLNSS  
IPFELSSYTNDKILIIYFNRLYKIKDSSILDMRYENNKFIDISGYGSNISINGNVYIYS  
TNRNQFGIYNSRLSEVNIAQNNDIYNSRYQNFISISFWVRIPKHYKPMNHNREYTIINCM  
GNNNSGWKISLRTVRDCEIIWTLQDTSNGKENLIFRYEELNRSNYINKWIFVTITNNRL  
GNSRIYINGNLIVEKISINLGD IHVSDN ILFKIVGCDETYVGI RYFKVFNTELDKTEIE  
TLYSNEPDPSILKNYWGNYLLYKYYLFLNLLRDKYITLNSGILNINQQRGVTEGSVFL  
NYKLYEGVEVIIRKNGPIDISNTDNFVRKNDLAYINVVDRGVEYRLYADTKSEKEKIIRT

SNLNDSLQIIVMDSIGNNCTMNFQNNNGSNI GLLGFHSNNLVASSWYNNIRRNTSSNG  
CFWSSISKENGWKE

>Q9R1W5

MDKKHILCFLVLLPLNMALISAESEEGVNQTDLGVTRNKIMTAQYECYQKIMQDPIQQAE  
GLYCNRTWDGWLWCNDVAAGTESMQYCPDYFQDFDPSEKVTKICDQDGHWFRHPDSNRTW  
TNYTLCNNSTHEKVKTALNLFYLTIIIGHGLSIA SLIISLIIFFFYFKSLSCQRITLHKNLF  
FSFICNSIVTIIHLTAVANNQALVATNPVSCVKSQFIHLYLMGCNYFWMLCEGVYLHTLI  
VVAVFAEKQHLMWYFLGWGFLLPACIHAIARSLLYNDNCWISSDTHLLYIIHGPICAA  
LLVNLFFLLNIVRVLITKLVTHQVESNLYMKAVRATLILVPLLGI EFVLPWRPEGKVA  
EEVYDYVMHILMHFQGLLVATIFCFFNGEVQAILRRNWNQYKIQFGNGFSHSDALRSASY  
TVSTISDMQGYSHDCPTEHLNGKSIQDIENVALKSENMYDLVM

>Q9UMQ6

MVAHINNSRLKAKGVGQHDNAQNFGNQSFEEELRAACLKRGELFEDPLFPAEPSSLGFKDL  
GPNSKNVQNI SWQRPKDIINNPLFIMDGISPTDICIQGILGDCWLLAAIGSLTTCPKLLYR  
VVPRGQSFKKNYAGIFHFQIQWFGQWVNVVDDRLPTKNDKLVFVHSTERSEFWSALLEK  
AYAKLSGSYEALSGGSTMEGLEDFTGGAQSFQLQRPPQNLLRLLRKAVERSSLMGCSIE  
VTSDELESMTDKMLVRGHAYSVTGLQDVHYRGKMETLIRVRNPWGRIEWNGAWSDSARE  
WEEVASDIQMQLLHKTEDGEFWMYSYQDFLNNFTLLEICNLTPD TLSGDYKSYWHTTFYEG  
SWRRGSSAGGCRNHPGTFTWNPQFKISLPEGDDPEDDAEGNVVCTCLVALMQKNWRHAR  
QOGAQLQTI GFVLYAVPKFQNIQDVHLKKEFFTKYQDHGFSEIF'TNSREVSSQLRLPPG  
EYIIIPSTFEPHRDADFLRVFTEKHSESWELDEVNYAEQLQE EKVSEDDMDQDFLHLFK  
IVAGEGKEIGVYELQRLNRMAIKFKSFKTKGFGLDACRCMINLMDKDGSGKLG LLEFKI  
LWKKLKKWMDIFRECDQDHSGLTNSYEMRLVIEKAGIKLNNKVMQVLVARYADDDLIIDF  
DSFISCFRLRLKTMFTFFLTMDPKNTGHICLSLEQWLQMTMWG

>Q27970

MAEEFITPVYCTGVSAQVQKQRAKELGLGRHENAIKYLQDYEQLRVHCLQRGALFRDEA  
FPPVPQSLGFKELGPNSSKTYGIKWKRPTELF'SNPQFIVDGATR TDICQGALGDCWLLAA  
IASLTLNDTLLHRVPHGQSFQDGYAGIFHFQLWQFGEWVDVVDDLLPTKDGKLVFVHS  
AQGNFWSALLEKAYAKVNGSYEALSGGSTSEGFEDFTGGVTEWYELRKAPSDLYNII LK  
ALERGSLLGCSIDISSILDMEAVTFKKLVKGHAYSVTGAKQVNYQGQMVNLIRMRNPWGE  
VEWTGAWSDGSSEWNGVDPYMREQLRVKMEDGEFWM SFRDFMREF'TRLEICNLTPDALKS  
QRFRNWNTTLYEGTWRRGSTAGGCRNYPATFWVNPQFKIRLEETDDPD PDDYGGRESGCS  
FLLALMQKHRRRERRFRGRDMETIGFAVYEVPPPELMGQPAVHLKRDFFLSNASRARSEQFI  
NLREVSTRFRLPPGEYVVVPSTFEPNKEGDFVLRFFSEKSAGTQE LDDQVQANLPDEQVL  
SEEEIDENFKSLFRQLAGEDMEISVKELRTILNRIISKHKDLRTTGF SLESRCRSMVNLMD  
RDGNGKLG LVEFNILWNRIRNYLSIFRKFDL DKSGSMSAYEMRMAIEFAGFKLNKKLYEL  
IITRYSEPD LAVDFDNFVCCLVRL ETMFRFFKTLDTDL DGVVTFDLFKWLQLTMFA

>P06814

QKLIRIRNPWGEVEWTGRWNDNCPNWNTVDPEVRERLAERHEDGEFWM SFSDFLRHYSRL  
EICNLTPD TLTS DTYKKWKLTKMDGNWRRGSTAGGCRNYPNTFWMNPQYVIKLEEEDEDQ  
EDGESGCTFLVGLIQKHRRRQRKMGEDMHTIGFGIYEVPEELRGQTN IHLGKNFFLTTRA  
RERSDTFINLREVLNRFKLPPEYILVPSTFEPNKN GDFCVRVFSEKKADYQAVDDEIEA  
DLEEADVSEDDIDDGFRRLFAQLAGEDAEISAFELQNILRRVLAKRQDIKTDGLS IETCK  
IMVDMLDSDGTGKLG LKEFYVLWTKIQKYQKIYREIDVDRSGTMNSYEMRKALEEAGFKL  
PCQLHEVIVARFADDQLIIDFDNFVRCLVRLET LFKIFKQLDPDNTGMIQLDLISWLCFS  
VL

>Q92177

MPSAINAAVAQQTAAGSVPSTTSTTTTEGTGGGTGGIYSAIISRNPQPIKVKKEKTYEELHK  
KCLEENILYEDPDFPPNETSLFYSQKVPKFEWKRPREICENPRFIIGGANRTDICQGEL  
GDCWFLAAIACLTLNKKLLCRVIPHDQSFIQNYAGIFHFQFWRYGDWVDVIIDDCCLPTYN  
NQLVFTKSSQRNEFWALSALLEKAYAKLHGSYEALKGGNTTEAMEDFTGGVIEFYEKDAPK  
DIYKIMKHAIARGSLMASSIDDNLGFHYGAAPRSDIGELIARMVKNLENAQMTYSTVDYQ  
GTDERPAWTIMPQYETRMSCGLVKGHAYSVTAVEETTYKGEKMRVLRNPNPWGQVEWNG  
PWSDKSEEWNFIDEEKIRLQHKIAEDGEFWSLEDFMRHFTKLEICNLTPDTLEADKLQ  
TWTVSVNEGRWVRGCSAGGCRNYPDTFWTNPQYRLKLLLEEDDDPEDEEVICSFLLVALMQK  
NRRKERKLGANLYTIGFAIYEVPKEMHGTKHHLQKDFFLYNASKARSKTYINMREISERF  
RLPPSEYVVIIPSTYEPHQEGEFILRVFSEKRSLSSEVENMIEADRPSSKKKKGKPIIFVSD  
RANSNKELTTDEDAGKDGEKTHVDEKKRSSAKAREKSEEETQFRNIFRQIAGDDMEICRE  
ELRNVLNNVVKHKDLKTEGFEESSRSMIALMDTDGSGKINFDEFRLWDKIKSWQKIF  
KHYDADHSGTINSYEMRNAVKDAGFRLNNQLYDIITMRYADKNMNIIDFDSFICCFVRLDA  
MFRAFHAFDKDGDIKLNVLLEWLQLTMYA

>P19198

MYNPPPPSGSQGNNNYYRQPSSTPGVSNPNPQANQFLPPQPSNTTQTPGGYPPQQQRPP  
TGAPQQPGGYPTPPPPGAPGGYPPQQQPAGQYGAPPQQQPAGQYGAPQPAGQYGAPQPAG  
QYGAPQPAGQYGAPPPPPGGAGISLVKNQQISLTKEDPTLRKLTIGLGWDVNTTPTAPFD  
LDAVVFMLNAQGRVRSQDFIFYNNKVSRDNSVSHQGDNLTGQEGDDEVVLVNLQAVSP  
DVTRLVFAVTIHLADERRQNFTMVPRAFIRVANQETGRNICRYDLSQEGGPNTALIAGEV  
YRDPSNPNNSFVAVGKGMQALPGLLQIFGCQ

>P34685

MSEISDAEKVRIASDFIKHAPPGEFNEVFNSVRMLLENDDLKKNKCVNAIAQYNVGGQFVP  
VKLDGVAKQTLITPYNDLGNRFYDEVSKKSFKYDHRKEAADLQPHPAESGITEQWRQA  
LQTQLDIYIDDHYAKSGTGVVVFARNGVFTTICIESHQFQPKNFCNGRWRSEWNVPVGDGKS  
GSQEMKGIKLSQVHYEDGNVQLFSEKEPVLKVNVSADFDKTAKEIHAISEEETIYQNA  
VQENYANMSDTTFKALRRQLPVTRAKMDWNKAQTYRIGQEMK

>P13022

MASNQELVQIATNFLNAPPCEFMEVVSDVRALLPSESLLNASAGSTFREYNTSQMVSQ  
TSKGSALITKEGEISNNEYLDPKNKQVITYDHIKQEVGTGERSASGEIEQDIEQYRAAFDE  
EATKYCNEYYPNGVSAVYGTKVSEGIKITVCISTCIYKPNAFYSGRWRVWTCTFKPGSG  
NVTSNQKVVQVNVHYFEDGNVQLNVTVTQKQTTSPSADAQSTAVNAFKAIGKAELNLHTALD  
NNYSTMGDTTFKALRRALPINRTKINWQKVNFKIANELNK

>Q10434

MEKEAIYKLIRESPPGEVNQVVHDIRDIGLSDEEAIHEQLKLYHEDYNSSVSISSDEKVI  
ISADNRLEGNRYDQVLQKSFTINYETMEAENVEDYTEAIKIPDEIVKQIKKVASDHLYS  
DVTFGIIKKSDEVESFTIVLVSSKYNPKNYWNGSWRCICNYNVSEKKLEGRSHIRVHYE  
DGNVWLDASRPISATVEETSCLYEVLQAVENGIQQSFNVELSSLNDKKFKELRRQLPVTR  
QKINWENVSGIRMRNT

>P28495

MSSSKFEEVINKIINDSPPGELREVYDDLKITSSENSKNTILDAIENYNVQNCIPIEVNG  
NSVIIISKYKKEGAKFFDPVNSVIFSVNHLERKGLDIEPYEFTHAKIEKGQLKELHDKLHE  
YLLQSFPGDVSAVYVPVEEISKISIIIVSTKYNPNNFWNGHWRSSYIYDLETRELSGQI

STQVHYIEDGNVSFQSGKDINQSNVDDVVCTIRDIEITNFENDLDSLFFDLNEKQFKALRR  
RLPVTRSKINWGSIAIGSYRLGKNAAEKG

>P14315

MSDQQLDCALDLMRRLPPQQIEKNLSDLIDLVPDLCEDLSSVDQPLKIARDKVVGKDYL  
LCDYNRDGDSYRSPWSNKYDPPLEDGAMP SARLRKLEVEANNAFDQYRDLYFEGGVSSVY  
LWDLDHGFAGVILIKKAGDGSKKIKGCWDSIHVVEVQEKSSGRTAHYKLTSTVMLWLQTN  
KTGSGTMNLGGSLTRQMEKDETVSDSSPHIANIGRLVEDMENKIRSTLNEYFYGKTKDIV  
NGLRSIDAIIPDNQKYKQLQRELSQVLTQRQIYIQPDN

>P13021

MTEKQLSCCLDLMRRLPPSQIEDNLAGLLDLVPLDTEDLSSIDQPLKVAYDAVSKKDYL  
LCDYNRDADSYRSPWSNKYDPPPLSGACYSSKLRDIEVQANEIFEIYLNLYFEGGVSSVY  
CWDLDDNFAAVVLMKKTQDQSKKGQPMRGTWDSIHVVEVKLGKKDKAVYKLTSTVMLSIE  
TDNDNTGKVNLAGSLTRQDEKEYTFNEVDTHCVNIGKMVEDMESKLRQTLETIYFGKTKE  
VVNTLRNATGNSELEKRKNLSNQIGSAIGNRG

>Q9HGP5

MNSEDAALDLLRRLNPKDISKNLDTILSVAPDLADVLLSSVDQPLKVNTCSESGNQYLLC  
DFNRDGDSYRSPWSNKYDPPLEDGLVSTDRVRKLEVSLEAIRVYLDLYYEGGVSSVYLW  
DQDDSYAGAVLIKKASTSNSSGWDSIHVFECLPTTETNVYDYRLTSTIILFLSSGSEEQS  
ALPSKALNLSGHLTRQTSQRPAADDDTEIANVGLVEEMETMRNFLQDVYFGKTKDII  
NQTRSIQPVSDAQPNDSALRSVLDLSI

>P13517

MSDAQFDAALDLLRRLNPTTLQENLNLIELQPNLAQDLLSSVDVPLSTQKDSADSNREY  
LCCDYNRDIIDFRSPWSNTYYPELSPKDLQDSPFP SAPLRKLEILANDSFDVYRDLYYEG  
GISSVYLWDLNEEDFNHDFAGVVLFFKKNQSDHSNWDSIHVFEVTTSPSSPDSFNRYVTT  
TIIHLHDKTKTDQNSHMLSGNLTRQTEKDIAIDMSRPLDVIFTSHVANLGSIEDIESQ  
MRNLLETVYFEKTRDIFHQTKNAAIASSAEANKDAQAEVIRGLQSL

>P85137

ADSGSAVVALTNRDRTSYIGEIGIGTPPQKFTVIFDTGSSVLWVPSSKAHSMYESSGSST  
YKSQDSVTIGDLVVKEQDFIEATEEADNVFLNRLFDGILGLSFQTSVPPVWYNMLNQGLV  
KRFSFWLNRNVDEEEGGELVFGGLDPNHFRGDHTYVPVYQYQYVQFGIGDVLIGDKSTGF  
CAPGCQAFADSGTSLLSGPTAIVTQINHAIGANGSEELNVKFGLTPEQYILKGEATQCIS  
GFTAMDATLLGPLWILGDVFMRPYHTVFVDYGNLLVGF AEAA

>O02002

MTDECVTRNYGVGIRSPNGSENRSFIMADNTDAKGCTPESLVVGGATAASPLPANKFVA  
RMPVERYASEYNMSHKHGRGVALIFNHEFFDIPSLKSRTGTNVDAQELKKAFENLGFVSV  
HKDCKLRDILKHVGKAAELDHTDNDCLAVAILSHGEHGYLEAKDTQYKLDNIWHYFTATF  
CPSLAGKPKLFFIQACQGDRLDGGITLEKGVTEFDGESSTSYKIPIHADFLFSYSTIPGY  
FSWRNINNGSWYMQSLIRELNANGKKYDLLTLLTFVNQRVALDFESNVPATPMMDRKQI  
PCLTSMLTRILRFGDKPNGNKAG

>P29466

MADKVLKEKRKLFIRSMGEGTINGLLDELLQTRVLNKEEMEKVKRENATVMDKTRALIDS  
VIPKGAQACQICITYICEEDSYLAGTLGLSADQTSNGYLNMQDSQGLVSSFPAPQAVQDN  
PAMP TSSGSEGNVKLCSLEEAQR IWKQSAE IYPIMDKSSRTRLALI ICNEEFDSIPRRT

GAEVDITGMTMLLQNLGYSDVVKKNLTASDMTTELEAFahrPEHKTSDSTFLVFMShGIR  
EGICGKKHSEQVPDILQLNAIFNMLNTKNCPSLKDkPKV I I I QACRGDSPGVVWFKDSVG  
VSGNLSLPTTEEFEDDAIKKAHIEKDFIAFCSSTPDNVSWRHPTMGsvfIGRLIEHMqEY  
ACSCDVEEIfRkVRFsFEQPDGRAQMPTTervTLTRCFYLFPGH

>P89116

MLDGKQDNGNVDSVDIKQRTNNGGDEGDALGSNsssQPNRVARMPVDRNAPYYNMNHKHR  
GMAIIFNHEHFDIHSLKSRTGTNVDSNLSKVLKTLGfKVTVFPNLKSEEINKFIQQTAE  
MDHSDADCLLVAVLTHGELGMLYAKDTHYKPDNLWYyFTADKcPTLAGKPKLFFIQACQG  
DRLDGGITLSRTETDGSPSTSYRIPVHADFLIAFSTVPGYfSWRNTTRGSWFMQALCEEL  
RYAGTERDILTLTTFVcQKVALDFESNAPDSAMMHQQKQVPCITsMLTRLLVfGKKQSH

>P42575

MAAPSAGSWSTFQHKELMAADRGRRIlgVCGMHPHHQETLkKNRVVLAKQLLSELEHL  
LEKDIITLEMRELIQAKVGSfSQNVELLNLlPKRGPQAFDAFCEALRETKQGHLEDMLLT  
TLsGLQHVLpPLsCDYDLsLFPVCEsCPLYKkLRLsTDtVEHsLDNKDGPVCLQVKPCT  
PEFYQTHfQLAYRLQSRPRGLALVLSNVHfTGEKELEfRSGGDVDHsTLVTLfKLLGYDV  
HVLCDQTAQEMQEKLQNFaQLPAHRVTDsCIVALLSHGVEGAIYGVdGKLLQLQEVfQLF  
DNANCPsLQNKPKMFFIQACRGDEtDRGVDQDQGNHAGSPGCEESDAGKEKLPKMRlPT  
RSDMICGYACLKGTAAmRNTKRGsWYIEALAQVfSERACDMHVADMLVKVNALIKDREGY  
APGTEfHRCKEMSEYcSTLCRHLYLFPGHPPT

>P42574

MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDYpEMGLCIINNKNfHKSTG  
MtsRSGTDVDAANLREtFRNLKYEVrNKNDLTREEIvELMRDVsKEDHsKRSSfVcVLLS  
HGEEGIIFGTNGPVDLKKITNfFRGDRCRSLTGKPKLFIQACRGTELDcGIEtDSGVDD  
DMACHKIIPVEADFLYAYSTAPGYYSWRNSKDGsWFIQSLCAMLKQYADKLEfMHILTRVN  
RKVATEfESfSFDATfHAKKQIPCIvSMLTKELYfYH

>P70343

MAENKHPDKPLKVLEQLGKEVLTEYLEKLVQSNVLKlKEEDKQKFNNaERSDKRWVfVDA  
MkkkHskVgEMLLQTFfSVDPGSHHGeanLEMEEPeESLNTLkLCSPEEFTRLCREKTQE  
IYPIKEANGRTRKALIICNTEfKHLSLRYGAKFDIIGMKGLLEDLGyDVVvKEELTAEGM  
ESEMkDFAALSEHQtsDSTFLVLMShGTLHGICGTMHSEKTPDVLQYDTIYQIFNNCHCP  
GLRDkPKVIVQACRGNGSGEMWIRESskPQLCRGVDLPRNMEADAVKLSHVEKDFIAFY  
STTPHHLsYRDKTGGsYfITRLISCFRKHACsCHLFDIFLKVQQSFEKASIHsQMPTIDR  
ATLTRYfYLFPGN

>P51878

MfKGILQsGLDNFVINHMLKNNVAGQTSIQTLVPNTDQKSTSVKkDNHKKkTVKMLEYLG  
KdVLHGvFNyLAKHDVLTlKEEEKKKYDAKIEDKALILVDSLrKNRVAHQMFTQTLLNM  
DQKITSVKPLLQIEAGPPESAESTNILKLCpREEFLRLCkKNHDEIYPIKKREDRRRLAL  
IICNTKFDHLPARNGAHYDIVGMKRLlQGLGYTVVDEKNLTARDMESVLRafaARPEHKS  
SDSTFLVLMShGILEGICGTAHKKKKPDVLLYDTIFQIFNNRNCLSLKDkPKVIVQACR  
GEKHGELWVRDSPASLAVISSQsSENLEADSVCKIHEEKDFIAFCSSTPHNVSWRDRTRG  
SIFITELITCFQKYSCcHLMEIfRkVQKsFEVpQAKAQMPTIERATLTRDFYLFPGN

>P55212

MSSASGLRRGHPAGGEENMTETDAFYKREMFDPaEKYKMDHRRRGIALIFNHERFFWHLT  
LPERRGTCADRDNLTRRFSDLGfEVKCFNDLKAEEllLkIHEVSTVSHADADCFVcVfLS

HGEGNHIYAYDAKIEIQTLTGLFKGDKCHSLVGPKEIFIIQACRGNQHDPVPIPLDVVDN  
QTEKLDNTNITEVDAASVYTLTLPAGADFLMCSVAEGYSSHRET'VNGSWYIQDLCEMLGKYG  
SSLEFTELLTLVNRKVSQRRVDFCKDPSAIGKKQVPCFASMLTKKLHFFPKSN

>P55210

MADDQGCIEEQVEDSANEDSVDAKPDRSSFPVPSLFSKKNVTMRSIKTTRDRVPTYQY  
NMNFEKLGKCI I INNKNFVKVTGMGVRNGTDKDAEALFKCFRSLGFDVIVYNDSCAKMQ  
DLLKASEEDHTNAACFACILLSHGEENVYIGKDGVTPIKDLTAHFRGDRCKTLLEKPKL  
FFIQACRGTELDGDIQADSGPINDTDANPRYKIPVEADFLFAYSTVPGYYSWRSPGRGSW  
FVQALCSILEEHGKDLEIMQILTRVNDRVARHFESQSDDPHFHEKKQIPCVVSMILTKEYL  
FSQ

>Q8IRY7

MSASAIYRPFVKHFCIFPIAMAGSNLLIHLDTIDQNDLIYVERDMNFAQKVGLCFLLY  
GDDHSDATYIILQKLLAMTRSDFPQSDLLIKFAKSRPETWRRHLVEALCIIGARKVLRRLG  
FCWQELRMHYLPHIAGITLHVHPLLSLYRMCEELSLVQSGRLLLDVREKVESQQAGDPL  
RFYDPAYLEIFLLDWLTRRSIKLGDINAAGSDVQLLVGHLKSNGLQAQANLLKDTIISNA  
PEPDAAGTAAMAVKQEI ESDNQSYCSTQIDALKLTRENAGIALI INQQKFHRNVSRDNM  
KFLSPDPLRRRDGTDVDKERLIEVFSSMGYNVEAYDNVDHMGIIERIRSACDRSLVRDSL  
VVFILSHGFEEAVYASNSIAMKITDIEDLLCSYDTLYYKPKLLIIQACQEKLVHKKKPNE  
LFRIDVTTVSPDQHIDMLRAMSTVNGYAALRHTQTGSWFIGSLCDAIDRRSASEHIADIL  
TIVTNEVSKKRGSNDESMVNVKSTFRQHVFPPRL

>Q14790

MDFSRNLYDIGEQLDSEDLASLKFSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLS  
FLKELLFRINRLDLLITYLNTRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSSELRSE  
KFLQEEISKCKLDDMNLLDIFIEMEKRVILGEGKLDILKRVCAQINKSLLKIINDYEE  
FSKERSSSLEGPDEFSGEELCGVMTISDSPREQDSESQTLDKVYQMKSKPRGYCLIIN  
NHNFAKAREKVPKLHSIRDRNGTHLDAGALTTTFFELHFEIKPHDDCTVEQIYEILKIYQ  
LMDHSNMDCFICCILSHGDKGIIYGTGQEAPIYELTSQFTGLKCPSLAGKPKVFFIQAC  
QGDNYQKGI PVETDSEEQPYLEMDLSSPQTRYIPDEADFLMGATVNNCVSYRNPAEGTW  
YIQSLCQSLRERCPRGDDILTILTEVNYEVSNKDDKKNMGKQMPQPTFTLRKKLVFPPSD

>P55211

MDEADRLLRRCRLRLVEELQVDQLWDALLSRELFRPHMIEDIQRAGSGSRRDQARQLII  
DLETRGSQALPLFISCLEDTGQDMLASFLRTNRQAAKLSKPTLENLTPVVLRLPEIRKPEV  
LRPETPRPVDIGSGGFGDVGALSLRGNADLAYILSMEPCGHCLINNPNFCRESGLRTR  
TGSNIDCEKLRFRSSLFHMVEVKGDLTAKKMLLALLELAQQDHGALDCCVVVILSHGCQ  
ASHLQFPGAVYGTGCPVSVVEKIVNIFNGTSCPSLGGKPKLFFIQACGGEQKDHGFVAVS  
TSPEDSPGSNPEPDATPFQEGRLTFDQLDAISSLPTPSDIFVSYSTFFPGFVSWRDPKSG  
SWYVETLDDIFEQWAHSEDLQSLLLRVANAVSVKGIYKQMPGCFNFRKKLFFKTS

>P15156

MGKSSEAWCIVLFSVFAFSAEPTMHGEILSPNYPQAYPNEMEK'TWDIEVPEGFVRLYF  
THLDMELSENCEYDSVQIISGGVEEGRLCGQRTSKNANSPIVEEFQIPYNKLQVIFRSDP  
SNEERFTGFAAYYAAIDVNECTDFTDVPCHFCNNF IGGYFCSCPPEYFLHDDMRNCGVN  
CSGNVFTALIGEISSPNYPNPYPENSRCYQILLLEEGFQVVVTIQREDFDVEPADSQGNC  
QDSL LFAAKNRQFGPF CGNGFPGLTIE THSNTLDIVFQTDL TEQKKGWKLRYHGDP IPC  
PKEITANSVWAPEKAKYVFKDVVKISCVDFEAVEGNVGS'TFFYSTCQSNQWSNSRLRC  
QPVD CGIPEPIQNGKVDDPENTLFGSVIHYSCEEPY YMEHAHEHGGEYRCAANGSWVND E

LGIELPKCVPVCGVPTPEFRIQQRIFGGFPAKIQSFPWQVFFEFPRAGGALIGEHWLTA  
AHVVEGNSDPSMYVGSTSVRMENTLANVQKLTTRDVI IHPGWKPGDDLSTRTNFDNDIALV  
RLKDPVKMGPTVSPICLPGTSSEYEPSEGLGLISGWGRTERRNIVIQLRGAKLPVTSLE  
KCRQVKEENPKARADDYVFTSNMICAGEKGVDSQCQDSSGAFALPVPNVRDPKFYVAGLV  
SWGKCKGTYGIYTKVKNYKDWILQTMQENSVP SQD

>P13127

MADFEDRVSDDEEKVRIA AKFITHAPPGEFNEVFNDVRLLLNNDNLLREGAAHAFAQYNMD  
QFTPVKIEGYDDQVLI TEHGDLGNRFLDPRNKISFKFDHLRKEASDPQPEDTESALKQW  
RDACDSALRAYVKDHYPNGFCTVYVGKSIDGQQTIIACIESHQFQPKNFWNGRWRSEWKFT  
ITPPTAQVA AVLKIQVHYEDGNVQLVSHKDIQDSVQVSSDVQTAKFEFIKI IENAENEYQ  
TAISENYQ TMSDTTFKALRRQLPVTRTKIDWNKILSYKIGKEMQNA

>Q51601

MSTPLIAGTGPSAVRQLISNAVQNDPVSNGFRCRDIFTDAALFDYEMKYIFEQNWVFLA  
HESQVANPDDYLVSNI GRQPVIITRNKAGDVSAVINACSHRGAELCRRKQGNRSTFTCQF  
HGWTF SNTGKLLKVKDQDDNYPEGFNVDGSHDLTRIPSFANYRGF LFGSMNPDACPIEE  
HLGGSKAILDQVIDQTPGELEVLRGSSSYIYDGNWKLQIENGADGYHVGSVHWNVYVATIG  
RRDRTSDTIRTVDVTTWSKKNIGGTYTFEFGHMLLWTRLPNPEVRP VFARREELKARVGE  
EVADAIVNQTRNL CIYPNLYVMDQISTQIRVVRPISVDKTEVTIYCFAPRDESEEVNRAR  
IRQYEDFFNVSGMGT PDDLEEFRAQCQSGYRGSAREWNDLSRGAPHWISGPDDNARRLGLA  
PLMSGARMEDEGLFVQQHTYWAETMLRGI EAEPKVFVNVQPVEVAQ

>Q51602

MTSLESSYLDVVA FIFREARLLDDRSWDEWLECYDPEAVFWMPCWDDADTLVDDPRKHVS  
LIYYSDRMGLEDRVFR LRSERSGASTPEPRTHNIANVEILERTERQIEARFNWHTMNYR  
YKLLDHYFGTSFYTLKVSSSGLSILNKKVVLKNDLIHQVIDVYHV

>O60563

MEGERKNNKRWYFTREQL ENSPSRRFGVDPDKELSYRQQAANLLQDMGQRLNVSQLTIN  
TAIVYMHRFYMIQSFTQFPGNSVAPAALFLAAKVEEQPKKLEHV I KVAHTCLHPQESLPD  
TRSEAYLQQVQDLVILESIILQTLGFELTIDHPH THVVKCTQLVRASKDLAQT SYFMATN  
SLHLTTFSLQYTPPVACVC IHLACKWSNWEIPVSTDGKHWWEYVDATVTLELLDELTHE  
FLQILEKTPNRLKRIWNWRACEAAKTKADDRGTDEKTSEQTILNMISQSSSDTTIAGLM  
SMSTSTTS AVPSLPVSEESSNLT SVEMLPGKRWLSSQPSFKLEPTQGHR TSENLALTGV  
DHSLPQDGSNAFISQKQNSKSVPSAKVSLKEYRAKHAEELAAQKRQLENMEANVKSQYAY  
AAQNLLSHHDSHSSVILKMPIEGSENPERPFLEKADKTALKMRI PVAGGDKAASSKPEEI  
KMRIKVHAAADKHNSVEDSVTKSREHKEKHKTHPSNHHHHHHHSHKHSQS L PVGTGNK  
RPGDPKHSSQTSNLAHKTYLS SSSFS SSSSTRKRGPSEETGGAVFDHPAKIAKSTKSSSL  
NFSFPLPTMGQMPGHSSDTSGLSFSQPSCKTRVPHSKLDKGPTGANGHNTTQTIDYQDT  
VNMLHSLLSAQGVQPTQPTAFEFVRPYS DYLNPRSGGISSRSGNTDKPRPPPLPSEPPPP  
LPPLPK

>Q98910

MRCEVPLPLLGLLLCVVGA AAQGGQEEFAVEISGTTVTITCPSSGDDVKWKPDPKMMVNN  
KYIIQNHDSSPLTVSCTAGDEEHTMYLNAKVCANCEELDTFTVVGIIAADLLITLGLV LIL  
VYYFSKNKKGQSRAAAGSRPRAQKMRPPPPV PNPDYEP IRKGQRDVYAGLEHRGF

>P07766

MQSGTHWRVLGLCLLSVGVWQDGNEEMGGITQTPYKVISGTTVILTCPQYPGSEILWQ



HNDKNIGGDEDDKNIGSDEDHLSLKEFSELEQSGYYVCYPRGSKPEDANFYLYLRARVCE  
NCMEMDVMSVATIVIVDICTITGGLLLLLVYYWSKNRKAKAKPVTRGAGAGGRQRGQNKERP  
PPVNPDPYEPIRKQQRDLYSGLNQRR I

>P22646

MRWNTFWGILCLSLAVGTCQDDAENIEYKVSISGTSVELTCPLSDENLKEKNGQELP  
QKHKHLVLQDFSEVEDSGYYVCYTPASNKNTYLYLKARVCEYCVVDLTAVAI I I IVDI  
CITLGLLMVIYYWSKNRKAKAKPVTRGTGAGSRPRGQNKERPPPVPNPDPYEPIRKQQRDL  
YSGLNQRAV

>P09693

MEQGKGLAVLILAI ILLQGTLAQS IKG NHLVKVYDYQEDGSVLLTCDAEAKNITWFKDGK  
MIGFLTEDKKKWNLGSNAKDPGRMYQCKGSKPLQVYRMCQNCIELNAATISGFLF  
AEIVSIFVLAVGVYFIAGQDGVQRASDKQTLLPNDQLYQPLKDREDDQYSHLQGNQLR  
RN

>P11911

MPGGLEALRALPLLLFLSYACLGPQCQALRVEGGPPSLTVNLGEEARLTCENNGRNPNI  
WWFSLQSNITWPPVPLGPGQGTGQLFFPEVNKNHRGLYWCQVIENNILKRSCGTYLVR  
NPVPRPFLDMGEGTKNRI I TAEGI ILLFCVAVPGTLLLLFRKRWQNEKFGVDMPPDDYEDEN  
LYEGLNLD DCSMYEDISRGLQGTQDVGNLHIGDAQLEKP

>P40259

MARLALSPVPSHWMVALLLLLSAEPVPAARSEDYRNPKGSACSR IWQSPRFIARKRGFT  
VKMHCYMN SASGNVSWLWKQEMDENPQQLKLEKGRMEESQNESLATLTIQGIRFEDNGIY  
FCQQKCNNTSEVYQGCGETELRVMGFSTLAQLKQRNTLKDGI IMIQTLI I I LFI IVP I FLL  
LDKDDSKAGMEEDHTYEGLDIDQTATYEDIVTLRTGEVKWSVGEHPGQE

>P48960

MGGRVFLAFCVWLTLPGAETQDSRGCARWCPQNSSCVNATAACRCNPGFSSSEI I TTPTE  
TCDDINECATPSKVSCGKFSDCWNTEGSYDCVCSPGYEPVSGAKTFKNESENTCQDVDEC  
QQNPRLCKSYGTCVNTLGSYTCQCLPGFKFIPEDPKVCTDVNECTSGQNPCHSSTHCLNN  
VGSYQCRCRPGWQPIPGSPNGPNTVCEDEVDECSGQHQCDSSTVCFNTVGSYSCRCRPG  
WKPRHGIPNNQKDTVCEDMTFSTWTPPPGVHSQTL SRFFDKVQDLGRDSKTSSAEVTIQN  
VIKLVDELMEAPGDVEALAPPVRHLIATQLLSNLEDIMRILAKSLPKGPFTYI SPNTEL  
TLMIQERGDKNVTMGQSSARMKLNWAVAAGAEDPGPAVAGILSIQNMTTLLANASLNLS  
KKQAELEEIYESSIRGVQLRRLSAVNSIFLSHNNTKELNSPILFAF SHLESSDGEAGRDP  
PAKDVMPGPRQELLCAFWKSDSDRGGHWATEGCQVLGSKNGSTTCQC SHLSSFAILMAHY  
DVEDWKLTLITRVGLALSFLCLLL CILTFLLVRPIQGSRTTIHLHL C ICLFVGSTIFLAG  
IENEGGQVGLRCRLVAGLLHYCFLA AFCWMSLEGLELYFLVVRVFQGGQLSTRWLC LIGY  
GVPLLIIVGVSAAIYSKGYGRPRYCWLDFEQGFLWSFLGPVTFI ILCNAVIFVTTVWKL TQ  
KFSEINPDMKKLKKARALTITAI AQFLLLGCTWVFGFLIFDDRSLVLT YVFTI LNCLQGA  
FLYLLHCLLNKKVREEYRKWACL VAGGSKYSEFTSTTSGTGHNQTRAL RASESGI

>P42573

MMRQDRRSLLEARNIMMFSSHLKVDEIILEVLI AKQVLNSDNGDMINSCGTVREKRREIVKA  
VQRRGDVAFDAFYDALRSTGHEGLAEVLEPLARSVDSNAVEFECPMSPASHRRSRALSPA  
GYTSPTRVHRDSVSSVSSFTSYQDIYSRARSRSR SRALHSSDRHNYSSPPVNAFPSQPSS  
ANSSFTGCSSLYGSSSRNRSFSKASGPTQYIFHEEDMNFVDAPTISR VFDEKTM YRNFS  
PRGMCL I INNEHF EQMPTRNGTKADKDNLTNLFRCMGYTVICKDNLTGRGMLLTIRDFAK

HESHGDSAILVILSHGEENVIIIGVDDIPISTHEIYDLLNAANAPRLANKPKIVFVQACRG  
ERRDNGFPVLDSVDGVP AFLRRGWDNRDGPLFNFLGCVRPQVQQVWRKKPSQADILIAYA  
TTAQYVSWRNSARGSWFIQAVCEVFS THAKDMDVVELL TEV NKKVACGFQTSQGSNILKQ  
MPEMTSRL LKKFYFWPEARNSAV

>P49450

MGPRRRSRKPEAPRRRSPSPTPTPGPSRRG PSLGASSHQHSRRRQGWLKEIRKLQKSTHL  
LIRKLPFSRLAREICVKFTRGVDFNWQAQALLALQEAEEAFLVHLFEDAYLLTLHAGRVT  
LFPKDVQLARRIRGLEEGLG

>Q9WUW3

MKLALLI LLLL NPHLSSSKNTPASGQPQEDLVEQKCLLKNYTHHSCDKVFCQPWQKCI EG  
TCACKLPYQCPKAGTPVCATNGRGYPTYCHLKSFECLHPEIKFSNNGTCTAE EKFNVS LI  
YGSTDEGIVQVKLVDQDEKMFICKNSWSTVEANVACFDLGFPLGVRDIQGRFNIPVNHK  
INSTECLHVR CQGVETSLAECTFTTKKSSKAPHGLAGVVCYTQDADFPTSQSFQCVNGKRI  
PQEKACDGVND CGDQSD ELCCKGCRGQAF LCKSGVCIPNQRKCNGEVDCITGEDESGCEE  
DKKNKIHKGLARSDQGGETEIETEETEMLTPDMDTERKRIKSLLPKLS CGVKRNTHIRRK  
RVVGGKPAEMGDYPWQVAIKDGDRI TCGGIYIGGCWILTAACHV RPSRYRNYQVWTSLLD  
WLKPNSQLAVQGVSRVVVHEKYNGATYQNDIALVEMKKHPGKKECELINSVPACVPWSPY  
LFQPNDRCIISGWGREKDNQKVYSLRWGEVDLIGNCSRFPGRY YEKEMQCAGTSDGSID  
ACKGDSGGPLVCKDVNNVTYVWGI VSWG ENCGKPEFFGVYTRVASYFDWISYYVGRPLVS  
QYNV

>P09931

RHKSSQEESESEELDQCCEQLNELNSQRCQC RALQQIYESQSEQCEGRQQEQLEGELEK  
LPRICGFGPLRRCNINPDEE

>Q9X005

MKKVIGIGEYAVMKNPGVIVTLGLGSCVAVCMRDPVAKV GAMAHVMLPDSGGKTDKPGKY  
ADTAVKTLVEELKMGAKVERLEAKIAGGASMFESKGMNIGARNVEAVKKHLKDFGIKLL  
AEDTGGNRARSVEYNIETGKLLVRKVGGGEQLEIKEI

>P70232

MMELPLCGRGLILSLIFLLLKLSAAEIPLSVQVPTIVKQSYVQVAFPFDEYFQIECEAK  
GNPEPIFSWTKDDKPFDLSDPRIAANNSGTFKIPNEGHI SHFQGKYRCFASNRLGTAVS  
EEIEFIVPGVPKFPKKEIEPIDVEEGDSIVLPCNPPKGLPPLHIYWMNIELEHIEQDERV  
YMSQRGDLYFANVEENDSRNDYCCFAAFP KLR TIVQKMPMKLTVNSSNSIKQRKPKLLLP  
PAQMGSLSAKTVLKGDTLLLECF AEGLTPHIQWSKPGSELPEGRATIEVHEKTLKIENI  
SYQDRGNRYRCTANLLGKASHDFHVTVEEPPRWKKKQSAVYSTGSSGILLCEAE GEPQP  
TIKWRLNGLPIEKHPFPDFMFPREISFTNLLPNHTGVYQCEASNIHGTILANANIDVID  
VIPLIKTKNEENYATVVGYS AFLHCEYFASPKATV VWEVADETHPLEGDRYHTHENGTLE  
IYRTTEEDAGSYSCWVDNAMGAVITANLDIRNATKLRVSPKNPRI PKSHVLELYCESQC  
DSHLKHSLKLSWSKDGEAFEMNGTEDGRIVIDGAYLTISNITAEDQGVYSCSAQTSLDST  
SKKTQVTVLGVGDPPETFTCQKDKNRSVRL LREAGDDHNSKSASTIVEFEGNREEPGKWE  
ELTRVQGEETDVVLSLAPYVRYQFRVTAVNEVGRSHASLPSDHHETPPAAPDKNPQNI RV  
QASQPKEMIIKWEPLKSMEQNGPGLEYKVSWK PQGAPEEWE EIVTNHTLRVMTPTVYAP  
YDVKVQAINQLGSSPDPQPVTLYSGEDYPSTAPVIQRVDVMNSTLVKVTWSSIPKETVHG  
LLRGYQINWWKTKSLLDGRTHPKVEVNILRFSGQRNSGMVPSLDPFSEFHLTVLAYNSKGA  
GPESEPYIFQTPPEGVPEQPSFLKVIKVDKDTATLSWGLPKKLNGLTGYLLQYQIINDTY  
ELGELNEINVTTPSKSSWHLSNLNSTTKYK FYLRAC T SRGCGKPISEEGATLGEGSKGIR

KITEGVNVTQKIHPVEVLVPGAHEIVHLMTKNWGDNDSIFQDVIETRGREYAGLYDDIST  
QGWFI GLMCAIALLLTLILLTICFVVKRNRGGKYSVKEKEDLHPDPEVQSAKDETFGEYSDS  
DEKPLKGLSLRSLNRNMQPTESADSLVEYEGEDQSIFNEDGSFIGAYTGAKEKGSVESNGS  
STATFPLRA

>P56302

MKLAYWMYAGPAHIGTLRVASSFKNVHAIMHAPLGDDYFNVMSMLERERDFTPVTASIV  
DRHVLARGSQEKVIENITRKDKKEENPDLIILTPCTCTSSILQEDLQNFVNRAGLDSKSDVI  
LADVNHYRVNELQAADRTLEQIRFYLEKARSQSNEPLRKTEKPSANILGIFTLGFHNQH  
DCRELKRLLLTDLGIVINQILPEGGSVTNINELPKAWFNLIIPYREVGLMAANYLKNEYDMP  
YVAVTPMGLLDTENCIREIVDIVKSSDTSYNFDFETYIDTQTRFISQAAWFSRSIDCQNL  
TGKKAVVFGDATHAASITKILAREMGIRVSCSGTYCKHDADWFREQVDGFCDEVLI TDDH  
TQVADMIARIEPAAIFGTQMERHIGKRLDIPCGVISAPVHIQNFPLGFRPFLGYEGTNQI  
SDLVYNSFTLGMEDHLLIFGGHDTKEVITKSLSTSDSLAWAPEALTELQRIPGFVRGKI  
KRNTEKFAREKNCNLITLIMFAAKEAVGA

>P48099

MKLAYWMYTGPAGHIGTLRIASSFKNVHAIMHAPLGDDYFNVMSMLERERNYTPVTTSVV  
DRNVLARGSQEKVIDNLRKDKKEEQPDLIVLTPCTCTSSILQEDLQNFVEQASLNSMADVL  
LADVNHYRINELQACDKTLEQIVRFYIEKNRASLTLEKVKTL LLPSVNLIGISSLGFHNH  
DTRELKKLFELEYEII LNCSLPQGTTVKTLINLPKAWLNILPYRELGLLTSKYLNKEFGLL  
SLVILPMGNINLNRFLKLLFLSKLENNTITKVINIKLLKLLNLNWKKEAIKSKLKRKK  
AIIFGSSNHVATLTKLLSKEIGLEIILCGTYCKSESKWFSEQVQNYCNKILITEDHTMIS  
NEISKLPDVI FGTQMERHIGKRLGIPCGVISSPIHIQNFPLSYKPMVGYEGVKTIMDLL  
FNLSLNLKDRKNSFTL FNEII

>O61735

MDDESDDKDDTKSFLCRKSRNLSEKKRRDQFNLSLVNDLSALISTSSRKMDKSTVLKSTIA  
FLKNHNEATDRSKVFEIQQDWKPAFLSNDEYTHLMLES LDGFMMV FSSMGSIFYASESIT  
SQLGYLPQDLYNMTIYDLAYEMDHEALLNIFMNPTPVIEPRQTDISSNQITFYTHLRRG  
GMEKVDANAYELVKFVGYFRNDTNTSTGSSSEVSNGSNGQPAVLPRIFQQNPNAEVDKKL  
VFGVTGRVQNPQLIREMSIIDPTSNEFTSKHSMEWKFLFLDHRAPPIIGYMPFEVLGTSG  
YDYYHFDDLDSIVACHEELRQTGEGKSCYYRFLTKGQQWIWLQTDYVVSYHQFNSKPDYV  
VCTHKVVSYAIEVLKDSRKEGQKSGNSNSITNNGSSKVIASGTSSKSASATTTLRDFELS  
SQNL DSTLLGNLSLGLTETAATSPAVDSSPMWSASAVQPSGSCQINPLKTSRPASSYGN  
ISSTGISPKAKRKYFYNNRGNDS DSTSMSTDSVTSRQSMTHVSSQSQRQRSHHREHHR  
ENHHNQSHHHMQQQQHQNQQQHQHQHQQQLQQQLQHTVGT PKMVPLLP IASTQIMAGNAC  
QFPQPAYPLASPQLVAPTFLPQYLTAIPMQPVIAPFPVAPVLSPLPVQSQTDMPLPDTV  
VMTPTQSQLQDQLQRKHDELQKLIILQQQNELRIVSEQLLLSRYYTLQPMMSMGFAPGNMT  
AAAVGNLGASQRGLNFTG SNAVQPQFNQYGFALNSEQMLNQQDQMMMQQQNLHTQHQ  
HNLQQQHQSLSQLQOHTQQQHQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQLQLQQQ  
NDILLREDIDDIDAFLNLSPLHSLGSQSTINFPNSSNNNNQSYNGGSNLNNGNQNNNNR  
SSNPPQNNNEDSLLSCMQMATESSPSINFHMGISDDGSETQSEDNKMMHTSGSNLVQQQQ  
QQQQQQQILQQHQQQSNSFFSSNPFLNSQNQNQNQLPNDLEILPYQMSQEQSQNLFNNSPH  
TAPGSSQ

>O08785

MVFTVSCSKMSSIVDRDDSSIFDGLVEEDDKDKAKRVSRNKSEKKRRDQFNVLIKELGSM  
LPGNARKMDKSTVLQKSIDFLRKHKETTAQSDASEIRQDWKPTFLSNEEFTQLMLEALDG  
FFLAIMTDGSIIVVSESVTSLLEHLPSDLVDQSIFNF IPEGEHSEVYKILSTHLLLESDSL

TPEYLKSKNQLEFCCHMLRGTIDPKEPSTYEVVRFIGNFKSLTSVSTSTHNGFEGTIQRT  
HRPSYEDRVCFVATVRLATPQFIKEMCTVEEPNEEFTSRHSLEWKFLFLDHRAPPIIGYL  
PFEVLGTSGYDYHYHVDLENLAKCHEHLMQYGKSKSCYRFLTKGQWIWLQTHYYITYH  
QWNSRPEFIVCTHTTVVSYAEVRAERRRELGIEESLPETAADKSQDSGSDNRINTVSLKEA  
LERFDHSPTPSASSRSSRKSSHTAVSDPSSTPTKIPDTSTPPRQHLPAHEKMTQRRSSF  
SSQSINSQSVGPSLTQPAMSAANLPIQGMSQFQFSAQLGAMQHLKDQLEQRTRMIEAN  
IHRQQEELRKIQEQQLQMVHGQGLQMFLQQSNPGLNFGSVQLSSGNSNIQQLTVPVNMQGV  
VPANQVQSGHISTGQHMIQQQLTQSTSTQSSQSSVMSGHSQQTSLPSQTPSTLTAPLYNT  
MVISQPAAGSMVQIPSSMPQNSTQSATVTTFTQDRQIRFSQGGQLVTKLVTAPVACGAVM  
VPSTMLMGQVVTAYPTFATQQQQAQTLVSVTQQQQQQQQPPQQQQQQQSSQEQLPSVQ  
QPAQAQLGQPPQQFLQTSRLLHGPNSTQLILSAAFPLQQSTFPPSHHQHQPPQQQQQLPR  
HRTDSLTDPSKVQPQ

>P09870

MLRRKVSTLLMTALITTSFLNSKPVIYANPVTKSKDNMLKEVQQVTSKSNKNKNQKVTIMY  
YCDADNNLEGSLLNDIEEMKTGYKDSPNLNLIALVDRSPRYSSDEKVLGEDFSOTRKYI  
EHNKANRLDGNKNEFPEISTTSKYEANMGDPEVLKKFIDYCKSNYEADKYVLI MANHGGGA  
REKSNPRLNRAICWDDSNLDKNGEADCLYMGEISDHLTEKQSVDLLAFDACLMGTAEVAY  
QYRPGNGGFSADTLVASSPVVWGPFGKYDKIFDRKAGGGTNNEDDLTLGGKEQNFDPAT  
ITNEQLGALFVEEQRDSTHANGRYDQHLSFYDLKKAESVKRAIDNLAVNLSNENKKSEIE  
KLRGSGIHTDLMHYFDEYSEGEWVEYPYFDVYDLCEKINKSENFSSKTKDLASNAMNKLN  
EMIVYSFGDPSNNFKEGKNGLSIFLPNGDKKYSTYYTSTKIPHWTMQSWYNSIDTVKYGL  
NPYGLKLSWCKDGDPEINKVGNWFELLDSEWFDKTDNDVTGGVNHYQW

>P0A6H1

MTDKRKDGSGKLLYCSFCGKSQHEVRKLIAGPSVYICDECVDLCNDIREEIKEVAPHRE  
RSALPTPHEIRNHLDDYVIGQEQAQKVLAVAVYNHYKRLRNGDTSNGVELGKSNILLIGP  
TGSGKTLAETLARLLDVPFTMADATTLTEAGYVGEDVENIQKLLQKCDYDVQKAQRGI  
VYIDEIDKISRKSDNPSITRDVSGEGVQQALLKLI EGTVAAVPPQGGRKHPQQEFLQVDT  
SKILFICGGAFAGLDKVISHRVETGSGIGFGATVKAKSDKASEGELLAQVEPEDLIKFGI  
IPEFIGRLPVVATLNELSEEALIQILKEPKNALTQYQALFNLEGVDLEFRDEALDAIAK  
KAMARKTGARGLRSIVEAALLDTMYDLPSMEDVEKVVIDESVIDGQSKPLLIYGKPEAQQ  
ASGE

>P6000

MKTNILVKRMAVIGLAVAAACTGAAAAAQGAVPQAQRIRVLSVAGGDAASPQAAVWKA  
PTTQVTLTAFPGHISIVGTAATQKLAAQAVRASGRLEFVRLAWSDRANTVMKDTDQFLD  
GAAVEFPVNGKVATLPMGDPVNVVNVHWRADGRTLNLAKGFGTSTPVPTEDLRSASV  
RTGDGWEVVLSRPLRVKAEEGANLQGRRTMPIGFAAWDGENQERDGLKAVTMEWWQLRF

>P10909

MMKTLTLLFVGLLLTWESGQVLGDQTVSDNELQEMSNQGSKYVNKEIQNAVNGVKQIKTLI  
EKTNEERKTLNLEEAKKKEDALNETRESETKLKELPVCNETMMALWEECKPCLKQT  
CMKFYARVCRSGSLVGRQLEEFNLQSSPFYFWMNGDRIDSLENDRQQTHMLDVMQDHF  
SRASSIIDELFQDRFFFTREPQDTYHYLPFSLPHRRPHFFFFPKSRIVRSLMPFSPYEPLNF  
HAMFQPFLEMIHEAQQAMDIHFHSPAFOHPPTEFIREGDDRTVCREIRHNSTGCLRMKD  
QCDKCREILSVDCSTNNPSQAKLRRELDSESLQVAERLTRKYNELLSYQWKMLNTSSLE  
QLNEQFNWVSRLANLTQGEDQYYLRVTTVASHTSDSDVPSGVTEVVVKLFDSDPI TVTV  
VEVSRKNPKFMETVAEKALQEYRKKHREE

>Q15021

MAPQMYEFHPLPSPEELLKSGGVNQYVVQEVLSIKHLPPQLRAFQAAFRAQGPLAMLQHF  
DTIYSILHHFRSIDPGLKEDTLEFLIKVVSRRHSQELPAILDDTTSLSGSDRNAHLNALKMN  
CYALIRLLESFETMASQTNLVDLIDLGGKGGKARTKAAHGFDWEEERQPIQLLLTQLLQLD  
IRHLWNHSIIIEEEFVSLVTGCCYRLLNPTINHQKNRPTREAITHLLGVALTRYNHMLSA  
TVKIIQMLQHFHEHLAPVLVAASLWATDYGMSIVGEIVREIGQKCPQELSRDPSGTKGF  
AAFLTELAERVPAILMSSMCILLDHLGGENYMMRNAVLAAMAEMVLQVLSGDQLEAAARD  
TRDQFLDTLQAHGHDVNSFVRSRVLQLFTRIVQQKALPLTRFQAVVALAVGRLADKSVLV  
CKNAIQLLASFLANNPFSCKLSADLAGPLQKETQKLQEMRAQRRTAAASAVLDPEEEWE  
AMLPELKSTLQQLLQLPQGEIIIPEQIANTETTEDVKGRYQLLAKASYKKAIIILTREAT  
GHFQSEPFESHIDPEESEETRLNLLGLIFKGPAASTQEKNPRESTGNMVTGQTVCKNKP  
NMSDPEESRGNDELVKQEMLVQYLQDAYSFSRKITEAIGIISKMMYENTTTTVVQEVIEFF  
VMVFQFGVPQALFGVRRMLPLIWSKEPGVREAVLNAYRQLYLNPKGDSARAKAQALIQLN  
SLLLVDASVGTIQCLEEILCEFVQKDELKPAVTQLLWERATEKVACCPLERCSSVMLLGM  
MARGKPEIVGSNLDTLVSIGLDEKFPQDYRLAQVCHAIANISDRRKPSLGRHPPFRLP  
QEHLRFERLRETVTKGFVHPDPLWIPFKEVAVTLIYQLAEGPEVICAQIILQGCAKQALEK  
LEEKRTSQEDPKESPAMLPTFLLMNLSSLAGDVALQQLVHLEQAVSGELCRRRVLREEQE  
HKTKDPKEKNTSSETTMEELGLVGATADDTEAELIRGICEMELLDGKQTLAAFVPLLLK  
VCNPNGLYSNPDLASAAASLALGKFCMISATFCDSQLRLLFTMLEKSPLPIVRSNLMVATG  
DLAIRFPNLVDPWTPHLYARLRDPAQQRKTAGLVMTHLILKDMVKVKGVSEMAVLLID  
PEPQIAALAKNFFNELSHKGNAIYNLLPDIISRLSDPELGVEEPPFHTIMKQLLSYITKD  
KQTESLVEKLCQRFRTSRTERQQRDLAYCVSQQPLTERGLRKMLDNFDCFQDKLSDESIF  
SAFLSVVGKLRGAKPEGKAIIDEFEQKLRACHTRGLDGIKELEIGQAGSQRAPSAKKPS  
SGSRYQPLASTASDNDFVTPEPRRTTRRHNPNTQQRASKKKPKVVFSSDESSEEDLSAEMT  
EDETPKKTTPIILRASARRHS

>O94679

MSLDLLSRLKKYIHDEENSDDLDSIYAECENAGLTAVVNDVIDTLLLGTSSCFDEDCLEKL  
FAICSHFADLSSSVRNKVYDLLTSNISSESAILEDMISANATDF'TVPQTNLETTGIAFQL  
TVNSLSSSNQLSVIRSSNTNVKGRKKNPTTNSNWNIGISHVNALLDAIITLQKQLSRVWT  
TSSERDMFLSLFLKPIYTLMESEINIKNASFRSRLFNIIGLAVQFHNHTTAAETNIIQNL  
QYFEHLSEYAADLVHIVTVQFNSVTLAEGIIRTLCSLEFNDNDVKGPKQVALFLVRLSSL  
IPNLCLKQLTQLVKLLDSESYTLRCAIIEVLANVVIDQIHDEAQNEMSESVPATVQSLMD  
LLSERLLDISPYCRTKVLHVFIKIFDLPKIKYPRKRQEI AELVIRCLQDRSSHVRRNAIKL  
FSKLLTTHPFVSMHNGLLTRNIWEKGLSIIIEEQLNSLQPKQEKVVDSELEVDENLLEDA  
TMIQDDESHEGESHLENSLSEYVDSVPAEEIVKVNLTKRFYLEALQYIDIVEAGAKIISQ  
LLFAKNKSEVIESMDFVFCNSFGISSSKLYIKKMIHLIWKGTSDGNNIQNHVLSYK  
TLFFEPNPGTNEAANYIARNLISLTYDASLAELETSLQMLCILMKDGYFSHLVITKLW  
QVYSYQKKDISRTQRRGSIIVIGMLALGNTDVVMQGLDHLIQIGLPPGLEDLVLARYTC  
IAIKRIGKDASGSSNINFNSHTLCQKLCMLLLRPSFSEEWFGLEEQAIEAIYAVAKHPD  
ELCTNIIILLTKQLFKPSNHENTTSNDHAMDEDLDDSPPEETLKDEEEIGIRLAHLIFL  
VGHVAIKQLVYIEYCEAEFKRRKADAERLAVQNSNPNINGQETSEYDLITGTSEDDFSEA  
MTFIRERELLYGENSLLSRFAPLVVELCSNHKSHNNQSLLLAASLTLKFMCLSNFNCME  
HLPLLITILEKCDNPIIRNNLVIGLADLTVCFNHFIDEISEYLYRRLMDEESSVKKTCFM  
TLAFLILAGQIKVKQGLGIMARSLEDEDARISDLARMFF'TDFAAKDNSVYNNFIDIFSVL  
SRSAEEQDEDDAKFKRIIRFLTSTFIEKERHTKQLAERLAARLDRCCKTQRQWDHVYALS  
LPHKADNIQKLIDDGHE

>Q9YHY6

MTFHFHIPLAFRDLLKSGGIGQYVVQEVLPVRHVDAQFAAFQTSFRTEAPLCILQHFDTL

YSILHHFRSLDIAIKEDVLEVMVKVASRHANELPAILEDLNLVSPQRAAHLNALKMNCFI  
LTQLIEAFEAEITYKASLGSVEPSGKGGKAKSKPEGFSWESERESILQALTHLLQLDIRRL  
WSMSVVEEEFVSMMTSCCYKMMENPNIVMAKNKSTREALGHLLGVTVKRYNHMLSASVKV  
IQLLQHFHEHLASVLVHTVSLWATEYGMKPVIGEIMREIGQKCSQDLSRESSGFKAFATFL  
TELAERIPAIMMPSISVLLDYLDGENYMMRNSVLTVMGEMVVRVLSGDQLEEEAEKSSRDQ  
FLDTLQEHLDVNTYVRSVCVIQIYNRIVQEKALPLSRFQSVVTLVVGRVLDKSVNVCKNA  
IQLLASFLANNPFTCKLSSVDLKVPLEKETKKLKEKREKYQGPKPVVVISPEEEWEAMPLP  
EVLEAFKILQQESKEEEDIETEEIESSQHLREQILILLRKTSTYKNSIRLTQKGIERFQED  
PLFSEGDSSEAKSELGILEKIFTEKKADLEQPTTKDQDDAQVNPTSEELPSQEVQNSDMDK  
QEMLVQYLSDAHNFALKIEEAIDVISKMMYETAVSVVQEVIEFFVTVSQFGVSQALLGVR  
RMLPLVWSKEPGVREAVLSAYRRLYLSSNGESERVKAQALVRSLSLLMVDSSAGILQCLE  
EIVSEFVQKGDIIHPSVIQLLWEKFTQKSPCSEFERRAAVMLLGMTRGQPEIVMSNLDTL  
VSVGLGEQVQKDYQLAREVCNCILKITDSQKQTLGKSTEPFRLPKDHSLFVCLTEAVAGG  
IGLSGLHWLPHFKETAVRLVYELGEEPEEIECSEILLRCSQNVLDGHQTQDEVPNVPAFLLT  
HLLSLAGDVALQQVVHLERAVSAELRRRRVLKEEQEAEKVKGQRKSKANESTMEEELGLV  
GASADDIEAELIRKICDTELLGGQQYLSAFLPLILRICNPNPGRYSDPDLCTVATLALAKY  
MMISSDFCDTHLRLLFTLLEKSPLPSVRSNIMIALGDLIRFPNLI EPWTPNLYARLRDP  
SREVRKTAGMVMTHLILKDMVKVKQGVSEMAVLLIESDQEISALARNFFNELSNKGNVY  
NLLPDIISRLSDPDCGVEEEAFRTIMKQLLSYITKDKQTESLVEKMCHRFRRTARTERQWR  
DLAHCLSLLPFSEKGLRKMQDCFCYGDKLSDEAVYNSFLTTVAKMRRGAKPELKALIDE  
FEQKLSRCHNKLENMDVPEEPSAESDAQPPKAKRPPPLASVNVKKGKSEDDFQTPKPPAS  
RKSRRKVAVNFSSEESDLEAELSEAETPKNPTPIRRRTARSRAK

>Q15003

MGPPGPALPATMNNSSSETRGPHSASSPSEVFPMPPLPRKAPLNI PGTPVLEDFPQND  
EKERLQRRRSRVFDLQFSTDSRLLASPSRSIDISATIPKFTNTQITEHYSTCIKLSTE  
NKITTKNAFGLHLIDFMSEILKQKDTEPTNFKVAAGTLDASTKIYAVRVDVHADVYRVL  
GGLGKDAPSLEEVEGHVADGSATEMGTTKKAVKPKKKHLHRTIEQNINNLNVSEADRKCE  
IDPMFQKTAASFDECESTAGVFLSTLHCQDYRSELLFP SDVQTLSTGEPLELPELGCVEMT  
DLKAPLQQCAEDRQICPSLAGFQFTQWDSETHNESVSALVDKFKKNDQVFDINAEVDES  
CGDFPDGSLGDDFDANDEPDHTAVGDHEEFRSWKEPCQVQSCQEEMISLGDGDIRTMCPL  
LSMKPGEYSYFSPRTMSMWAGPDHWRFRPRRKQDAPSQSENKKKSTKKDFEIDFEDDIDF  
DVYFRKTKAATILTKSTLENQNRATTLPTDFNYNVDTLVQLHLKPGTRLLKMAQGHRVE  
TEHYEEIEDYDYNPNNDTSNFCPGLQAADSDDDLDDLFVGPVGNLSDLSYPCHPPKTAQ  
QNGDTPAQGLDITTYGESNLVAEPQKVNKIEIHYAKTAKKMDMKLQSMWSLLTALSG  
KEADAEANHREAGKEAALAEVADEKMLSGLTKDLQRSLPPVMAQNLSIPLAFACLLHLAN  
EKNLKLLEGTELDSDVLVRQGD

>Q9Y7R3

MKRASLGGHAPVSLPSLNDDALEKKRAKENSARKQRELRRSSALHSITPRRESLNSSP  
SSHQVPVLSNFEWIKLATDNKINSTNTWNFALIDYFHDMSLLRDGEDINFQKASCTLDG  
CVKIYTSRIDS VATETGKLLSGLANDSKVLQQTEEGEDAENDEDLQKKKERKRAQRSVK  
TLVKDFESIRAKKFELECSFDPLFKKMCADFEDEGAKGLLMNHL CVDQHGRIVFDSSTV  
IKDLENKDVEAESQEA VVAAPIESHDTEMTNVHDNISRETLNGIYKCYFTDIDQLTICPS  
LQGFEDSKGNLDVSLKLSLSEVNMIITTTSLVDNTMEKTDADAASLSSSDSDGEEGHIVH  
ALEEMAYDEENPYVDVVPKAMDESENPDFGVDTEVNMADGSTMNENYSIISTAAANGVYE  
YFDKSMKKNWAGPEHWRIQALRKNINNASTVFNSNTAESSDNVSRSLSTERKKRELD  
NAIDFLQEV DVEALFTPATSSKLPKSHWRHNRCLLPDDYQYDSKRLQLFLKPKMSVL  
PNADGEGQLQLNKALDDENDLDGIQPHGFSDGSDNVDEGIPPYGFSDSDSPKQTPLLTP  
PSSSGFDNLLLTARLAKPDMLNYAKRAKKVDVRVLKEKLVKCLDLENTIKENSINSHIE

GSEMESEETNMPVKSFFSTVNQLEETYEKKELKDI STSFAFICVLHLANEHNLELTSNED  
FSDVFIIRPGPNLTTLEALENDV

>O13067

MSTSTPQSGGRRKPEPDSAF LSPATRPQPI SAAATPTLLNF TSNDDERERKLRMSRVI  
DLQLSNANSPATAISPAQSRGADTPTSLLPKLNNTQISDHYSTC IKLSQENKITTKNAFG  
LHLIDYMGDILKHKDSEL TNFKVAAGTLDASAKIYAVRVD AVHADVYKVLGGLGKESQAT  
EDTENQETDTGPDGRKNPKRRKCSYKTIERNLNSINRSETERKSEIDPLFQKAAASFDE  
FSTAGVFLSTLKCHSYHSELHFDADV KPLSTAEETEPPSPGSMDS TELKSLFLQCV EKR  
LCPSLSGFRFMQWNSDAQNENLSLLMDKFKKSDHVFDINA EVEDDFVESEAPVADEFDAD  
VCEGMDAGDIGEFAEHREACRLERKGAQLTQIGNGDI GTMCLQLSSCPGEYSYFSPRTMS  
MWAGPEHWRFRPRQKASTDSDQQRVKKAKKVFELNFEDDIDFEVHFRKTRAA TLTSTL  
ESQNKKSTTL PADFHYPDNIA RMLRPKDRIRKTTVQESVSEPEDDIGDYDYNPN DTS  
NFCPALQAADSDDDDGAF LGPESNSAGFSAENQM NITSYGESNLVAGQKVNKIEIQYAKT  
AKKMDMKRLKSSMWSLLANCPESQEEMPS SKEEIDAALITDEQVFS SVTHGLQKRLPPVM  
AQNLSVPLAFACLLHLANEKNLKLQGMDDLSDVMIMQDD

>Q86XI2

MEKRETFVQAVSKELVGEFLQFVQLDKEASDPFSLNELLDEL SRKQKEELWQRLKNLLTD  
VLLESPVDGWQVVEAQGEDN METEHGSKMRKSI EIIYAITSVILASVSVINESENYEALL  
ECVILNGILYALPESERKLQSSI QDLCVTWWEKGLPAKEDTGKTAFVMLLRRSLETKTG  
ADVCRWLRIHQALYCFDYDLEESGEIKDMLLECFININYIKKEEGRRFLSCLFNWNINFI  
KMIHGTIKNQ LQGLQKSLMVYIAE IYFRAWKASGKILEAIENDCIQDFMFHGIHLPRRS  
PVHSKVREVL SYFHHQKKVRQGEEMLYRLYKPILWRGLKARNSEVRSNAALLFVEAFPI  
RDPNLHAIEMDSEIQKQFEELYSLLED PYPMVRSTGILGVCKITSKYWEMMPPTILIDL L  
KKVTGELAFDTSSADVRC SVFKCLPMILDNKL SHPLLEQLLPALRYSLHDNSEKVRVAFV  
DMLLKIKAVRAAKFWKICPMEHILVRLETDSRPVSRRLVSLIFNSFLPVNQPEEWCERC  
VTLVQMNHAAARRFYQYAHEHTACTNIAKLIHVIRHCLNACIQRAVREPPED EEEEEEDGRE  
KENVTVLDKTL SVNDVACMAGLLEIIVILWKSIDRSMENNKEAKLYTINKFASVLP EYLK  
VFKDDRCKIPLFMLS FMPASAVPPFSCGVISTLRSREEGAVDKSYCTLLDCLCSWGQVG  
HILELVDNWLPT EHAQAKSNTASKGRVQIHDTRPVKPELALVYIEYLLTHPKNRECLLSA  
PRKKNLHLLKALET SKADLESLLQTPGGKPRGFSEAAAPRAFGLHCRLS IHLQHKFCSEG  
KVYLSMLEDTGFWLESKILSFIQDQEEDYLKLRVIYQQIIQTYLTVCKDVVMVGLGDHQ  
FQMQLLQ RSLGIMQTVKGFYVSLLLDILKEITGSSLIQKTDSD EEVAMLLDTVQKVFQK  
MLECIARSFRKQPEEGLRLLYSVQRPLHEFITAVQSRHTDTPVHRGVLSTLIAGPVVEIS  
HQLRKVSDVEELTPPEHLSDLPPFSRCLIGI I IKSSNVRSFLDELKACVASNDIEGIVC  
LTAAVHIILVINAGKHKSSKVRVAATVHRKLT FMEITLEEDS IERFLYESSR TLGEL  
LNS

>Q6IBW4

MEDVEARFAHLLQPI RDLTKNWEVDVAAQLGEYLEELDQICISFDEGKTTMNFIEAALLI  
QGSACVYSKKVEYL YSLVYQALDFISGKRRAKQLSSVQEDRANGVASSGVPQEAENEFLS  
LDDFPDSRTNVDLKN DQTPSEVLI I PLLPMALVAPDEMEKNNNPLYSRQGEVLASRKDFR  
MNTCVPHPRGAFMLEPEGMSPEPAGVSPMPGTQKDTGRTEE QPMEVSVCRSPVPALGFS  
QEPGPSPEGPMLGGGEDEDAEEAVELPEASAPKAALEPKESRSPQQAALPRRYMLRER  
EGAPEPASCVKETPDWPQSLDPFDSLESKPFKKGRPYSVPPC VEEALGQKRKRKGAAKLQ  
DFHQWYLAAYADHADRRLRRKGPSFADMEVLYWTHVKEQLETLRKLQRREVAEQWLRPA  
EEDHLED SLEDLGAADD FLEPEEYMEPEGADPREAADLDAVPMSLSYEELVRRNVELFIA  
TSQKFVQETELSQIRDWEDTVQPLLQEQEQHVFPDIHTYGDQLVSRFPQLNEWCPFAEL  
VAGQPAFEVCRSMLASLQLANDYTVEITQQPGLEMAVD TMSLRLLTHQRAHKRFQTYAAP

SMAQP

>Q641G4

MDDAESRFTHLLQPVRDLTKNWEVDVAAQLGEYLEELDQICISFDGGKTTMNF AE AALLI  
QGSACIYSKKVEYLISLVYQALDFISNKKRVQQPTSVGADGEDKDATFAHRNDEEEFLSL  
DDIDSKKTNVDLKKDHILNVVNIPLTPMALVPP E E V E K K N N P L C S R K G E V L A S R K D F R M  
NTCTPHPSGAFMLELVGKSPMQFLKHIHQHEEVSLTQGEQNAIPEGENDNMESEKSDCAD  
PVQVLQFSDEGAPAVENGDTGFLPLDDHDEAGDGEVEQAHEIERRKMQIDERGYILRDR  
VAEQKPTPAIKNETPDPWCVLDPFESCEEKPFKKGKHYYTLPRGIAEDLSSNKRKRKL PCK  
LQDFMKWFSSTHWDGSEAMKSRKRGPTFADMEVLYWKHIKERMTAQRQLHRRMGAQFVKE  
VTLNNEEEELVDPLEPRDADCLEYDGPADDASDNEDLGENVPACLREEPALGDIEPVTL  
QDQLSYEELVRRNVDLFIANSQKYAQETVLSLRVREWEDKMGFQLQE QEEHSAFDIHDYG  
DRLTAQYSRVGEWHTFASLMADKEPYEVCRYMLASLQLANDYTVEVSQK PGLHEGLDTMA  
LRLLSQORAHERFKTYTAPSISQQ

>P26992

MAAPVPWACCAVLA AAAA VVYAQRHSPQEAPHVQYERLGS DVTLP CGTANWDAAVTWRVN  
GTDLAPDLLNGSQLVLHGLELGHSGLYACFHRDSWHLRHQVLLHVGLPPREPVLSCRSNT  
YPKGFYCSWHLPTPTYIPNTFNVTVLHGSKIMVCEKDPALKNRCHIRYMHLFSTIKYKVS  
ISVSNALGHNATAITFDEFTIVKPDPPENVVARPVPSNPRRLEVTWQTPSTWDPDESFP L  
KFFLRYPRLILDQWQHVELSDGTAHTITDAYAGKEYIIQVAAKDNEIGTWS DWSVA AHAT  
PWTEEPRLHTTEAQA A E T T T T S T T S S L A P P P T T K I C D P G E L G S G G P S A P F L V S V P I T L A L  
AAAAATASSLLI

>P01024

MGPTSGPSLLLLLTHLPLALGSPMYSIITPNILRLESEETMVLEAHDAQGDVPVTVTVH  
DFPGKKLVLSSSEKTVLTPATNHMGNVFTTIPANREFKSEKGRNKFVTVQATFGTQVVEKV  
VLVSLQSGYLFIQTDKTIYTPGSTVLYRIFTVNHKLLPVGRTVMVNIENPEGIPVKQDSL  
SSQNQLGVLP LSWDIPELVNMGQWKIRAYYENSPQQVFSTEFEVKEYVLP SFEVIVEPTE  
KFYYIYNEKLEVTITARFLYGGKVEGTAFVIFGIQDGEQRISLPE SLKRIP IEDGSGEV  
VLSRKVLLDGVQNPRAEDLVGKSLYVSATVILHSGSDMVQAERSGIPIVTSPYQIHFTKT  
PKYFKPGMPFDLMVFVTNPDGSPAYRVPVAVQGEDTVQSLTQGDGVAKLSINTHPSQKPL  
SITVRTKKQELSEAEQATR TMQALPYSTVGNSNMYLHLSVLRTEL RPGETLNVN FLLRMD  
RAHEAKIRYYTYLIMNKGRLLKAGRQVREPGQDLVVLPLSITTD FIP SFRLVAYYTLIGA  
SGQREVVADSVWVDVKDSCVGLSVVKSQSEDRQVPVPGQMTLKI EGDHGARVVLVAVDK  
GVFVNLKKNKLTQSKIWDVVEKADIGCTPGSGKDYAGVFS D A G L T F T S S S G Q Q T A Q R A E L  
QCPQPAARRRRSVQLTEKRMDKVGKYPKELRKCCEDGMRENPMRFSCQRRTRFISLGEAC  
KKVFLDCCNYITELRRQHARASHLGLARSNLDEDIAEENIVSRSEFPESWLWNVEDLKE  
PPKNGISTKLMNIFLKDSITTWEILAVSMSDKKGCVADPF E V T V M Q D F F I D L R L P Y S V V  
RNEQVEIRAVLYNYRQNQELKVRVELLHNP AFCSLATTKR RHQQTVTI PPKSSLSVPYVI  
VPLKTGLQEVEVKA AVYHHFISDGVRKSLKVVPEGIRMNKTVAVRTLDPERLGREGVQKE  
DIPPADLS DQVPDTESETRILLQGT PVAQMTEDA VDAERL KHLIVTPSGCGEQNMIGMTP  
TVIAVHYLDETEQWEKFGLEKRQGALELIKKGYTQQLAFRQPSSAFAAFVKRAPSTWLTA  
YVVKVFLAVNLI A I D S Q V L C G A V K W L I L E K Q K P D G V F Q E D A P V I H Q E M I G G L R N N N E K D  
MALTAFLVLI SLQEAKDICEEQVNSLPGSITKAGDFLEANYMNLQRSYTVAIAGYAL AQMG  
RLKGPLLNKFLTAKDKNRWEDPGKQLYNVEATS YALLALLQLKDFDFVPPVVRWLNEQR  
YGGGYGSTQATFMVFQALAQYQKDAPDHQELNLDVSLQLPSRSSKITHRIHWESASLLR  
SEETKENEGFTVTAEGKGQGTLSVVTMYHAKAKDQLTCNKFDLKVTIKPAPETEKRPQDA  
KNTMILEICTRYRGDQDATMSILDISMMTGFAPD TDDLKQLANGVDRYISKYELDKAFSD  
RNTLIIYLDKVSHEDDCLAFKVHQYFNVELIQPGAVKVYAYYNLEESCTRFYHPEKEDG



KLNKLCRDELRCRAEENCFIQKSDDKVTLEERLDKACEPGVDYVYKTRLVKVQLSNDFDE  
YIMAIEQTIKSGSDEVQVQQRTFISPIKCREALKLEEKKHLYLMWGLSSDFWGEKPNLSY  
IIGKDTWVEHWPEEDECQDEENQKQCQDLGAFTESMVVFGCPN

>Q91132

MERMALYLVAALLIGFPGSSHGALYTLITPAVLRDTEEQILVEAHGDSTPKQLDIFVHD  
FPRKQKTLFQTRVDMNPAGGMLVTPTIEIPAKEVSTDSRQNYVVVQVTGPQVRLEKVV  
LSYQSSFLFIQTDKGIYTPGSPVLYRVFSMDHNTSKMNKTVIVEFQTPGILVSSNSVDL  
NFFWPYNLPDLVSLGTWRIVAKYEHSPENYAYFVDRKYVLPSPFEVRLQPSEKFFYIDGN  
ENFHVSITARYLYGEEVEGVAFVLFVGVKIDDAKKSIPDSLTRIPIDGDGKATLKRDTFR  
SRFPNLNELVGHNTLYASVTVMTESGSDMVVTEQSGIHIIVASPYQIHFTKTPKYFKPGMPY  
ELTVYVTNPDGSPAHPVPPVSEAFHSMGTTLSDGTAKLILNIPLNAQSLPITVTRTNHGDL  
PRERQATKSMTAIAYQTQGGSGNYLHVAITSTEIKPGDNLVNFVKNANSKQIKYFT  
YLILNKGKIFKVGRQPRRDGQNLVTMNLHITPDLIPSFVAVYVQVGNNEIVADSVWVDV  
KDTMGTLLVVKGDNLIQMPGAAMKIKLEGDPGARVGLVAVDKAVYVLDNKYKISQAKIWD  
TIEKSDFGCTAGSGQNNLGVFEDAGLALTTSTNLNTKQRSAAKCPQANRRRRSSVLLLL  
SNASKAAEFQDQDLRKCCEVDMHENPMGYTCEKRAKIQEGDACKAAFLCCECRYIKGVRD  
ENQRESELFLARDDNEDGFIADSDIISRSDFPKSWLWLTCKDLTEEPNSQGISSKTMSTFY  
RDSITTWVVLAVSFTPTKGCVAEPYEIRVMKVFFIDLQMPYSVVKNEQVEIRAILHNYV  
NEDIYVRVELLYNPAFCSASTKGQRYRQQFPKALSRAVPFVIVPLEQGLHDVEIKASV  
QEALWSDGVRKLLKVVPEGVQKSIIVTKLDPRAKGVGGTQLEVIKARKLDDRVPDTEIE  
TKIIIQGDPVAQIIENSIDGSKLNHLIITPSGCGEQNMIRMAAPVIATYYLDTTEQWETL  
GINRRTAVNQIVTGYAQMVYKADHSYAAFTNRASSSWLTAYVVKVFAMAAMVAGIS  
HEIICGGVRWLIILNRQQPDGAFKENAPVLSGTMQGGIQGAEVEVYLTAFILVALLESKTI  
CNDYVNSLDSSIKKATNYLLKKEYEKLQRPYTTALTAYALAAADQLNDDRVLMAASTGRDH  
WEEYNAHTHNIEGTSYALLALLKMKKFDQTPGIVRWLTDQNFYGETYGGTQATVMAFQAL  
AEYEIQMPHKLNDLITIELPDREVPYRIRYRINYENALLARTVETKLNQDITVTASGDGK  
ATMTILTFYNAQLQEKANVCNKFHLNVSVENIHLNAMGAKGALMLKICTRYLGEVDSTMT  
IIDISMLTGFLPDAEDLTRLKSGVDYRYSRYEVDNMAQKVAVIYLNKVSHEDECLHF  
KILKHFEVGFIQPGSVKVVSYNLDKCKTFYHPDKGTGLLNKICIGNVCRCAGETCSSL  
NHQERIDVPLQIEKACETNVDYVYKTKLLRIEEQDGNDIYVMDVLEVIKQGTDENPRAKT  
HQYISQRKQREALNLKVNDDYLIWGSRSDDLPTKDKISYIITKNTWIERWPHEDCQEEE  
FQKLCDDFAQFSYTLTEFGCPT

>P29933

MMSKIDLDISNLPDTTISVREVFVGDITDLRVPAYSKGDAYVPDLDPDYLFDRETTLAILA  
GFAHNRRVMVSGYHGTGKSTHIEQVAARLNWPCVRVNLDSHVSRLDLVGDVAIVVKDGLQ  
VTEFKDGILPWAYQHNVALVFDEYDAGRDPVMFVIQRVLESSGRLTLLDQSRVIRPHPAF  
RLFATANTVGLGDTTGLYHGTQQINQAQMDRWSIVTTLNLYLPHDKVVDIVAANKVGFAD  
KGRETVSKMVRVADLTRAFFINGDLSTVMSPRTVITWAENAHIFGDIAFVFRVTFLNKCD  
ELERALVAEHYQRAFGEIELKECAANIVLEATA

>P29934

MSSNSKAKPTTRENAAEPFKRALSGCIRSIAAGDAEVEVAFANERPGMTGERIRLPELSKR  
PTLQELAVTRGLGDSMALRKACTHARIQRTMSPQGADARAIFDAVEQARVEAIGSLRMAG  
VAKNLNVMLEEKYAKANFATIERQADAPLGEAVALLVREKLTGQKPPASAGKVLDLWREF  
IEGKAAGDIEHLSSTINNQAFAFARVVRDMLTSMEVAEKYGDNDNEPDEQESETDEDQPRS  
QEQDENASDEEAGDDAAPADENQAAEEQMEEGEMDGAEISDDDLQDEGDEDESETPGEVKR  
PNQPFADFNEKVYAVFTREFDETIASEELCDEAELDRLRAFLDKQLAHLQGAVGRLANR  
LQRRLMAQQNRSWEFDLEEGYLDARSARLQRIIDPMQPLSFKREKDTNFRDTRVVTLLIDNS

GSMRGRPITVAATCADILARTLERCGVKVEILGFTTKAWKGGQSREKWLGGKPPQAPGRL  
NDLRHIVYKSADAPWRRARRNLGLMMREGLLENIDGALWAHERLMARREQRRILMMI  
SDGAPVDDSTLSVNPNGNYLERHLRAVIEQIETRSPVELLAIGIGHDVTRYRRAVTIVDA  
DELAGAMTEQLAALFEDESQRRGSSRLRRAG

>P98005

MAITAKPKAGVWAVLWDLTTVDHKKIGLMTATATAFFAFALAGVFSLLIRTQLAVPNNQF  
LTGEQYNQILTLHGATMLFFFI IQAGLTGFNFVPLMLGARDVALPRVNAFSYWAFLGA  
IVLALMSYFFPPGAPSVGWTFYYPFSAQSESGVDFYLAAILLLGFSSLLGNANFVATIYN  
LRAQGMSLWKMPIYVWSVFAASVLNLFSLAGLTAATLLVLLERKIGLSWFNPAVGGDPVL  
FQQFFWFYSHPTVYVMLLPYLGILAEVASTFARKPLFGYRQMVAQMGIVVLGTMVWAHH  
MFTVGESTLQIAFAFFTALIAVPTGVKLFNIIGTLWGGKLMKTPLYWVLGFI FNFLG  
GITGVMLSMTPLDYQFHDSYFVVAHFHNVL MAGSGFGAFAGLYYWWPKMTGRMYDERLGR  
LHFWLFLVGYLLTFLPQYALGYLGMPRRYYTYNADIAGWPELNLLSTIGAYILGLGGLVW  
IYTMWKSLSRSGPKAPDNPWGGYTLEWLTASPPKAHNFVVKLPTEFFPSEPLYDWKKKQVE  
LKPEDPAHIHLNSSFWPFYSAATLFAFFVAVAALPVPNVMMWVFLALFAYGLVRWALED  
EYSHPVEHHTVTGKSNAMGMAWFIVSEVGLFAILIAGYLYLRLSGAATPPEERPALWLA  
LLNTFLLVSSSFTVHFAHDLRRGRFNPFRLFLLVTIILGVLFLLVQSWEFYQFYHHSW  
QENLWTAAFFTIVGLHGLHVVIIGFGLILAYLQALRGKITLHNHGTLEAASMYWHLVDAV  
WLIVITIFYVW

>Q9HC73

MGRVLVLLWGA AVFLGGWALGQGGAAEGVQIQI IYFNLETVQVTWNASKYSRTNLT FHY  
RFNGDEAYDQCTNYLLQEGHTSGCLLD AEQRDDILYFSIRNGTHPVFTASRWMVYYLKPS  
SPKHVRF SWHQDAVTVTCSDLSYGDLLYEVQYRSPFDTEWQSKQENTCNVTIEGLDAEK  
YSFWVRVKAMEDVYGPDTYPSDWSEVTCWQRGEIRDACAETPTPPKPKLSKFILISSLAI  
LLMVSLLLLSLWKLWRVKKFLIPSVDPKSI FPGLF EIHQGNFQEWITDTONVAHLHKMA  
GAEQESGPEEPLVVQLAKTEAESRMLDPQTEEKEASGGSLQLPHQPLQGGDVVTIGGFT  
FVMNDRSYVAL

>Q8CII9

MAWALAVILLPRLLA AAAAAAAVTSRGDVTVVCHDLETVEVTWGS GPDHGHANLSLEFRY  
GTGALQPCPRYFLSGAGVTSGCILPAARAGLLELALRDGGGAMVFKARQRASAWLKPRPP  
WNVTL LWTDPGDVTVSWPAHSYLG LDYEVQHRESNDD EDAWQTTSGPCCDLTVGG LDPAR  
CYDFRVRASPRAAHYGLEAQPSEWTA VTRL SGAASAASCTASPAPSPALAPPLLPLGCGL  
AALLTSLLLAALRLRRVKDALLPCVPDP SSGSF PGLFEKHHGNFQAWIADAQATAPPART  
EEEDDLIHPKAKRVEPEDGTS LCTVPRPPSFEPRGPGGGAMVSVGGATFMVGD SGYMTL

>Q8R4S8

MRAVTWAI VAMLLPRVLGAIPTRTPRTGGVGD TLSVAIVCHDLESVEVTWGP GSAHHGLS  
ANLSLEFRYGNQVPQPCPHYFLLD SVRAGCVLPMGKGLLEVVLREGGAKLFSRKKKASA  
WLRPRPPWNVTL SWVGD TVAVSCPSH SYPGLE YEVQHRDDFDPEWQSTSAPFCNLT VGG  
DPGRCYDFRVRATPQDFY YGPEARPSKWTG VASLQGVGPTGSCTGPTLPRTPGTPPPLA  
LACGLAVALLTLVLLLALLRMRRVKEALLPGVPDPRGSFPGLFEKHHGNFQAWIADSQAA  
VPTVPEQDKDDD VIRPQTKGVETQEDDDVIAPGSPCLGGGALMSVGGASFIMGDSGYTTL

>Q8TG12

MSSSSGV PESWIASFC SLLGHEYFAEVSEEFIEDDFNL TGLQTQVAMYKEALEMILDVEP  
EDDDDEEEDEEDEDMSGGDGINKPHGERRHHSRIASDLSVIESSAEMLYGLIHQRFC  
SRAGIQQMSEKYELGHFGICPR TNCNQTRTLPVGLSDTPGEDTVKLF CPCSCLDVYVPPNS

RFQTVDGAAFFGRTFGALFLMTFPEYDLTKTGAESVSNLTRSGSDDTTVINGMYARNIAPG  
LGRGKIYQPKIYGFVKVSEIARSQPRMQWLRSKPDDL SVLDEARRYAEQQGSDDDEDESMGV  
SSRTASRRRGPPRRQKQNGSPMAIEQNGAESEL

>Q8TG11

MDDFVSESESDYASYWRDWFISSRGNEYFCEIDEDYITDRFNLTGLNTEVQYYQYALDLI  
TDVFDLDCDDDMRETI EK SARHLYGLVHARYIVTTRGLQKMF EKYKKADFGKCPVMCSS  
HPLLPMGLSDVPNSKPVKLYCARCEDIYNPKSSRHAAIDGAYFGT SFHNIF FQVYPTLVP  
AKSVERYIPRCYGFKVHAAAALVRWQNSQRDEMRRLRKL E VESGFKDAEAELEDDDE  
EEEEEEEEEEELAA MDEAEGAQQQHAAAAAGTATGGVAAGGEGVH

>O61734

MEVQEFCE NMEIEEDENYDEEK SARTSDENRQNHSEIEKRRRDKMNTYINELSSMIPMC  
FAMQRKLDKLT VLRMAVQH LRGIRGSGSLHPFN GSDYRPSFLSDQELKMIILQASEGFLF  
VVGCDRGRILYVSDSVSVL NSTQADLLGQSWFDV LHPKDIGKVKEQLSSLEQCPRERLI  
DAKTMLPVKTDV PQSLCRLCPGARRSFFCRMKLR TASNQIKEESDTSSSSRSSTKRKSR  
LTTGHKYRVIQCTGYLKS WTP IKDEDQDADSDEQT NLSCLVAIGRIPPVNRNSTVPASL  
DNHPNIRHVLFI SRHSGEKFLFIDQRATLVIGFLPQEILGTSFY EYFHNE DIAALMESH  
KMVMQVPEKVT TQVYRFRCKDNSYIQLQSEWRAFKNPWTSEIDYIIAKNSVFL

>Q09049

MISESVVDL SRLQFAMTALYHFLFVPLTLGMTFLLA IMESVYVMTGKQVYKDMVKFWGKL  
FGINFALGVTTGITMEFQFGTNWAYYSHYVGDIFGAPLAIEGLT AFFLESTFIGMFFFGW  
DRLSKIQH LAVTWLVALGSNLSALWILVANGWMQH PVGAEFNFETMRMELVDFGALLLNP  
VAQVKFVHTV ASGYVTGAVFVLAISSYLLK KRDLGFARRSFAIASAFGMASILSVIVLG  
DESGYEVGEVQAKLAAIEAEWETHPAPASFTLIGFPNEEEQRTDFAVKIPWVLGI IATR  
SLDEQVIGIKDLIADHEARIRNGMVRYGLLEELRAGNKSPEKIAAFNEVKDDLGYGLLLK  
KYTPNVVDASEEQIKQA AKDTIPSVASMFWSFRAMV GAGFAMLILFVCAF WASARKNEES  
KPWLLKFALYSLPLPW IATQTGWVFAEHGRQPWTIGGVLP THLSASSLSTGDLWGS LIAL  
IAFYTL LLLVEMYL MIRFARLGPSSLHTGRYHFEQLEQH AVKHASPSQADPQQPVNA

>P0ABK2

MIDYEV LRFIWWLLVGVLLIGFAVTDGFDMGV GMLTRFLGRNDTERRIMINSIAPHWDGN  
QVWLITAGGALFAAWPMVYAAAFSGFYVAMILV LASLFFRPVGF DYRSKIEETRWRNMWD  
WGIFIGSFV PPLVIGVAFGNLLQGVPFNVDEYLR LLYTGNFFQLLNPFGLLAGVVSVMGI  
ITQGATY LQMRTV GELHLRTRATAQVAALVTLVCFALAGVWVMYGIDGYVVKSTMDHYAA  
SNPLNKEVVREAGAWLVNFNNTPI LWAI PALGVVLP LLTILTARMDKAAWAFV FSSLTLA  
CII LTAGIAMFPFVMPSS TMMNASLTMWDATSSQLTLNVM TWAVVLPV IILLYTAWCYW  
KMFGRITKEDIERNTHSLY

>P0ABJ1

MRLRKY NKS LGWLSL FAGTVLLSGCNSALLDPKGQIGLEQRSLILTAFGLMLIVVIPAIL  
MAVGFAWKYRASNKDAKYS PNWSH SNKVEAVVWTVPILIIIFLAVL TWKTTHALEPSKPL  
AHDEKPITIEVVSMDWKWFFIYPEQGIATVNEIAFPANTPVYFKVTSNSVMNSFFIPRLG  
SQIYAMAGMQTRLHLIANEPGT YDGISASYS GPFGSGMKFKA IATPDRAAFDQWVAKAKQ  
SPNTMSDMAAFEKLAAPSEYNQVEYFSNVK PDLFADVINKFMAHGK SMDMTQPEGEHSAH  
EGMEGMDMSHAESAH

>P0ABJ3

MATDTLTHATAHAHEHGHHDAGGTKIFGFWIY LMSDCILFSILFATYAVLVNGTAGGPTG

KDIFELPFVLVETFLLLFSSITYGMAAIAMYKNNKSQVISWLALTWLFGAGFIGMEIYEF  
HHLIVNGMGPDRSGFLSAFFALVGTHGLHVTSGLIWMVAVLMVQIARRGLTSTNRTRIMCL  
SLFWHFLDVVWICVFTVVYLMGAM

>P0ABJ6

MSHSTDHSGASHGSVKTYMTGFILSIIILTVIPFWMVMTGAASPAVILGTILAMAVVQVLV  
HLVCFLHMNTKSDEGWNMTAFVFTVLI IAILVVGSIWIMWNLNYNMMMH

>P17707

MEAAHFFEGTEKLLLEVWFSRQOPDANQSGDLRTIPRSEWDILLKDVQCSIISVTKTDKQ  
EAYVLSSESMFVSKRRFILKTCGTTLLKALVPLLLKARDYSGFDSIQSFFYSRKNFMKP  
SHQGYPHRNFQEEIEFLNAIFPNGAAYCMGRMNSDCWYLYTLDFPESRVISQPDQLEIL  
MSELDPAVMDQFYMKGVTAKDVTRESGIRDLPVGSVIDATMFNPGYSMNGMKSDGTYW  
TIHITPEPEFSYVSFETNLSQTSYDDLIRKVVVEVFKPGKFVTTLFVNQSSKCRTVLASPQ  
KIEGFKRLDCQSAMFNDFVFTSFAKKQQQQS

>Q27883

MSTSTLSDGSLDEGTFAAEDVSGVIEDYFFEGAELKLEIWFDKNQNGATSLRNIPYSELV  
SMLDIAQCRILHKSNECMDSYVLSSESMFISDFRIILKTCGTRLLHAIERILHIAKIY  
CNMDNVVSVFYSRKNFMHPEKQPYPHSSFETEVDYLEEHFAGGSAYCIGPQRQDRWFLYT  
MVTPQAVFPFPEHTLEILMNGLPEDVLSTFSPNVSKDGKDCRMKSAINTILPPDIVVHEE  
LFSPCGYSLNGLIPHSDHYITIHVTPPEPDFSYVSFETNQHTLNLCEQMLKVL EIFKPSKF  
LLTIFTNELSNEGKMKQKNLWDLKICGCRRTNLQFLELPTETLIYVQFERIKSAEQVTCK  
EVFDR

>P84634

MRDEVDSLTIPTSKLLGKRDREQKNCEEEKNKNKKAKKQKDPILLHTSAATHKFLPPPL  
TMPYSEIGDDLRLSLDFDHADVSSDLHLTSSSSVSSSFSSSSSLFSAAGTDDPSPKMEKDP  
RKIARRYQVELCKKATEENVIIVYLGTGCGKTHIAVMLIYELGHLVLSPKKSVCI FLAPT  
ALVEQQAKVIADSVNFKVAIHCGGKRIVKSHSEWEREIAANEVLMVTPQILLHNLQHCFI  
KMECISLLIFDECHHAQQSNHPYAEIMKV FYKSESLQRPRIFGMTASPVVKGDPPLDS  
FTYFSGSFQSENLSKINSLENLLNAKVYSVESNVQLDGFVSSPLVKVYYRSALSDASQ  
STIRYENMLEDIQRANVYCLRFLEAAKIQLNSDHNVDQEPVGNPKSKICDTYLSMAA  
EALSSGVAKDENASDLLSLAALKEPLFSRKLVLQIKILSVFRLEPHMKCIFVNRIVTAR  
TLSCILNLELLRSWKSDFLVGLSSGLKSMRRSMETILKRFQSKELNLLVATKVGEEGL  
DIQTCCLVIRYDLPETVTSFIQSRGRARMPQSEYAFVLDVSGNEKEMDLIENFKVNEDRMN  
LEITYRSSEETCPRLDEELYKVHETGACISGGSSISLLYKYCSRLPHDEFFQPKPEFQFK  
PVDEFGGTICRITLPANAPISEIESSLLPSTEAAKKDACLKAVHELHNLGVLNDFLLPDS  
KDEIEDELSDFDFDNKIGEGCSRGDLYEMRVPVLFKQKWDPTSTCVNLHSYIMFVPH  
PADRIYKFKGFFMKSPLPVEAETMDIDLHLAHQRSVSVKIFPSPGVTEFDNDEIRLAELFQ  
EIALKVLFERGELIPDFVPLELQDSSRTSKSTFYLLPLCLHDGESVISVDWVTIRNCLS  
SPIFKTPSVLVEDIFPPSGSHLKLANGCWNIDDVKNLSLVFTTYSKQFYFVADICHGRNGF  
SPVKESSTKSHVESIYKLTPEQELDEYFIEIPPELSHLKIKGLSKDIGSSLSLLPSIMHR  
MENLLVAIELKHVLSASIP EIAEVSGHRVLEALTTEKCHERLSLERLEVLGDAFLKFAVS  
RHLFLHHDLSDEGELTRRRSNVYIRDQALDPTQFFAFGHPCRVTCDEVASKEVHSLNRDL  
GILESNTGEIRCSKGHHWLYKKT IADVVEALVGAFLVDSGFKGAVKFLKWIGVNVDFESL  
QVQDACIASRRYLPLTTRNNLETLENQLDYKFLHKGLLVQAFIHP SYN RHGGGCYQRLEF  
LGDAVL DYLMTSYFFTVFPKLPKPGQLTDLRSLSVNNEALANVAVSFSLKRFLFCESIYLH  
EVIEDYTNFLASSPLASGQSEGPRCPKISPIKELIELCQSYKWDREISATKKDGAFTVEL  
KVTKNGCCLTVSATGRNKREGTKKAAQLMITNLKAHENITTSHPLEDVLKNGIRNEAKLI

GYNEDPIDVVDLVGLDVENLNILETFGGNSERSSSYVIRRGLPQAPSKTEDRLPQKAI IK  
AGGPSSKTAKSLLHETCVANCWKPPHFECCEEEGPGHLKSFVYKVI LEVEDAPNMTLECY  
GEARATKKGAAEHAAQAAIWCLKHSGFLC

>P19919

MNIQTTVEPTSAERA EK LQGMGCKRKRVEDIRFTQ GKGNVDDVKLP GMLFGDFVRS SHA  
HARIKSIDTSKAKALPGVFAVLTAADLKPLNLHYMPTLAGDVQAVLADEKVL FQNQE VAF  
VVAKDRYVAADAI ELVEVDYEP L PVLVDPFKAMEPDAPLLREDIKDKMTGAHGARKHHNH  
IFRWEIGDKEGTDATFAKAEVVS KDMFTYHRVHPSPLETCQCVASMDKIKGELTLWGTFQ  
APHVIRTVVSLISGLPEHKIHVIAPDIGGGFGNKV GAYSGYVCAVVASIVLGVPVKWVED  
RMENLSTTSFARDYHMTTELAATKD G K I LAMRCHVLADHGAFDACADPSKWPAGFMNICT  
GSYDMPVAHLAVDGVYTNKASGGVAYRCSFRVTEAVYAI ERAIETLAQRLEMDSADLR IK  
NFIQPEQFPYMAPLGWEYDSGNYP LAMKKAMDTVGYHQLRAEQKAKQEAFKRGETREIMG  
IGISFFTEIVGAGPSKNCDILGVSMFDSAEIRIHPTG SVIARMGTKSQGGHETTYAQII  
ATELGIPADDIMIEEGNTDTAPYGLGTYGSRSTPTAGAATAVAARKIKAKAQMI AAHMLE  
VHEGDLEWDVDRFRVKGLPEKFKTMKELAWASYN SPPP NLEPGLEAVNYDPPNMTY PFG  
AYFCIMDIDVDTGVAKTRRFYALDDCGTRINPMIIEGQVHGGLTEAF AVAMGQEIRYDEQ  
GNVLGASFMDFFLPTAVETPKWETDYTVTPSPHHP I GAKGVGESPHVGGVPCFSNAV NDA  
YAFLNAGHIQMPHDAWRLWKVGEQLGLHV

>P19914

MIPPRFEYHAPKSVGEAVALLGQLGSDAKLLAGGHSLLPMMKLRFAQPEHLIDINRIPEL  
RGIREEGSTV VIGAMTVENDLISSPIVQARLPLLAEEAAKLIADPQVRNRGTIGGDI AHGH  
PGNDHPALSIAVEAHFVLEGPNGRRTPADGFFLGTYMTLLEENEVMVEIRVPAFAQGTG  
WAYEKLKRKTGDWATAGCAVVMRKS GNTVSHIRIALTNVAPTALRREGGRSRLLGKAF TK  
EAVQAAADAAIAICEPAEDLRGDADYKTAMAGQMVKRALNAAWARCA

>P19920

MIPGSFDYHRPKSIADAVALLTKLGEDARPLAGGHS LIPI MKTRLATPEHLVDLRDIGDL  
VGIREEGTDV VIGAMTTQHALIGSDFLA AKLP I IRETSLLIADPQIRYMG TIGGNAANGD  
PGNDMPALMQCLGAAYELTGPEGARIVAARDYYQ GAYFTAIEPGELLTAIRIPVPPTGHG  
YAYEKLKRKIGDYATAAAAVVLTMSGGKCVTASIGL TNVANTPLWAE EAGKVLVGTALDK  
PALDKAVALAEAITAPASDGRGPAEYRTKMAGVMLRRAVERAKARAKN

>Q8GPG4

MLRTTRRTLMQ GASLVGAGLFAAGRGWALNRLEPIGDTLAE EYPYRDWEDLYRNEFTWDY  
VGKAAHCINCLGNCAFDIYVKDGI VIREEQ LAKYPQISPDIPDANPRGCQKGA IHSTSMY  
EADRLRYPMKRVGARGEKWRISWDQATEE IADKI IDIYEKYGPGLMTH TGSGNMSMM  
RMAAPYRFASLVGGVQLDIFTDVGD LNTGAHLAYGNALESFTSDAWFGADYIMFLLFNPV  
ATRIPDAHFLWEAKWNGARVVSVAPDYNPSSIHSDLWMP IKQGADPFLAMSMV NVII EGK  
LYNEAFMKEQTDLPI LVRSDNGMLLREADLEEGGSDQVFYHWD SRTGA AVKVKGSMGSEE  
KTLVLGDVDPALEGSFEVGGIPVTTVFEKVRAEAAKYPPEETAAITGIGPGVVR AEAE TF  
ARAKALLMTGFNIGRYSNGIYTSWALTMLAL TG HGGRTGGLDTSWI AWNPALLELAF  
FDFKKLPRLEAGGLGEFVRGGMMEHSRQH YDNDK LKARTGF DLDELQEMIDESIDAGWMP  
YYGDMKGLIS IADNKFR RNKNAEAYRERILEEVEELFVDINVRMDSTA QWADYLLPAAAH  
YEAWDLRSIAFHRFVNVS RPVPPIGEAKSDWEIMEILTRKIQERAIARGITGYEDGDVT  
RDFATIHDYTDGTLMTDHDVVS WLVENGEPEFAGATLEEGVERGFFVMGEDAGPTQKLR  
PSEPYHAFLQQTEGKEPYKTMTGRITFFVDHPRFVRLGATVPTARHHAGRDASNYPLNFF  
SPHTRWGIHSNWRSNKFMRLRLQRGEPNIYI SPQLAAAKGIADGAQVRVFNEL SFFFAQAK  
FYPSLPPDTIMMEHGWEHQFPNWRPMNVC MATLLQPLELVGGWGH LNFSLWHWNANQLA

HESSVDIEPA

>Q8GPG1

MPGFRFLLAATAAFLATSPALPLSADSLNAGNIRLVDPEETVPVIKIPDGIYLRTPNDPD  
DIIWARVPEFRVEMVMAPPVHPSVGLRYRDEYPEQDLVVQLARTSERFYVRLRWVDPTRD  
MSTLRDRFRDGA AIEFSESDSVSYMMGTDAESPVNIWYWHPDGDRVESLAAGSPGSLTR  
LDRQPVTGASEYRTGHGPDDSQWIVVMSRPLASEGDHQVSFERDTIPVAFALWQGADAQR  
DGLKLVSLNWIFARMTPDAAAPAGN

>O00273

MEVTGDAGVPESGEIRTLKPCLLRRNYSREQHGVAASCLEDLRSKACDILAIKSLTPVT  
LVLAEDGTIVDDDDYFLCLPSNTKFVALASNEKWAYNNSDGGTAWISQESFDVDETDGA  
GLKWKVVARQLKEDLSSIIILLSEEDLQMLVDAPCSDLAQELRQSCATVQRLQHTLQQVLD  
QREEVRQSKQLLQLYLQALEKEGSLLSKQEESKAAFGEVDAVDTGISRETSSDVALASH  
ILTALREKQAPELSLSSQDLELVTKEDPKALAVALNWDIKKTETVQEACERELALRLQQT  
QSLHSLRSISASKASPPGDLQNPKRARQDPT

>Q99N34

MCAVLPQPKCVKLRALHSSCKFGVAARSCQELLRKGCI RFQLPVPGSRLCMYEDGTEVTD  
DCFPSLPNDSELLLLTAGETWHGYVSDITRLLSVFNPHAGVIQAAARQLLSDEQAPLRQK  
LLADLLHHVSNITAE TREQDPSWFEGLESRFRNKSGYLRYSCESRIRGYLREVSAYISM  
VDAAAREEYLRVLSMCHKLKSVQYNGSYFDRGAEASSRLCTPEGWFSCQGPFDLESCLS  
KHSINPYGNRESRILFSTWNLDHIEKKRTVVPTLAEAIQDGREVNWEYFYSLLF TAENL  
KLVHIACHKKTTHKLQCDRSRIYRPQTGSRRKQPPRKQPPRKRPPRKRQ

>P38540

MKHVLTLLALASVFAVSNQALAYDGNCKEPCWENKPGYPEK IAGSKYDPKHDPVELN  
KQEESIKAMDARNAKR IANAKSSGNFVFDVK

>P29898

MKRILTLTVAALALGTPALAYDGTNCKAPGNCWEKPDYPAKVEGSKYDPQHDP AELSKQ  
GESLAVMDARNEWRVWNMCKTGKFEYDVKKIDGYDETKAPPAE

>P22619

MLGNFRFDDMVEKLSRRVAGQTSRRSVIGKLG TAMLGIGLVPLLPVDRRGRVSRANAADA  
PAGTDPRAKWVPQDNDIQACDYWRHCSIDGNICDCSGGSLTNCPPGTKLATASWVASCYN  
PTDGQSYLIAAYRDCCGYNVSGRCPLNTEGELPVYRPEFANDI IWCFGAEDDAMTYHCTI  
SPIVGKAS

>Q3BK13

MIQVLLVTICLAVFPFHGSSIIILESGNVNDYEVVYPKKVTLPTGAMNSANPCCDPITCK  
PRKGEHCVSGPCCRNCFLNPGTICKRTMLDGLNDYCTGITSDCPRNPWKSEEDMKWSA  
TAKGSVLM

>Q61880

MKEDQVVQEEESGFQDDEESLFQDIDLLQKHGINMADIKKLSVGICTIKGIQMTTRRALC  
NVKGLSEAKVEKIKEAANKLIEPGFLTAFQYSERRKMVFHITTSQEFDKLLGGGIESMA  
ITEAFGEFRTGKTQLSHTLCVTAQLPGTGGYSGGKII FIDTENTFRPDRLRDIADRFNVD  
HEAVLDNVL YARAYTSEHQMELLDYVAAKFHEEAGIFKLLIIDSIMALFRVDFSGRGELA  
ERQQKLAQMLSRLQKISEEYNVAVFVTNQMTADPGATMTFQADPKKPIGGHILAHASTTR

ISLRKGRGELRIAKIYDSPEMPENEATFAITAGGIGDAKE

>P18775

MKTKIPDAVLAAEVSRRGLVKTTAIGGLAMASSALTLPFSTRIAHAVDSAIPTKSDEKVIW  
SACTVNCGRSCLPLRMHVVDGEIKYVETDNTGDDNYDGLHQVRACLRGRSMRRRVYNPDRL  
KYPMKRVGARGEGKFERISWEEAYDI IATNMQRLLIKEYGNESIYLNNGTGTGGTMTRSW  
PPGNTLVARLMNCCGGYLNHYGDYSSAQIAEGLNYTYGGWADGNSPSDIENSKLVVLFGN  
NPGETRMSGGGVTYYLEQARQKSNARMI I IDPRYTDTGAGREDEWIP IRPGTDAALVNGL  
AYVMITENLVDQAFLDKYCVGYDEKTL PASAPKNGHYKAY ILGEGPDGVAKTPEWASQIT  
GVPADKIIKLAREIGSTKPAFISQGWGPQRHANGEIATRAISMLAILTGNVINGGNSGA  
REGSYSLPFVRMPTLENPIQTSISMFMWTDAI ERGPENTALRDGVRGKDKLDVPIKMIWN  
YAGNCLINQHSEINRTHEILQDDKKCELIVVIDCHMTSSAKYADILLPDC TASEQMDFAL  
DASCGNMSYVIFNDQVIKPRFECKTIYEMTSELAKRLGVEQQFTEGRTQEEMRHLAQS  
REAIPELPTFEFRKQGI FKKRDPQGHVAYKAFREDPQANPLTTPSGKIEIYSQALADI  
AATWELPEGDVIDPLPIYTPGFESYQDPLNKQYPLQLTGFHYKSRVHSTYGNVDVLKAAC  
RQEMWINPLDAQKRGIHNGDKVRI FNDRGEVHIEAKVTPRMPGVVALGEGAWYDPDAKR  
VDKGGCINVLTTQRPSPLAKGNPSHTNLVQVEKV

>P18777

MGSGWHEWPLMI FTVFQCVAGGFIVLALALLKGDLRAEAQQRVIACMFWLWLMGIGFI  
ASMLHLGSPMRAFNSLNRV GASALSNEIASGSIFFAVGGIGWLLAMLKLLSPALRTLWLI  
VTMVLGVI FVWMMVRVYNSIDTVPTWYSIWTPMGFFLT MFMGGPLLGYLLLSLAGVDGWA  
MRLLP AISVLALVSVGVSVMQGAELATI HSSVQQAALVPDY GALMSWRIVLLAVALCL  
WIAPQLKGYQPAVPLLSVSFILLLAGELIGRGVIFYGLHMTVGMMAVAS

>Q75WF2

MPSSVIMFTFLALTVL TAVMVG TSEAVSCMDNKNKPVDFIVYKLPQDSASSKPVIREGY  
GQMYMDVNNQALKFSSTSLKDDDHAIAYTVDDIYKNHGKGNLAHV MYNDQPPAGEEIQSG  
LVGHTKGVLAFDGTS GFVLVH SVPKFPLPASKSYNWP DNAKRNGQTLLCITFKYDQFEKI  
GQQLKYNYPGVYDSDLPSKLVGKTPSIVDLVKNVHVTSPPWNRQLNLQSKSGQTFVSFNK  
ASKWGEDLYKNWLATHFKSGLYCETWQNGGRNLNSSCEAGLN VYNVKKVSLSGGSDFKGT  
KDHSKWAVTTKSGLKWTCIGGINRQTSQMYRGGGAVCLE NANVHKAFYDSVAEYEPCT

>Q59024

MIVMVHVACSENMKKYFENIVDEVKKIYRIAECCRKKGFDP TDEVEIPLAADMADRVEGL  
VGPKGVAERIRELVKELGKEPAALEIAKEIVEGKFGNF DKEKKAEQAVRTALAVLTEGIV  
AAPLEGIADV KIKKNPDGTEYLAIYYAGPIRSAGGTAQALSVLVGDFVRKAMGLDRYKPT  
EDEIERVVEVELYQSEVGSFQYNPTADEIRTAIRNIP I EITGEATDDVEVSGHRDLPRV  
ETNQLRGGALLVLVEGVLLKAPKILRHVDKLGIEGWDWLKDLMSKKEEKEEKEDEKVDDE  
EIDEEEEIEISGYWRDVKIEANKKFI SEVIAGRPFVFAHPSKVGFR LRYGRSRNTGFATQG  
FHPALMYLVDEFMAVGTQLKTERPGKATCVVPVDSIEPPIVKLKNGDVIRVDTIEKAMDV  
RNRVEEILFLGDVLVNYGDFLENNHPLLPSCWCEEWYEKILIAN NIEYDKDFIKNPKPEE  
AVKFALETKTPLHRPFTYHWHDVSKEDI ILLRNWLLK GKEDSLEGGKVVIVDLEIEEDKK  
AKRILELIGCCHLVRNKKVIEEYYP LLYSLGFDVENKKDLVENIEKILES AKNSMHLIN  
LLAPFEVRRNTYVYVGARMGRPEKAA PRKMKPPVNGLFPIGNAGGQVRLINKAVEENNTD  
DVDVSYTRCPNCGKISLYRVC PFCGTKVELDNFGR IKAPLKDYWYAALKRLGINKPGDVK  
CIKGMTSKQKIVEPLEKAILRAINEVYVFKDGTTRFDCTDVPVTHFKPNEINVTVEKLRE  
LGYDKDIYGNELVDGEQVVELKPDQV IIPESCAEYFVKVANFIDDLLEK FYKVERFYNVK  
KKEDLIGHLVIGMAPHTSAGMVGR IIGYTKANVGYAHPYFHAARRNCDGDEDSFFLLLD  
AFLNFSKKFLPDKRGGQMDAPLVLT TILDPKEVDGEVHNMDTMWSYPLEFYEKTLEMPSP

KEVKEFMETVEDRLGKPEQYEGIGYTHETSRIDLGPVKVCAKTLGSMLEKTTSQLSVAKK  
IRATDERDVAEKVIQSHFIPDLIGNLRAFSTRQAVRCKCGAKYRRIPKGGKCPKCGSNLIL  
TVSKGAVEKYMDVAEKMAEEYNVDYIKQRLKIIKEGINSIFENEKSRQVKLSDFFKIG

>P81409

MELPKEIEEYFEMLQREIDKAYEIAKKARSQKDPSTDVEIPQATDMAGRVESLVGPPGV  
AQRIRELLKEYDKEIVALKIVDEIEGKFGDFGSKEKYAEQAVRTALAILTEGIVSAPLE  
GIADVKIKRNTWADNSEYLALYAGPIRSSGGTAQALSVLVGDYVRRKLGDRFKPSGKH  
IERMVEEVDLYHRAVSRLOQYHPSDEVRLAMRNPIEITGEATDDVEVSHRDVEGVETNQ  
LRGGAILVLAEGVLQAKKLVKYIDKMGIDGWEWLKEFVEAKEKGEIEESESKAEESKV  
ETRVEVEKGFYKLYEKFRAEIAPESEKYAKEIIGGRPLFAGPSENGGFRLRYGRSRVSGF  
ATWSINPATMVLVDEFLAIGTQMKTERPGKGAVVTPATTAEGPIVKLKDGSVVRVDDYNL  
ALKIRDEVEEILYLGDALIAFGDFVENNQTLLPANYVEEWIQQEFVKAVNEAYEVELRPF  
EENPRESVEEAAEYLEVDPEFLAKMLYDPLRVKPPVELAIHFSEILEIPLHPYTYTYWNT  
VNPKDVERLWGVLDKATIEWGTFRGIKFAKKIEISLDDLGLKRTLELLGLPHTVREGI  
VVVDYPWSAALLTPLGNLEWEFKAKPFYTVIDIINENNQIKLRDRGISWIGARMGRPEKA  
KERKMKPPVQVLFPIGLAGGSSRDIKKAAEEGKIAEVEIAFFKCPKCGHVGPETLCPECG  
IRKELIWTCPKCGAEYTNQAEGYSYSCPKCNVKKLPFTKRKIKPSELLNRAMENVKVYG  
VDKLGVMGMTSGWKIAEPELEKGLLRKAKNEVYVFKDGTIRFDATDAPITHFRPREIGVSV  
EKLRELGYTHDFEGKPLVSEDQIVELKPDVILSKEAGKYLRLVARFVDDLLEKFGYGLPR  
FYNAEKMEDLIGHLVIIGLAPHTSAGIVGRIIGFVDALVGYAHPYFHAAKRRNCDGDEDSV  
MLLLDALLNFSRYLPEKRGKMDAPLVIITTRLDPREVDSEVHNMDVVRYYPLEFYEATY  
ELKSPKELVGVIERVEDRLGKPEMYGKIFTHDTHDIALGPKMSLYKQLGDMEEKVKRQL  
TLAERIRAVDQHYVAETILNSHLIPDLRGNLRSFTRQEFRCVKCNTKYRRPPLDGKCPVC  
GGKIVLTVSKGAIKYLGTAKMLVANYNVKPYTRQRICTEKDIDSLFEYLFPEAQLTLI  
VDPNDICMKMIKERTGETVQGGLENFNSSGNNGKIEKKEKKAKEKPKKKKVISLDDFF  
SKR

>P81412

MDEFVKSLLKANYLITPSAYYLLREYYEKGEFSIVELVKFARSRESYIITDALATEFLKV  
KGLEPILPVETKGGFVSTGESQKEQSYYEESFGTKEEISQEIKEGESFISTGSEPLEEELN  
SIGIEEIGANEELVSNNGNDNGGEAIVFDKYGYPMVYAPEEIEVEEKEYSKYEDLTI PMNP  
DFNYVEIKEDYDVFDVRNVKLPKPKVKNNGNGKEGEIIVEAYASLFRSRLKLRKILREN  
PELDNVVDIGKLYVKEDETVTIIIGLVNSKREVNKGLIFEIEDLTGKVKVFLPKDSEYR  
EAFKVLPAVAVAFKGVYSKRGIYANKFYLPDVPLYRRQKPPLEEKVYAILISDIHVGSK  
EFCENAFIKFLEWLNQNVETKEEEEIVSRVKYLI IAGDVVDG VGVYPGQYADLTIPDIFD  
QYEALANLLSHVPKHITMFIAPGNHDAARQAIPQPEFYKEYAKPIYKLNVAIIISNPAVI  
RLHGRDFLIAHGRGIEDVVGSPGLTHHKPGLPMVELLKMHRVAPMFGGKVP IAPDPEDL  
LVIEEVPDVMHGHVHVYDAVVYRGVQLVNSATWQAQTEFQKMNIVPTPAKVPVVDIDT  
AKVVKVLDVDFSGWC

>P24482

MFGSGNVLPVKIQPPLLRPLAYRVLRSRKYGLS IKS DGLSALAEFVGTNIGANWRQGPATI  
KFLEQFAAVWKQQRGLFIDQSGVKEVIQEMKEREKVEWSHEHP IQHEENILGR TDDDEN  
NSDDEMPIAADSSLQNVLSLSPMRQPTERDEYKQPFKPESSKALDWRDYFKVINASQQQR  
FSYNPHKMQFIFVFNKKQNGLGGIAGFLPDIEDKVQMFLTRYLLTNDRVMRNENFQNSDM  
FNPLSSMVSLQNELSNTNRQQSSSMSITPIKNLLGRDAQNFLLGLLNKNFKGNWSLED  
PSGSVEIDISQTIPTQGHYYVPGCMVLVEGIYYSVGNKHFVTSMTLPPGERREITLETIG  
NLDLLGIHGINSNNFIARLDKDLKIRLHLLEKELTDHKFVILGANLFLDDLKIMTALSKI  
LQKLNDDPPTLLI WQGSFTSVPVFASMSRNISSTQFKNNFDALATLLSRFDNLTENTT



MIFIPGPNDLWGSMSVSLGASGTL PQDPIPSAFTKKINKVCKNVVSSNPTR IAYLSQEIV  
IFRDDL SGRFKRHRLEFFPNESEDVYTENDNMMSKDTDIVPIDELVKEPDQLPQKVQETR  
KLVKTILDQGHLS PFLDSL RPI SWDL DHTL TLCP IPSTMVLC DTTSAQFDLTYNGCKVIN  
PGSFIHNR RARYMEYV PSSK KTIQEEIYI

>P28340

MDGKRRPGPGVPPKRARGGLWDDDDAPRPSQFEEDLALMEEMEAHRLQEQEELQS  
VLEGVADGQVPPSAIDPRWLRPTPPALDPQTEPLIFQQL EIDHYVGAQPVPGGPPSRG  
SVPVLR AFVGTDEGFSVCCHIHGFAPYFYTPAPPGFGEHMGDLQRELNLAI SRDSRGR  
ELTGPAVLAVELCSRESMFGYHGHGSPFLRITVALPRLVAPARRLLEQGIRVAGLGTPS  
FAPYEANVDFEIRFMVDTDIVGCNWLLELPAGKYALRLKEKATQCQLEADVWSDVVSHP  
EGPWQRIAPLRVLSFDIECAGRKGIFPEPERDPVIQICSLGLRWGEPEPFLRLALTLRPC  
APILGAKVQSYEKEEDLLQAWSTFIRIMDPDVI TGYNIQNF DL PYLISRAQTLKVQTFPF  
LGRVAGLCSNIRDSSFQSKQTGRRD TKVVMVGRVQMDMLQVLLREYKLSYTLNAV SFH  
FLGEQKEDVQHSIITDLQNGNDQTRRR LAVYCLKDAYLPLRLLERLMVLVNAVEMARVTG  
VPLSYLLSRGQQVKVVSQLLRQAMHEGLLMPVVKSEGGEDYTGATVIEPLKGYDVP IAT  
LDFSSLYPSIMMAHNL CYTTLLRPGTAQKLGLTEDQFIRTP TGFDEFVKT SVRKGLLPQIL  
ENLLSARKRAKAE LAKETDPLRRQVLDGRQLALKVSANSVYGFTGAQVGLPCLEISQSV  
TGFGRQMI EKTKQLVESKYTVENGYSTSAKV VYGD TDSVMCRFGVSSVAEAMALGREAAD  
WVSGHFPSPIRLEFEKVFYFYL LISKRYAGLLFSSRPDAHDRMDCKGLEAVRRDNCPLV  
ANLVTASLRLLIDRDPEGAVAHAQDVISDLLCNRIDISQLVITKELTRAASDYAGKQAH  
VELAERMKRDPGSAPSLGDRVPYV IISAAGVAAYMKSEDP LFVLEHSLPIDTQYYLEQ  
QLAKPLLRIFEPILGEGRAEAVLLRGDHT RCKTVLTGKVGGLLAFARRNCCIGCRTVLS  
HQGAVCEFCQPRESELYQKEVSHLNALEERFSRLWTQCQRCQGS LHEDVICTSRDCPIFY  
MRKKVRKDLEDQEQLLRRFGPPGPEAW

>P87324

MVEVRHSIPCEETKRLELSLSQQTYSQQYAS IYFARLTALRPRITEAASKKWPDKQRLER  
VLDVKSDEDCWVVATAYMTTALKPNVMNDVTQLHTIVTTTEESP YVSPEDAASGDIEYAL  
EDDYGRIDCSGSFLYDAGVVTGVVLA VLGHED EQGRFVVVDVCFPGIFSHSIPMTTDESQ  
AQPEYIAAVSGLGLSNDGIEGIQVHQLVDFLRGTLPHVSSFS PSSI KR LIILGNCLAPSI  
EIADSASASVPIGKKVKRYGYDTSAYNPNPTFQLDNFLDQVCSSIDVTLMPGPYDYSST  
ILPQQPLHPALLTKSKVWLGSSLQTVTNPTWLSLGNHFV LATSQGNINDLRKYHPKSSSL  
QCMEN TLLWNHITPTSPDTLWCYPFTDKDTFVMEEMPDLYLCGNQPKFGCKTVINEGNRI  
QLVSVPEFRKTGVLV LINMHTLNVEIIQFRPMSVKAETPITS

>P46957

MDALLTKFNEDRSLQDENLSQPRTVRIVDDNLYNKS NPFQLCYKKRDYGSQYYHIYQYR  
LKTFRERVLKECDKRWDAGFTLNGQLVLKDKVLDIQGNQPCWCVGS IYCEMKYKPNVLD  
EVINDTYGAPDLTKSYTDKEGGSDEIMLEDES GRVLLVGDFIRSTP FITGVVVGILGMEA  
EAGTFQVLDICYPTPLPQNPF PAPIATCPTRGKIALVSGLNLNNTSPDRLLRLEILREFL  
MGRINNKIDDISLIGRLLICGNSVDFDIKSVNKDELMI SLTEFSKFLHNILPSISVDIMP  
GTNDPSDKSLPQQPFHKS LFDKSLESYFN GSNKEILNLVTNPYEF SYNGVDVLAVSGKNI  
NDICKYVIPSNNGESENKVEEGESNDFKDDIEHRLDLMECTMKWQNIAPTAPDTLWCYP  
YTDKDPFVLDKWPVYIVANQPYFGTRVVEIGGKNIKIISVPEFSSTGMIILLDLETLEA  
ETVKIDI

>Q15054

MADQLYLENIDEFVTDQNKIVTYKWSYTLGVHVNQAKQMLYDYVERKRKENSQAQLHVT  
YLVSGSLIQNGHSCHKVAVVREDKLEAVKSKLAVTASIHVYSIQKAMLKDSGPLFNTDYD

ILKSNLQNC SKFS AIQCAA VPRAPA ESSSSSSK KFEQSHLHMSSETQANNELTTNGHGPP  
ASKQVSQQPKGIMGMFASKAAAKTQETNKETKTEAKEVTNASAAGNKAPGKGNMMSNFFG  
KAAMNKFKVNL DSEQAVKEEKIIVEQPTVSVTEPKLATPAGLKKSSKKAEPVKVLQKEKKR  
GKRVALSDDETKETENMRKKRRRIKLPESDSSEDEVFPDSPGAYEAESPSPPPPPSPPLE  
PVPKTEPEPPSVKSSSGENKRKRKRVLKSKTYLDGEGCIVTEKVYESESECTDSEEEELNMK  
TSSVHRPPAMTVKKEPREERKGP KKGTAALGKANRQVSITGFFQRK

>P30261

MEEWRNFLDIKVINESSLVTVDNLSLQLDISSEKAQEYLMNMFYQGNDFLYPIYLIHGQPI  
DDEINLEIDEESQPI SNFPVLQYILCDKSSSLQEKQSRLKSGYKTVIFALSSAPLSDFDEL  
LPAVYEIREKDVLYKKEDADKYGFIFNENSVPRLK KAPSTHSPQLSVPSKTSTIDKTD  
RSTKTKGKDI FSNARNQKGNSSRKNKKAPLENHKEKEPLLKPEEKLSEQAKRERDDLKN  
IMQLEDES VSTTSVHDEDDNLD SNNFQLEIGTEAKSAAPDEPQEIKSVSGKRRGKRK  
VKKYATTKDEEGFLVTKEEEVWESFSEDENISTGTSNVVRNKPTTVNIATKKKNTAQSKP  
QQKSIMSFFGKK

>Q9HCU8

MGRKRLITDSYPVVKRREGPAGH SKGELAPELGEEPQRDEEEAELELLRQFDLAWQYGP  
CTGITRLQRWCRAKQMGLEPPPEVWQVLKTHPGDPRFQC SLWHL YPL

>O59835

MKKRTTQAKKSGQNTNIRDVFP HVRSNSSQSHIGKKSSEQSPTPDVTITTKTLDERIK  
EDDELSKEVEEAWNQ IMAERISEPIHCENITKVEFILH HFDTTARYGPYLG MTRMQRWKR  
AKNFNLNPPETV GKIILMLEEAEENRKRRESLFYDLQTI PG

>P21951

MMFGKKKNNGGSSTARYSAGNKYNTLSNNYALSAQQLLNASKIDDIDSMMGFERYVPPQY  
NGRFD AKDIDQIPGRVGLWLTNMHATLVSQETLSSGSGNGGNSNDGERVTTNQG ISGVDFY  
FLDEEGGSFKSTVVYDPYFFIACNDESRVNDVEELVKKYLESCLKSLQI IRKEDLTMDNH  
LLGLQKTLIKLSFVNSNQLFEARKLLRPILQDNANNNVQRNIYNVAANGSEKVD AKHLIE  
DIREYDVPYHVRV SIDKDIRVGKWKYVTQQGFIEDTRKIAFADPVVMAFDIETTKPPLKF  
PDSAVDQIMMISY MIDGEGFLITNREI ISEDIEDFEYTPKPEYPGFFTIFNENDEVAL LQ  
RFFEHIRDVRPTVISTFNGDFDWPFIHNRSKIHGLDMFDEIGFAPDAEGEYKSSYCSHM  
DCFRWVKRDSYLPQGSQGLKAVTQSKLGYNP IELDP ELMTPYAF EKPHLSEYSVSDAVA  
TYYLKMYVHPFIFSLCTI IPLNPD ETLRKG TGTLCEMLLMVQAYQHNILLPNKHTDPIE  
RFYDGHLL ESETYVGGHVESLEAGVFRSDLKNEFKIDPSAIDELLQELPEALKFSVEVEN  
KSSVDKVTNFEEIKNQITQKLELKENNIRNELPLIYHVDVASMYPNIMTTNRLQPDSIK  
AERDCASCD FNRPGKTCARKLKWAWRGEFFPSKMDEYNMIKRALQNETFPNKNKFSKKKV  
LTFDELSYADQVIHIKKRLTEYSRKVYHRVKVSEIVEREAIVCQRENPFYVDTVKSFRDR  
RYEFKGLAKTWKGNLSKIDPSDKHARDEAKKMIVLYDSLQLAHKVILNSFYGYVMRKGSR  
WYSMEMAGITCLTGATIIQMARALVERVGRPLELDTDGIWCILPKSFPETYFFTTLENGKK  
LYLSYPCSM LNVRVHQKFTNHQYQELKDPLNYIYETHSENTIFFEVDGPKAMILPSSKE  
EGKGIKKRYAVFNEDGSLAELKGFELKRRGELQLIKNFQSDIFKVFLEGDTLEGCYSAVA  
SVCNRWLDVLD SHGLMLEDEDLVSLICENRSMSKTLKEYEGQKSTSIT TARRLGDFLGED  
MVKDKGLQCKYI ISSKPFNAPVTERAIPVAIF SADIPIKRSFLRRWTLDP SLEDLDIRTI  
IDWGYRERLGS AIQKIITIPAALQGVSNPVRVEHPDWLKRKIATKEDKFKQTS LTKFF  
SKTKNVPTMGKIKDIEDLFEPTVEEDNAKIKIARTTKKKAVSKRKRNL TNEEDPLVLP S  
EIPSMDEDYV GWLNYQIKWKIQARDRKRRLQ LFGNTNSSRERSALGSMIRKQAESYANS  
TWEVLQYKDSGEPGVLEVFVTINGKVQNI TFHIPKTIYMKFKSQTMPLQKIKNCLIEKSS  
ASLPNNPKTSNPAGQLFKITLPESVFL EEEKNCTSI FNDENVLGVFEGTITPHQRAIMD

LGASVTFRSKAMGALGKGIQQGFEMKDL SMAENERYLSGF SMDIGYLLHFPTSIGYEFFS  
LFKSWGDTITILVLKPSNQAQEINASSLGQIYKQMFEEKKKGKIETYSYLVDIKEDINFEF  
VYFTDISKLYRRLSQETTKLKEERGLQFLLLLQSPFITKLLGTIRLLNQMPIVKLSLNEV  
LLPQLNWQPTLLKKLNVNHLSSGSWISHLIKLSQYSNIPICNLRLDSMDYIIDVLYARKL  
KKENIVLWVNEKAPLPDHGGIQNDFDLNTSWIMNDSEFPKINNSGVYDNNVLDVGVNDLNT  
VNTILTSALINDAEGSDLVNNMGIDDKDAVINSPSEFVHDAFSNDALNVLRGMLKEWWD  
EALKENSTADLLVNSLASWVQNPNAKLF DGLLRVHVHNLTKKALLQLVNEFSALGSTIVY  
ADRNQILIKTNKYSPENCYAYSQYMMKAVRTNPMFSYLDLNIKRYWDLIWMDFNFSGL  
ACIEIEEKENQDYTAVSQWLKFLSPIYQPEFEDWMMIILDSMLKTKQSYLKLNSGTQR  
PTQIVNVKKQDKEDSVENSLNGFSHLFSKPLMKRVKKL FKNQQEFILDPQYEADYVIPVL  
PGSHLNVKNPLLELVKSLCHVMLLSKSTILEIRTLRKELLIKIFELREFAKVAEFKDP SLS  
LVVPDFLCEYCF F ISDIDFCKAAPESIFSCVRCHKAFNQVLLQEHLIQKLRSDIESYLIQ  
DLRCSRCHKVVRDYMSAHCPGAWEGTLPRESIVQKLN VFKQVAKYYGFDILLSCIADL  
TI

>Q59110

MVVEGVKTDGFPYFRDLLHPVIAKNYKWKYHEVVKPGVIKRVAESGDVIYVVRFGTPR  
LLSIYTVRELCDIADKYS DGYLRWTSRNNVEFFVTDESKIDDLIN EVQERVGFPCGGTWD  
AVKGEYGLSNIVHTQGWIHCHTPAIDASGIVKAVMDELYEYFTDHKLPAMCRISLACCAN  
MCGAVHASDIAIVGIHRTPPIPNDEAIRKTCEIPSTVAACPTGALKPDMKNKTIKVDVEK  
CMYCGNICYTMCPGMPLFDPENDGAAIMVGGK LSEARRMPELSKVVPWPNEPPRWPTLV  
KYVKQILEAWAANANKHERLIEWVDRIGWERFFELTGLEFTQH LIDDYRITPYFYSEFRA  
STQFKW

>P45575

MAFISSGYNPEKPMANRITDIGPRKFDEFFPPVIAKNFGSWLYHEILEPGVLMHVAESGD  
KVYTVRVGAARLMSITHIREMCDIADKYCGHLRFTRNNVEFMVADEASLKALKEDLAS  
RKFDGGSLKFP IGGTGAGVSNIVHTQGWVHCHTPATDASGPVKAIMDEVFEDFQSMRLPA  
PVRISLACCINMCGAVHCSDIGVVG IHRKPPMIDHEWTDQLCEIPLAVASCPTAAVRPTK  
LEIGDKKVNTIAIKNERCMYCGNICYTMCPALPISDGE GGVIMVGGKVSNRISMPKFSK  
VVVAYIPNEPPRWPSLTKTIKHIIEVYSANAYKYERLGEWAERIGWERFFSLTGLEFSHH  
LIDDFRDPAYYTWRTQSTQFKF

>P13812

MSSKKIIGAFVLMTGILSGQVYAGVSEHFRNICNQTADIVAGVQLKKYIADVNTNTRGI  
YVVSNTGGVWYIPGGRDYPDNFLSGEIRKTAMAAILSDTKVNLCAKTSSSPNHIWAMELD  
RES

>P43528

MAKVISFFISLFLISFPLYANDYFRADSRTPDEVRRSGGLIPRGQDEAYERGTPININLY  
DHARGTATGNTRYNDGYVSTTTTLRQAHL LGQNMLGGYNEYIYVVAAPNLFVNGVLG  
RYSYPSENEYAALGGIPLSQIIGWYRV SFGAIIEGGMHRNRDYRRDLFRGLS AAPNEDGY  
RIAGFPDGFPAWEEVPWREFAPNSCLPNKASSDTTCASLTNKL SQHDLADFKKYIKRKF  
TLMTLLSINNDGFFSNNGGKDEL

>P43529

MSFKKI IKA FVIMAALVSVQA HAGASQFFKDCNRTTASLVEGVELTKYISDINNNTDGM  
YVVSSTGGVWRISRAKDYPDNVMTAEMRKIAMA AVLSGMRVNM CASPASSPNVIWAIELE  
AE

>Q27368

MSKFFVNVAPINNSNSSSSHTTTSSNTQRHQHQHYGGSGTTGHTMVARRRLNYDLHGTT  
TSINNNNNIVIKNESVDLDYDHLVLSSSDSNSNGGVA AHLRDHVYISLKDGHNTGAVATAA  
AAATAGHTQQQLQQQHHHQNQQRKATGKSNDITNYKVKRRPHAVSDEIHPKKQAKQSA  
HHQT VYQKHTASSAPQQLRHS HHQLRHDADAELDEDVVERVAKPASHHPFSLSTPQQQLA  
ASVASSSSSGDRNRADTSLGILTKKFVDLLQESP DGVDLNEASNRLHVQKRR IYDITNV  
LEGINILEKKS KNNIQWRCGQSMVVSQERSRHI EADSLRLEQQENELNKAIDL MRENLA EI  
SQEVENSGMAYVTQNDLLNVDLFKDQIVIVIKAPPEAKLVLENTKLPREIYVKAENSGE  
INVFLCHDTSPENSP IAPGAGYV GAGPAGCVRTATSTR LHPLTNQRLNDPLFNNIDAMST  
KGLFQTPYRSARNLSKSI EEAAKQSQPEYNNICDIAMGQHHLNQQQQQQQQQLLQQPEE  
DDVDVELNQLVPTLTNPVVRTHQFQQHQQPSIQELFSSLT ESSPPTPTKRRREAAAAAIA  
AGSSTTATTTLN SHNHRNHSNHSNHSNHSNHSNHSNNSKSPPTIGYSSQRRSDVPMYNCAME  
GATTTSATADTTAATSRSAAASSLQMQFAAVAESNNGSSSSGGGGGGGGYGS IAGAGANAD  
PHQPYSHDRNSLPPGVADCDANSNSSSVTLQGLDALFNDIGSDYFSNDIAFVSINPPDDN  
DYPYALNANEGIDRLDFGSDAYGP

>P29547

MSQGTLYANFRIRTWVPRGLVKALKLDVKVVT PDAAA EQFARDFPLK KVP AFVGP KGYKL  
TEAMAINYYLVKLSQDDKMKTQLLGADDDLNAQAQ IIRWQSLANS DLCIQIANTIVPLKG  
GAPYNKKSVD SAMDAVDKIVDIFENRLKNYTYLATENISLADLVAASIFTRYFESLFGTE  
WRAQHPAIVRWFNTVRASPFLKDEYKDFKFADKPLSPPQKKKEKKAPAAAPAASKKKEEA  
KPAATETETSSKKPKHPLELLGKSTFVLDDWKRKYSNEDTRPVALPWFWEHYNPEEYSLW  
KVTYKYNDELTLTFMSNNLVGGFFNRLSASTKYMFGCLVVYGENNNNGIVGAVMVRGQDY  
VPAFDVAPDWESYDYAKLDPTNDDKEFINNMWAWDKPVS VNGEPKEIVDGKVLK

>P0A6P1

MAEITASLVKELRERTGAGMMDCKKALTEANGDIELAIENMRKSGA IKA AKKAGNVAADG  
VIKTKIDGNYGIILEVNCQTD FVAKDAGFQAFADKVLDAAVAGKITDVEVLKAQFEEERV  
ALVAKIGENINIRVAALEGDVLGSYQHGARIGVLVAAKGADEELVKHIAMHVAASKPEF  
IKPEDVSAEVVEKEYQVQLDIAMQSGKPKIEAEKMVEGRMKKFTGEVSLTGQPFVMEPSK  
TVGQLLKEHNAEVTGFI RFEVGEIEK VETDFAAEVAAMSKQS

>P43895

MSQMELIKKLREATGAGMMDVKRALEDAGWDEEKAVQLLRER GAKAAKKADREAREGII  
GHYIHHNQRVGLVELNCETDFVARNELFQNLAKDLAMHIAMNPRYVSAE EIPAEELEK  
ERQIYIQAALNEGKPOQIAEKIAEGRLKKYLEEVVLL EQPFVKDDKVKV KELIQQAI AKI  
GENIVVRRFCRFELGA

>P43530

MKNITFIFFILLASPLYANGDKLYRADSRPPDEIKRSGGLMPRGHNEYFDRGTQMNINLY  
DHARGTQTGFVRYDDGYVSTSLSLRSAHLAQSI LSGYSTYYIYVIATAPNMFVNDVLG  
VYSPHPYEQEV SALGGIPYSQIYGWYRVNFGVIDERLHRNREYRDRYRNLNIAPAEDGY  
RLAGFPDPHQAWREEPWIHHAPQCGNSSRTITGDT CNEETQNLSTIYLRKYQSKVKRQI  
FSDYQSEVDIYNRIRNEL

>P13811

MNKVKFYVLF TALLSSSLCAHGAPQSITELCSEYHNTQIY TINDKILSYTESMAGKREMI  
ITFKSGATFQVEVPGSQHIDSQKKAIERMKD TLRITYLTETKIDKLCVWNNKTPNSIAAI  
SMEN

>Q63187

MAAESALQVVEKQLARLANPDPKLLKYLKLLSVLPITVDILVETGVGKTVNSFRKHEQ  
VGNFARDLVAQWKKLVVERNNEAEDQDFEKSNSRKRPRDVPQQEAAAEGNYQESWQASG  
SQPYSPEHRQKKHRKLPPELERPHKVAHGHERRDERKRCHKVSPPYSSDPESDYGHVQSP  
PPSSPHQMYTDLRSPEMDQEPVSHPKPGKVHSNTFQDRLGVSHLGEHQKGAVSQNKP  
HKSSHKEKRPVDARGDEKSSVMGREKSHKASSKEESRLLSEDSAKEKLPSSVVKKEKDR  
EGNSLKKKLSPALDVASDNHFKKPKHKDSEKIKSDKNKQSVDSVDSGRGTGDPLPRAKDK  
VPNNLKAQEGKVRTNSDRKSPGSLPKVEEMDMDEFEQPTMSFESYLSYDQPRKKKKKVV  
KTSGTALGEKGLKKKDSKSTSKNLNSAQKLPKANENKSDKLQPAGAEPTPRKVPDVLV  
ALPDIPLPAIQTNYPRLPSLELISSEFQPKRKAFFSSPQEEEEAGFTGRRMNSKMVYSGSK  
CAYLPKMMTLHQQCIRVLKNNIDSI FEVGGVPYSVLEPVLERCTPDQLYRIEENHVLIE  
ETDQLWKVHCHRDFKEERPEEYESWREMYLRLQDAREQRLRLLTNNIRSAHANKPKGRQA  
KMAFVNSVAKPPRDVRRRQEKFGTGGAAVPEKVRKIPAPYTTGSSHPASNSSSSFHSSP  
EELAYEGPSTSSAHLAPVASSSVSYDPRKPAVKKIAPMMAKTIKAFKNRFSRR

>Q8IYF1

MAAGSTTLHAVEKQLQVRLATKTEPKKLEKYLQKLSALPMTADILAETGIRKTVKRLRKHQ  
HVGDFARDLAARWKKLVLDNRNTRPGPDPEESASRQRFGEALQDQEKAWGFPENATAPR  
SPSHSPEHRRTARRTPPGQQRPHPRSHSREPRAEKCPRIAPADSGRYRASPTRTAPLRM  
PEGPEPAAPGKQPRGRHTHAAQGGPLLCPGCQGPQKAVVSHSKGHKSSRQEKRPLCAQ  
GDWHSPTLIREKSCGACLREETPRMPSWASARDRQPSDFKTDKEGGQAGSGQRVPALEEA  
PDSHQKRPQSHSNKKRPSLDGRDPGNGTHGLSPEEKEQLSNDRETQEGKPTAHLDRTS  
VSSLSEVEEVDMAEEFEQPTLSCEKYLTYDQLRKQKKKTGKSATTALGDKQRKANESKGT  
RESWDSAKKLPPVQESQSERLQAAGADSAGPKTVPSHVFSSELWDLSEAWMQANYDPLSDS  
DSMTSQAKPEALSSPKFREAAFPGRRVNAKMPVYSGSRPACQLQVPTLRQQCAQVLRNN  
PDALSDVGEVPYVWLEPVLEGEWRPDQLYRRKKDNHALVRETDELRRNHCFQDFKEEKPQE  
NKTWREQYLRLPDAPEQRLRVMTTNIRSARGNNPNGREAKMICFKSVAKTPYDTSRRQEK  
SAGDADPENGEIKPASKPAGSSHTPSSQSSSGGRDSSSSILRWLPEKRANPCLSSSNEH  
AAPAAKTRKQAAKKVAPLMAKAIRDYKRRFSRR

>Q8NG57

MAAGSTTLRAVGLQVRLATKTEPKKLEKYLQKLSALPMTADILAETGIRKTVKRLRKHQ  
HVGDFARDLAARWKKLVLDNRNTRPGPDPEESASRQRFGEALQEREKAWGFPENATAPR  
SPSHSPEHRRTARRTPPGQQRPHPRSPSREPRAEKRPMPADSGPHRDPPTRTAPLRM  
PEGPEPAVPGEQPRGRHAHAAQGGPLLGQCQGPQGEAVGSHSKGHKSSRGASAQKSP  
VQESQSERLQAAGADSAGPKTVPSHVFSSELWDPSEAWMQANYDILLSAFEAMTSQANPEAL  
CAPALQEEAAMPGRRVNAKMPVYSGSRPACQLQVPTLRQQCLRVPRNNDALGDVEGVPY  
SVLEPVLEGEWTPDQLYRTEKDNAALARETDELWRIHCLQDFKEEKPEHEHSWRELYLRLR  
DAREQRLRVVTTKIRSARENKPSGRQTKMICFNSVAKTPYDASRRQEKSAGAADPGNGEM  
EPAPKAPAGSSQAPSGLDGDDGSSVSGGSSNRHAAPADKTRKQAAKKVAPLMAKAIRDYK  
GRFSRR

>P62869

MDVFLMIRRHKTTFITDAKESSTVFELKRIVEGILKRPPEEQRLYKDDQLLDDGKTLGEC  
GFTSQATARPAQAPATVGLAFRADDTFEALRIEFPSSPELDPVMPKQDSGGSANEQAVQ

>Q9ESC1

MRLLLLLVGLSTLLNHSYTQNKTPCLPNAKCEVLDEVAACFCSTGYTGNGITICEDVDE  
CNETSVCGDHAVCENTNGGFSCFCVEGYQTSTGKTQFTPNDSYQCQDVDECNETSVCGDH  
AVCENTNGGFSCFCVEGYQTSTGKTQFTPNDSYQCQIVNSNCHLEHDCIAANINKTLKR

IGPITEQLTLLHEIYKNSEAELSLVDIVTYIEILTESSSLQGYIKNTTSPKDAYFGSALT  
EFGKTVNNFVEKNTHMWDQLPTNRRRLHLTKLMHAAEHVTLQISQNIQKNTQFDMNSTD  
LALKVVFVDSVHMKHHTPHMNVDDGGYVKISPRRKSAYDPNGNVIVAFLCYRSIGPLLSSS  
DDFLLGAQSDNSKGKEKVISSVISASISSNPPTLYELEKITFTLSHVKLSDKHQTCFAFW  
NYSVDDMNNGSWSSEGCELTYSNDTHTSCRCSHLTHFAILMSPSTSIEVKDYNILTRITQ  
LGIISLICICLAICIFTFWFFSEIQSTRTTIHKNLCCSLFLAQLVFLVGININTNKLVCESI  
IAGLLHYFFLAFAWMCIEGIYLYLIVVGLIYNKGFLHKNFYIFGYLSPAVVVGFSSASLG  
YRYGGTTKVCWLSTENFIWFSFIGPACLIILVNLLAFGVIYKVFRRHTAGLKPEVSCYEN  
IRSCARGALALLFLGTTWTFVGLHVHASVVTAYLFTVSNAFQGMFIFLFLCVLSRQIQ  
EYYRFLFKNVPCCFECLR

>Q91ZE5

MLMGATRDMSGSRCLLHASVPGMLLIWSILQMMNISASCPQCENENASCFNSTHCVCKEGFW  
TGSENRRIIEPHEKQDINECLLKELVCKDVSYCRNKIGTYICSCVVKYPLFNWVAGIIN  
IDHPDCYVNSKNTGSKTHTLGLVSEFKSKEEVAKGATKLLRKVEHHILNENSDIPKKDE  
NPLLDIVYETKRCKTMTLLEAGNNTMKVDCTSGFKEHNSGGETAVAFIAYKSLGNLLNGS  
FFSNEEGFQEVTLNSHIVSGAIRSEVKPVLSEPVLLTLQNIQPIDSRAEHLCVHWEGSEE  
GGSWSTKGC SHVYTNN SYTICKCFHLSSFAVLMALPHEEDGVLSALSVITYVGLSLSLLC  
LFLAAITFLLCRPIQNTSTTLHLQLSICLFLADLLFLTGINRTKPKVLCSEIAGMLHYLY  
LASFMWMFLEGLHLFLTVSNLKVANYSNSGRFKKRFMPVGYGLPAFIVAVSAIAGHKNY  
GTHNHCWLSLHRGF IWSFLGPAAAIILINLVFYFLI IWILRSKLSLNLKEVSTLQDTKVM  
TFKAI VQLFVLGCSWGIGLFI FIEVGKTVRLIVAYLFTI INVLQGVLI FVMVHCLLNRQVR  
MEYK KWFHRLRKEVESESTEVSHTTHTKMGLSLNLENFCPTGNLHDPDSISILPSTE VAG  
VYLSTPRSHMGAEDVNSGTHAYWSRTISD

>P12294

MKKQNLNSILLMYINYIINYFNNIHKNQLKKDWIMGYEYMYKFLMNNMTCFIKWDNNKIL  
LLLDMYYNVLYNYHKQRTPM SNKRLMNSKNIMVPGPGHGSRNPARRLF RGPATGAGTPQG  
DYKLLYTYFYI LNKMKMEMDNYNNNNNNNSILKYNELLKNIMNNLNYKTSNIEETNLSNNFY  
LMDKYLINKYMKYLVPAPAGTPQGEYIKYNSSRPQPGPRKENMLNMI PNNYMFNNINYKG  
KLNIKTVDLNNNEFYDYL SGLIEGDGYIGPKGITITNHANDVLNTIFINKRIKNSILVE  
KWMDTLKDNPYFVNAFSINIKTNLAKEKIFTNIYNKLYSDYKINQINNHI PYNYLKI NN  
KLP IKNIMVPGPGHGSRNPTRRYFRGPATGAGTPQGD IKNNYWLAGFTAADGSFLSSMYN  
PKDTLLFKDMRPSYVISQVETRKELIYLIQESFDLSISNVKKVGNRKLKDFKLFTRTDE  
LMKFIYYFDKFLPLHDNKQFN YIKFRFNTFIKSYNWNVRVFGVLVSEYINN I KIDNYDYY  
YYNKYINMHNARKPKGYIK

>P98072

MGSKRVSRSRHRSLTTYEVMFVAVLVILVALCAGLIAVSWLSIQGSVKDAAF GK SHEARG  
TLKIIISGATYNPHLQDKLSVDFKVLAFDIQQMIDDIFQSSNLKNEYKNSRVLQFENGSI I  
VIFDLLFDQWVSDKNVKEELIQGIEANKSSQLVTFHIDLNSIDITASLENFSTISPATTS  
EKLTTISIPLATPGNVSIECPPDSRLCADALKCIAIDLFCDGELNCPDGSDEDNKTCATAC  
DGRFLLTGSSGSFEALHYPKPSMNTSAVCRWIIRVNQGLSIQLNFDYFNYYADVLNIYE  
GMGSSKILRASLWSNPNGIIRIFSNQVTATFLIQSDESDYIGFKVITYTAFNSKELNNYEK  
INCNFEDGF CFWIQDLNDDNEWERTQGSTFPSTGPTFDHTFGNESGFYISTPTGPGGRR  
ERVGLLTLPLDPTPEQACL SFWYYMYGENVYKLSINISSDQNM EKTIFQKEGNYGQNNWY  
GQVTLNETVEFKVSFYGFKNQILSDIALDDISLTYGICNVS VYPEPTLVPTPPPELPTDC  
GGPHDLWEPTTFTSINFPN SYPNQAFCIWNLNAQKGN IQLHFQEFDLENIADVVEIRD  
GEGDDSLFLAVYTGPGVNDVFS TTNRMTVLFITDNMLAKQGFKANFTTGYGLG IPEPCK  
EDNFQCKDGECIPLVNLCDGFPHCKDGSDEAHCVRLFNGTTDSSGLVQFRIQSIWHVACA

ENWTTQISDDVCQLLGLGTGNSSVPTFSTGGGPYVNLNTAPNGSLILTPSQQCLEDLIL  
LQCNKYKSCGKKLVTEVSPKIVGGSDSREGAWPWVVALYFDDQQVCGASLVS RDWLVSAA  
HCVYGRNMEPSKWKAVLGLHMASNLTSPOIETRLIDQIVINPHYNKRRKNNDIAMMHLEM  
KVNYTDYIQPICLPEENQVFPGRICSIAGWGALIYQGSTADVLQFADVPLLSNEKCQQQ  
MPEYNITENMVCAGYEAGGVDSQCQDSSGGPLMCQENNRWLLAGVTSFGYQCALPNRPGVY  
ARVPRFTEWIQSFLH

>P07903

MDPGKDEESRPQPSGPPTRRK FVIPL EEEEEVPCAGVKPLFRSSRNPTIPATSAHMAPQTY  
AEYAITQPPGGAGATVPTGSEPAAGENPSQTLKTGAKSNSIIVSPRQRGNPVLK FVRNVP  
WEFGEVIPDYVLGQSTCALFLSLRYHNLHPDYIHERLQSLGKNFALRVLLVQVDVKDPQQ  
ALKELAKMCILADCTLVLWASAEAEAGRYLETYRAYEQKPADLLMEKLEQNFLSRATECLT  
TVKSVNKTDSQTL LATFGSLEQLFTASREDLALCPGLGPQKARRLFEVLHEPFLK VPR

>Q92889

MAPLLEYERQLVLELLD TDGLVVCARGLGADRLLYHFLQLHCHPA CLVLV LNTQPAEE EY  
FINQLKIEGVEHLPRRV TNEITSNSRYEVYTQGGVIFATSRILVVDFLTDRIPSDLITGI  
LVYRAHRIIESCQEA F ILRLFRQKNKRGF IKAFTDNAVAFDTGFC HVERVMRNL FVRKLY  
LWPRFHVAVNSFLEQHKPEVVEIHVSMTPTMLAIQTAILDILNACLKELKCHNPSLEVED  
LSLENAIGKPFDKTIRHYLDPLWHQLGAKTKSLVQDLKILR TLLQYLSQYDCVTF LNLE  
SLRATEKAFGQNSGWLFLDSSTSMFINARARVYHLPDAKMSKKEKISEKMEIKEGEETKK  
ELVLESNPKWEALTEVLKEIEAENKESSEALGGPGQVLICASDDRTCSQLRDYITLGAEAF  
LLRLYRKTFEKDSKAEVWMKFRKEDSSKIRKSHKRPKDPQNKERASTKERTLKKKKRK  
LTLTQMVGKPEELEEEEGDVEEGYRREISSSPESCPEEIKHEEFDVNLSSDAAFGILKEPL  
TIIHPLLGCDPYALTRVLHEVEPRYVVLVYDAELTFVRQLEIYRASRP GKPLRVYFLIYG  
GSTEEQRYLTALRKEKEAFEKLI REKASMVVPEEREGRDET NLDLVRGTASADVSTDTRK  
AGGQEQNGTQQSIVVDMREFRSELPSLIHRRGIDIEPVTLEVGDI LTPEMCVERKSISD  
LIGSLNNGRLYSQCISMSRYKRPVLLIEFDPSKPFSLTSRGALFQEISSNDISSKL TLL  
TLHFPRRLRILWCPSPHATAELFEELKQSKPQPDAAATALAITADSETLPESEKYNPGPQDF  
LLKMPGVNAKNCRSLMHVKNIAELAALSQDELTSILGNAANAKQLYDFIHTSF AEVVS K  
GKGKK

>O16520

MSAPAAGATAGGDDAADRN VEMWKIKRLIKSLELARGNGTSMISLIIPPKDQVARIQRML  
AEEYGTASNIKSRVNR LSVLGAITSVQGR LKLYNKVPPNGLV VYCGT IMTDEGKEKKVNI  
DFEPFKAINTSLYLCDNKFHTEALQGLLADDNKFGFIIMDGNGCLFGT LQGNTR EVLHKF  
TVDLPKKHGRGGQSAVRFARLRNEKRHN YVRKVAENSVEQFIKNDKVTVAGLILAGSADF  
KTELQSDMFDQRLQAKMIKTVDIAYGGENGFNQAI ELAADTLASVKFIQEKKLIGGYFD  
EISQDTGKYVFGVKDTLAALEMGA IETLICWENLDIVRYKMKNSLGEDILLNLRPDEEKD  
KSHFTDSETGQDMEI IETMP LLEWFANNYKNFGAALEIVTDKSQEGAQFVRGFGGIGGLL  
RYRVDLAHVDLEDEL DNIDLDY

>Q9NCP1

MSINPDAPQSNGEQERQIAIWQLKRTIEKLESYTGSGT SVISLLIPPGEQLSSVTGMLTN  
EYGTASNIKSRVKNNAVL SAITSAMSR LKLYNRLPPNGLAVYCGEIEEDGKNTKVVIDYT  
PYKPI SNFIYLCDSKFHTEHLRELLTND DTFGFIIMDGKETLMATLSGTVRTILDRSTVD  
LPKKHGRGGQSSVRFARLREEARHN YVRKVAERANSLFISSGPTGTNKP IVSGLILGSA  
DFKNVLSTSAIFDQRLQSIVMKQIDIN YGGEQGFNQA IEMAGDTLKDVKLIQEVKLLTEF  
TENIAKDKTRVCFGITD TIRCLEMSAVEKLI VWDLPYHRVTLQCVINGETSAPVIKYL L  
KSQMSNP KYLREVINGEEVQLDIMGDQLLEWFVDNYKNYGASLEFITNRS AEGTQFCSG

FGGIGGLLRWQVDLVEAARFMQESDEDSFMDDLEDFI

>Q9BMX3

MVESIAAGQVSDNKHIEMWKVKKLI SKLEHCKGNGTSMVSLI IPPKDDINKYGKLLTGEM  
SAAQNIKSRIITKQSVVTAITSTKEKLLKYKQTPPTNGLCLYCGVIYMEDGKTEKKINFD  
PFRPINQFLYFCGGKFQTEPLLSLLADDDKFGFI IVDGNGALYATLQGNSREILQKITVE  
LPKKHRKGGQSSVRFARLREEKRHNYLRKVAELANQNF ITNDRPNVTGIVLAGNAAFKNE  
LAETDMLDKRLLPVICAVVDVSYGGENGLNEAITLAAEALTNVKFVAEKKLVSKFFEEIA  
LDTGMIVFGVDDTMKALELGAVETVLLFEELDINRYVLKNPVKGDTKTIYLNSTQQKDSK  
YFKDRETGMDLDVVSEDSLAEWLCHNYQNYGAQVEFITDKSQEGFQFVKGFGGIGGFLRY  
KVDIEDHHGDLGAGGDDDFDPDTDFI

>Q9U8U5

MEEKDQRQRNIEHFKIKKLMTRLRNRTRGSGTSMVSLI IPPKKQINDSTKLI SDEF SKATN  
IKDRVNRQSVQDAMVSALQRLKLYQRTPNNGLILYCGKVLNEEGKEIKLLIDFEPYKPIN  
TSLYFCDSKFHVDELGSLLETDPFPGFIVMDGQGALYANLQGNKTVLNKFSVELPKKHG  
RGGQSSVRFARLRVEKRHNYLRKVCEVATQTFISQDKINVQGLVLAGSGDFKNE LSTTQM  
FDPRLACKIIKIVDVSYGGENGLNQAI ELAQESL TNVKFVQEKNVISKFFDCIAIDSGTV  
VYGVQDTMQLLLDGVIENILCFEELTTLRVTRKNKVTEQITHIFIPPNELNPKHFKDGE  
HELEKIEVENL TEWLAEHYSEFGAELYFITDKSAEGCQFVKGFSGIGGFLRYKVDLEHIV  
NPND EYNYEEEEEGFI

>Q9NAX8

MTDHELSESEKAIERYKVKKLIQMLE SARGMGTSVISIYMPKEQISGMVTKLNNEYGTA  
SNIKSHTNKLSVQSAITASLGRKQYNRLPPNGLLLYCGTVLTAENKEKKLTLTDIEPFKP  
VSRSLYLCDNKFHTEELHRMLE SDEKFGFIVVDGSGTTYATLCGSVKEKLSSTVELPKK  
HGRGGQSKNRFARIRMERRHNYLRKVAEGATQLFITNDRPNIVGLVLAGSAEFKEVLYQS  
DLFDPRLKAIIVKVVDVAHPGDVGLNQAIDLAADALSGVKLVQEKLLQGFFDQIACDTQ  
LYCFGVQDTLKCLEAGAVETLIVYEDLNIYRYTVVKNRGADDEETFVHVMSEEEAKRSNI  
HMQESGKTRNEIEQEDFVDWLATNYRKFGCALELITNRSQEGTQFVRGFGGIGGVLRYKL  
DIIALRDVEKKEDDEERIAANNEEFDFDDDFM

>P53045

MSAVFN NATLSGLVQASTYSQTLQNV AHYQPQLNFM EKYWAAWYSYMNNDVLATGLMFFL  
LHEFMYFFRCLPWFIIIDQIPYFRRWKLQPTKIPSAKEQLYCLKSVLLSHFLVEAIP I WTF  
HPMCEKLGITVEVPF PSLKTMALEIGLFFVLEDTWHYWAHRLFHYGVFYKYIHKQHRYA  
APFGLSAEYAHPAETLSLGFGTVMGPI LYVMYTGKLLHFLTLCVWITLRLRFQAVDSHSGYD  
FPWSLKNIMPFWAGAEHHDLHHHYFIGNYASSFRWWDYCLD TESGPEAKASREERMKKRA  
ENNAQKKTN

>P40030

MFSLQDVIITTTKTTLAAMPKGYLPKWLLFISIVSVFN SIQTYVSGLELTRKVYERKPTET  
THLSARTFGTWFIFISCVIRFYGAMYLNEPHIFELVFMSYVALFHFHGSSELLIFRTCKLGK  
GFMGPLVVSTTSLVWMYKQREYYTGVAW

>Q9YVX9

MNKIILEDL KESNVPLYIPQILPHQLATLDFL NERSLKEKKS VLLFHKMGSGKTIISLLF  
SIIASIETKILII LPNTS IMDIWISKLYDSL LLLLNKNDKYNLNNIEFTTRSRLNEELLGT  
NKNINDIITENIKKYDNYIIIIIDEAHNFFGNASGELL IHIKQNSTARYVLLTGSPISNTI  
ESLKDIVELLTNETFEYNKYIESAGNKVFQQRINKQGI ELLKNKLTGLISYYDEDRKDIP



SPIFQGNIKLLNYPVVLCPMSKQLQEDNYNMI SNQ TENDMF IKLMMNVSLVALGDKENYTN  
FDLLMASNKQIFPNFYVSNKGF IGQELIDLNISSKLYFMNSILTSPNAGKRF IYFANST  
IGSTIIRSVMIANGISEYDKEIVNNFVCVNCLKERN CNKECIPMKFVIITSKESNKGNN  
SYINKILSVFNEDVNENGSVIMFLFGSRIIAEAYTLKDIKEIWFLTPETKSELEQCIAR  
AIRSFAYKDKNTRVVVRICLATTPNALSNEISQIIEKYKDESLSDDEKTLNKNKFMKLV  
NYAIDLPHYDLRKLQYSEFKSEKAKVAYNIFINLSILTNNILNDNLIKCFIEKIRRYSYE  
NSRYKLDILSYIKKNLKFYDKNKIEDYVNEFVNDGVVVYKNSFGTCYIDWFKDDIVVKQ  
IILEFNYYLLSYNY

>P04308

MNTGIIDLFDNHVDSIPTILPHQLATLDYLVRTI IDENRSVLLFHIMGSGKTI IALLFAL  
VASRFKKVYILVPNINILKIFNYNMGVAMNLFNDEF IAENIF IHSTTSFYSLNYNDNVIN  
YNGLSRYNNSIFIVDEAHNIFGNNTGELMTVIKNKNKIPFLLLSGSPITNTPNTLGHIID  
LMSEETIDFGEIISRGKKVIQTLNERNGVNVLKDLLKGRISYYEMPDKDLPTIRYHGRKF  
LDTRVVYCHMSKQLQERDYMITRRQLCYHEMFDKNMYNVSMALVGLQNLNMLNLDTLFQEOD  
KELYPNLKINNGVLYGEELVTLNISSKFKYFINRIQTLNGKHFYFNSSTYGGGLVIKYIM  
LSNGYSEYNGSQGTNPHMINGKPKTFAIVTSMKMSLEDLLDVYNPENDDGSQLMFLFS  
SNIMSESYTLKEVRHIWFMTIPDFTSQYNQILGRSIRKFSYADISEPVNVYLLAAVYSDF  
NDEVTSLNDDYTDDELINVLFPDIKKLLYLKFKTKETNRIYSILQEMSETYSLPPHPSIVK  
VLLGELVRRQFFYNNSRIKYNDKSKLLKMTSVIKNKEDARNYIDDIVNGHFFVSNKVFDKS  
LLYKYENDIITVPPRLSYEPFVWGVNFRKEYNVVSSP

>Q9YW29

MDYIETFINPQVIFLYNENKKI IKTIIFLSKDSMIEDSHVMTVYNYLLSSHSDIFENKPOF  
INDHVILTFTLEQARGYIKNILGLSDDIILFSIWNNFYLLKNGIFDPYNIQNMMLLVEPN  
DDKSILYNIYQNIIVEGAVFCVTTNKNIGSQLARSNVYSSVYRDYISEI INNIYKNRYAMK  
SSIIDAMEYSINIDFQDLRISNIPDYNKTLICISAYNNFYIKGNKITILDNFDSMYESKY  
LKIYDKNININIYDDVLYVKKLSDFTDILNKYNIKSINIKSLKPKTTIYVYFNTFLNPNL  
TIEFDFDFFINDTKKTKNIFIDLTKINIMTSQSHISYRSYNISTDLAKYFTLFLILGYSH  
IFNKVQSKAKIKKIDELYPTRYCQNYKDIKRQPILIDHIDESRLIKISDNFYTGKEDSTK  
TYQRKGTKKVYDPLKHGDVYIDSNGLKYQCSSIIYYSNMGFLGNIYSATGICYPCCYSKPK  
IRDTIFNTCVHGTGKFIHEEKINPIVNYGRLILNPSNLSNLPYKLNLLNLSKNQIRIVKH  
TNRIILAKNYTVIMAYQPSTIIKDFNEMYNFIIENNAILFNDNMMYTHKDIENNNITPS  
IFILIQNRHIFKFNINKEQDNDNITVSIVDSNKINLIKKNFVSLNNTKEISENGITVKN  
GKCYIDGELVKNKNITYFTKFSNITIRPKSISEYILKYFKKYIDDNITYTDNYFLFNKIFV  
TNILNIMHENDAILNDFSVIQKLLDDMSSDYIVTQSKTYN

>Q9QB84

MKYTISPQLVIYVKGQEI KRALYLTPYGI LDDKSSIIYFLKTHLNIHNPEIHKRHILLT  
LKIRQVKGYLSNLLNINDDII IYSHKNNLEFSYVDNTIFNPFNTQQRKTLIRSDGFLYNI  
YPGACDFLVIWVTNSKDTPMLEFGSYEEVDSNILKFENHLLDVFNSLDLEMNIESKFNNI  
FRTNLKSTGLMTIIKKINESDTSYKSLLYKSDEYFINMTGNHFILTDEKLNLSVWDSWSC  
LAFSSDGDIVINNVLKFTLVDINAQMERIKGDVYKVFVLPSTPITSRIKLDIETSFVF  
VETATNNILLSADKKISII LAKNHISIKVKNYIPNIEKYFTFLVVAINSMFNSVQRSSDF  
TKVETVYWSRICQNTNKNRKPVI VSSLDVDMKKSINCFYKSKSLEVFINSNGVMFSCID  
PMGKYNSIGFLSIFYKQKMCIPCCFLKQSHDTDFSSCVYKDVSNDIISPYILNFGKV  
VTKSKI SFLPIIFDSFLNEGLRISFEQDNKRLKETTYGHVVKSCNGDIIRLRTTSDIIAF  
VNDKNTILIIADDIIYFPMNYFSIGNNIYILVQEVHEVVLVKKNINKDVI STFSPNSIIL  
RELFPKQTKSVTIRSDSGMELTTDGLIDGVKFNKDLSSKFMFTFKNVTTSDYISKYFSP  
LFKYVITESKERFIKTWVINIMLNFESDVNI ESSVII SRLEEYYPNHGKKITN

>Q9C6I6

MTRTVLLRALTKNKFVASNAPRSISISITSLSRCISTLILAEHESGTIKPQTVSTVVAAN  
SLGESSSISL LLAGSGSSLQEAASQAASCHPSVSEVLVADSDKFEYSLAEPWAKLVDFVR  
QQGDYSHILASSSSFGKNILPRVAALLDVSPITDVVKILGSDQFIRPIYAGNALCTVRYT  
GAGPCMLTIRSTSFPVTPITANSESKKATVSQIDLSNFEDDSVSKSRYVGRSTQDTERPD  
LGSARVVITGGRALKSVENFKMIEKLAEKLGAVGATRAAVDAGYVPNDLQVGQTGKIVA  
PELYMAFGVSGAIQHLAGIKDSKVIVAVNKDADAPIFQVADYGLVGDLEFVIPLELLEKLP  
EKK

>P94551

MGKKVIVLGEIRDGELRNVTFEAIAAGRTISGDGEVIGVLIGENVQSI AQELIHYGADKV  
LTAEDPKLKTYTADGYSQVMRGVIEQENPDSVIFGHTAMGKDLSPKLAARLQTGLISDAI  
DVSVTGGNVVFTRPIYSGKA FERVISTDPMIFATIRPNNIQASEKDTSRSGSIESIDVSL  
TDLRTVIQEVVKKTADGVDLSEAKIIVAGGRGVKSKEGFQPLQELAEVLGAAVGASRGAC  
DADYCDYALQIGQGTGVVTPDLYIACGISGAIQHLAGMSNSKVIVAINKDPEADIFKIID  
YGIVGDLEFVVPLLTEEFKQLNIHS

>P53573

MTTLLIAEHDNASLKDATNKALTA AAAALGADVEVLVAGEGAKAAAADAAKLAGVKKVLLA  
DGALYAHDLAEPLAALIVSLAPSYDAIVAPATSRFKNVMPRVAALLDVMQVSEI IKVVAP  
DTYERPIYAGNAIQTVKSKDAKKVITVRTSTFAAAGEGGSAPVESVQAAADPGLSSFVGE  
EVAKSDRPELTSAKIIVSGRAMQSR ENFAKYIEPLADKLGAGVGASRAAVDAGYAPNDW  
QVGQGTGKVVAPELYVAVGISGAIQHLAGMKDSKVIVAINKDEDAPIFQVADYGLVADLYQ  
AVPELTAELGKLGK

>P52039

MNKADYKGVVWFAEQRDGELQKVSLELLGKGKEMAELGVELTAVLLGHNTEKMSKDLLS  
HGADKVLAADNELLAHFSTDGYAKVICDLVNERKPEILFIGATFIGRDLGPRIAARLSTG  
LTADCTSLDIDVENRDLLATRPAFGGNLIATIVCSDRPQMATVRPGVFEKLPVNDANVS  
DDKIEKVAIKLTASDIRTKVSKVVKLAKDIADIGEAKVLVAGGRGVGSKENFEKLEELAS  
LLGGTIAASRAAIEKEWVDKDLQVGQGTGKTVRPTLYIACGISGAIQHLAGMQDSYIIAI  
NKDVEAPIMKVADLAI VGDVNKVVPELIAQVKAANN

>P71153

MNDYKDIWIFAEQRNGKLMNVAIEILGEARKLADKKGVNVGAVLIGHNVENLSKDLISFG  
ADIVYVVDNPLL SNYTTTEGYAKAISELAKEYKPEVILYGATFIGRDLAPRIASRLMTGLT  
ADCTGLDIDENGLLQTRPAFGGNLMATIKCPDKRPMSTVRPGVIKELLEMIQEMGKVI  
KFDADINESDIRTKILSIAKEAKNVNLEEADIIVS GGRGIGGPDGFNI IKELADV RGGV  
VGASRATVDAGWITSDHQVGQGTGKTVRPKLYIACGISGAIQHLAGMSNSGTIVA INKNPD  
APIFKFADYGIVGDLFKVIPVLIIEEIKKLLK

>P13804

MFRAAAPGQLRRAASLLRFQSTLVIAEHANDSLAPITLNTITAATRLGGEVSCLVAGTKC  
DKVAQDLCKVAGIAKVLVAQHVDVYKGLLPEELTPLILATQKQFN YTHICAGASAFGKNLL  
PRVAAKLEVAPISDIIA IKSPTDFVRTIYAGNALCTVKCDEKVKVFSVRGTSFDAAATSG  
GSASSEKASSTSPVEISEWLDQKLT KSDRPELTGAKVVVSGGRGLKSGENFKLLYDLADQ  
LHAAVGASRAAVDAGFVPNDMQVGQGTGKIVAPELYIAVGISGAIQHLAGMKDSKTIVAIN  
KDPEAPIFQVADYGIVADL FKVVPPEMTEILKKK

>O85692

MDLAEYKGIYVIAEQFEGKLRDVSFELLGQARILADTIGDEVGAILIGKDVKPLAQELIA  
HGAHKVYVYDDPQLEHYNTTAYAKVICDFFHEEKPNVFLVGATNIGRDLGPRVANSKLTG  
LTADCTQLGVDDDKKTIVWTRPALGGNIMAEIICPDNRPMGTVRPHVFKKPEADPSATG  
EVIEKKANLSADDFMTKFFVELIKLGGEGVKIEDADVIVAGGRGMNSEEPFKTGILKECAD  
VLGGAVGASRAAVDAGWIDALHQVQGTGKTIVGPKIYIACAISGAIQPLAGMTGSDCI IAI  
NKDEDAPIFKVCDYGIVGDVFKVLP LLTEAIKKQKGI A

>P53571

MSKILVIAEHRNDLRPVSLLELIGAANGLKKSAGEDKVVVAVIGSQADAFVPALSVNGVDE  
LVVVVKSSIDFDPDVF EASVSALIAAHNPSVLLPHSVDSLGYASSLASKTGYGFATDVY  
IVEYQGDELVATRGGYNQKVNVEVDFP GKSTVVL TIRPSVFKPLEGAGSPVVSNDAPSV  
QSRSQNKDYVEVGGNDIDITTVDFIMSIGRIGI EETNVEQFREL ADEAGATLCCSRPIA  
DAGWLPKSRQVQSGKVVGSCKLYVAMGISGSIQH MAGMKHVPTIIAVNTDPGASIFTIA  
KYGIVADIFDIEEELKAQLAA

>O33096

MAEALVVEHTEGALKKVS AELITAARVLGEPAAVVVGTSGTAPLVDGLKTAGAAKIYV  
AESDAADKYLITPVVDVLAALAESSAPAAVLLAATADGKEIGGRLAARIGSGLLVDVVDV  
REGAVGVHVSFVGGVFIVEAQANGDTPVITVRAGAVEAQPAEGAGEQVSVEVPAPAENATK  
ITARAPAVVDNRPDLEATVVVSGRGGVGSADNFSVVEALADSLGAAVGASRAAVDSGYY  
PGQFQIGQTGKTIVSPQLYIALGISGAIQH RAGMQTSKTI VAVNKDEEAPIFEIADFGVVG  
DLFKVAPQLTDGIKARKG

>P94550

MNLFVLMKRTFDTEEKIV IETGKI QDDGAEWI INPYDEYAI EEA IQLKEKHGGTITAVTV  
GGEEAEKELRTALAMGCDQAVLINIEDDLDEPDQYSISQVLYHYMKDQEFDLILGGNVAI  
DGGSGQVAPRLAELLDIPCI TTTITKLE INGTDAEAERDVEGDVEKIKTTLPLLVT AQQGL  
NEPRYPSLPGIMKAKKKPLEEELDDLDLDEEDAEPKLTIERFLPPKKEAGKLLQGEPA  
EQAKELVSLLRSEAKVI

>P97089

MNILVLIKQVPDTNEVRIDPVTKTLIREGVPSI INPDDKNALEEAIRIREKVGGKVTVIS  
MGPTQAEVALREALAMGADEAYLLTDRAFAGADTYATAKALSKAIEKFQYDIVFCGRQAI  
DGDTAQVGPQIAEQLDIPQV TYVRKVEIEGDKLIVERALEDGYEIEVKT PVL LTAIKEL  
NVP RYPSIKGIFNAYNKKEVKILTADDLEVDKNELGLKGSPTKV VATSTP NTERAGEIFT  
GNIKEAVQNLVERLNSRHVI

>P38117

MAELRVLVAVKRVIDYAVKIRVKPDRGTGVVTDGVKHSMPFCEI AVEEAVRLKEKKLVKE  
VIAVSCGPAQCQETIRTALAMGADRGIHVEVPPAEAERLGPLQVARVLAKLAEKEKVDLV  
LLGKQAIDDDCNQTGQMTAGFLDWPQGTFFASQVTLEGDKLVKVEREIDGGLET LRLKLPV  
VTADLRLNEPRYATLPNIMKAKKKIEV IKPGDLGVDLTSKLSVISVEDPPQRTAGVKVE  
TTEDLVAKLKEIGRI

>O85691

MEILVCVKQVPDTAEVKIDPVKHTVIRAGV PNIFNPF DQNALEAALALKDADKDVKITLL  
SMGPDQAKDVLREGLAMGADDAYLLSDRKLGGSDTLATGYALAQAIKKLAADKGI EQFDI  
ILCGKQAIDGDTAQVGPQIACELGIPQIT YARDIKVEGDKVTVQQENE EGYIVTEAQFPV  
LITAVKDLNEPRFPTIRGTMKAKRREIPNL DAAA VAADDAQIGLSGSPTKVRKIFT PPQR

SGGLVLKVEDDNEQAIVDQVMEKLVQAQKII

>P53570

MKILVAVKQTAALEEDFEIREDGMDVDEDFMMYDLNEWDDFSLEEAMKIKESSDTDVEVV  
VVSVPDRVDESRLRCKLAKGADRVRVWDDAAEGSDAIVVGRILTEVIKKEAPDMVFAGV  
QSSDQAYASTGISVASYLNWPHAAVVADLQYKPGDNKAVIRRELEGGMLQEVEINCPAVL  
TIQLGINKPRYASLRGIKQAATKPIEEVSLADIGLSANDVGAAQMSRVRMYIPEKGRA  
TMIEGTISEQAQKIIQIINEFKGA

>P64098

MTNIVVLIKQVPDTWSERKLTGDGFTLDREAADAVLDEINERAVEEALQIREKEAADGIE  
GSVTVLTAGPERATEAIRKALSMGADKAVHLKDDGMHGSQVITGWALARALGTIEGTEL  
VIAGNESTDGVGGAVPAIIAEYLGLPQLTHLRKVSIEGGKITGERETDEGVFTLEATLPA  
VISVNEKINEPRFSPFKGIMAAKKKEVTVLTAEIGVESDEVGLANAGSTVLA STPKPAK  
TAGEKVTDEGEGGNQIVQYLVAQKII

>P38975

MKVLVPVKRLIDYNVKARVKS DSGSVDLANVKMSMNPFD EIAVEEAIRLKEKGQAE EIIA  
VSIGVKQAAETLRTALAMGADRAILVVAADDVQODIEPLAVAKILAAVARAEGTELI IAG  
KQAIDNDMNATGQMLAAIILGWAQATFASKVEIEGAKAKVTREVDGGLQTI AVSLPAVVTA  
DLRLNEPRYASLPNIMKAKKKPLDEKTAADYGVDVAPRLEVSVREPEGRKAGIKVGSVD  
ELVGKLKEAGVI

>P08709

MVSQALRLLCLLLGLQGCLAAGGVAKASGGETRDMPWKPGRVRFVTQEEAHGVLHRRRR  
ANAFLEELRPGSLERECKEEQCSFEEAREIFKDAERTKLFWISYSDGDQCASSPCQNGGS  
CKDQLQSYICFCLPAFEGRNCEETHKDDQLICVNNENGCEQYCSDHTGTKRSCRHEGYSL  
LADGVSTPTVEYPCGKIPILEKRNASKPQGRIVGGKVC PKGECPWQVLLLVNGAQLCGG  
TLINTIWWVSAAHCFDKIKNWRNLI AVLGEHDLSEHDGDEQSRRVAQVIIPSTYVPGTTN  
HDIALRLRHQPVVLT DHVPLCLPERTFSERTLAFVRFSLVSGWGQLLDRGATALELMVL  
NVPRLMTQDCLQQSRKVGDSPNITEYMF CAGYSDGSKDSCKGDSGGPHATHYRGTWYLTG  
IVSWGQGCATVGHFGVYTRVSQYIEWLQKLMRSEPRPGVLLRAPFP

>P16294

MKHLNVTMAESPALITIFLLGYLLSTECVFLDRENATKILTRPKRYNSGKLEEFVRGNL  
ERECIEERCSFEEAREVFENTEKTTEFWKQYVDGDQCESNPCLNGGICKDDISSYECWCQ  
VGFEGRNCEL DATCNKNGRCKQFCKNSPDNKVICSCTEGYQLAEDQKSCEPTVFPFCGR  
ASISYSSKKITRAETVFSNM DYENSTEAVFIQDDITDGA ILLNNVTESSSESLNDFTRVGG  
ENAKPGQIPWQVILNGEIEAF CGGAI INEKWIVTAAHCLKPGDKIEVVAGEYNI DKKEDT  
EQRRNVIRTIPHQYNATINKYSHDIALLELDKPLILNSYVTPICVANREYTNIFLKFGS  
GYVSGWGKVFNKGRQASILQYLRVPLVDRATCLRSTTFTIYNMFCAGYREGGKDSCEGD  
SGGPHVTEVEGTSFLTGIISWGEECAMKGKYGIYTKVSRVYVNWIKETKLT

>P13599

MGMSQPGVLLSLLLVL LPQTWGAEPRLPLMYHLAAVSDLSTGLPSFWATGWLGAQQYLT  
NNLRQEADPCGAWIWENQVSWYWEKETTDLKSKEQLFLEAIRTLENQINGTFTLQGLLGC  
ELAPDNSSLPTAVFALNGEEFMRFNPR TGNWSGEWPE TDIVGNLWMKQPEAARKESEFLL  
TSCPERLLGHLERGRQNL EWKEPPSMRLKARPGNSGSSVLTCAA FSFYPP ELKFRFLRNG  
LASGSGNCSTGPNGDG SFHAWSLLEV KRGDEH HYQCQVEHEGLAQPLTVDL DSPARSSVP  
VVGII LGLLLVVVAIAGGVLLWNRMRSGLPAPWLSLSGDDSGDLLPGGNLPPEAEPQGVN

AFPATS

>P30440

MRGALLVLALLVTQALGVKMAETCP IFYDVFFAVANGNELLLDLSLTKVNATEPERTAMK  
KIQDCYVENGLISRVLDGLVMTTISSSKDCMGEAVQNTVEDLKLNTLGR

>P02672

MFSVRDLCLVLSLVGAIKTEDGSDPPSGDFLTEGGGVRGPRLVERQQSACKETGWPFCS  
EDWNTKCPSGCRMKGLIDEVDQDFTSRINKLRDLSLFNYQKNSKDSNTLTKNIVELMRGDF  
AKANNNDNTFKQISEDLRSRIEILRRKVIEQVQRIKVLQKNVRDQLVDMKRLEVDIDIKI  
RSCCKGSCSRALAHKVDLEDYKNQKQLEQVIAINLLPSRDIQYLPLIKMSTITGPVPREF  
KSQLEAPLEWKALLEMQQTKMVLETFGGDGHARGDSVSQGTGLAPGSPRKPGTSSIGNV  
NPGSYGPGSSGTWNPGRPEPGSAGTWNPRPEPGSAGTWNPRPEPGSAGTWNPRPEPG  
SAGTWNPRPEPGSAGTWNTPGSSGSSFRPDSSGHGNIRPSSPDWGTFFREEGSVSSGTKQ  
EFHTGKLVTTKGDKELLIDNEKVTSGHTTTTTRRSCSKVITKTVTNADGRTEETKEVVKSE  
DGSDCGDADFWDHHTFPSRGNLDDFFHRDKDDFFTRSSHEFDGRTGLAPEFAALGESGSS  
SSKTSTHSHKQFVSSSTTVNRGSSAIESKHFKMEDEAESLEDLGFKGAHGTQKGHTKARPA  
RGIHTSPLGEPSTLP

>P02671

MFSMRIVCLVLSVVGTAWTADSGEGDFLAEGGGVRGPRVVERHQSACKDSDWPFCSDEDW  
NYKCPSGCRMKGLIDEVNDQFTNRINKLKNLSLFYQKNNKDSHSLTTNIMEILRGDFSSA  
NNRDNTYNRVSEDLRSRIEVLKRKVIEKVQHIQLLQKNVRAQLVDMKRLEVDIDIKIRSC  
RGSCSRALAREVDLKDYEDQQKQLEQVIAKDLLPSRDRQHLPPLIKMKPVPDLVPGNFKSQ  
LQKVPPEWKALTDMPQMRMELERPPGNEITRGGSTSYGTGSETESPRNPSSAGSWNSGSS  
GPGSTGNRNPSSGTGGTATWKPSSGPGSTGWSWNSGSSGTGSGTGNQNPSPRPGSTGTW  
NPGSSSERGSAGHWTSESSVSGSTGQWHSESGSFRPDSPGSGNARPNPDWGTFFEEVSGNV  
SPGTRREYHTEKLVTSKGDKELRTGKEKVTSGSTTTTTRRSCSKTVTKTVIGPDGHKEVTK  
EVVTSSEGDSCPEAMDLSGIGTLDGFRHRHPDEAAFFDTASTGKTFPGFFSPMLGEF  
VSETESRGSESGIFTNTKESSSHHPGIAEFPSRKGSSSYKQFTSSTSYNRGDSTFESKS  
YKMADEAGSEADHEGTHSTKRGHAKSRPVRDCDDVLQTHPSGTQSGIFNIKLPGSSKIFS  
VYCDQETSLLGWLIIQQRMDGSLNFRNTWQDYKRGFGSLNDEGEGEFVWLGNDYLHLLTQR  
GSVLRVELEDWAGNEAYAEYHFRVGEAEQYALQVSSYEGTAGDALIEGSVEEGAEYTS  
NNMQFSTFDRDADQWEENCAEVYGGGWYNNCQAANLNGIYYPGGSYDPRNNSPYEIE  
VWVVSFRGADYSLRAVRMKIRPLVTQ

>P04115

MGRIGTPVFLAFLSALTCSLQVHAQVRDLKQCSNDPEFGRYCPTTCGVADVLSKYAKGVD  
EDSSFIDSVLTLQLAAKHGIVEGNVNIVNEDVRI TRDEAQI IKDSGQKTVQKILEEVRILE  
QIGVSHDAQIQELSEMWRVNQQFVTRLQQQLVDIRQTCSRSCQDTTANKISPITGKDCQQ  
VVDNNGKDSGLYYIKPLKAKQPFVLFCEIENGNGWTVIQHRHDGSVNFTRDWVSYREGFG  
YLAPTLTTEFWLGNEKIHLLTGQAYRLRIDLTDWENTHRYADYGHFKLTPESDEYRLFY  
SMYLDGDAGNAFDGDFDQDKFYTTHLGMLFSTPERDNDKYEGSCAEQDGSWMMNR  
CHAGHLNGKYYFGGNYRKTDFEFPYDDGI I WATWHDWRWYSLKMTTMKLLPMGRDLSGHGG  
QQQSKGNSRGDN

>Q60687

MMKLIQLCILFWCWRAICCHSCELTNITISVEKEEERFCISINTTWCAGYCYTRDLVYKD  
PARPNTQKVCTFKELVYETVRLPGCARHSDSLYTYPVATECHCGKCDSDSDTCTVRGLGP  
SYCSFSEMKE

>P41349

MKALQASTSYSFFSKSSSATLQRRTHRPOCVILSKVEPSDKSVEIMRKFSEQYARKSGTY  
FCVDKGVTSVVIKGLAEHKDSLGAFLCPCRYDDKAAEATQGFWNCPCVPMRERKECHCM  
LFLTPENDFAGKDQTI GLDEIREVTANM

>P41347

MTSTVTTTTVCGGLPVRPLSTATRGRPRRCAVRAQAAGADASNDKSVEVMRKFSEQYARR  
SNTFFCADKTVTAVVIKGLADHRDTLGAFLCPCRHYDDKAAEVAQGFWNCPCVPMRERKE  
CHCMLFLTPDNDFAGKDQVISFEEIKEATSKF

>P80680

EVASDDVAEEAAAAPKIGRRVRVTAPLRVYHVLKAPDLDIQGMGEVVKQYVCVWKGKRV  
TANFPFKVEFELAVEGQPKPVRFFAHLREDEFEFVDG

>P38365

MTTGVAVMSSATAASTATATAAATARIPLFLSRNNSATVCSTLRCRTITRTRTRARLAI  
CCEVALKSDSSTGFDSSSSSPPEEDEELKKNLEKVGCKVKVKSPLKVYHVPKLPVELTP  
DMVGVIKQYVGFVKGYISPNYPFKVEYRIDVPDRGSVKLVVHLKEEFEEIIAE

>Q55781

MNVGDRVRVTSSVVVYHHPEHKKTAFDLQGMGEVAAVLTEWQGRPISANLPVLVKFEQR  
FKAHFRPDEVTLIED

>Q9L5D6

MLRVLHRAASALVMATVIGLAPGVAFALAEPTSTPQAPIAAYKPRSNEILWDGYGVPHIY  
GVDAPSAFYGYGWAQARSHGDNILRLYGEARGKGAEYWGPDYEQT'TVWLLTNGVPERAQQ  
WYAQQSPDFRANLDAFAAGINAYAQQNPDDISPEVRQVLPVSGADVVAHAHRLMNFLYVA  
SPGRTLGEGDPPDLADQGSNSWAVAPGKTANGNALLLQNPHLSWT'TDYFT'YEAHLVTPD  
FEIYGATQIGLPVIRFAFNQRMGITNTVNGMGVATNYRLTLQDGGYLYDGQVRPFERRQA  
SYRLRQADGSTVDKPLEIRSSVHGPVFERADGTAVAVRVAGLDRPGMLEQYFDMITAHSF  
DDYEAAMARMQVPTFNIVYADREGTINYSFNGVAPKRAEGDIAFWQGNVPGDSSRYLWTE  
THPLDDLPRVTNPPGGFVQNSNDPPWTPTWPVTTYTPRDHPSYLAPQTPHSLRAQQSVRLM  
SENDLTLERFMALQFSHRAVMADRTPDLIPAALIDPDPEVQAAARLLAAWDREFTSDS  
RAALLFEWEARLFAGQNFAGQAAFATPWSLDPVSTPYGVRDPKAAVDQLRTAIANTKRK  
YGAIDRPFGDASRMILNDVNVPGAAGYGNLGSFRVFTWSDPDENGIRTPVHGETWVAMIE  
FSTPVRAYGLMSYGNRQPGTTHYSQIERVSRADFRELLLRREQVEAAVQERTPPFNFKP

>Q06546

MTKREAEELEIEIEIDGTEKAECTEESIVEQTYAPAECVSQAIDINEPIGNLKKLLEPRLQ  
CSLDAHEICLQDIQLDPERSLFDQGVKTDGTVQLSVQVISYQGI EPKLNILEIVKPADTV  
EVVIDPDAHHAESEAHLVEEAQVITLDGTKHIT'TISDE'TSEQVTRWAAALEGYRKEQERL  
GIPYDPIQWSTDQVLHVVVWMKEFSMTDIDL'TTLNISGRELCSLNQEDFFQRVPRGEIL  
WSHLELLRKYVLASQEQQMNEIVTIDQPVQIIPASVQSATP'TTIKVINS SAKAAKVQRAP  
RISGEDRSSPGNRTGNNGQIQWLQF'LLELLTDKDARDCISWVGDEGEFKLNQPELVAQKW  
GQRKNKPTMNYEKL SRALRYYYDGMICKVQGRFVYKFCVCDLKT'LIGYSAAELNRLVTE  
CEQKKLAKMQLHGIAQPVTAVALATASLQTEKDN

>Q9Z0U4

MLLLLLLVPLFLRPLGAGGAQTPNATSEGCQI IHPPWEGGIRYRGLTRDQVKAINFLPVDY

EIEYVCRGEREVVGPVKVRKCLANGSWTDMTPSRCVRI CSKSYLTLENGKVFLTGGDLPA  
LDGARVEFRCDPDFHLVGVSSRSVCSQGQWSTPKPHCQVNRTPHSERRAVYIGALFPMSGG  
WPGGQACQPAVEMALEDVNSRRDILPDYELKLIHHSKCDPGQATKYLYELLYNDPIKII  
LMPGCSSVSTLVAAEARMWNLIIVLSYGSSSPALS NRQRFPTFFRTHPSATLHNPTRVKLF  
EKWGWKKIATIQQTTEVFTSTLDDLEERVKEAGIEITFRQSFFSDPAVPVKNLKRQDARI  
IVGLFYETEARKVFCEVYKERLFGKKYVWFLIGWYADNWFKTYDPSINCTVEEMTEAVEG  
HITTEIVMLNPANTRSISNMTSQEFVEKLTKRLLKRHPEETGGFQEAPLAYDAIWALALAL  
NKTSGGGGRSGVRLEDFNYNNQTITDQIYRAMNSSSFEGVSGHVVFASGSRMAWTLIEQ  
LQGGSYKKIGYYDSTKDDL SWSKTDKWIGGSPADQTLVIKTFRFLS QKLFISVSVLSSL  
GIVLAVVCLSFNIYN SHVRYIQNSQP NLNLTAVGCSLALAAVFP LGLDGYHIGRSQFPF  
VCQARLWLLGLGFS LGYGSMTFKIWWVHTVFTKKEEKKERKTLEPWKLYATVGLLVGMD  
VLT LAIWQIVDPLHRTIETF AKEPKEDIDVSI LPQLEHCS SKMNTWL GELWSFAVSSD  
VQRRATVGGDSPICVWPAPESIFYGYKGLLLLLGIFLAYETKSVSTEKINDHRAVGMAIY  
NVAVLCLITAPVTMILSSQOAAFAFASLAIVFSSYITLVVLFVPKMRR LITRGEWQSET  
QDTMKTGSSTNNNEEEKSRLLEKENRELEKI IAEKEERVSEL RHQLQSRQQLRSRRHPPT  
PPDP SGGLPRGPSEPPDRLSCDGSRVHLLYK

>075899

MASPRSSGQPGPPPPPPPPARLLLLLLLLPLLLPLAPGAWGARGAPRPPSPPLSIMG  
LMPLTKEVAKGSIGRGLPAVELAIEQIRNESLLRPYFLDLRLYDTECDNAKGLKAFYDA  
IKYGNHLMVFGGVCPSVTSIIAESLQGWNLVQLSFAATTPVLADKKKYPYFFRTVPSDN  
AVNPAILKLLKHYQWKRVTLTQDVQRFSEVRNDLTGVLYGEDIAESDTEFSNDPCTSV  
KKLKGNDVRIILGQFDQNM AAKVFCCAYEENMYGSKYQWIIPGWYEPSWWEQVHTEANSS  
RCLRKNLLAAMEGYIGVDFEPLSSQIKTISGKTPQQYEREYNNKRSVGP SKFHGYAYD  
GIWVIAKTLQRAMETLHASSRHQRIQDFNYTDHTLGR IILNAMNETNFFGVTGQVVRNG  
ERMGTIKFTQFQDSREVKVGEYNAVADTLEIINDTIRFQGEPPKDKTIIILEQLRKISLP  
LYSILSALTILGMIMASAF LFFNIKNRNQKLIKMS SPYMNLIILGMLSYASIFLFGLD  
GSFVSEKTFETLCTVRTWILTVGYTTAFGAMFAKTWRVHAIFKNVKM KKKIKDQKLLVI  
VGGMLLIDLICILICWQAVDPLRRTVEKYSMEPDPAGRDISIRPLLEHCENTHMTIWLGI V  
YAYKGLLMLFGCFLAWETRNVSIPALNDSKYIGMSVYNVGIMCIGAAVSFLTRDQPNVQ  
FCIVALV IIFCSTITLCLVFPKLI TLRTNPDAATQNRRFQFTQNKKEDSKTSTSVTSV  
NQASTSRLEGLQSENHRLRMKITELDKDL EEVTMQLQDTPEKTTYIKQNHYQELNDI LNL  
GNFTESTDGGKAILKNHLDQNPQLQWNTTEPSRTCKDPIEDINSPEHIQRRLSLQLPILH  
HAYLPSIGGVDASCVSPCVSPTASPRHRHVPPSFRVMVSGL

>034214

MERGERVSVPVSGYSRGEVTVANELKKVDAVVVGFGWAGAIMAKELTEAGLNVALERG  
PHRDTYPDGAYPQSIDELTYNIRKKLFQDLSKSTVTIRHDASQTAVPYRQLAAFLPGTGT  
GGAGLHWSGVHFRVDPVELNLRSHYEARYGKNF IPEGMTIQDFGVSYNELEPFFDQAEKV  
FGTSGSAWTIKGMIGKEKGGNFYAPDRSSDFPLPAQKRTYSAQLFAQAAESVGYHPYDM  
PSANTSGPYTNTYGAQMGP CNFCGYCSGYACYMYSKASPNVNILPALRQEPKFELRNAY  
VLRVNLTGDKKRATGVTYLDGQGREVVQPADLVILSAFQFHNVHMLLSGIGQPYNPITN  
EGVVGRNFAYQNI STLKALFDKNTTNPFI GAGGAGVAVDDFNADNFDHGPHYGFVGGSPF  
WVNQAGTKPVSGLPTPKGTPNWGSQWKA AVADTYNHHI SMDAHGAHQSYRANYLDLDPNY  
KNVYGQPLLRMTFDWQDNDIRMAQFMV GKMRKITEAMNPKMIIGGAKGPGTHFDTTVYQT  
THMSGGAIMGEDPKTSAVNRYLQSWDVPNVFVPGASAFPQGLGYNPTGMVAALTYWSAKA  
IREQYLKNPGPLVQA

>Q8BHN3

MAAIAAVAARRRRSWLSVLAYLGVCLGITLAVDRSNFKTCDESSFCRQRSIRPGLSPY

RALLDTLQLGPDALTVHLIHEVTKVLLVLELQGLQKNMTRIRIDELEPRRPRYRVPDVLV  
ADPPTARLSVSGRDDNSVELTVAEGPYKIIILTAQPFRLDLLEDRSLLLSVNARGLMAFEH  
QRAPRVPQESKDPAEGNGAQPEATPGDGDKPEETQEKAEKDEPGAWEEETFKTHSDSKPYG  
PTSVGLDFSLPGMEHVYGIPEHADSLRLKVTEGGEFYRLYNLDVDFQYELNNPMALYGSVP  
VLLAHSFHRDLGIFWLNAAETWVDISSNTAGKTLFGKMLDYLQGSGETPQTDIRWMSESG  
IIDVFLMLGPSVFDVFRQYASLTGTQALPPLFSLGYHQSRWNYRDEADVLEVDQGFDDHN  
MPCDVIWLDIEHADGKRYFTWDPTRFPQPLNMLEHLASKRRKLVAIVDPHIKVDSGYRVH  
EELRNHGLYVKTRDGSYEGWCWPGSASYPDFTNPRMRAWWSNMFSDNYEGSAPNLYVW  
NDMNEPSVFNNGPEVTMLKDAVHYGGWEHRDIHNIYGLYVHMATADGLIQRSGGIERPFVL  
SRAFFSGSQRFGAVWTGDNTAEWDHLKISIPMCLSLALVGLSFCGADVGGFFKNPEPELL  
VRWYQMGAYQPFRAHAHLDTGRREPWLLASQYQDAIRDALFQRYSLLPFWYTLFYQAHK  
EGFPVMRPLWVQYPEDMSTFSIEDQFMLGDALLIHPVSDAGAHGVQVYLPGQEEVWYDIQ  
SYQKHHGPQTLYLPVTLSSIPVFQRRGGTIVPRWVRVRRSSDCMKDDPITLFFVALSPQGTA  
QGELFLDDGHTFNYQTRHEFLRRFSFSGSTLVSSSADPKGHLETPIWIERVVIMGAGKP  
AAVVLQTKGSPE SRLSFQHDPETSVLILRKPGVSVASDWSIHLR

>Q14393

MAPSLSPGPAALRRAPQLLLLLLLAAECALAAALLPAREATQFLRPRQRRAFQVFEEAKQGH  
LERECVEELCSREEAREVFENDPETDYFYPRYLDCINKYGSPTYTKNSGFATCVQNLDPQC  
TPNPCRDKGTQACQDLMGNFCCCKAGWGGRLCDKDVNECSQENGGCLQICHNKPGSFHC  
SCHSGFELSSDGRTCQDIDECADSEACGEARCKNLPGSYSCLCDEGFAYSSQEKACRDVD  
ECLQGRCEQVCVNSPGSYTCHCDGRGGLKLSQDMDTCELEAGWPCPRHRRDGS PAARPGR  
GAQGSRSEGHIPDRRGP RPWQDILPCVPPFSVAKSVKSLYLGRMFSGTPVIRLRFKRLQPT  
RLVAEFD FRTFDPEGILLFAGGHQDSTWIVLALRAGRLELQLRYNGVGRVTSSGPVINHG  
MWQTI SVEELARNLVIKVN RDAVMKIAVAGDLFQPERGLYHLNLT VGGIPFHEKDLVQPI  
NPRLDGCMRSWNWLN GEDTTIQETVKVNTRMQCF SVTERGSFYPGSGFAFYSLDYMRTPL  
DVGTESTWEVEVVAHIRPAADTGVLFALWAPDLRAVPLSVALVDYHSTKCLKKQLVVLAV  
EHTALALMEIKVCDGQEHVTVSLRDGEATLEVDGTRGQSEVSAAQLQERLAVLERHLRS  
PVLTFAGGLPDVPVTSAPVTA FYRGCMTLEVNRRLLDLDEAAYKHS DITAHSCPPVEPAA  
A

>Q61592

MPPPPGPAALGTALLLLLLLASESSHTVLLRAREAAQFLRPRQRRAYQVFEEAKQGHLE  
ECVEEVCSKEEAREVFENDPETEYFYPRYQECMRKYGRPEEKNP DFAKCVQNLDPQC TPN  
PCDKKGTTHICQDLMGNFCCVCTDGVGGRLCDKDVNECVQKNGGCSQVCHNKPGSFQCACH  
SGFSLASDGQTCQDIDECTSDTDCGDARCKNLPGSYSCLCDEGYTYSSKEKTCQDVDECQ  
QDRCEQTCVNSPGSYTCHCDGRGGLKLSQDMDTCE DILPCVPPFSMAKSVKSLYLGRMFSG  
TPVIRLRFKRLQPTRLLAEFD FRTFDPEGVLF FAGGRSDSTWIVLGLRAGRLELQLRYNG  
VGRITSSGPTINHG MWQTI SVEELERNLVIKVN KDAVMKIAVAGELFQLERGLYHLNLT V  
GGIPFKESELVQPINPRLDGCMRSWNWLN GEDSAIQETVKANTKMQCF SVTERGSFFPGN  
GFATYRLNYTRTSLDVGTE TTTWEVKVVARIRPATDTGVLLALVGDDVVPISVALVDYHS  
TKCLKKQLVVLAVEDVALALMEIKVCD SQEHTVTVSLREGEATLEVDGTKGQSEVSTAQL  
QERLDTLTKTHLQGSVHTYVGG LPEVSVISAPVTA FYRGCMTLEVNGKILDLDTASYKHS  
DITSHSCPPVEHATP

>O30509

MNFETVIGLEVHVELKTKSKIFSSSPTPF GAEANTQTSVIDLGYPGVLPVLNKEAVEFAM  
KAAMALNCEIATDTKFD RKNYFYPDNPKAYQISQFDKPIGENGWIEIEVGGKTKRIGITR  
LHLEEDAGKLTHTGDGYSLVDFNRQGTPLVEIVSEPDIRTPEEAYAYLEKLSIIQYTG  
SDCKMEEGSLRCDANISLRPIGQEEFGTKTELKNLNSFAFVQKGLEHEEKRQEQVLLSGF



FIQQETRRYDEATKKTILMRVKEGSDDYRYFPEPDLVELYIDDEWKERVKASIPPELDER  
RKRYIEELGFAAYDAMVLTTLTKEMADFFFEETVQKGAEAKQASNWLMGEVSAYLNAEQKEL  
ADVALTPEGLAGMIKLIIEKGTISSKIAKKVFKELIEKGGDAEKIVKEKGLVQISDEGVLL  
KLVTEALDNNPQSIEDFKNGKDRAIGFLVQIMKASKGQANPPMVNKILLEEKKR

>O27341

MKCGLEIHVQLDTRSKLFCRCPTDYQEAPPNTNICPVCLNQPAGKPYPPNRSALLEGALKI  
ALMLDCRINPEITYFMRKHYNYPDLPSGYQRTSIPVGLLEGELNGVRIREVHIEEDPGQYK  
PDQGTVDVFNRSIGIPLIEIVTEPDMTSPEEARNFLRELIRVLEYSGCARGEGTMRADVNI  
LEGGKRVEIKNINSIKGAYKALKFEMIRQKNLLKRGVEVKQETRAFLESQMITVSMRLKE  
EAEDYRYIPDPDLPPMKFTDEVVEGLRERIEPEAPHLKVKRFMEEYGLREEDARVLTSELE  
LADAFEEVAGSIDPEFAALWMRDELKRVLYYKISFAESMITPGDIEELLAMIRKKEITS  
KAAKKIIEEMPLNKKGPREIATEMGLIGIIDESEVIRAVEQAIRENPGAVEDYHAGKEAA  
INFLVGQVMRMTRGKAEPERTVELIKERI

>O26803

MDWEKVGLKMGLEIHQQLDTESKLFPCPTELTDSEPDHDIVRNLRPTQSELGKFDRAAF  
EEAMRKLHFHYENYHEETCLVEADEEPPHPLNPEALEIAVTIALLLNMRVVEFHTMRKQ  
VIDGSNTGGFQRTGLVATDGHLETPQGTVKIENLCLEEDAARRIRETGDGVVFRDLRGI  
PLVEITTDPSMSDPQQLREVAYQIQGILRSTRVKRGLGTIRQDLNISIRDGARVEVKGVQ  
DLDLIPEIVEREVKRLSLVEIRDTLQERGAVVEDKIFDVSEVFADTESRIISSAESVLA  
VKLRGFDGLIGVEIQPGRRLGTEMADYAKKRGVSGIFHTDELPAYGITEEVVRGLRDAVG  
ASQGDVAVMVAHERVTAENALREVIRRAEMAIQGVPEETRKALPDGNTQYLRPLPTSSRM  
YLETDIPLFRIEDDLLEGIRRNLPPELSEKKERIMRDYGLSEDLASQLVKRNLVDEFEAL  
TEFRVDTTIVIASLLAYTLRELRRREGHDVDGLGLDELRLDAIKLLEVGKISKDALRDIVACM  
ADEGLAAEDAARKLNLLLLAAEDEIESIIQEIVEGNLDMISERGMGAMGPLMGQAMGRLRG  
RADGKVVNRILREKIQERL

>P42774

MGTSEDKMPFKTTKPTSSAQEVPPTPYPDWQNSMQAYYGGGGTPNPFPPSPVGSPPSPHPY  
MWGAQHMMPPYGTVPVYPAMYPPGAVYAHPSMPMPNSGPTNKEPAKDQASGKSKGNS  
KKKAEGGDKALSGSGNDGASHSDESVTAGSSDENENANQQEQSIRKPSFGQMLADASS  
QSTTGEIQGSVPMKPVAPGTNLNIGMDLWSSQAGVPVKDERELKRQKRKQSNRESARRSR  
LRKQAECEQLQORVESLSNENQSLRDELQRLSSECDKLSENNNSIQDELQRVLGAEAVAN  
LEQNAAGSKDGEGTN

>P42775

MGSNEEGNPTNNSDKPSQAAAPEQSNVHVYHHDWAAMQAYYGPRVGIQYYSNLAPGHA  
PPPYMWASPPMMPYGYPPFPFPPGGVYAHPGVQMGSPQGPVVSQSASGVTTPLTIDA  
PANSAGNSDHGFMKKLKEFDGLAMSISNNKVGSAEHSSEHRSSQSENDSNGSDGNT  
TGGEQSRKRQRSPSTGERPSSQNSLPLRGENEKPDVTMGTPVMPTAMSFQNSAGMNG  
VPQPWNEKEVKREKRKQSNRESARRSRLRKQAETEQLSVKVDALVAENMSLRSLKGLQNLN  
ESEKLRLENEAILDQLKAQATGKTENLISRVDKNNSVSGSKTVQHQLLNASPITDPVAAS

>P42776

MGNSSEEPKPTKSDKPSPPVDQTNVHVYPDWAAMQAYYGPRVAMPPYNSAMAASGHP  
PPPYMWNPQHMMSPYGYAAVYPHGGGVYAHPGIPMGSLPQGGKDPPLTTPGTLIDSIDT  
PTKSTGNTDNGLMKLKEFDGLAMSLGNGNPENGADEHKRSRNSSETDGSSTDGSDGNTTG  
ADEPKLKRREGTPTKDGKQLVQASSFHSVSPSSGDTGVKLIQSGAILSPGVSANSNPF  
MSQSLAMVPPETWLQNERELKRERRKQSNRESARRSRLRKQAETEELARKVEALTAENMA

LRSELNQLNEKSDKLRGANATLLDKLKCEPEKRV PANMLSRVKNSGAGDKNKNQGDNDS  
NSTSKLHQLLDTK PRAKAVAAG

>Q9ZAA6

MDAFVVALTSVIQDSGFVAFTWGNVMMMLVGCILLYLAIIVKGFEP LLLSPIAFGCILANV  
PRTGFETDPGVMQLILGGIKYEIFPPLIFMGVGMATDFGPLIANPK TLLLGAAAQIGVVF  
ALLGAMLLGFNVKEASAIGIIGGADGPTS IYLASKMAPHLLGAI AVAAAYSMSLVPLIQP  
PVMKLF TSKEERKIKMAQLRTVTHFEKVVPPIVTTIFIS LLLPSVCSLIGMLMLGNLFTE  
SGCMDRLSDTAQNALMNSVTIMLATGTGLTMKAESFLT LQTIEIICLGLVAFIGGTAGGV  
LFGKLMSKLDGGKTNPLIGSAGVSAVPM AARVSQVVGQQADPGNFLLMHAMGPNVAGVIG  
TAVAAGTMLAMVGGK

>Q9ZAA8

MTDNPWLIMMINMTIVFGVLIVLGI L MVLIH AVDP TKKVQ GK K K P V V A K P A P S A A A S K R Q  
E E E K V A A M A A V L A L V Q D E D D M I A A A L S A A I A E H K R K M E P M N L P H H S F

>P54377

MSNQDQALIFELSREGRIGYSLPELDVPEI E L G D L L S D T Y I R D E D A A L P E V S E L D I M R H Y  
T A L S K R N H G V D S G F Y P L G S C T M K Y N P K I N E K I A R I P G F A A I H P L Q D E D T V Q A L E L L Y D L  
S K H L E E I T G M D E V T L Q P A A G A H G E W T G L M M I R A Y H E A R G D F K R T K V I V P D S A H G T N P A S A  
T V A G F E T V T V K S N E K G L V D L E D L K R A V N E E T A A L M L T N P N T L G L F E E Q I T E M A E I V H Q A G  
G K L Y Y D G A N L N A V L S K A R P G M G F D V V H L N L H K T F T G P H G G G G P G S G P V G V K Q D L I P Y L P  
K P V L V K K E G R F T F D Y D R P H A I G R V K P Y Y G N F G I N V R A Y T Y I R S M G P D G L K A V T E N A V L N A  
N Y M M R K L A P Y Y D L P F D R H C K H E F V L S G K R Q K K L G V R T L D I A K R L L D F G Y H P P T I Y F P L N V  
E E C I M I E P T E T E S K E T L D A F I D A M I Q I A K E A E E N P E L V Q E A P H T T I V K R M D E T K A A R H P V  
L R Y E A E E R

>P19687

MFC AK L K D L Q I T G D C P F S L L A P G Q V P R E P L G E A T G S G P A S T P G Q P G V C P G V P D K N P P G R L  
P R R K T S R S R V Y L H T L A E S I C K L I F P E F E R L N L A L Q R T L A K H K I K E N R K S L E R E D F E K I V V  
D Q A I A A G V P V E I I K E S L G E E L F K I C Y E E D E Y I L G V V G G T L K D F L N S F S T L L K Q S S H C Q E A  
E K K G R F E D A S I L C L D K D P D V L Y V Y Y F F P K R I T S L I L P G I I K A A A R I L Y E T E V E V S S T P S R  
F H Q D C R E F V D Q P C E L Y S V H I R S A R P H P P P G K P V S S L V I P A S L F C K T F P F H F M L D R D M S I L  
Q L G H G I R R L M S R R D V Q G K P H F D E Y F E I L T P K I S Q T F S G I M T M L N M Q F L V R V R R W D N S M K K  
S S R V M D L K G Q M I Y M V E S S I L F L G S P C V D R L E D F T G R G L Y L S D I P I H N A L R D V V L I G E Q A  
R A Q D G L K K R L G K L K A T L E Q A H Q A L E E E K R K T V D L L C S I F P S E V A R Q L W Q G H A V Q A K R F G N  
V T M L F S D I V G F T A I C S Q C S P L Q V I T M L N A L Y T R F D R Q C G E L D V Y K V E T I G D A Y C V A G G L H  
K E S D T H A V Q I A L M A L K M M E L S H E V V S P H G E P I K M R I G L H S G S V F A G V V G V K M P R Y C L F G N  
N V T L A N K F E S C S V P R K I N V S P T T Y R L L K D C P G F V F T P R S R E E L P P N F P S D I P G I C H F L E A  
Y Q Q G T T S K P W F Q K K D V E E A N A N F L G K A S G I D

>P19440

M K K K L V V L G L L A V V L V L V I V G L C L W L P S A S K E P D N H V Y T R A A V A A D A K Q C S K I G R D A L R D  
G G S A V D A A I A A L L C V G L M N A H S M G I G G G L F L T I Y N S T T R K A E V I N A R E V A P R L A F A T M F N  
S S E Q S Q K G G L S V A V P G E I R G Y E L A H Q R H G R L P W A R L F Q P S I Q L A R Q G F P V G K G L A A A L E N  
K R T V I E Q P V L C E V F C R D R K V L R E G E R L T L P Q L A D T Y E T L A I E G A Q A F Y N G S L T A Q I V K D  
I Q A A G G I V T A E D L N N Y R A E L I E H P L N I S L G D V V L Y M P S A P L S G P V L A L I L N I L K G Y N F S R  
E S V E S P E Q K G L T Y H R I V E A F R F A Y A K R T L L G D P K F V D V T E V V R N M T S E F F A A Q L R A Q I S D  
D T T H P I S Y Y K P E F Y T P D D G G T A H L S V V A E D G S A V S A T S T I N L Y F G S K V R S P V S G I L F N N E  
M D D F S S P S I T N E F G V P P S P A N F I Q P G K Q P L S S M C P T I M V G Q D G Q V R M V V G A A G G T Q I T T A

TALAI IYNLWFGYDVKRAVEEPRLLHNQLLPNVTTVERNIDQAVTAALETRHHHTQIASTF  
IAVVQAIVRTAGGWAAASDSRKGGEPAGY

>Q53GS7

MPSEGRCWETLKALRSSDKGRLCYRDLRREDVLEECMSLPKLSYSGWVVEHVLP  
QENQPLSETSPSSTASALDQPSFVPKSPDASSAFSPASPATPNGTKGKDESQHTESMVL  
QSSRGIKVEGCVRMYELVHRMKGTEGLRLWQEEQERKVQALSEMASEQLKRFDEWKELKQ  
HKEFQDLREVMEKSSREALGHQEKLKAHRRAKILNLKLRREAEQQRVKQAEQERLRKEE  
GQIRLRALYALQEEMQLSQQLDASEQHKALLKVDLAAFQTRGNQLCSLISGIRASSES  
SYPTAESQAEERALREMRDILLMNLGQEITRACEDKRRQDEEEAQVKLQEAQMGGPEAH  
KEPPAPSQGGKQNEDELQVKVQDITMQWYQQLQDASMQCVLTFEGLTNSKDSQAKKIKM  
DLQKAATIPVSQISTIAGSKLKEIFDKIHSLLSGKPVQSGRSVSVTLNPPQLDFVQYKL  
AEKFVKQGEVEEVASHHEAAFP IAVVASGIWELHPRVGDLLLAHLHKKCPYSVPPYPTFKE  
GMALEDYQRMLGYQVKDSKVEQQDNFLKRMMSGMIRLYAAI IQLRWPYGNRQEIHPHGLNH  
GWRWLAQILNMEPLSDVTATLLFDFLEVCGNALMKQYQVQFWKMLILIKEDYFPRIEAIT  
SSGQMGSFIRLQKQFLEKCLQHKDIPVPGFLTSSFWRS

>P01217

MDYYRKYAAVILAILSLFLQILHSFPDGEFTMQGCECKLKENKYFSKPDAP IYQCMGCC  
FSRAYPTPARSKKTMLVPKNITSEATCCVAKAFTKATVMGNVRVENHTECHCSTCYHKS

>P53542

MTLIPKYTGATILLLCVLIIEIGQLYPNDFGCEECKLKENNIFSKPGAPVYQCMGCCFSR  
AYPTPLRSKKTMLVPKNITSEATCCVAKEVKRVI VNDVKLVNHTDCHCSTCYHKE

>P47744

MVSAVTTMGCMAAGVSLLLLYFLNNAADSHPNFDSSSMACGEC SLGLNRLF SRDRPLYQ  
CMGCCFSRAYPTPQTAIQTMAIPKNITSEAKCCVAKHSYETKVDDITVRNHTECHCSTCY  
YHKL I

>P38138

MVLLKWLVCQLVFFTAFA SHAFTDYLLKKCAQSGFCHNRVYAENIAKSHHCYKVD AESI  
AHDPLENVLHATI IKTIPRLEGDDIAVQFPFSLSLFLQDHSVRFT INEKERMPTNSSGLLI  
SSQRFNETWKYAFDKKFQEEANRTSIPQFHFLKQKQTVNSFWSKISSFLSLSNSTADTFH  
LRNGDVSVEIFAEPFQLKVYQNALKLI VNEQNFLNIEHHRTKQENFAHVLP EETTFNMF  
KDNFLYSKHDSMPLGPESVALDFSMGSTNVYGIPEHATSLRLMDTSGGKEPYRLFNVDV  
FEYNIGTSQPMYGSIPFMFSSSSTSIFWVNAADTWVDIKYDTSKNKTMTHWISENGVIDV  
VMSLGPDIPTIIDKFTDLTGRPFPLPPISSIGYHQCRWNYNDEMVDLTVDSQMDAHMIPYD  
FIWLDLEYTNDKKYFTWKQHSFPNPKRLLSKLKKLGRNLVVLIDPHLKKDYEISDRVINE  
NVAVKDHNGNDYVGHCPGNSIWIWDTISKYQKIKWSFFERFMDLPADLTNLF IWNDMNE  
PSIFDGPETTAPKDLIHDNYIEERSVHNIYGLSVHEATYDAIKSIYSPSDKRPFLTRAF  
FAGSQRTAATWTGDNVANWDYLKISIPMVL SNNIAGMPF IGADIAGFAEDPTPELIARWY  
QAGLWYPPFRAHAHIDTKRREPYLFNEPLKSIVRDI IQLRYFLLPTLYTMFHKSSVTGFP  
IMNPMFIEHPEFAELYHIDNQFYWSNSGLLVKPVTEPGQSETEMVFPPGIFYEFASLHSF  
INNGTDLIEKNISAPLDKIPLFIEGGHIITMKDKYRRSSMLMKNDPYVIVIAPDTEGRAV  
GDLYVDDGETFGYQORGEYVETQFIFENNTLKNVRSHIPENLTGIHHNTLRNTNIEKIIIA  
KNNLQHNITLKD SIKVKKNGEESLPTRSSYENDNKITILNLSLDIT EDWEVIF

>O08795

MLLLLLLLLLPLCWAVEVKRPRGVSLSNHHFYEESKPF TCLDGTATIPFDQVNDYCDCKD

GSDEPGTAACPNGSFHCTNTGYKPLYILSSRVNDGVDCDCDGTDEYNSGTVCENTCREKG  
RKEKESLQQLA EVTREGFRLKKILIEEWKTAREEKQSKLLELQAGKKSLEDQVETLRAAK  
EEAERPEKEAKDQHRKWLWEEQQAAAKARREQERAASAFQELDDNMDGMVSLAELQTHPEL  
DTDGDGALSEEEAQALLSGDTQDTTTSFYDRVWAAIRDKYRSEVPPTDIPVPEETEPKEE  
KPPVLPPTEEEEEEEEEEEEEEEEEEEEEEEEAPPPLQPPQPPSPTEDEKMPYDEETQAI I  
DAAQEARSKFEEVERSLKEMEESIRSLEQEI SFDFGPSGEFAYLYSQCYELTTNEYVYRL  
CPFKLVSQKPKHGGSP TSLGTWGSWAGPDHDKFSAMKYEQGTGCWQGPNRSTTVRLLCGK  
ETVVTSTTEPSRCEYLMELMTPAACPEPPPEAPSDGDHDEL

>Q04924

MVSMFSLFLLLI EQSPLVASLQQSQRHIVGVPWEKQHLYDSNEPDLTKWHCLNHEDIVLD  
ISQINDGVCDPCDGSDEPGSAACVEDIFKSVAEAGGKVNKYFYCDNKGFIPRYIRKSEVA  
DGICDCCDCSDELLSGYELFDAGSNCSQLKNEFDIMASKELSSYREGKEALEELERKYGT  
KEEAITRGNCLEEDKEKASAEIKVLSNR LSENRAKLEQLRGEYFNQLSHDPI LYQFEQLN  
STRLGSDILTSFTMVSRSVSKGYQDIFKILSDLSEAYTPSLNDKVVNDNIKKFRKVRRAE  
KAKINADSKIDDEQADNLYLYFTEEVPQIFLKR ESENTLRYVIGKSNFVQALVEGKINYT  
NDILEYIREFRLIMDDISQNYNVNFQDAGVKS AVDSYKNYLGEYGELAELEPAHPSESL  
RSLSEVTSFVNENAPKVLPPDAVESEQDTNSDHIGTSGDLRNKLKEILSKLNIFSSRKDL  
VSLEKFRFRSCESQVSLLENELKQKMDYKLLDETEDEGTNSTAGNLTELELMGSQSYCL  
DDILDNYVYTI CFQRPMTEGVIYQAEDKVDGKKVLI GRFKTSGFNVDLNMKEYAEHLKAT  
YDEKSDLISNLA AIQDDDGNMQHYVFGN LNELNGLVLEYENGDCWNGPRRSATV FVRC  
SDKFKIRS VH EATKCNYIFDVVGPLGCNKTFEYEPKFNLSE

>Q53940

MSDSTPKTPRGFVVHTAPVGLADDGRDDFTVLASTAPATVSAVFTRSRFAGPSVVL CREA  
VADGQARGVVVLARNANVATGLEGEENAREVREAVARALGLPEGEMLIAS TGVIGRQYPM  
ESIREHLKTL EWPAGEGGFDRAARA IMTTDTRPK EVRVSVGGATLVGIAKGVGMLEPDMA  
TLTFFATDARLDPAEQDRLFRRVMDRTFNAVS IDTDTSTSDTAVL FANGLAGEVDAGEF  
EEALHTAALALVKDIASDGEGA AKLIEVQVTGARDDAQAKRVGKTVVNSPLVKTAVHGCD  
PNWGRVAMAIGKCSDDTDIDQERV TIRFGEVEVYPPKARGDQADDALRAAVA EHLRGDEV  
VIGIDLAIADGAFTVYGC DLTEGYVRLNSEYTT

>P07359

MPLLLLLLLLLPSPLH PHPICEVSKVASHLEVNC DKRNLTALPPDL PKDTTILHLSENLLY  
TFSLATLMPYTRLTQLNLDRCELTKLQVDGTL PVLGTLDL SHNQLQSLPLLGQTL PALTV  
LDVSNR L TSLPLGALRGLGELQELYLKGNELKTLPPGLLTPTPKLEKLSLANNNLTELP  
AGLLNGL ENLDTLLLQENSLYTI PKGFFGSHLLPFAFLHGNPWL CNCEILYFRRWLQDNA  
ENVYVWKQGV DVKAMTSNVA SVQCDNSDKFPVYKYPGKG CPTLGDEGDTDL YDYYPEEDT  
EGDKVRATRTVVKFP TKAHTTPWGLFYSWSTASLDSQMPSSLHPTQESTKEQTTFPPRWT  
PNFTLHMESITFSKTPKSTTEPTSP TTPSEVPPEPAPNM TTEPTSP TTPPEPTSE PAPS  
PTTPEPTPIPTIATSPTILVSATSLITPKSTFL TTTKPVSLLESTKKTIP ELDQPPKLRG  
VLQGHLESSRNDPFLHPDFCCLLP LGFYVLGLFWLLFASVVL ILLLSWVGHVKPQALDSG  
QGAALT TATQTTHLELQRGRQVTVPRAWLLFLRGS LPTFRSSLFLWVRPNGRVGPLVAGR  
RPSALSQGRGQDLLSTV SIRYSGHSL

>Q04785

MMSGPRGAVSLLLLMLAPPSCPAADCPAPCSCAGTLVDCGRRGLTWASLPTSFVHTTEL  
VLTGNNLTALPSGLLDALPAVRTAHLGANPWRCR LVPLRAWLAGRPERAPYRDLRCVA  
PPAVRGRLLPYLAEDDVRAACAPGPLCWGALAAELALLGLGLLHALLLVLLL CR LRRLRA  
RARARARAALRLSLTDPLVAEQDGTDES

>Q86YW7

MKLAFLFLGPMALLLLLAGYGCVLGASSGNLRTFVGCAREFTFLAKKPGCRGLRITTDAC  
WGRCEWTKPILEPPYIEAHRVCTYNETKQVTVKLPNCAPGVDPFYTPVAIRCDCGAC  
STATTECETI

>P14770

MPAWGALFLLWATAEATKDCPSPTCRALETMGLWVDCRGHGLTALPALPARTRHLLLAN  
NSLQSVPPGAFDHLPLQLQTLQVQNPWHDCSLTYLRLWLEDRTPEALLQVRCASPSLAA  
HGPLGRLTGYQLGSCGWQLQASWVRPGVLWDVALVAVAALGLALLAGLLCATTEALD

>Q9R4G7

MRLEIGNIFIKDIQFGEQTKVENGVLYVNKDEMIKKLSVIEHKSVDLDIARPGESVRIT  
PVKDVI EPRVKVEGPGGIFPGVISKVETDGSGRTHVLKGAAVVTTGKVVGFGQEGIVMSG  
VGAEYTPFSKTLNLVVAEPEGIEQHRHEEVLRLMVLNAGVYIGEAGRSVTPDEVKVEE  
TDTIFEGAAYPNLPGVYVYMLQTLQGLLHDTVYVYGVDAKKIVPTILYPTVMDGAILSG  
NCVSSCDKNPTYVHCNNPMVEELYAMHGKEINFGVVIITNENVYLADKERSSDWTAKLCK  
FLGLDGAIVSQEGFGNPDIDLIMNCKKIEMEGVKTVISTDEYAGRDGASQSLADADVRAN  
AVVSNGNANMVIPLPPMDKTIGHIQYIDTIAGGFDSLRADGSI EVEIQAITGATNELGF  
GYLSAKGY

>O86185

MRLELGKIFIKDVQFGEKTTVEKGVLYVNKQEIIDLAMQDDRISVNVVELARPGESVRIA  
PVKDVI EPRVKVEGSGAMFPGMTNKVKTVGSGRTHALVGVSTVLTGKIVGFQEGVIDMSG  
PIAKYCPFSETNNVICIVVEPVEGLETHAYEAAAARMVGLKAAEYVVGKAGLDVEPDEVVVEE  
TKPLLEQIKEYPDLPKVAVVHMLQSQGLLHDTYVYGVDAKQFIPTFMYPTIMDGAITSG  
NCVAPCDKVTTFHHLNPNVIEDLYKRHGKDLNSVGVILTNENVYLADKERCSDMVGKLV  
FLGIDGVLITEEGYGNPDIDLMMNCKKCTQAGAKVVLITDEFPPGRDGKSQSVADATPEAD  
AVASCGQGNLIEHFPAMDKVI GMLDYVETMIGGYKGCINEDGSFDAELQII IASTIANGY  
NKL TARFY

>O69406

MKLELGNFYVEEIVFGEKTSFKDGVLTINKQEALDYVME DENITHAELHIVKPGDMVRLC  
PVKEAIEPRIKLDGRTYFPVGTDEELTRCGEGRTHALKGCSVLVVGKHWGGFQDGLIDMG  
GEGAKYTYSTLKNIVLVGDTNEDFEKNEQQKKNKALRWAGHKLAEYIGKTVKDMEPQEV  
ETYELEPVTRORSEEVTKLPGVVFVMQPSQMEELGYNDMVYGVDMNRMVPTYMHPNEVLD  
GAIISGSFMPCCSSKSTYDFQNFPAKRLYAHEGKTVNFLGVIMSNLNLVALQQKQRSALF  
VAQMAKSLGAQGAIVAE EGYGNPDADFIACIVALENEGKTVGLTNECTGRDGFSSQPLVT  
LDEKANAI VSCGNVSELVELPPMPVVLGELEALARDGLSGGWAGDEILGSSVKADGSVIM  
ENAMFCGDQVVGWSTKT MKEF

>Q9YGK3

MHLAVTALCLTLAPVLARASTSCGLANISISVENE ECGGCI TFNTTACAGLCFTQDSVYK  
SSLKSYPQQACNFRDVVYETVHLP GCPSGMDLHFTYPVALSCECSKCN TDS'TDCGPLNTE  
VSGCLTH

>P48250

MYCTHLRMLQLVVMATLWVTPVRAGTHCRYGCRLNMTITVEREDCHGSITITTCAGLCE  
TTDLNYQSTWLP RSQGACNFKEWSYEEVYLEGCPPGANPFFIPVAKSCDCIKCKTDNTDC  
DRISMATPSCV VNPLEM

>Q9DG81

MMRGVTMVLILLPMLVWAGSECKARCCLTNISITVESDECGSCITVNTTACTGLCRTQERA  
YRSPVAPYFQNTCNFRDWTYETIQLPGCPLGVDSSFTYPVALSCECSQCNTTEITDCGAFS  
MQPSSCHTHAYY

>Q91120

MQLVVMVAVLALAGAGQGCSFGCHPTNISIQVESCGLTEVIYTTICEGQCYHEDLVYISH  
YERPEQRICNGDWSYEVKHIKGCVPVGVTPVARNCECTTCNTENTDCGRFPEDIPSCLSF

>Q9YGH2

MARIPECTILLLLCMCVLAVPAQCFNLQPCVLVNETVSVEKEGCPRCLVFRTTICSGHCP  
TKEPVYKSPFSVVNQHVCTYGNFRYETIRLPDCADGVDPVLYTYPVALSCECSLCSMDTSD  
CTIESVEPDFCMSQRLPVYESQKPSLYDY

>Q9PW98

MTVEISKVFLMMLNLFLGASSIWSVAPAAFQLPPCQLINQTVSLEKEGCPRCHAVETT  
ICSGHCLTKDPIIKIPFSNVYQHVCTYRDLFYKTFEFPDCPPGVDVPVVTYPVALSCHCSR  
CVMDDTSDCTFESLQPDFCMNDIPFYY

>Q9LD75

MISSANNKGAGTSRRKLRSEKAALQFSVSRVEYSLKKGRYCRRLGATAPVYLAAVLENLV  
AEVLEMAANVTEKHKRIVIKPRHIMLAVRNDVEVNKLFLHGVTSASGVVPKTRKELDRRK  
RRSTSQAD

>P06898

MSGRGKQGKTRAKSKTRSSRAGLQFPVGRVHRLLRKGNYAERVGAGAPVYLAAVLEYLT  
AEILELAWERLPEITKRPVLSPGTCNSLNCNDEELNKLKLGVTIAQGGVLPNIQSVLLPKK  
TESSKSTKSK

>A2Y5G8

MEVGAKVPPKAGAGRRGGGPKKKPVSRSVKAGLQFPVGRIGRYLKQGRYSQRIGTGAP  
VYLAAVLEYLAAEVLELAGNAARDNKKNRIIPRHVLLAIRNDEELGKLLAGVTIAHGGVL  
PNINPVLLPKKTGSAAAKEAKEGKTPKSPKKATTKSPKKAAAA

>Q9T0H7

MVCNTNILKDVSTKISAFENVRMIMVEGEMFQVARIHKQLKNRVS AHSSVGATDVVYMTS  
ILEYLTTEVLQLAENTSKDLKVKRITPRHLQLAIRGDEELDTLIKGTIIGGSVIPHIH

>P35066

MATPKQAACKASKKRSGRSAKAGLIFPVGRVGSLLRRGQYARRIGASGAVYMAAVLEYL  
TAEELLELSVKAASQQAQKPKRLTPRTVTLAVRHDDDLGMLLKDVTL SRGGVMPSLNKALA  
KKHKSSKKARATPSA

>P0C5Y9

MPRRRRRRGSSGAGGRGRTCSRTVRAELSFVSQVERSLREGHYAQRLSRTAPVYLAAVI  
EYLTAKVPELAGNEAQNSGERNITPLLLDMVVHNDRLSLTLFNTTTISQVAPGED

>P08992

MAGGKGGKGGKGGKGGKVGGAKNKKTPQRSYKAGLQFPVGR IHRFLKGRVSAKNRVGAT

AAVYAAAILEYLTAEVLELAGNASKDFKVRRI TPRHLLLAIRGDEELDILIKATIAGGGV  
IPHIHKALLGKHSTKNRSSAKTAEPR

>Q9P0M6

MSGRSKGGKMSKLSRSARAGVIFPVGRLMRYLKKGTFFKYRISVGAPVYMAAVIEYLAAEI  
LELAGNAARDNKKARIAPRHILLAVANDEELNQLLKGVTIASGGVLPRIHPPELLAKKRGT  
KKGKSETILSPPPEKRGRKATSGKKGGKSKAAKPRTSKKSKPKDSKKEGTSNSTSEDGPG  
DGFTILSSKSLVLGQKLSLTQSDISHIGSMRVEGIVHPTTAEIDLKEDIGKALEKAGGKE  
FLETVKELRKSQGPLEVAEAAVSQSSGLAAKFVIHCHIPQWGSKDCEEQLEETIKNCLSA  
AEDKKLKSVAFFPPPSGRNCFPKQTAAQVTLKAI SAHFDDSSASSLKNVYFLLFDESISIG  
IYVQEMAKLDAK

>Q9SGE3

MAPRKPKVSVTKKKKVVVEETIKVTVTEEGDPCVITETANDQETQDLTFSIPVGENVTTV  
EIPVEVPDERSLPVGENVTTVKIPVDDRDESSQPPETPVEVRDEPSPQPPETPASKSEG  
TLKKTDKVEKKQENKKKKKKRDDLAGEYRRYVYKVMKQVHPDLGITSKAMTVVNMFM  
GDMFERIAQEAAARLSDYTKRRTLSSREIEAAVRLVLPGELSRHAVAEGSKAVSNFVGYDS  
RKR

>Q6DN03

MPEPAKFAPAPKKGSKKAVTKAQKKDGKKRKRSRKESYSIYVYKVLKRVHPDTGIWCKAM  
GIMNSFLNDIFERIAGEASRLAHYNKRSTITSRRSRRPCACCCPASWPS'TPCPRAPRRSP  
STPAPSESLPGGARSLPPSLPPRVAGCFVSKGSFQGHLLTTSVKESFLCCQSQLMFLASR  
LVNFRAHNTKHR

>P16867

MAPKKEEKPASQAAEAPEVKAEAKPKAVKAPKKKEKKAPAKKVAKEPSAGGEDGDKKSKK  
KAKVAKSETYKLYIYKVLKQVHPDTGISSKAMSIMNSFINDI FEKVATEASKLSRYNKKP  
TVTSREIQTAVRLVLPGELAKHAVSEGTKAVTKFTSA

>Q8SRE2

MAKSARHVTGKAPSSLD AHDRKKSKKKSSSMCVGSMFKSAVKRISREVSPDNNIMLTSNS  
IQVLCGISYDFVDTVADLAGELARKVGKQTVGSDDIISAFEILLKGELRKLAIREVHNAL  
SKSQAKSRGK

>P40284

MSDKASTPKKSATKDATKPKKVGDEEAKKREVKNFDSYALYISRVLKSVPFDIGITLPS  
ISVMDSFVRDIFERIAMDASSLTRNYQKSTLT'TTKEIETATKLILKGD LNKHAVSEGQSAV  
KRAQGQPTSGSKSR

>Q9MBF7

MPPRRKKKAAAAAAAAAAAAAAAAAGKAAAGKD GKAGIMTPKKPKKGKKKIPLMKYRVYIRR  
VLTQVRPELGISSKSMIMNMFVHNFQNI AKEASILAQYSKKKTITVKELKAAVKLVLP  
HQLLEYADR DGDRAVHNFESETSKKNSQGRKRGRGQQT

>P27795

MATPKSSSANRKKGGKSHRKPRTWNVYINRSLKSINNHM SMSGR TMKIVNSFVNDLFE  
RIACEAATVVRVNNKRTL GARELQTAVRLVLPADLAKHAMAEGTKAVSHASS

>Q6C4I7

MAPKVAEKKPSLAGKAPAGKAPAEKKEAGKKTATGEKKKRTKARKETYSSYIYKVLKQ  
THPDTGISTRAMSIMNSFVNDIFERVATEASKLATYTKKSTITTSREIQTAVRLILPGELA  
KHATGDGTRAVAKYSTFDN

>P0C1H6

MKCHAGSLSANLPALKVTGWSRCVASRQPITVGVCGPKRPLWPSSEKPFNFHTLAKLHDI  
GLGNDFLDMTLKAQQQKQKSHATIPKCPPLPWSPTVTLCSYLMMAASAMAEASSETTSE  
EGQSIQEPKEANSTKAQKQKRRGCRGSRRRRHRNRGDSFGDSFTPYFPRVLKQVHQGLSL  
SQEAVSVMDSMIHDILDRIATEAGQLAHYTKRVTITSRDIQMAVRLLLPGKMGKLAEAQG  
TNAALRTSLCAIWQRK

>P02292

MPRSPAKTSPRKGSPRKGSPRKGSPSRKASPKRGGKGAKRAGKGGRRRRRVKRRRRRRES  
YGIYIYKVLKQVHPDTGISSRAMSVMNSFVNDVFERIASEASRLTSANRRSTVSSREIQT  
AVRLLLPGELAKHAVSEGTKAVTKYTTSR

>Q8SS77

MARTKQSARKTTGGKAPRQLSAKSARKGVSPASSAGAKKSRYPGVALKEIRRYQKST  
DFLIRLPLPFQORACRSVVKECSNATDIRFQGPALASIQEAEVYLVGLFEDAMLCAYHAKR  
VTVFPKDISLVLKLRSRHVKSISD

>P69149

MARTKQTARKSTGAKAPRQLASKAARKSAPATGGIKKPHRFRPGTVALREIRKYQKSTD  
LLIRKLPFQRLVRDIAHEFKAEELRFQSSAVLALQEAAEAYLVGLFEDTNLCAIHARRVTI  
MTKDMQLARRIRGERF

>P40285

MSRTKETARAKRTITSKSKKAPSGASGVKRSHRRWRPGTCAIREIRKFQKSTSLLIQCA  
PFQRLVRGVERQKEGLRFQSSAIMALQEATEAYIVSLMADTNLACIHAKRVTIQPKDIQL  
ALRLRGERH

>Q9MBF6

MARPRKEAPQRNLDRENARQQPTEEPQDEAPRNQGRQQQQRPPAAPRRPRRFRPGTVA  
LREIRRIQRSNVPLIPHSPFMRLVRELAEEFLDDCRFAAETFIMLKEVVEDELVNHFGNV  
QICSIHAKRIITVTKDFKLAKLLKGEPED

>Q2Z2F6

MARMKLNARMSTGGKAPRQLAYKAVRKAAPPTIGVKLPNSYRPGDQTVCKPAPPTDGVK  
EPHRYRPGKMLREIRKYKKNARFFISKLPFHRLVRKITQNLKAHLRFQSTAMPAPPEVS  
EAYLVKLFEDAIHAKRVTLPKDIQLARCIGGVLA

>Q3SZB8

MARTKRTAYKSTGGKVPRQLVIEAAGKSAPSTSGMTKPHRYRPGTVALREIRPYQKSTH  
FLIRKLPFQRLVREIAQDFKTDLKFQSAAIRTLQEASEAYLVVFLESKQHSNLARMYSQN  
KSFPWLEGKRRQPQPM

>Q8SQP3

MSRTKQTASKALGGKAPRKGISAKSIPSSGCSAMPKRTRFKAGALALKEIRKYQKSTD  
LIRKRPFQRMVRDLCKGREGVRFQASAIIVAFQEAIVENFLTSLMEDAYRCVLHAKRVTLM  
KDICLVYKIKYANILYAALD



>Q8SQP4

MNTQSIGAKGKSKAAKGI AKRHRKQSSLSDSISKPAIRRIARRAGVRRVGGGCFKEINNA  
AREYIRDTL SIACIYATHAKRKTITCSDILHSLKRMGIKYIGY

>P40287

MATDTGSGRGKGGKGVTLGKSGKAKASKGGKRIRTKTQQDALKGITKPAIRRLARRGGV  
KRINGAVYDETRNVLKQFLEQVIRDSVITYTEHAKRRRTVTAMDVVYALKRQGR TLYGYS

>P16391

MEAMAPRTLLLLLLAAALAPTQTRAGSHSLRYFYTAVSRPGLGEPRF IAVGYVDDTEFVRF  
DSDAENPRMEPRARWMEREGPEYWEQQTRIAKEWEQIYRVDLR TLRGYYNQSEGGSH TIQ  
EMYGCDVGS DGSLLRGYRQDAYDGRDY IALNEDLKTWTAADFAAQITRNKWERARYAERL  
RAYLEGTCVEWLSRYLELGKETLLRSDPPEAHVTLHPRPEGDVTLRCWALGFYPADITLT  
WQLNGEDLTQDMELVETRPAGDGTFFQKASVVVPLGKEQNYTCRVEHEGLPKPLSQRWEP  
SPSTDSNMETTVIYVILGAVAMIGAVAI IGAMVAVVRRRKRNTGGKGGDYAPAPGRDSSQ  
SSDVSLPDCKA

>P15979

MGPCGALGLGLLLAAVCGAAAPELH TLR YIQ TAMTDPGPGQPWFVTVGYVDGELFVH YNS  
TARRYVPRTEWIAAKADQQYWDGQTQIGQGNEQIDREN LGILQRRYNQTGGSH TVQW MYG  
CDILEGGPIRGYYQMAYDGRDFTAFDKGTMFTAAVPEAVPTKRKWE ESEPERWKNYLE  
ETCVEWLRRYVEYGKAE LGR RERPEVRVWGKEADGILTLSCRAHGFYPRPIVVSWLKDGA  
VRGQDAHSGGIVPNGDGTYHTWVTIDAQPGDGDKYQCRVEHASLPQPGLYSWEPQP NLV  
PIVAGVAVAIVAIAIMVGVGFIIYRRHAGKKGKGYNIAPGSNPAI

>P14432

MRMGTPVPGTLLILLAASQGTQTCPGSHSLRYFYTALSRPAISEPWY IAVGYLDDTQFV  
RFNSSGETATYKLSAPWVEQEGPEYWARETEIVTSNAQFFRENLQTM LDYYNLSQNGSHT  
IQVMYGCEVEFFGSLFRAYEQHG YDGPDI ALNEDLKTWTAADTAAEITRSKWEQAGYTE  
LRRTYLEGPCKDSLRLRYLENRKKTQECTDPPKTHVTHHPRPEGYVTLRCWALRFYPADIT  
LTWQLNGEELIQDTELVETRPAGDGTFFQKAAVVVPLGKEQKYTCHVYHEGLPEPLTLRW  
EPPQTSMPNR TTVRALLGAMIILGFMSGVMMWMRKNNGGNGDDNTAA YQNEREHL SLDP  
RAESEALGVEAGMKDLPSAPPLVS

>Q8K0D2

MFVRMLVFRVLLLLIALV GKS VIGLSLMSFIAPPDPDWT PDDYYYSYEQSSPDEDPSVTQT  
TPENPDWYIEDDDPCQSNPCEHGGDCIIRGDTFSCSCPAPFSGSRCQTAQNKCKDNPCVH  
GDCLITQKHPIYRCACKYPYTGPDCKSVLPACRPNPCQNGGVC SRHRRRSRFTCACPDQY  
KGFCEIGPDDCYVGDGYSYRGKVSKTVNQNPCLYWN SHLLLQETYNMFMEDAETHGIAE  
HNF CRNP DGDH KPWCFVKVNSEKVKWEYCDVTVCV PDP TPNP VESLLEPVMELPGFESCG  
KTEVAEHAVKRIYGGFKSTAGKHPWQVSLQTS LPLTTSMPQGHFCGGALIHPCWVLTAAH  
CTDINTKHLKVVLDGQDLKKTESHEQTFRVEKILKYSQYNERDEIPHNDIAL LKLPVGG  
HCALESR YVKTVCLPSDFPFSGTECHISGWGVTE TEGESRQLLDAKVLIANPLCNSRQL  
YDHTIDDSMICAGNLQKPGSDTCQGDSSGGLPTCEKDGTYVYVYGVIVSWGQECGK KPGVYTQ  
VTKFLNWIKTMMHREAGL

>O33819

MSPKLPQHGTGVVRTPLVDGVEKVTGKAKYTADIAAPDALVGRILRSPHAHARIL AIDTS  
AAEALEGVIAVCTGAETPVFVLP IAENEYPLARDKVRYRGDPVA AVAAIDEVTA EKAL

ALIKVDYEVLPAYMTPKAAMKAGAIALHDDKPNNILREVHAEFGDVAAAF AEADLIREKT  
YTFAEVNHVHMELNATLAEYDPVRDMLTLNNTTQVPYYVHLKVAACLQMD SARIRVIKPF  
LGGGFGARTEGLHFEIIAGLLARKAKGTVRLLQTR EETFIAHRGRPWTEVKMKIGLKKDG  
KIAALALEATQAGGAYAGYGIITILYTGALMHGLYHIPAIKHDAWRVYTNTPPCGAMRGH  
GTVDTRAAFEALLTEMGEELGIDSLKIRQINMLPQIPYVTMYAQRVMSYGVPECKLEKVK  
ASGWEERKGLPKGRGLGIALSHFVSGTSTPKHWTGEPHATVNLKLD FDDGGITLLTGAAD  
IGQGSNTMASQVAAEVLGVRLSRIRVISADSALTPKDNGSYSSRVTFMVGNASISAAEEL  
KGVLVKAAAKKLDAREEDIEVIDEMFMVSGSQDPGLSFQEVVKAAMVDSGTITVKGTYTC  
PTEFQGDKKIRGSAIGATMGFCYAAQVVEASVDEITGKVTAHKVWVAVDVGKALNPLAVE  
GQTQGGVWMMGMQALSEETVYDNGRMVHGNILDYRVPTIVESPDIEVIIVESMDPNGPFG  
AKEASEGMLAGFLPAIHEAVYEAVGVRATDFPLSPDRITELLD AKEAAA

>O33820

MNILTDFRTHRPATLADAVNALAAEATLPLGAGTDLLPNLRRGLGHPAALVDLTGIDGLA  
TISTLADGSLRIGAGATLEAIAEHDAIRTTWPALAQAAESVAGP THRAAATLGGNLCQDT  
RCTFYNQSEWWRSGNGYCLKYKGDKCHVIVKSDRCYATYHGDVAPALMVL DARAIEVGP  
GKRTVPVAQLFRESGAEHLTLEK GELLAAIEVPPPTGAWSAAYSKV RIRDAVDFPLAGVAA  
ALQRDGDRIAGLRVAITGSNSAPLMVPVDALLGGNWDDAAAETLAQLVRKTSNVLRTTIT  
GVKYRRRVLLAISRKVV DQLWEAR

>P55784

MLDGASTAPSEAERCI IAMMLMQIALDTHDEVTTDDGGDLRARQLVVL AGDLYSGLYYELL  
ARSGETALIRSF AEAVRDINEQKVRLYEKKVERIESLFAAVGTIESALLVKLADRMAAPQ  
WGQFAYSYLMLMRLLLEQEAFIRTGASVLF EQMAQIAFPRAKTLTKEQKRHLLRFCRRYI  
DGCREALFAAKLPVNGLLQLRVAELSGGFQAI AKKTVEEG

>P31112

MQDIYGTLANLNTK LKQKLSHPYLAKHISAPKIDEDKLLLFHALFEEADIKNNDRENYIV  
TAMLVQSALDTHDEVTTARVIKRDENKNRQLTVLAGDYFSGLYYSLLSEMKD IYMIRTLA  
TAIKEINEHKIRLYDRSFKDENDDFFESV GIVESALFHRVAEHFNLP RWKKLSSDFFVFKR  
LMNGNDAFLDVIGSFIQLGKTKEEILED CFFKAKNSIESLLPLNSPIQNILINRLKTISQ  
DQTYHQKVEEG

>P11569

MPKTVSPGVQALRDVVEKVYRELREPKERGEKVGWSSSKFPCELAESFRLHVGYPENQAA  
GIAANRDGEVMCQAAEDIGYDNDICGYARISLAYAAGFRGANKMDKDGNYVINPHSGKQM  
KDANGKKVFDADGKPVIDPKTLKPFATTDNIYEIAALPEGEEKTRRQNALHKYRQMTMPM  
PDFVLCCNNICNCMTKWYEDIARRHNIPLIMIDVPYNEFDHVNEANVKYIRSQLD TAI RQ  
MEEITGKKFDEDKFEQCCQANRTAKAWLKVC DYLYQYKPAFNGFDLFNHMADVVTARGR  
VEAAEAFELLAKELEQHVKEGTTTAPFKEQHRIMFEGIPCWPKLPLNLFKPLKANGLNITG  
VVYAPAFGFVYNNLDELVKAYCKAPNSVSI EQGVAWREGLIRDNKVDGVLVHYNRSCKPW  
SGYMPQMRRFTKDMGIPTAGFDGDQADPRNFNAAQYETRVQGLVEAMEANDEKKGK

>P11570

MAISALIEEFQKVSASPKTMLAKYKAQGKKAIGCLPYVPEELVYAAGMVPMGVWGCNGK  
QEVRSKEYCASFYCTIAQQSLEMLLDGTL DGLDGIITPVLCDTLRPMSQNFKVAMKDKMP  
VIFLAHPQVRQNAAGKQFTYDAYSEVKGHLEEICGHEITNDAILDAIKVYNKSRAARREF  
CKLANEHPDLIPASVRATVLR AAYFMLKDEYTEKLEELNKELAAA PAGKFDGHKVVVSGI  
IYNTPGILKAMDDNKLAIAADDCAYESRSFAVDAPEDLDNGLHALAVQFSKQKNDVLLYD  
PEFAKNTRSEHVGNLVKESGAEGLIVFMMQFC DPEEMEY PDLK KALDAHHIPHVKIGVDQ

MTRDFGQAQTALFAESL

>Q04756

MGRWAWVPSWPWPPGLGPFLLLLLLLLLLLLLPRGFQPPGGRNRTESPEPNATATPAIPTILV  
TSVTSETPATSAPEAEGPQSGGLPPPPRAVPSSSSPQAQALTEDGRPCRFPFRYGGRLMH  
ACTSEGSahrkWCATTHNYDRDRAWGYCVEATPPPGPAALDPCASGPCLNGGSCSNTQD  
PQSYHCSCPRAFTGKDCGTEKCFDETRYEYLEGGDRWARVRQGHVEQCECFGGRTWCEGT  
RHTACLSSPCLNGGTCHLIVATGTTVCACPPGFAGRLCNIEPDERCFLGNGTGYRGVAST  
SASGLSCLAWNSDLLYQELHVDSVGAALLLGLGPHAYCRNPDNDERPWCYVVKDSALSWE  
YCRLEACESLTRVQLSPDLLATLPEPASPRQACGRRHKKRTFLRPRIIGSSSLPGSHP  
WLAAYIGDSFCAGSLVHTCWVVSAAHCFSSHSPPRDSVSVVLGQHFFNRTTDVTQTFGIE  
KYIPYTLYSVFNPSDHDLVLIRLKKKGDRCATRSQFVQPICLPEPGSTFPAGHKCQIAGW  
GHLDENVSGYSSSLREALVPLVADHKCSSPEVYGADISPNMLCAGYFDCKSDACQGDSSG  
PLACEKNGVAYLYGII SWGDGCGRLHKPGVYTRVANYVDWINDRIRPPRRLVAPS

>P60595

MNVVILDTGCANLNSVKSAIARHGYPKVS RDPDVLLADKLF LPGAQAMDQVRER  
ELFDLIKACTQPVLGICLGMQLLGRRSEESNGVDLLGI IDEDPKMTDFGLPLPHMGWNR  
VYPQAGNRLFQGI EDGAYFYFVHSYAMPVNPWTIAQCNYGEPFTA AVQKDNFYGVQFHPE  
RSGAAGAKLLKNFLEM

>Q9X0C8

MRIGIISVGP GNIMNLYRGVKRASENFEDVSI ELVESPRNDLYDLLFIPGVGHFGEGMRR  
LRENDLIDFVRKHVEDERYVVGVLGMQLLFEES EAPGVKGLSLIEGNVVKLRSRRLPH  
MGWNEVIFKDTFPNGYFVHTYRAVCEEEHVLGTTEYDGEIFPSAVRKGRILGFQFHPE  
KSSKIGRKLLEKVICSLSR

>Q7SIC0

MRMKALLIDYSGNLRSAKALEAAGFSVAVAQDPKAHEEADLLVLPQG HFGQVMRAFQ  
ESGFVERVRRHLERGLPFLGICVGMQVLYEGSEEAPGVRGLGLVPGEVRRFRAGRVPQMG  
WNALEFGGAFAPLTGRHFYFANSYYGPLTPYSLGKGEYEGTPTALLAKENLLAPQFHPE  
KSGKAGLAF LALARRYFEVL

>P52708

RPLEYAWNKAANILFAESPAGVVFSYSNTSSDLSMGDDKMAQDTYTF LVKWFERFPHYNY  
REFYIAGESGHFIPQLSQVVYRNRNNSPFINFQGLLVSSGLTNDHEDMIGMFELWVHHGL  
ISDETRD SGLKVCPGTSFMHPTPECTEVWNKALAEQGNINPYTIYTP TCDREPSYQRRF  
WAPHGRAAPPPLMLPPYDPCAVFNSINYLNLPEVQTALHANVSGIVEYPWTVCSNTIFDQ  
WGQAADDLLPVYRELIQAGLRVWVYSGD TDSVVPVSSTRRSLAALELPVKTSWYPWYMAP  
TEREVGGWSVQYEGLYVSPSGAGHLVPVHRPAQAFLLFKQFLKGE PMPAEKNDILLPS  
EKAPFY

>P53187

MAPKKKSNDRAIQAKGSEAEQLIEDYLVSYKPFVNDIVQNLHNKVTKTATKALENLV  
NEKRIVSKTFGKIIISYSCNEQDTALPSNIDPSQDFETVLQLRNDLIELERDKSTAKDAL  
DSVTKEPENEDLLTIIENEENELKKIESKLSLQDDWDPANDEIVKRIMS EDTLLQKEIT  
KRSKICKNLIATIKDSVCPKNMNEFLVCILNIFRDLFF

>Q9Y251

MLLRSKPALPPPLMLLLLGLPLGPLSPGALPRPAQAQDVVDLDFFTQEPLHLVSPSFLSVT

IDANLATDPRFLILLGSPKLRRTLARGLSPAYLRFGGKTDFLIFDPKKESTFEERSYWQS  
QVNQDICKYGSIPDPVEEKLRLLEWPHYQEQLLLREHYQKKFKNSTYSRSSVDVLYTFANCS  
GLDLIFGLNALLRTADLQWNSSNAQLLLDYCSSKGYNISWELGNEPNSFLKKADIFINGS  
QLGEDFIQLHKLLRKSTFKNAKLYGPDVGPQRRKTAKMLKSFLKAGGEVIDSVTWHHYL  
NGRTATREDFLNPVDLDFISSVQKVFQVVESTRPKGVWLGGETSSAYGGAPLLSDTFA  
AGFMWLDKGLSARMGIEVVMRQVFFGAGNYHLVDENFDPLPDYWLSLLFKKLVGTVLML  
ASVQGSKRRKLRVYLHCTNTDNPRYKEGDLTYAINLHNVTKYLRPLPYFVSNKQVDKYLL  
RPLGPHGLLSKSVQLNGLTLKMWDDQTLPLMEKPLRPGSSGLPAFYSYFFVIRNAKVA  
ACI

>P12398

MLAAKNILNRSSLSFFFRIATRLQSTKVQGSVIGIDLGTNSAVAIMEGKVPKIIENAEG  
SRTPPSVVAFTKEGERLVGIPAKRQAVVNPENTLFAFKRLIGRRFEDAQVQVDIKQVPYK  
IVKHSNGDAWVEARGQTYSPAQIGGFVLNKMKETAEAYLGKPVKNAVTVPAYFNDSQRQ  
ATKDAGQIVGLNVLRVVNEPTAAALAYGLEKSDSKVVAVFDLGGGTFDISILDIDNGVFE  
VKSTNGDTHLGGEDFDIYLLREIVSRFKTETGIDLENDRMAIQRIEAAEKAKIELSSTV  
STEINLPPFITADASGPKHINMKFSRAQFETLTAPLVKRTVDPVKKALKDAGLSTSDISEV  
LLVGGMSRMPKVVEVTKSLFGKDPKAVNPDEAVAIGAAVQGAVLSGEVTDVLLLDVTPL  
SLGIETLGGVFTRLIPRNTTIPTKKSQIFSTAAAGQTSVEIRVFQGERELVRDNKLIGNF  
TLAGIPPAPKGVPIEVTFDIDADGINVSARDKATNKDSSITVAGSSGLSENEIEQMVN  
DAEKFKSQDEARKQAIETANKADQLANDTENSLEKFEFEGKVDKAEAKVVDQITSLKELVA  
RVQGGEEVNAEELKTKTEELQTSMMKLFELQYKNDSSNNNNNNNGNNAESGETKQ

>P42701

MEPLVTWVPLLLFLFLLSRQGAACRTSECCFQDPPYPDADSGSASGPRDLRCYRISSDRY  
ECSWQYEGPTAGVSHFLRCLSSGRCCYFAAGSATRLQFSDQAGVSVLYTVTLWVESWAR  
NQTEKSPEVTLQLYNSVKYEPPLGDIKVSCLAGQLRMEWETPDNQVGAEVQFRHRTPSPP  
WKLGDGCPQDDDTESCLCPELMNVAQEFQLRRRQLGSQGSWSKWSPPVCVPPENPPQPQ  
VRFVSEQLGQDGRRLTLKEQPTQLELEPEGCQGLAPGTEVTVYRLQLHMLSCPKAKATRT  
LHLGKMPYLSGAAYNVAVISSNQFGPGLNQTWHIPADTHTEPVALNISVGTNGTMYWPA  
RAQSMTYCIEWQPVGQDGLATCSLTAPQDPDPAGMATYSWSRESGAMGQEKCYITIFA  
SAHPEKLTWSTVLSTYHFGGNASAAAGTPHHVSVKNHSLDSVSVDWAPSLSTCPGVLKE  
YVVRCRDEDSKQVSEHPVQPTETQVTLSSGLRAGVAYTVQVRADTAWLRGVWSQPQRFSE  
VQVSDWLIFFASLGSFLSILLVGVLYGLNRAARHLCPPLPTPCASSAIEFPGGKETWQ  
WINPVDFQEEASLQEALVVEMSWDKGERTEPLEKTELPEGAPELALDTELSLEDGDRCKA  
KM

>Q99665

MAHTFRGCSLAFMFIITWLLIKAKIDACKRGDVTVKPSHVILLGSTVNIITCSLKPRQCF  
HYSRRNKLILYKFDRIINFHHGHSLSNQVTGLPLGTTLFVCKLACINSDEIQICGAEIFV  
GVAPEQPQNLSCIQKGEQGTVACTWERGRDTHLYTEYTLQLSGPKNLWQKQCKDIYCDY  
LDFGINLTPESPESNFTAKVTAVNSLGSSSSLPSTFTFLDIVRPLPPWDIRIKFQKASVS  
RCTLYWRDEGLVLLNRLRYRPSNSRLWNVNVTAKGRHDLDDLKPFTEYEFQISSKLHL  
YKGSWSDWSESLRAQTPEEEPTGMLDVWYMKRHIDYSRQQISLFWKNLSVSEARGKILHY  
QVTLQELTGGKAMTQNIHTSWTTVIPRTGNWAVAVSAANSKGSLLPTRINIMNLCEAG  
LLAPRQVSANSEGMDNILVTWQPPRKDPQSAVQEVVVEWRELHPGGDTQVPLNWLRSRPN  
VSALISENIKSYICYEIRVYALSGDQGGCSSILGNSKHKAPLSGPHINAITEEKGSILIS  
WNSIPVQEQMGCLLHYRIYWKERDSNSQPQLCEIPYRVSQNSHPINSLQPRVTVLWMTA  
LTAAGESSHGNEREFCLQGANWMAFVAPSICIAIMVGIFSTHYFQKQVFLAALRPQ  
WCSREIPDPANSTCAKKYPVIAEEKTQLPLDRLLIDWPTPEDPEPLVISEVLHQVTPVFRH

PPCSNWPQREKGIQGHQASEKDDMMHSASSPPPPRALQAESRQLVDLYKVLERSGSDPKPE  
NPACPWTVLPAGDLPTHGDLPSNIDDLPSHEAPLADSLSELEPQHISLSVFPSSSLHPL  
TFSCGDKLTLDLQKMRCDLML

>Q9UHF4

MRAPGRPALRPLPLPPLLLLLLAAAPWGRAVPCVSGGLPKPANITFLSINMKNVLQWTPPE  
GLQGKVTYTYVQYFIYQKKWLNKSECRNINRTYCDLSAETS DYEHQYYAKVKAIWGTKC  
SKWAESGRFYFPFLETQIGPPEVALTTDEKSI SVVLTAPEKWKRNPELDLVSMQQIYSNLK  
YNVSVLNTKSNRTWSQCVTNHTLVLTWLEPNTLYCVHVESFVPGPPRAQPSEKQCARTL  
KDQSSEFKAKIIFWYVLPVSI TVFLFSVMGYSIYRYIHVGKEKHPANLILYGNFDRKF  
FVPAEKIVINFITLNI SDDSKISHQDMSLLGKSSDVSSLNDFQPSGNLRPPQEEEEVKHL  
GYASHLMEIFCDSEENTEGTSLTQQESLSRTIPDPKTVIEYEDVRTTDICAGPEEQELS  
LQEEVSTQGTLLSQAALAVLGPQTLQYSYTPQLQDLPLAQEHTDSEEGPEEPESTTLV  
DWDPTGRLCIPSLSSFDQDSEGECEPSEGDLGEEGLLSRLYEPPAPDRPPGENETYLMQ  
FMEEWGLYVQMEN

>Q6UXL0

MQTFMTVLEEIWTSLFMFFFYALIPCLLTDEVAIIPAPQNL SVLSTNMKHLMLMSPVIAP  
GETVYYSVEYQGEYESLYTSHIWIPISSWCSL TEGPECDVTDITATVPYNLRVRATLGSQ  
TSAWSILKHPFNRNSTILTRPGMEITKDGFLVIELEDLGPQFEFLVAYWRREP GAEHV  
KMVRSGGIPVHLETMEPGAAYCVKAQTFVKAIGRYSAFSQTECVQGEAIPLVLALFAF  
VGFMLILVVVPLFVWKMGRLLQYSCCPVVVLPDITKINSPQKLISCRREEVDACATAVM  
SPEELLRAWIS

>P37595

MGKAVIAIHGGAGAI SRAQMSLQOELRYIEALSAIVETGQKMLEAGESALDVVTEAVRLL  
EECPLFNAGIGAVFTRDETHELDACVMDGNTLKAGAVAGVSHLRNPVLAARLVMEQSPHV  
MMIGEGAENFAFARGMERSPEIFSTSLRYEQLLAARKEGATVLDHSGAPLDEKQKMGTV  
GAVALDL DGNLAAATSTGGMTNKL PGRVGDSPLVGAGCYANNASVAVSCTGTGEV FIRAL  
AAYDIAALMDYGGLSLAEACERVVMEKLPALGGSGGLIAIDHEGNVALPFNTEGMYRAWG  
YAGDTPTTGIYREKGD TVATQ

>O01382

MDATNNGESADQVGIRVGNPEQPNDHTDALG SVGSGGAGSSGLVAGSSHPYGS GAIGQLA  
NGYSSPSSSYRKNVAKMVTDRHAAEYNMRHKNRGMALIFNHEHFVPTLKS RAGTNVDCE  
NLTRVLKQLDFEVTVYKDCRYKDI LRTIEYAASQNHSDSDCILVAI LSHGEMGYIYAKDT  
QYKLDNIWSFFTANHCPSLAGKPKLFFIQACQGDRLDGGVTMQRSTETDGDSSMSYKIP  
VHADFLIAYSTVPGFYSWRNTTRGSWFMQSLCAELAANGKRLDIL TLLTFVCQRVAVD FE  
SCTPDTPEMHQQKQIPCIT TMLTRILRFSDKQLAPAGRV

>Q869N9

MVFENDCRMYEKKYPEENELVMVRIESIGDMGVYVSLLEYNNIEGMILLSEISRRRIRSI  
NKLVRVGKTEAVVVVRVDKDKGYIDL SKRRVTPEEYAQCEERFHKS KAVHGI VRYVATKL  
STEDNVVTKHLYTKFVWPLYTKYGHAYEAFKLSIT EP SVFNGFDIAENERKVLME TI IQ  
KLKPQPHKVRADLEITCYDYEGIDA IKAHITASQNHALS VLKAPEDGKFDEKAFGVVTIK  
LVAPPLYVMVGTDFDEKEKGLSMVGQCVDVLSEEITKKNGNLT IKAAPRIVGAVDDQELRD  
LMEQLEVENQDGDGEEHEDDDDDDDDEEEEEKPKKSSRK

>P41374

MALTSRFYNERYPEIEDVVMVNVLSIAEMGAYVHLL EYNNIEGMILLSELSRRRIR SINK

LIRVGKTEPVVVIRVDKEKGYIDLSKRRVSPEDVEKCTERFAKAKAINSLLRHVADILGF  
EGNEKLEDLYQKTAWHFEEKYNNKTVAYDIFKQSVTDPTVFDNLEPETKEVLLSNIKR  
KLVSPYTKIRADIECSYGYEGIDAVKASLTKGLELSTEELPIRINLIAPPLYVMTTSTT  
KKT DGLKALEVAIEHIRAKTSEYDGEFKVIMAPKLVTAIDEADLARRLERAEAEANAQVAG  
DDDEEDGADQEGMQFDPEKEFNHKGSGAGRANEDEEEEEED

>P56286

MSTTSCRMYENRFPEVDELVVVNVQRQIQEMGAYVKLLEYDNI EGMVLLSELSRRRIRSVQ  
KHIRVGRNEVVVLRVDKEKGYIDLSKRRVSPEDVVKCEERFNKSKAVHSIMRHIAEKHN  
VPLETMYTTIGWPLYRKYGHAYDAFKLAISNPDHVFEGLEPPKSGVINDLLAQISRRLTP  
QPIKIRADVEVTCFGEYGINAIIKAAKAAEDVHTEEVPIKVKLVAPPLYVLLTNALDKSL  
GLKKLEEAIGAIEKSITASNGTCTVKMKPKAVSETDELELADLMKKFEKENAEISGDEED  
DQSGSE

>Q21230

MADDLGLDLGKKKKSKKVIKIDGDDAPVETGVEAVEDGLGELNLGAKKKKTPKTAGEEV  
VEEKVPTLEIGIGAQNLIIDAKGAWPDYTYEEALTLVYQVMKDKNPDFAGDKKKFAIKLPE  
VARAGSKKTAFSNFLEICRLMKRQDKHVLQFLLAELGTTGSIDGSNCLIVKGRWQQKQFE  
SVLRKYIKEYVMCHTCKSPETQLTKDTRLFFLQCTNCGSRCSVTAIKSGFKAVVGKRAAI  
RRAEEATAGK

>Q54T27

MSATEEENVLVFDTTMKKKKKSKDSAAQTEEEKKLLKSKTLAMMSQQEDEQEDEKKEK  
RKKKKAALLASTEGENSEAIEKLENEGHAHDEIEAEFMGEKKKKKSSKSSTTTTSTTT  
TTTEPTETETEDGESKEKTIITSDGDTFVQGTIPWAGTDRDYKYSSELYRIYHLLQANN  
PDLISDQKRTMKPPQVMREGTKKTIWANFAEICGTLNRKVEHVYNYVFAELGTNGSIDGN  
QRLVIRGRFKTSQIEIVIRHYISEYVACRNCKSPNTVLERNNRLYFLCCNACNSKRSVAV  
IKKGLEGAGKKAPKEQS

>P41375

MDAEDGFDPTLLKKKKKKKTTFDLDAALGLEDDTKKEDPQDEASAEGGAAAEEDNLDLES  
FGKKKKKKKPFNMDEIEAAIPSFGGDDVAASEEPEEEEEINLDMDFSMAKKKKSKKEL  
DELFADQADDDKSEDKENEDNSSTWFGSDRDYTYDELKRVFEIILDKNPDMAAGRKPK  
FVMRPPQVLRVGTGKTSFANFMDIAKTLHRLPKHLLDFLLAELGTSGSMDGNQQLIIKGR  
FQPKQIENVLRRYIKEYVTCHTCRSPETILQKDTRLFFLQCESCGSRCSVASIKSGFQAV  
TGKRAAIRAKTT

>P55871

MADDNQNEVKDEVVADIAPFDPTKKKKKKEVVIQDTTDDSVGKLAEKAEACTASEGQEST  
FAGLKKKKKPIETSILNEESGDAVEDLNERTGEDEEGEGIVLETPSYWEGSDRDYTYE  
ELLDRVFTILRENPNDLAGDRRRRTVMRPPQVLRREGTKKAVFVNFMDLCKTMHRQPDHVMA  
FLLAELGTSGSLDGQQLRVVVKGRFAPKNFEGILRRYVNEYVICLGCQSPDTILSKENRLF  
FLRCEKCGSGRSVAPNKAGFMARVGRRNAGT

>P56329

MTETEAVVDQIDLNGALPEKKKKPKKSVAFDDEVDVAVSKDGPEASSAGATDEDDSERKSS  
AKDLTTPVTEGEVDELKDMFSSMKKKKSKKSSASAEQEITTESGELDFSSMKKKK  
KKKSADLSAFEKELEASSTGDATSLSKQTFDSENMGHAWLKSDRDYYYPELLNRFFTL  
LRTNNPELAGEKRKYTIVPPSVHREGKKTIFANISDISKRMHRSLDHVIQFLFAELGTSG  
SVDGSSRLIIKGRFQKQIENVLRRYIVEYVTCKTCKSPDTILTKENRIFFMTCACGSV

RSVQAIAKTGYQAQIGKRKHVS

>P09064

MSSDLAAELGFDPALKKKKKKTKKVI PDDFDAAVNGKENGSGDDLFAGLKKKKKKSKSVSA  
DAEAEKEPTDDIAEALGELSLKKKKKKTKDSSVDAFEKELAKAGLDNVDAESKEGTPSAN  
SSIQQEVLGPYSELLSRFFNILRTMNPPELAGDRSGPKFRIPPPVCLRDGKKTIFSNIQDI  
AEKLHRSPEHLIQYLFaelGTSGSVDGQKRLVIKGFQSKQMENVLRRYILEYVTCKTCK  
SINTELKREQSNRLFFMVCKSCGSTRSVSSIKTGFQATVgKRRRM

>O96719

MNDALeIMKKQATLNIGTIGHVAHGKSTIVKAISGISTIKFKAELERNITIKLGYANAKI  
YKCDskCVRPNcyQsFGSSSPDRlsCKKCGGTLKLVrHVSFVDCPGHDVLMATMLNGTAI  
MDAVLLLIAANePCPQPQTTEHLFAVEIMDLKKVLVvQNKIDLVsREQALEQHDQIQKFL  
KTSNVSGPVIPTAAQIGVNI PALLDfIVNYIPEPVRDSTARPKMIVIRSFdVNRPGTRVC  
EMSGGVIgGSLVTGMLRVGDKIEIRPGLVIRKGNRFVCRPFVSEIVSLKAESIDLSEAYP  
GGLIGVGTtMDPSfCKADKLVGQVMGKLGFLPSIFHKITVEYSLFPKTTIQGSSKLKEGE  
HvLLNIGSTTTGSVIGRINETSgEFDLVKPACCEIGERIAISRKINNHWRLIGHGEIKDG  
TCIEPEYDAEIDDAQRKAD

>Q9V1G0

MGEKRKSRQAEVNIGMVGHVDHGKTTLTkALtGvWTDTHSEELRRGITIKIGFADAEIRR  
CPNCGRYSTSPVCPYCGHETEFVRRVSfIDAPGHEALMTTMLAGASLMDGAILVIAANEP  
CPRPQTRHLMALQIIgQKNIIIAQNKIELVDKEKALENYRQIKIEFIEGTVAENAPIPIPI  
SALHGANIDVLVKAIEDFIPTPKRDPNKPpKMLVLRsFDVNKPGTPPEKLVGGVLGGSIV  
QGKLVGDEIEIRPGVPYEEHGRIKYEPITTEIVSLQAGGQFVEEAYPGGLVGVGTKLDP  
YLTKGDLMAGNVVGKPGKLPVWDSLRLLEVHLLERVVGTEQELKVEPIKRKEVLLLNVGT  
ARTMGLVTGLGKDEIEVKLQIPVCAEPGDRVAISRQIGSRWRLIGYGIKE

>P32481

MSDLQDQEPSIIINGNLEPVGEPDIVEETEVAQETQETQDADKPKKKVAFTGLEEDGET  
EEEKRKREFEEGGGLPEQPLNPDFSKLNPLSAEINRQATINIGTIGHVAHGKSTVVRAI  
SGVQTVRFKDELERNITIKLGYANAKIYKcQePTcPEPDCYRSFKSDKEISPKCQRPGCP  
GRYKLVrHVSFVDCPGHDILMSTMLSGAAVMDAALLLIAGNESCPQPQTSEHLAAIEIMK  
LKHVILQNKVdLMREESALEHQKSILKfIRGTIADGAPIVPISaQLKYNIDAVNEFIVK  
TIPVPPRDFMISPRLIVIRSFdVNKPGAEIEDLKGGVAGGSILNGVFKLGDEIEIRPGIV  
TKDDKGGKIQCKPIFSNIVSLFAEQNDLKFVAVPGGLIGVGTkVDPtLCRADRLVGQVVGAK  
GHLpNIYTDIEINyFLLRLLGvKTDGQKQAKVRKLEPNEVLMVNIGSTATGARVVAVKA  
DMARLQLTSPACTEINEKIALSRRIEKHWRLIGWATIKKGTtLEPIA

>P54349

MCPLRSLLLISTLVLLHHLPHLSLGRSLPTTTASPGRSCLDYSQNLRAVSNTLQKARQT  
LEFYsCTSEEIDHEDITKDKTSTVEACLPLELATNESCLASRETSFITNGHCLASGKTSF  
MTTLCLRSIYEDLKMYHVEFQAMNAKLLMDPKRQIFLDQNMlAAIAELMQALNFdSETVP  
QKPSLkELDFYKTKVKLCILLHAFRIRAVTIDRMMSYLSSS

>Q9EQ14

MLDCRAVIMLWLLPWVTQGLAVPRSSSPDWAQCQQLSRNLCMLAWNAHAPAGHMNLLREE  
EDEETKNNVPRIQCEDGCDPQGLKDNSQFCLQRIRQGLAFYKHLDSDFKGEpALLPDS  
PMEQLHTSLLGLSQLLPEDHPRETQQMPSLSSSQWQRPLLRSKILRSLQAFLAIAARV  
FAHGAATLtePLVPTA

>Q5VWK5

MNQVTIQWDAVIALYILFSWCHGGITNINCSGHIWVEPATIFKMGMNISYICQAAIKNCQ  
PRKLFHYKNGIKERFQITRINKTTARLWYKNFLEPHASMYCTAECPKHFQETLTCGKDIS  
SGYPPDIPDEVTTCVIYEYSNMCTWNAGKLTIDTKYVVHVKSLETEEEQQYLTSYIN  
ISTDSLQGGKKYLVVWQAANALGMEESKQLQIHLDDIVIPSAAVISRAETINATVPKTI I  
YWDSQTTIEKVSCEMRYKATTNQTWNVKEFDTNFTYVQQSEFYLEPNIKYVFQVRCQETG  
KRYWQPWSSPFFHKTPETVPQVTSKAFQHDTWNSGLTVASISTGHLTSDNRGDI GLLLGM  
IVFAVMLSILSLIGIFNRSFRTGIKRRILLIPKWLIEDIPNMKNSNVKMLQENSELMN  
NNSSEQVLYVDPMITEIKEIFIPEHKPTDYKKENTGPLETRDYPQNSLFDNTTVVYIPDL  
NTGYPKQISNFLPEGSHLSNMNEITSLTLKPPVDSLDSGNNPRLQKHPNFAFSVSSVNSL  
SNTIFLGELSLILNQEGCSSPDIQNSVEEETMMLLENDSPSETIPEQTLLPDEFVSLGI  
VNEELPSINTYFPQNILESHFNRI SLLEK

>Q14213

MTPQLLLALVLWASCPPCSGRKGPPAALTLPRVQCRASRYPIAVDCSWTLPPAPNSTSPV  
SFIATYRLGMAARGHSWPCLQQTPTSTSCITITDVQLFSMAPYVLNVTAVHPWGSSSSFVP  
FITEHI IKPDPPEGVRLSPLAERQLQVQWEPGSGWPFPEIFSLKYWIRYKRQGAARFHRV  
GPIEATSFILRAVRPRARYVQVAAQDLTDYGELSDWSLPATATMSLGK

>Q8NI17

MMWTWALWMLPSLCKFSLAALPAKPENISCVYYRKNLTCTWSPGKETSYTQYTVKRITYA  
FGEKHDNCTTNSSTSENRASCSFFLPRITIPDNYTIEVEAENG DGVIKSHMTYWRLENIA  
KTEPPKIFRVKPVLGKRMIOIEWIKPELAPVSSDLKYTLRFRTVNSTSWMEVNFANR  
DKNQTYNLTGLQPFTEYVIALRCAVKESKFWSDWSQEKMGMTFEEAPCGLELWRVLPKPAE  
ADGRRPVRLWLKARGAPVLEKTLGYNIWYYPESNTNLTETMNTTNQQLLHLGGESFWV  
SMISYNSLKGSPVATLRIPAIQEKSFQCI EVMQACVAEDQLVVKWQSSALDVNTWMI EW  
PDVDSEPTTWSVESVQATNWTIQQDKLKPFCYNI SVYPM LHDKVGE PYSIQAYAKEGV  
PSEG PETKVENIGVKTVTITWKEIPKSERKGI ICNYTIFYQAE GKGFSKTVNSSILQY  
LES LKRKTSYIVQVMASSTAGGTNGTSINFKTL SFVFEI ILLITSLIGGLLIL IILTVA  
YGLKKPNKLTHLCWPTVPNPAESSIATWHGDDFKDKLNLKESDDSVNTE DRILKPCSTPS  
DKLVIDKLVVNFVNLQEIFTDEARTGQENNLGGEKNGYVTCFPRPDCPLGKSFEE LPVS  
PEIPPRKSQYLRSRMEGTRPEAKEQLLFSGQSLVDPHLC EEGAPNPYLKNSVTAREFLV  
SEKLPEHTKGEV

>P32927

MVLAQGLLSMALLALCWERSLAGAEETIPLQTLRCYNDYTSHITCRWADTQDAQRLVNV  
LIRRVEDLLEPVSCDLSDDMPWSACPHPRCVPRRCVIPCQSFVVTDDVDYFSFQPDRLG  
TRLVTTLTQHVPPEPRDLQISTDQDHFLLTWSVALGSPQSHWLSPGDLEFEVVYKRLQD  
SWEDAAILLNNTSQTALGPEHLMPSSTYVARVRLAPGSRLSGRPSKWSPEVCWDSQPG  
DEAQPQNLCEFFDGAAVLSCSWEVRKEVASSVSFGLFYKPSPDAGEEECS PVLREGLGSL  
HTRHHCQIPVPDPATHGQYIVSVQPRRAEKHIKSSVNIQMAPP SLNVTKDGDSYSLRWET  
MKMRYEHIDHTFEIQYRKDTATWKDSKTETLQNAHSMALPALEPSTRYWARVRVRTSRTG  
YNGIWSEWSEARSWDTESVLP MWVLALIVIFLTI AVL LALRFCGIYGYRLRRK WEEKIPN  
PSKSHLFQNGSAELWPPGMSAFTSGSPPHQGPWGSRFPELEGVFPVGF GDSEV SPLTIE  
DPKHVCDPPSGPDTTPAASDLPT EQPPSPQPGPPAASHTPEKQASSFDFNGPYLGPPHSR  
SLPDILGQPEPPQEGGSQKSPPPGSLEYLCLPAGGQVQLVPLAQAMGPGQAVEVERRPSQ  
GAAGSPSLES GGGPAPPALGPRVGGQDQKDS PVAIPMSSGDTEDPG VASGYVSSADLVFT  
PNSGASSVSLVPSLGLPSDQTPSLCPGLASGPPGAPGPVKSGFEGYVELPPIEGRSPRSP  
RNNPVPPEAKSPVLNPGERPADVSP TSPQPEGLLVLQQVGDYCF LPLGPGPLSLRSKPS



SPGPGPEIKNLDQAFQVKKPPGQAVPQVPVIQLFKALKQQDYLSLPPWEVKNKPGEVC

>P16871

MTILGTTFGMVFSLLQVVSGESGYAQNGLLEDAELDDYSFSCYSQLEVNQSQHSLTCAFE  
DPDVNTTNLEFEICGALVEVKCLNFRKLQEIYFIETKKFLLIGKSNICVKVGEKSLTCKK  
IDLTTIVKPEAPFDLSVIYREGANDFVVTFNSTSHLQKKYVKVLMHDVAYRQEKDENKWITH  
VNLSSTKLTLLQRKLQPAAMYIEIKVRSIPDHYFKGFVSEWSPSYFRTPPEINNSSGEMDP  
ILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHHKKTLEHLCKKPRKNLNVSFNP  
ESFLDCQIHRVDDIQARDEVEGFLODTFPQOLEESEKQRLGGDVQSPNCPSEDVVVTPES  
FGRDSSLTCLAGNVSACDAPILSSSRSLDCRESGKNGPHVYQDLLLLSLGTTNSTLPPPF  
LQSGILTLNPVAQGPILTSLGNSQEEAYVTMSSFYQNQ

>Q03600

MRECIISWTLLLCLSCVKSFNLDVNAPIYRYGPSGTNFGYSVAEHFKGDKPVMLIGAPRG  
ESGQTGTERAGAMYACDINTFYNGGSNHWCEQVRFEYENVEDYAKRPNETRGRTRVHPLGK  
NDQLLASTIVSKGTKNGSALVCAPLIRYHQTAAYPQGACYELESNLRLQSTYATCAQKNL  
PTTDRHNEYGGCMEGFSAAITQDTIVTGLIGAVKWTGGVFAKKSSANIFDSVVEKYTMNQ  
PNGDMIRTRLVAHDYLGYSVDIGRFQWYEDGKPIVTVSGATRYGEHGAVIFLPIQDSS  
SKLTLNEDKFIINGTAMGSAFGYSIEVVDLNGDGFDDLIVGAPFEHRSGIDGNFGGIVYV  
YFSQGVQRKHESHVLFHPPKILKNPDFYSQFGLSITKLGNDGDKSKLNDFAVGAPFAF  
DGAGAVYIYLGTKNIEKFRKKPAQVIKGNLPLNPPGMRSGFSLSGSDMDENGYPDL  
LIGSPSKNFVALLRSRPVISIETKHKMEKRMVDIDKGVNCPRGAKTCFPLDMVIYVDEET  
KRGAEVDFSSDVFMCNLEAIPFRADTTARGFIEGSHSHNYSWPCGSNSHVQKRTYRQLI  
YLPVQESKDWITPLKFRFTVSIIRNEKKPVQPPQGSQVLVDLKHYPVLNKYGASYEFDVPFN  
TLCGEDHTCQTDLSLKAFAFKDIPLTSNGYVSNVGEKDYLDTFTVENKKEKAYQANFYLE  
YNEEELPQVQGSKRMI AETIGKNI VHLPLGNPMNGASKHQFTIQFKLTRGRTEGIGKA  
LKFMAHVNSTSQETEEELKDNKWEAEVQI IKKAELEIYGISDPDRVFFGGKARAESELEL  
EEDIGTMVRHNYTIINHGPWTVRNVEAHISWPYQLRSRFRGRGNALYLLDVPTITTEFTD  
GTSEVRKCFIKQOYEYVNP AEIKLNTKYSTQETAPHRVEHRMKREIDEDEEEQSDDLGA  
EENIPWFSTANFNLFAIKGGDGRPREVKHLSCQDNTANCF TVICHFD FIDANS AVVIDL  
RARLWNATFI EDYSDES VKIRSFGLQLDES QGIDDDPNNAAFVETSADPDRPTIGDS  
RPIPWIIYVIAAVIGVLILSLIIICLSKCGFFKRNRLDQPSLYTAQLKHEREEWADTGL

>P01322

MALWMRFLPLLALLVLEPKPAQAFVKQHLCPHLVEALYLVCGERGFFYTPKSRREVED  
PQVPQLELGGGPEAGDLQTLALEVARQKRGIVDQCCTSI CSLYQLENYCN

>P12706

MALWMQCLPLVLVLEFFSTPNTEALVNQHLCGSHLVEALYLVCGRGFFYYPKVKRDMEQA  
LVSGPQDNELDGMQLQPQEYQKMKRGIVEQCCHSTCSLFLQLESYCN

>Q9NDE7

MSKFLLQSHSANACLLTLLLTLASNLDISLANFEHSCNGYMRPHPRGLCGEDLHVIISNL  
CSSLGGNRRFLAKYMKRDTENVNDKLRGILLNKKEAFSYLTKREASGSITCECCFNQCR  
IFELAQYCRLPDHFSSRISRTGRSNSGHAQLEDNFS

>P13190

VPTQRLCGSHLVDALYFVCGERGFYSPKQIRDVGPLSAFRDLEPPLDTEMEDRFYPYRQQ  
LAGSKMKRGIVEQCCHNTCSLVNLEGYCN

>P68991

VPTQRLCGSHLVDALYFVCGGERGFFFYSPKPIRELEPLLIGIVEQCCHNTCSLANLEGYCN

>P68988

SALTGAGGTHLCGSHLVEALYVVCGRGFFFYTPSKTGIVEQCCHRKCSIYDMENYCN

>P69045

MAALWLQSFSLLVLLVSWPGSQAVAPAQHLGSHLVDALYLVCGRGFFFYNPKRVDVDQL

LGFLPPKSGGAAAAGADNEVAEFAFKDQMEMMVKRGIVEQCCHRPCNIFDLQNYCN

>P01330

YVSQRLCGSQLVDTLYSVCRHRGFYRPNDGIVDQCCTNICSRNQLMSYCN

>P01342

MALSPFLAAVIPLVLLLSRAPP SADTRTTGHLGKDLVNALYIACGVRGFFFYDPTKMKRD

TGALAAFLPLAYAEDNESQDDESIGINEVLKSKRGIVEQCCHKRCSIYDLENYCN

>O77801

MDRRPLTWALVLLGPALAIALGPAAAQEAPEKLCGHHFVRALVRLCGGPRWSSEEDGRP

AGGDRELLRWLEGQHLLHGLMASGDPVLVLAQPQLPQASRHHHRRATAINPARHCCLSG

CTRQDLLTLCPH

>O28783

MLNDVVRDAEAGEKVFLLGNEAIARGAIEAGIDVFAAYPGTPSSEIADTLSDACRLLRGKM

DFYMEYSANEKVAFEVAVGASLAGKRAMATMKHVGVNVAADPLFSFAYVGARGGFVLVTA

DDPSMHSSQNEQDNRWYGKAAKLPVVEPSSVQEAKDYAKLCFDLSEKFGLPMLRSYTRL

SHASGVVELGKIPEKEFSRVEWERHPETDVVLP AHARKLKPILLEKLEKIERFYNSSEM

NWDEGDGDVGI IACGLSYAYTKEALENLNLNLPVLKLSMHP LPERLIENFVSQMKKVIV

VEEVDPFVELHVRAMGLAEVYGMNGYMPMNYEYNVGRVETGIAKALGIKPSRDYEGIVA

ESQKLA AKAPRPPVLCPCPHSASFYAIRRVDELGDAALPSDIGCYTLGINKPLEGVD

ITICMGASVGVSNGLAHLVNLNKIIATIGDSTFIHAGIPPLINAVYNHADFLVILDNSTT

GMTGHQPHPGTGFRGCGEAGKAVRIEDIVRGCGVEFVEVNPYNVRKMVDVLRALNHDG

VAVVIARQPCAILWSRARRREGKIVTYKVTE DCTLCECVNTFACPALIFDGEKVSIDQS

LCVGC A VCAKICPNRAIKPAKSN

>O27880

MELEDILNAREGDKLFLLGNEATVRAAIESGVGVASTYPGTPSSEIGNVLSGIAKRAGMY

FEFSVNEKVALEVAASGVR SFTFMKHVGLNVA SDFMSTAYTGVRAGMVVLTADDP

SMFSSQNEQDNRHARLACLPLLEPSDPQEVLEFMNHAFELSE DYGLPVLLRTRTRVSHM

RGVVEVGSRMREPSEGFFRKDPERFVVPATARVMHRKLVDMKELRIRADESELNRVFN

GGSDSELGVVASGGAFNYVYDALES LGLELPVLKLGFTYFPFAGLV EEFLSGLKRVLVE

EVDPI MEREVLAVAGSARLDLDVHGKLDGTLPEIYEYNEDILRKAISGLTGAPSVERECD

VPDIPERPPSLCPGCPHRAVYAVRRAADELELSGDEIIFPTDIGCYTLGIEPPYSAADY

LLSMGSSIGTSCGFS AATTQRIVSFIGDSTFFHAGIPPLINAVHNKQRFVLVLDNR TTA

MTGGQPHGPLPVDGMGDEAPEISIEEIVRASGVEFVETVNP MNIKRTSETVKRALEHESV

AVVISKYPCMLSSGAVRGRPMAVDGEKCDLCLCIRDLAC PAMVTREGEVVIDPLKCRGC

SVCLQICPAGAIKPEGKG

>Q9UZ57

MVKVTDIVLWDKPGERVLLLG NQAIVRGALEGNIGVYAAYPGTPSSEITDTMAAVASRAG

VYMEYSTNEKVAFETALSASWAGLRAMTAMKHVGLNVAMDSFMTVSYMGVNGGLVWVAD  
DPSMWSQNEQDTRAIKAFANI PVLEPSSVQEAQDMVKYAFEISEKYGQMVILRTTTRSS  
HMRGDVVLGELPQEIKEGKRKFGDFKKNPERYVDIPAFQRPKHKWLLLETIEKFREEFNNS  
PFNWIEGPEDAKVGIIAPGLSYAYVKEALAWLGVDNVKVLKLGTPFPVPYGLLEKFFQGL  
ERVLIVEELEPVVEEQVKVWAFDKGINVEIHGKDLVPRVYEMTTRRAVEAIAKFLGLETP  
INFEEIDEKYKKVQEI VPPRPPSLCPACPHRNTFFALRKAATPRAIYPSDIGCYTLGVLP  
PLKTVDTTIAMGGSIGVAHGLSIALNGSIAEEQRKTGKGGKIIAATIGDSTFFHTGLPAL  
ANAIYNRSNVLIVVLDNLVTAMTGDQPNPGETPHGPGKRILIEEVAKAMGADFVAVD  
PYDIKETYETFFKALEVEGVSVVVARRACALYRIGQLRRAGKQWPIYQVNEKCTGCKIC  
INAYGCPAIYWDPEKKKAKVDPLMCWCGGCAQVCPFDAFEKVRREGEL

>O28249

MRLNIVVVGVGGQALTTSGIIARAAMRAGLNVVTAETHGMAQRGGSVEVHVRIGDVRAP  
LIPEGGADVMIALEPAEALRYAKFLNKNTLVILNTRKIIPPSVTAGTAKYPELDEIIGEL  
RKVTPRVI PVNASEIAEKAGSVLATNVVVVGM LFGYYSMPFGIEHVVEAIRETMKSKI VD  
LNLKALKMGYNQAISGRPSAV

>Q51698

MKTVLPSVPETVRLSRRGFLVQAGTITCSVAFGSVPAAAGDTAESTPSIAAVSPNVWVRV  
HADGIVDIVCPAVELGQGAHTALPRFVAEELDADWDRVRVQQAGASDKVYGNPLAWGTQF  
TAASRTTVGYFDVLRVAGA QARFVLVQTAARRWSVPADQLETQKGVVLHRRSRRSATYGE  
LVASVQVPESFPHFARNEATQPADDYFGAAPP SVVAQAAGPASGAIALKHRSTYRLIGK  
DAPRKDIPPKVNGQACYGMDVQVPGLYAMVETGPVAGMAPERVDDGAARQVPGIHHVLS  
LPHGVAVVGRDIFAVRAARARLLVNWKANPDKQSYDSGQVLDEFSDLCRNGIERNVQAW  
KQGELSSIDAVFARPDVRIESFEMQSDLVYQAPMEPQSAVIQPHADGSAEAWGTQWPTV  
EQGFAAGILGIAPDKLTMHLPLVGGGFGRRLLEPGALVDAAHIVRAIGKTVKVIWSREDDL  
KRNPFRQALACRVEAAVLEKDKRILALRHTVAADSWLARLFPQYFNAYQQTDPGNWIGGM  
VAYDVPLQRIDALT PRRSVDVCYMRGIGVAQVKFAQESLVDQIARRLNADPVDFRLAHLN  
TSPRGAAVVRTVAEMSDWKRRSADAGGGMALGLAYTPYSNAHVALVSEVHFNRSENTLSV  
SRVWCAVDVGMVAQPDIVKAQMEGGIIQGLSVALMERVQVAKGVLQHSNFHDYPMLRMSQ  
VPQIHVRLVETDQAMAGVAELGLLQIGPAINNAFARITGQHLRSLPMR PALAQMKRSGPT  
A

>O27881

MNYNIYVCGVGGQGI IKTSVIGEAAMKKDINVMSEIHGMAQRGGSVSTEIRIGE VHGGS  
IIPDGEADLVLA FEPLEAIRALPKMSEESEVILNTSVIPPFNLMRSPHPYPLDEIMSTL  
EERAGSVRGFNAAEIALKAGHILSLNMVMLGAAAATPGFPLESESLISSMRDNLPSRLID  
VNLRAFRDGFGAAAES

>Q9UZ56

MKEYNIVITGVGGQILTAANLLGWAALRAGYKVRVGEVHGMSQRFSGSVIAYVRFGEDVY  
GAMVPEGKADVILSFEPVEALRYINYLKKGGGLVFTNARPIPPVQVSMGLASYPSMEEIRK  
IVEEDFGGKFLAFDAEKLAIEAGNVITTNVVLIGALTQTPGFPLSAEHVKEVIRISVPPK  
AVDVNMRAFELGVKAAKEMLNL

>P59888

MHTPKHAIQRISKEEMEFFEGRCCERMGEADETMWGTKWCGSGNEATDISELGYWSNLDSC  
CRTHDHCDNIPSGQTKYGLTNEGKYTMMNCKCETA FEQCLRNVTGGMEGPAAGFVRKTYF  
DLYGNGCYNVQCP SQRLARSEECPDGVATYTG EAGYGAWAINKLN

>P52191

MSYYGSSYRIVNVDSKYPGYPPEHAIAEKRRARRRLLHKDGCNRYFKHIFGEWGSYMVD  
IFTTLVDTKWRHMFVVFSLSYILSWLIFGSI FWLIALHHGDLLSDPDITPCVDNVHSFTA  
AFLFSLETQTTIGYGYRCVTEECSSAVLTVILQSILSCIINTFFIIGAALAKMATARKRAQ  
TIRFSYFALIGMRDGLKCLMWRIGDFRPNHVVEGTVRAQLLRYSEDSEGRMTMAFKDLKL  
VNDQIILVTPVTIVHEIDHESPLYALDRKAVAKDNFEILVTFIYTG DSTGTSHQSRSSYV  
PREILWGHRFHDVLEVKRKYKVNCLQFEGSVEVYAPFCSAKQLDWKDQQLNNLEKTSPA  
RGSCTSDTNTRRRSFSAVAMVSSCENPEETSLSPODECKEVPYQKALLTLNRISMESQM

>O75578

MELPFVTHLFLPLVFLTGLCSPFNLDHHPRLFPGPPEAEFGYSVLQHVGGGQRWMLVGA  
PWDGPGSDRRGDVYRCPVGGAHNAPCAKGHLDYQLGNSSHPAVNMHLGMSLLETGDGCG  
FMACAPLWSRACGSSVFSGICARVDASFQPGSLAPTAQRCPYMDVVIVLDGSNSIYP  
WSEVQTFRLRLVGKLFIDPEQIQVGLVQYGESPVHEWSLGDFRTKEEVVRAAKNLSRREG  
RETAKTAQAIMVACTEGFSQSHGGRPEAARLLVVVTDGESHGDEELPAALKACEAGRVTY  
GIAVLGHYLRQRDPSSFLREIRTIASDPDERFFFNVTDAAALTDIVDALGDRIFGLEGS  
HAENESSFGLEMSQIGFSTHRLKDGILFGMVGAYDWGGSVLWLEGGHRLFPPRMALEDEF  
PPALQNHAAAYLGYSVSSMLLRGRRFLFLSGAPRFRHRGKVI AFQLKKDGAVRVAQSLQGE  
QIGSYFGESELCPDTRDGTDDVLLVAAPMFLGPNKETGRVYVYLVGQQSLLTLQGTLO  
PEPPQDARFGFAMGALPDLNQDGFADVAVGAPLEDGHQGALYLYHGTQSGVRPHPAQRIA  
AASMPHALSYFGRSVDGRLDLDDGDDLVDAVGAQGAAILLSSRPVHLPSTLEVTPQAIS  
VVQRDCRRRGQEAVALTAALCFQVTSRTPGRWDHQFYMRFTASLDEWTAGARAAFDGSGQ  
RLSPRRLRLSVGNVTCEQLHFHVLDTSDYLRPVALTVTFALDNTTKPGPVLNEGSPSTSIQ  
KLVPFKDCGPDNECVTDLVLQVNMDIRGSRKAPFVVRGGRRKVLVSTTLENRKENAYNT  
SLSLIFSRNLHLASLTPQRESPIKVECAAPSAHARLCSVGHVPVFTGAKVTFLLLEFEFSC  
SSLLSQVFVKLTASSDSLERNGLQDNTAQTSAYIQYEPHLLFSSESTLHRYEVHPYGT  
LVGPGPEFKTTLRVQNLGCYVVSGLIISALLPAVAHGGNYFLSLSQVITNNASCIVQNL  
EPPGPPVHPEELQHTNRLNGSNTQCQVVRCHLGLQAKGTEVSVGLLRLVHNEFFRAKFK  
SLTVVSTFELGTEEGSVLQLTEASRWSESLLEVQTRPILISLWILIGSVLGGLLLLALL  
VFCLWKLGFFAHKKIPEEEKREEKLEQ

>Q9UKX5

MDLPRGLVVAWALS LWPGFDTDFNMDTRKPRVIPGSRTAFFGYTVQQHDISGNKWL VVGA  
PLETNGYQKTGDVYKCPVIHGNCTKLNLRVTL SNVSRKDNMRLGLSLATNPKDNSFLA  
CSPLWSHECGSSYTTGMCSRVSNSNFRFSKTVAPALQRCQTYMDIVIVLDGSNSIYPWVE  
VQHFLINILKKFYIGPGQIQVGVVQYGEDVVHEFHLDYRSVKDVVEAASHIEQRGGTET  
RTAFGIEFARSEAFQKGGKAKKVMIVITDGESHDSPLEKVIQQSERDNVTRYAVAVL  
GYNRRGINPETFLNEIKYIASDPDDKHFFNVTDAAALKDIVDALGDRIFSLEGTNKNET  
SFGLEMSQTGFSSHVVEDGVLLGAVGAYDWNGAVLKETSAGKVIPLRESYLKEFPEELKN  
HGAYLGYTVTSVSSRQGRVYVAGAPRFNHTGKVILFTMHNNRSLTIHQAMRGQQIGSYF  
GSEITSVDIDGDGVTDVLLVGAPMYFNEGRERKGVYVYELRQNRVYNGTLKDSHSYQNA  
RFGSSIASVRDLNQDSYNDVVVGAPLEDNHAGAIYIFHGFRGSILKTPKQRITASELATG  
LQYFGCSIHGQLDLNEDGLIDLAVGALGNAVILWSRPVQINASLHFEPKINIFHRDCK  
RSGRDATCLAAFLCFTPIFLAPHFQTTTVGIRYNATMDERRYTPRAHLDEGGDRFTNRAV  
LLSSGQELCERINFHVLDTADYVKPVTFVSVEYSLEDPDHGPMDDGWPTTLRVSVPFWNG  
CNEDEHCVPDLVLDARS DLP TAMEYCQVR LRKPAQDCSAYTLSFDTTVFIIESTRQRVAV  
EATLENRGENAYSTVLNISQSANLQFASLIQKEDSDGSI ECVNEERRLQKQVCNVSYPPF  
RAKAKVAFRLDFEFKSI FLHHLIEI ELAAGSDSNERDSTKEDNVAPLRPHLKYEADVLEFT  
RSSSLSHYEVKLNSSLERYDGI GPPFSCIFRIQNLGLFP IHGIMMKITIP IATRSGNRLL  
KL RDFLTDEVANTSCNIWGNSTEYRPTPVEEDLRRAPQLNHSNSDVVS INCNIRLVPNQE

INFHLLGNLWLRSLKALKYKSMKIMVNAALQRQFHSPFIFREEDPSRQIVFEISKQEDWQ  
VPIWIIIVGSTLGGLLLLALLLVLALWKLGFRRSARRRRREPGLDPTPKVLE

>Q24247

MLELPFTTIRPNCRLRQNLGILIIILQCVLTCYNFNLEQRLPIVKYGHPSHSHFGYSVATHT  
IGEANGPNKTNVCLVGLAPLDQNRQPNTTHSGALWRCPMTQRFDDCEQVITDGRNFDSEI  
LSPPGNDEIKEDQWMGVTVRSNPLQANGSGGKVIIVCAHRYMYIVRENRYGQGLCYLLTND  
LQFEEVHEPCKGRPVQRQHEDYGLCQAGTSAALLDDDTMVLGSPGPYTWGRSIVWTQVGG  
EYLQRDKTTTYSDHSDLNSPVDKYSYLGMSVTGGRFFGHMSYAAGAPRSEGHGQVVIQFDK  
STDNPIPVHSILDGEQFGSSFGYELATADINDHRPDLIVAAPLYFTKTEGGAVVYQNI  
QDTLPMKYTLKLTGPLESRFGLALANIGDLNKDNCEDLAVGAPYEGNGVVYIYLGSSQGL  
NSKPAQKIQASELGGTIPNGQPIRTFGISISGNTDLDNNSYPDVVIGAFNSSAAVILLAR  
PIISIQTQSVQRKELHNMDPNTPGCLDDPASNLTCFTFRACCSIEPYDEKNKELRLAYSVE  
AETFDHLKFKSRVFFFDRENKRTNVLRSVVRVHTNGRTECQAVTGYIKANTRDIQTPVRF  
RLKYSLEVEPLADSALVRLNPILDQTOAHVDFEGTFQKDCGDDDLCESNLIIRVEPNITE  
SSGNEYTLILDETELEVRINVSNLADSAYEAQLFIAHQAGVSYVATKKPTNATCNSYNTT  
LVACSLGNPMLRDTTTFVTIRFQPKGLEPSEKIMLFHIFANTTSKLVGPERPERDLRVNV  
VRRAKLNFRGWAIPESQSFYSGSSVANSVANTAATDIEGHGPMGMDDVGSQVHHMFTIFNE  
GPSTAPKVQMIHWPYSLYSDPQSGRPVQYLLYLEQVPTVEVSQGECHVAKEYVNPPLNLA  
SGSRENPAYLSAPAQMRMFPQSQRHSFNKSLIHSQRSYSSSHRDDHSDDTQSNRNRVRR  
SFLERVTRLERLMDPESSNAANGKKQDIVELDCNKGATNCVRIECDILNMPALSEAQVV  
VKARLWNSTLVSEYPRVERVRIIFSTATAQIPESYGEVMDHNNIEVETRAYPELRNQQRD  
TSIPWLIILGIVGGLLLLALVTYVVLWKVGFVKRIRPTDPTLSGNLEKMNEEKPFLLAPSK  
NTHHVF

>P18614

MVPRRPASLEVTVACIWLTVILGFVCFVNFVDVKNSMSFSGPVEDMFGYTVQQYENEEGK  
WVLIGSPLVGGPKARTGDVYKCPVGRERAMPCVKLDLPVNTSIPNVTEIKENMTFGSTLV  
TNPNGGFLACGPLYAYRCGHLHYTTGICSDVSPTFQVNSFAPVQECSTQLDIVIVLDGS  
NSIYPWESVIAFLNDLLKRMIDIGPKQTQVGIVQYGENVTHEFNLNKYSSTEEVLVAANKI  
GRQGGLOTMTALGIDTARKEAFTEARGARRGVKKVMVIVTDGESHNYRLKQVIQDCEDE  
NIQRFSIAILGHYNRGNLSTEFVVEEIKSIASEPTEKHFFNVSDDELALVTIVKALGERIF  
ALEATADQSAASFEMEMSQTGFSAHYSQDWMLGAVGAYDWNGTVVMQKANQMVIPHNTT  
FQTEPAKMNEPLASYLGYTVNSATIPGDVLYIAGQPRYNHTGQVVIYKMEDGNINILQTL  
GGEQIGSYFGSVLTTIDIDKDSYTDLLLVLGAPMYMGTEKEEQGKVYVYAVNQTRFEYQMS  
LEPIRQTCCSSLDNSCTKENKNEPCGARFGTAIAAVKDLNVDGFNDVVIGAPLEDDHAG  
AVYIYHSGSKTIREAYAQRIPSGGDGKTLKFFGQSIHGEMDLNGDGLTDVITIGGLGGAAL  
FWARDVAVVKVTMNFEPNKVNIQKKNCRVEGKETVCINATMCFHVKLKSKEDSIYEADLQ  
YRVTLDSLRLQISRSFFSGTQERKIQRNITVRESECIHRSFYMLDKHDFQDSVRVTLDFNL  
TDPENGPVLDALPNSVHEHIPFAKDCGNKERCISDLTLNVSTTEKSLILVKSQHDKFNV  
SLTVKNKGDSAYNTRTVVQHSPNLIIFSGIEEIQKDSCESNQNITCRVGYPPFLRAGETVTF  
KIIIFQFNTSHLSENAI IHL SATSDSEEPLESLNDNEVNISIPVKYEVGLQFYSSASEHHI  
SVAANETIPEFINSTEDIGNEINVFYTIRKRGHFPPELQLSISFPNLTADGYPVLYPIG  
WSSSDNVNCRPRSLEDPPFGINSKGMTISKSEVLKRGTIQDCSSTCGVATITCSLLPSDL  
SQVNVSLLLWKPTFIRAHFSSLNLTLRGELKSENSSLTLSSSNRRELAIQISKDGLPGR  
VPLWVILLSAFAGLLLLMLLILALWKIGFFKRPLKMKMEK

>P12080

MSGDSIHRRRMALHCPITSLILLIAMSAGHYNIDLPSYVRFQRSSNSMFGFSIAMHKGR  
SGFYGNQNNVSLIVGAPKFDTSRYQQGVTEAGGVFKCSLNDDDCKLVPFDSKGNRNVDK

EVVDRKSYQWL GATVATGRDSDLVVACAPRYVFHTMTPSRAFRIDPVGTCFTSHNFEEFY  
EVSPCRTNNWGYHRQGSCQAGFSAAINGNGSRLFIGAPGSWYWGQTYSI PPDAKFPFKP  
PLYQPFGTGGMASSHDVTRPENQVFSTSESASVNDSDSYLGYSMVTGDFDGRSEDVAIGM  
PRGGNLVGRIVVNRWNMANIFNITGRQIGEYFGYSLATSDVDGDGLDDLLIGAPMYTDPD  
NVEGKYDVGRVYILLQGGPTEEKRWTTTEHIRDGYHSGKGRFGLALTTLGDVNGDGYGDFAV  
GAPYDGPPEGRGVVYIFHGSPMGPLAKPSQI IKSEQLVEGAPYPRTFGFALSGGLDMGNT  
YPD LAVGAYSSDQVFIKSRPVAAVNAETSFASNSKLI SLDDRSCQLVRDHKKVPCMLLT  
TCWSYTGRYLPEQLDFDVSWLLDAKKLLNPRMFFLRDEGKNIRNQTIRLNYGQKYCLNET  
VYLLDKVQDKLTPLEVEARYNLRSSRPLDPMVRHRSILEPVIDQNREIVLRDAINIQKN  
CGPDNICEPDLKLVSTVDKYLFGSPEPLVIEVFISNTNEDAFEAAFYMVTPPDLQFRKL  
QQLGEEKDTPITCSPPTPENNH TLKCDIGNPLESGKIAHFKISLVP EEKYGSSSSSYDFYW  
EANSTNLEKPGSEYDNKIRQSVGIWVD TDLDIKGTSLPDYQLYKAD DYKELENATKEDDI  
GPQVVHIYEIRNNRPSIIIEEA EVFIHLPEYETIVGDPLMYLLNQPETGGKIQCD DVAFNEY  
NLLLDEKLVKKS YLQAQGAIWNSAQVSGQSSSSSSSSGGASVHIEKARGE GFVRGVLVSNS  
TDAGDKLSPKQVEQRRQEDTLEALGDASFVHRDRASQAVQEPQVNQTSFTTYSTSSSSSG  
SGAPSAQLRGHSTQGH IQMAGPVQHTSSSSSSSNYRSWPAQQQQHQQLLLAGSGGSGLGS  
PVTFNDKSQFGGRNNNFHTGTLDLGTLNRGNVDNELYRSQGQYQNPSSQLGQSQGQFQAN  
ANQGHYQGQNAQFQARNPGFQQGQTSYQQGTQYSGQPGGYQTHHV TYSSGSKPYYGRENE  
DFYDEDNLQQATPGHWSSSSSSSSSGTRRLRRSNDKDGATEKPLQIDLNSPCQSARCKS  
IRCVVTNLGTEDGDAAFVAIRARMVAKTMEKLASNVPLNVSTLAVANVTLLPF IGAPKDA  
IVKTHEIFYKAEPEPLQVPDVVPLWVVVLAACAGALIFLLLWLLYKCGFFNRNRPTDHS  
QERQPLRNGYHGDEHL

>P17301

MGPERTGAAPLPLLLVLALSQGI LNCCLAYNVGLPEAKIFSGPSSEQFGYAVQQFINPKG  
NWL LVGSPWSGFPENRMGDVYKCPVDLSTATCEKLN LQTSTSI PNVTMKTNMSLGLILT  
RNMGTGGFLTTCGPLWAQQCGNQYYTTGVCSDISPDFQLSASFSPATQPCPSLIDVVVCD  
ESNSIYPWDAVKNFLEK FVQGLDIGPTKTQVGLIQYANNPRVVFNLNTYKTK EEMIVATS  
QTSQYGGDLTNTFGAIQYARKYAYSAA SGGRRSATKVMVVVTDGESH DGSMLKAVIDQC  
HDNILRFGIAVLGYLNRNALDTKNLIKEIKAIASIP TERYFFNVSD EAALEKAGTLGEQ  
IFSIEGTVQGGDNFQMEMSQVGF SADYSSQNDILMLGAVGAFGWSGTIVQK TSHGHLIFP  
KQAFDQILQDRNHSSYLGYSVAAI STGESTHFVAGAPRANYTGQIVLYSVN ENGNITVIQ  
AHRGDQIGSYFGSVLCSVDVDKDTITD VLLVGAPMYMSDLKKEEGRVYLF TIKKGILGQH  
QFLEGPEGIEN TRFGSAIAALSDINMDGFNDVIVGSPLENQNSGAVYIYNGHQGTIRTKY  
SQKILGSDGAFRSHLQYFGRSLDGYGDLNGDSITDVSIGAFGQVQLWSQSIADVAIEAS  
FTPEKITLVNKNQAQIILKLCFS AKFRPTKQNNQVAIVY NITLDADGFSSRVTSRGLFKEN  
NERCLQKNMVVNQAQSCPEHI IYIQEPSDVVNSL DLRVDISLENPGTSPALEAYSETAKV  
FSIPFHKDCGEDGLCISDLVLDVRQIPAAQE QPFIVSNQNKRLTF SVTLKNKRESAYNTG  
IVVDFSENLFASFSLPVDGTEVTCQVAASQKSVACDVGY PALKREQQVTF TINFDFNLQ  
NLQNQASLSFQALSESQEENKADNLVNLKIPLLYDAE IHLTRSTNINFYEISSDGNVPSI  
VHSFEDVGPKFIFSLKVTTGSPVSMATV IHIPOYTKEKNPLMYLTGVQTDKAGDISCN  
ADINPLKIGQTSSSVSFKSENFRHTKELN CRTASC SNVTCWLKDVHMKGEYFVNVTTRI W  
NGTFASSTFQTVQLTAAAEINTYNPEIYVIEDNTVTI PLMIMKPDEKAEVPTGVIIGSII  
AGILLLLALVAILWKLGF FKRKYEKMTKNPDEIDETTELSS

>P08514

MARALCPLQALWLLLEWVLLLLGPCAAPP AWALNLDPVQLTFYAGPNGSQFGFSLDFHKDS  
HGRVAIVVGAPRTLGPSQEETGGVFLCPWRAEGGQCPSLLFDLRDETRNVGSQTLQTFKA  
RQGLGASVVSWSVDIVACAPWQHWNVLEKTEEA EKTPVGS CFLAQPESGRRAEYSPCRGN  
TLSRIYVENDFSWDKRYCEAGFSSVVTQAGELVLGAPGGY YFLGLLAQAPVADIFSSYRP

GILLWHVSSQSLSFSSNPEYFDGYWGYSVAVGFEFDGLNTTEYVVGAPTWSWTLGAVEI  
LDSYYQRLHRLRAEQMASYFGHSVAVTDVNGDGRHDLVVGAPLYMESRADRKLAEVGRVY  
LFLQPRGPHALGAPSLLLTGTQLYGRFGSAIAPLGLDRDGYNDIAVAAPYGGPSGRGQV  
LVFLGQSEGLRSRPSQVLDSPFPTGSAFGFSLRGAVDIDDNGYPDLIVGAYGANQVAVYR  
AQPVVKASVQLLVQDSLNPVAVKSCVLPQTKTPVSCFNIQMCVGATGHNIIPQKLSLNAELQ  
LDRQKPRQGRVLLLSGQAGTTLNLDLGGKHSPICHTTMAFLRDEADFRDKLSPIVLSL  
NVSLPPTTEAGMAPAVVLHGDTHVQEQTTRIVLDCGEDDVCVPQLQLTASVTGSPLLVGADN  
VLELQMDAANELEGAYEAEALAVHLPQGAHYMRALSNVEGFERLINCQKKNENETRVLCEL  
GNPMKKNQAGIAMIAMLVSVGNLEEAGESVSFQLQIRSKNSQNPNSKIVLLDVPVRAEAQVE  
LRGNSFPASLVVAAEEGEREQNSLDSWGPKEHTYELHNNPGTIVNGLHLSIHLPGQSQP  
SDLLYILDIQPQGLQCFPPVNPVKVDWGLPIPSPSPIHPAHHKRDRRQIFLPEPEQP  
SRLQDPVVLVSCDSAPCTVVQCDLQEMARGQRAMVTVLAFLWLPSLYQRPLDQFVLQSHAW  
FNVSSLPYAVPPLSLPRGEAQVWTQLLRALERAIP IWWVLVGVLGGLLLLTILVLAMWK  
VGFFKRNRPPEEDEEGE

>O44386

MNAESTMFPPIFLALLALISHIEAFNFMPPRSRVINSPKHLKFHINQTRSSYFGYTLVIR  
QTSIIIVGAPRAQSTLESQRTINETGAIYRCSLTNGVCSPYVLDNRGNVDAPYSEYTFDSE  
RKDFQWLGGSMDDGKTDKLLVLCAPRFYAPSSRDNLHGVCYVWVNTVASTPQHVTIRIS  
PLRLKSEQVKEEDNGNKASFFYIMGELGLSAHVADDNFKFLIGAPGINTWRGSVILYRQV  
DPVDNPTASRRDTSKALRRTYRDVDSNDYTPHYAPEIPTPGLWGQEEDSYFGYAVSSGF  
FDSSNPTKLLYVATAPQANKQSGEAYIFDVRGKSIHKYHVFRGEQFGEYFGYSVLAEDLN  
GDGKTDVIVSAPQHALEDSDHNGAIYVFINKGFFNFERQILRSPVETMARFGTALSRLGD  
INHDDGYNDVAVGAPFAGNGTVFIYLGSENGLRDQPSQRDAPSQQPSKYGSHMFGHGLSR  
GSDIDGNGFNDFAI GAPNAEAVYLYRAYPVVKVHATVKSESREIKPEQEKVKITACYRLS  
TTSTDKLVQEQLAIRIAMDKQLKRVKFTQTQTNEISFKVNFANFGEQCRDFETQVRYSEK  
DIFTPIDLEMHYELTKKVPDSEEFCECAIVDPTEPKVSTQNIIFSTGCATDVCTADLQL  
RSKDVSPTYILGSADTLRLNYEITNIGETAYLPQFNVTSTSRIFAQVPGNCKVVDAMV  
CDLNRGRPLAKGDTDSVTISFDVSQLSGQSLIIHAEVVFSTGYEQNP TDNRQTNVIGLKEF  
TEIDASGGQTNQIDLEHYSNSAEIVNNEYIKSNGPSVIEQLTVSFYIPIAYKVAGSTAI  
IPIINVTSLKMQASYDSQLLSIDLVDQNMNTMLVVDVPEVTTTSLGGLETVITQNRQSYD  
IHTSGHVHQTMEVLDTSMVATASMSRKRRLKALTANREQYARISNVKAHDLSDDFKKGK  
LPVNRITIVFNCRDPEMTICVRAEMRVHFRPEKSINLNMRYSVDLNEVNAIIVDPWEYFVI  
LTDLKLQKKGDPTSTSF SINRRIEPNIISKHQETGLPIWIIIVSVIGGLLLLSAISYLLY  
KFGFFNRKTKKDELDRLVQQNPVEPEAENLNSGGNN

>P26006

MGGPSRAPRAPRLMLCALALMVAAGGCVVSAFNLDRFLVVKVKEAGNPGSLFGYSVALHR  
QTERQORYLLLAGAPRELAVPDGYTNRTGAVYLCPLTAHKDDCERMNITVKNDPGHHIIIE  
DMWLGVTVASQGPAGRVLVCAHRYTQVLWSGSEDQRRMVGKCYVRGNDLELDSDDWQTY  
HNEMCNSNTDYLETGMCQLGTSGGFTQNTVYFGAPGAYNWKGNYSYMIQRKEWDLSEYSYK  
DPEDQGNLYIGYTMQVGSFILHPKNITITVTGAPRHRHMGAVFLLSQEAGGDLRRRQVLEG  
SQVGAYFGSAIALADLNNDGWQDLLVVGAPYYFERKEEVGGAIYVFMNQAGTSFPAHPSLL  
LHGPGSFAFGLSVASIGDINQDGFQDIAVGAPFEGLGKVYIYHSSSKGLLRQPQQVIHGE  
KLGLPGLATFGYSLSGQMDVDENFYPDLLVGSLSDHIVLLRARPVINIVHKTIVPRPAVL  
DPALCTATSCVQVELCFAYNQSAGNPNYRRNITLAYTLEADRDRRPPRLRFAGSESAVVFH  
GFFSMPEMRCQKLELLLDNLRDKLRPIIISMNYSPLRMPDRPRLGLRSLDAYPILNQA  
QALENHTEVQFQKECGPDNKCESNLQMAAFVSEQQKLSRLQYSRDVRKLLLSINVTNT  
RTSERSGEDAHEALLTLVPPALLLSSVRPPGACQANETIFCELGNPFKRNQRMELLIAF  
EVIGVTLHTRDLQVQLQLSTSSHQDNLWPMILTLLVDYTLQTSLSMVNHRLQSFFGGTVM

GESGMKTVEDVGSPLKYEFQVGPMEGLVGLGTLVGLGLEWPYEVSNKGWLLYPTEITVHG  
NGSWPCRPPGDLINPLNLTSDPGDRPSSPQRRRRQLDPGGGQPPPVTLAAAKKAKSET  
VLTTCATGRAHCWLECPDPVVTNVTVKARVWNSTFIEDYRDFDRVRVNGWATLFLRT  
SIPTINMENKTTWFSVDIDSELVEELPAEIELWLVLVAVGAGLLLLGLIILLLWKCFFK  
RTRYQIMPKYHAVRIREEERYPPPGSTLPTKKHWVTSWQTRDQYY

>P13612

MFPTESAWLKGRGANPGPEAAVRETVMLLLCLGVPTGRPYNVDTESALLYQGPHTLFGY  
SVVLHSHGANRWLLVGAPTANWLANASVINPGAIYRCRIGKNPGQTCEQLQLGSPNGEPC  
GKTCLEERDNQWLGVTLRSRQPGENGSIIVTCGHRWKNIFYIKNENKLPPTGGCYVPPDLRT  
ELSKRIAPCYQDYVKKFGENFASCQAGISSFYTKDLIVMGAPGSSYWTGSLFVYNITNK  
YKAFLDKQNQVKFGSYLGYSVGAGHFRSQHTTEVVGGAPQHEQIGKAYIFSIDEKELNIL  
HEMKGKKLGSYFGASVCAVDLNADGFSDLLVGAPMQSTIREEGRVFVYINSGSGAVMNAM  
ETNLVGS DKY AARFGESIVNLGDIDNDGFEDVAIGAPQEDDLQGAIIYNGRADGISSTF  
SQRIEGLQISKLSMFGQSISGQIDADNNGYVDVAVGAFRSDSAVLLRTRPVVIDASLS  
HPESVNRKTKFDCVENGWPSVCIDLTLCF SYKGEVPGYIVL FYNMSLDVNRKAESP RPY  
FSSNGTSDVITGSIQVSSREANCRTHQAFMRKDV RDILTP IQIEAAYHLGPHVISKRSTE  
EFPPLQPILOQKKEKDIMKKTINFARFCAHENC SADLQVSAKIGFLKPHENKTYLAVGSM  
KTLMLNVSLFNAGDDAYETTLHVKL PVGLYFIKILELEEKQINCEVTDNSGVVQLDCSIG  
YIYVDHL SRIDISFLLDVSSLSRAEEDLSITVHATCENE EEMDNLKH SRVTVAIPLKYE  
V KLTVHGFVNPTS FVYGSNDENEPETCMVEKMNLTFHVINTGNSMAPNVSVEIMVPNSFSP  
QTDKLFNILDVQTTTGECHFENYQRVCALEQQKSAMQTLKGI VRFLSKTDKRLLYCIKAD  
PHCLNFLCNFGKME SGKEASVHIQLEGRPSILEMDETSALKFEIRATGFPEPNRVI ELN  
KDENVAVHVLLEGLHHQRPKRYFTI VI I SSSLLLGLIVLLLISYVMWKAGFFKRQYKSILQ  
EENRRDSWSYINSKSNDD

>Q91687

MIRDLGKVGKVSLLLDHIWTGILLYTVILTPADCYNIDESSPMLFKGSPGSLFGFSVVLH  
SNGEGNWI VVGAPQSSWTTKNVSNPGA I LKCKIQQNPNRTCDGLELGNQNGAKCGKTCKE  
EQDNQWLGVSLSRQPTKDQILACGHRWKNTHFMLS DHKLPYGV CYGIPADFRTELSKRI  
CPCYKDHVRKFGDRY GSCQAGISTFYVEDVIIMGAPGSFYWTGSIFVYNTTENTIKSYVD  
LNNAVKFGSYLGYSVGAGHFRTPNGYDVIGGAPQQEQTGRVYIFTYEKQLTILFEAGGK  
KLGSYFGAAVCAADLNGDGLSDLLVGAPIQSTIREEGRVFVYMNTGSGAMEELKFELSGS  
DLYAARFGETIANLGDIDNDGFEDVAIAAPQEGDLEGAVYIYNGREKGITPSFSQRLQGS  
KFGYGLRMFGQSLSNVLDIDNGYQDVAIGAFSDSAVLLRTRPVIIDAF LKLPSTVNK  
TKFECMENGVA VVCMNVTVCFA YQGLDVPGYIVMFY NITSDVRRKSGTPARFYFVSNSS  
DVISGTVEIRQKSANCKTHQAFMRKDTRDIFTP IHMESSYLGKHIVSKRSADDFQPLQP  
VLQOKEGKGNVITNKVYFARYCNLPNCSADLQITGKRSFPKPFESKTYLAVGGMKSLMIN  
ITL FNGDDAFQTVLRLRLPKGLYFVKVFDLLEKEINCAVNKEENEQTRLDCSVGHFYVD  
AFSKQEF SFLLDSSALIRAEEDLVINATVACANELIQDTMWNNEVSFIVPTRYEIDLNVL  
GTVSPFSFVFGPREDK PDDSCIMEEIEYTFNVINAGSSLVPAAKLQISLPNTFAPNDIKL  
FNILAVKTTVGE CYFDNSTRDCETPKNTRSKIGDLFAFFSRPDKRWLYC IKDDP SCLQIL  
CLFGDMERESKATVEVQLEISHSHLERDEAML IQFFTTAQAGFEDSFKIINLNQDHHAYV  
VLEALHNLKPKKHVIYMIIGISLLL GILLFSL LTYILWKVGF FRRKYQPIGTEETSRES  
WNYLNKDEKEVK

>P11688

MGSWTPRSPRSPLHAVLLRWGPRRLPPLLPLLLLLWPPPLQVGGFNLD AEAPAVLSGPPG  
SLFGFSVQFYRPRGDGVSVLVGAPKANTSQPGVLQGGAVYVCPWGTSP IQCTTIQFDSKG  
SRILESSLYSAKGEEPVEYKSLQWFGATVRAHGSSILACAPLYSWRTEKDPQNDPVGTCY



LSTENFTRILEYAPCRSDFGSAAGQGYCQGGFSAEFTKTGRVVLLGGPGSYFWQGGIILSAT  
QEQISESYYPEYLINPVQGLQTRQASSVYDDSYLGYSVAVGEFSGDDTEDFVAGVPKGN  
LTYGYVTVLNGSDIHSLYNVSGEQMASYFGYAVAATDTNGDGLDLDLLVGAPLLMERTADG  
RPQEVGRVYIYLQRPAAIDPTPTLTLTGQDEFSSRFSSLTPLGDLDDQDGYNDVAIGAPFG  
GEAQQGVVFIFFGGPGGLSTKPSQVLQPLWAAGRTPDFFGSALRGRDLDDGNGYPDLIVG  
SFGVDKALVYRGRPIISASASLTIFPSMFNPEERSCSLEGNPVSCINLSFCLNASGKHVP  
NSIGFEVELQLDWQKQKGGVRRALFLTQSKQATLTQTLTLLIQNGAREDCREMKIYLRNESEF  
RDKLSPIHIALNFSLDPKAPMDSHGLRPVLHYQSKSRIEDKAQILLDCGEDNICVPDLQL  
DVYGEKKHVYLGDKNALNLTFFHAQNLGEGGAYEAELRVTAPEAEYSGLVRHPGNFSSLS  
CDYFAVNQSRQLVCDLGNPMKAGTSLWGGLRFTVPHLQDTKKTIQFDFQILSKNLNNSQS  
NVVSFPLSVEAQAQVSLNGVSKPEAVIFPVSDWNPQDQFQKEEDLGPVHHVYELINQGP  
SSISQGVLELSCPQALEGQQLLYVTKVTGLSNCTSNYTPNSQGLELDPETSPHHLQKREA  
PGRSSTASGTQVLKCEAKCFRLRCEFGPLHRQESRSLQLHFRVWAKTFLQREYQPFSLQ  
CEAVYEALKMPYQILPRQLPQKQLQVATAVQWTKAEGSNGVPLWIIILAIFGLLLLGLL  
IYVLYKLGFFKRSLPYGTAMEKAQLKPPATSDA

>P26007

MAAALLLYLPLLPGLAGAFNLDAENVIGRRGEPGSLFGFSLAMHRQLQPQEKRLLLVGAP  
REKAFPSQQANRTGGLYSCDITSSDTRCTRVVFEDEDTPKMESKEDQWMGVTVQSQGGG  
NVVTCAHRYEKRYVNTVQETRDIIGRCYVLSQDLTIKDDMDNGVWSFCDGRLRGHEKFG  
SCQQGVAATFTRDYHYIVFGAPGTYNWKGVVRAEQKNQTFYDLGIFDDGPYEVGDESRQD  
KNLVVPANSYLGFSLDSGKIVSQDEMFTVSGAPRANHSGAVVLLKKEKNQRALSLEHM  
FEGEGLASSFGYDVAVVDLNSDGWQDIVVGAPQYFDRSGDIGGAVYIYINQRGKWEGIKP  
IRLNGTADSMFGLAVENVGDINQDGYPDIAVGAPYDGFVKVYIYHGSKNGINTEPAQILD  
GEKTGTNFFGYSIAGNMDLKDKNYPDIAVGSLSDSVSVFRSRPVISITKSITVQPKLDDL  
KKKNPEDPSEIWMVDKACFQYTANPRNLNPRIKINYTFEAENERRQLGLPSRVRFKDYLS  
DQFTASTTLIGQNSKRCVTAKLVLQEKIKDKLRPIPIAVSVNIAGLESGSSSTRKERALP  
DLIPILNSNESETKITKVEFLKEGCGEDNECHSNLKLQYRFCTREGNEDRFTYLP IENGI  
PVLVLKDQKDIALEITVTNPNP SDARNPQKDGEDAYEAKLIATFPDSLTYSAFREMRGYPE  
KQLTCGANQNGSQAECELGNPFKRNSNVTFYLILSTTKVNVDTTDLINLKLTTSTQVN  
STAITASAKVVLELLLSLTGVAKPSQVYFGGNIVGESAMKSEDNIGNLIEYEFRTNLGR  
PLKTFGTASLDIQWPKEISNGKWLLYLKMKIESKGLEKVSQCPQNEINVLHVAESHNSRRK  
REIAEKQLTDSKTFSLFSERKYKTLDCKVNAQCVDIRCPLKGFDSKASILLRSRLWNSTF  
LEEFKMNLYLDILVRASISVPAAAKNVCLTNEAAQVRVTVFPAKPVALYTGVPWWIIAVA  
IFAGVLMALLVFLLLWKCGFFKRSKKDHYDATYHKAIEHAQPSDKERLITSDA

>P23229

MAAAGQLCLLYLSAGLLSRLGAAFNLDTRDNVIRKYGDPGSLFGFSLAMHWQLQPEDKR  
LLLVGAPRGEALPLQRANRTGGLYSCDITARGPCTRIEFDNDADPTSESKEDQWMGVTVQ  
SQGGPGKVVTCAHRYEKRYHNTKQESRDIIFGRCYVLSQNLRIEDDMDGGDWSFCDGRLR  
GHEKFGSCQQGVAATFTKDFHYIVFGAPGTYNWKGIVRVEQKNNTFFDMNIFEDGPYEVG  
GETEHDESLVVPANSYLGLLFLTSSVSYTDPDQFVYKTRPPREQPDTFPDVMMNSYLGFS  
LDSGKIVSKDEITFVSGAPRANHSGAVVLLKRDMSAHLLEPHIFDGEGLASSFGYDVA  
VVDLNDKDGWQDIVIGAPQYFDRDGEVGGAVYVYMNQQGRWNNVKP IRLNGTKDSMFGIAV  
KNIGDINQDGYPDIAVGAPYDDLKGVFIYHGSANGINTKPTQVLKGISPYFGYSIAGNMD  
LDRNSYPDVAVGSLSDSVTIFRSRPVINIQKTIITVTPNRIDLKQKTACGAPSGICLQVKS  
CFEYTANPAGYNPSSISIVGTLEAEKERRKSGLSSRVQFRNQGSEPKYTQELTLKRQKQKV  
CMEETLWLQDNIRDKLRPIPIITASVEIQEPSSRRRVNSLPEVLPILNSDEPKTAHIDVHF  
LKEGCGDDNVCNSNLKLEYKFCCTREGNQDKFSYLP IQKGVPELVLKDQKDIALEITVTNS  
PSNPRNPTKDGDDAHEAKLIATFPDITLTYSAYRELRAFPPEKQLSCVANQNGSQADCELGN

PFKRNSNVTFYLVLSTTEVTFDTPDLINLKLETTSNQDNLAPITAKAKVVIELLLSVSG  
VAKPSQVYFGGTVVGEQAMKSEDEVGSLIEYEFVRVINLGKPLTNLGTATLNIQWPKEISN  
GKWLlyLVKVESKGLEKVTCEPQKEINSLNLTESHNSRKKREITEKQIDDNRFSLFAER  
KYQTLNCSVNVNVCNIRCPLRGLDSKASLILRSRLWNSTFLEEYSKLNLYLDILMRAFIDV  
TAAAENIRLPNAGTQVRVTVFVPSKTVAAQYSGVPPWIIILVAILAGILMLALLVFIWKC  
GFFKRSRYDDSVPRYHAVRIRKEEREIKDEKYIDNLEKKQWITKWRNESYS

>Q13683

MAGARSRDWPWASGICYLFGSLLVELLFSRAVAFNLDVMGALRKEGEPGSLFGFSVALHR  
QLQPRPQSWLLVGAPQALALPGQQANRTGGLFACPLSLEETDCYRVIDQGADMQKESKE  
NQWLGVSVRSQGGKIVTCAHRYEARQRVDQILETRDMIGRCFVLSQDLAIRDELDGGE  
WKFCEGRPQGHEQGFQCQGTAAAFSPDASHYLLFGAPGTYNWKGRTARVELCAQGSADLAH  
LDDGPYEAGGEKEQDPRILIPVANSYFGLLFVTNIDSSDPQLVYKTLDPADRLPGPAGD  
LALNSYLGFSIDSGKGLVRAEELS FVAGAPRANHKGAVVILRKDSASRLVPEVMLSGERL  
TSGFGYSLAVADLNSDGPDLIVGAPYFFERQEELGGAVYVYLNQGGHWAGISPLRLCGS  
PDSMFGISLAVLGDNLQDGFPIAVGAPFDGDKVFIYHGSSLGVAKPSQVLEGEAVGI  
KSGYSLSGSLDMDGNQYPDLLVGLADTAVLFRARPIHVSHEVSIAPRSIDLEQPNCA  
GGHSVCVDLRVCFSYIAVPSSYSPTVALDYVLDADTDRRLRGQVPRVTFLSRNLEEPKHQ  
ASGTVWLKHQHDRVCGDAMFQLQENVKDKLRAIVVTLSSYSLQTPRLRRQAPGQGLPPVAP  
ILNAHQSTQRAEIHFLKQCGEDKICQSNLQLVHARFCTRVSDTEFQPLPMDVDGTTAL  
FALSGQPVIIGLELMVTNLPSDPAQPQADGDDAHEAQLLVMLPDSLHYSVVRALDPAEKPL  
CLSNENASHVECELGNPMKRGAVTFYLLILSTSGISIEETTELEVELELLLATISEQELHPVS  
ARARVFIELPLSIAGMAIPQQFFSGVVRGERAMQSERDVGSKVKYEVTVSNQGSRLTL  
GSAFLNIMWPHEIANGKWLlyPMQVELEGGQGPQKGLCSRPNIHLHDVDSRDRRRREL  
EPPEQQEPGERQEPSMSWVPSAEKKNITLDCARGTANCVVFSPLYSFDRAAVLHVW  
GRLWNSTFLEEYSAVKSLEIVRANITVKSSIKNMLRDASTVIPVMVYLDPMVAEAGV  
PWWVILLAVLAGLLVLALLVLLWKMGGFFKRAKHPEATVPQYHAVKIPREDRQQFKEEKT  
GTILRNNWGSPPREGPDAHPILAADGHPDELGPDGHPGPGTA

>P53708

MSPGASRGPRGSQAPLIAPLCCAAAALGMLLWSPACQAFNLDVEKLTVYSGPKGSYFGYA  
VDFHIPDARTASVLVGAPKANTSQPDIVEGGAVYYCPWPAEGSAQCRQIPFDTTNNRKIR  
VNGTKEPIEFKSNQWFGATVKAHKGVVACAPLYHWRTLKPTPEKDPVGTCTYVAIQNFS  
YAEFSPCRNSNADPEGQGYCQAGFSLDFYKNGDLIVGGPGSFYWGQVITASVADI IANY  
SFKDILRKLAGEKQTEVAPASYDDSYLGYSVAAGEFTGDSQQELVAGIPRGAQNFYVSI  
INSTDMTFIQNFTGEQMASYFGYTVVVDVNSDGLDDVVLVGAPLFMEREFESNPREVGQI  
YLYLQVSSLLFRDPQILTGTETTFGRFGSAMAHLGDLNQGYNDAIGVPPFAGKDQRGKVL  
IYNGNKDGLNTKPSQVLQGVWASHAVPSGFGFTLRGDSIDKNDYPDLIVGAFGTGKVA  
YRARPVVTVDAQLLLHPIINLENKTCQVPDSMTSAACFSLRVCASVTGQS IANTIVLMA  
EVQLDSLKQKGAIKRTLFLDNHQHRVFPVLIKROKSHQCQDFIVYLRDETEFRDKLSPI  
NISLNYSLDESTFKEGLEVKPILNYYRENIVSEQAHILVDCGEDNLCVPLKLSARPKH  
QVIIGDENHMLIINARNEGEGAYEAELFVMIPEEADYVGIERNNKGFRPLSCEYKMENV  
TRMVVCDLGNPMVSGTNYSLGLRFVPRLEKTNMSINFDLQIRSSNKDNPDSNFVSLQIN  
ITAVAQVEIRGVSHPPQIVLP IHNWEPEEEPHKEEEVGPLVEHIYELHNIGPSTISDTIL  
EVGWPF SARDEFLLYIFHIQTLGLPQCQPNPNINPQDIKPAASPEDTPELSAFLRNSTIP  
HLVRKRDVHVVEFHRSQPAKILNCTNIECLQISCAVGRLEGGESAVLKVRSRLWAHTFLO  
RKNDPYALASLVSFEVKKMPYTDQPAKLPEGSIAIKTSVIWATPNVSFSIPLWVILAIL  
LGLLVLAAILTLALWKCGFFDRARPPQEDMTDREQLTNDKTPEA

>Q13797

MGGPAAPRGAGRLRALLLALVVAGIPAGAYNLDPQRVHFQGPADSFFGYAVLEHFHDNT  
RWVLVGAPKADSKYSPSVKSPGAVFKCRVHTNPDRRCTELDMARGKNRGTSCGKTCREDR  
DDEWGMVSLARQPKADGRVLACAHRWKNIYYEADHILPHGFCYIIPSNLQAKGRTLIPCY  
EEYKKKYGEEHGSCQAGIAGFFTEELVVMGAPGSFYWAGTIKVLNLTNTYLLKLNDEVIM  
NRRYTYLGYAVTAGHFSHPSTIDVVGGAPQDKGIGKVYIFRADRRSGTLIKIFQASGKKM  
GSYFGSSSLCAVDLNGDGLSDLLVGAPMFSEIRDEGQVTVYINRGNNGALEEQALALTGDGAY  
NAHFGESIASLDDLNDGFPDVAIGAPKEDDFAGAVYIYHGDAGGIVPQYSMKLSGQKIN  
PVLRFMGQSIGGIDMDGNGYPDVTVGAFMSDSVLLRARPVITVDVSIFLPGSINITAP  
QCHDGOQPVNCLNVTTCSFHFHGHVPEEIGLNYVLMADVAKKEKGQMPRVYFVLLGETMG  
QVTEKLQLTYMEETCRHYVAHVKRRVQDVISP I VFEAAAYSLSEHVTGEEERELPPLTPVL  
RWKKGQKIAQKNQTVFERNCRSEDCAADLQLQGKLLSSMDEKTLYLALGAVKNISLNIS  
ISNLGDDAYDANVSFNVSRELFFFINMWQKEEMGISCELLESDFLKCSVGFPPMRSKSKYE  
FSVIFDTSHLSGEEVLSFIVTAQSGNTERSESLHDNTLVLMVPLMHEVDTSITGIMSPT  
SFVYGESVDAANFIQLDDLECHFQPINITLQVYNTGPSTLPGSSVSI SFPNRLSSGGAEM  
FHVQEMVVGQEKGNCSFQKNPTPCIIPQE QENIFHTIFAFFTKSGRKVLDCEKPGISCLT  
AHCNFSALAKEESRTIDIYMLLNTEILKKDSSSVIQFMSRAKVKVPALRVVEIAHGNPE  
EVTTVFEALHNLEPRGYVVGWIIAISLLVGILIFLLLAVLLWKMGGFRRRYKEIEAEKN  
RKENEDSWDWWQKNQ

>P38570

MWLFHTLLCIA SLALLAAFNVDVARPWLTPKGGAPFVLSLLHQDPSTNQTWLLVTSPT  
KRTPGPLHRC SLVQDEILCHPVEHVP I PKGRHRGVTVVRSHHGVLICIQVLVRRPHSLSS  
ELTGTCSLLGPDLRPQAQANFFDLENLLDPDARVDTGDCYSNKEGGEDDVNTARQRRAL  
EKEEEEDEKEEEEDEEEEEAGTEIAIILDGSGSIDPPDFQRAKDFISNMNRNFYEKCFECN  
FALVQYGGVIQTEFDLRDSQDVMA SLARVQNI TQVGSVTKTASAMQHVLDSIFTSSHGSR  
RKASKVMVVLTDGGIFEDPLNLT TVINSPKMQGVVERFAIGVGEFFKSARTARELNLIASD  
PDETHAFKVTNYMALDGLLSKLRNYNII SMEGTVDALHYQLAQIGFSAQILDERQVLLGA  
VGAFDWSG GALLYDTRSRRRGRFLNQTA AAAADA EAAQYSYLGYAVAVLHKTC SLSYVAGA  
POYKHHGAVFELQKEGREASFLPVLEGEQMGSYFGSELCPVDIDMDGSTDFLLVAAPFYH  
VHGEEGRVYVYRLSEQDGSFSLARILSGHPGFTNARFGFAMAAMGDLSDQKLT DVAIGAP  
LEGFGADDGASFGSVYIYNHWDGLSASPSQRIRASTVAPGLQYFGMSMAGGFDISGDGL  
ADITVGTGQAVVFRSRPVVRLKVSMAFTPSALPIGFNGVVNVRLCFEISSVTTASESGL  
REALLNFTLDVDVGKQRRRLQCS DVRSCLGCLREWSSGSQ LCEDLLLMPTEGELCEEDCF  
SNASVKVSYQLQTP EGQTDHPQPILD RYTEPF AIFQLPYEKACKNKLFCVAELQLATTVS  
QQELVVGLTKELTLNINLTNSGEDSYMTSMALNYPRNLQLKRMQKPPSPNIQCDDPQ PVA  
SVLIMNCRIGHPV LKRSSAHVS VVWQLEENAFPNRTADITVTVTNSNERRSLANETHTLQ  
FRHGFVAVLSKPSIMYVNTGQGLSHHKEFLFHVHGENLFGAEYQLQICVPTKLRGLQVAA  
VKKLTRTQASTVCTWSQERACAYSSVQHVEEWSVSCV IASDKENVTVA AEISWDHSEEL  
LKDVT ELQILGEISFNKSLYEGLNAENHRTKITVVFLKDEKYHSLPII I KGSVGGLLVLI  
VILVILFKCGFFKRKYQQLNLESIRKAQLKSENLL EEN

>P20701

MKDSCITVMAMALLSGFFFFAPASSYNLDVARGARFSPPRAGRHFYRVLQVGNVIVGA  
PGEINSTGSLYQCQSGTGHCLPVTLRGSNYTSKYLGMTLATDPTDGSILACDPGLSRTCD  
QNTYLSGLCYLFRQNLQGPMLQGRPGFQECIKGNVDLVFLFDGSM SLQPDEFQKILDFMK  
DVMKKLSNTSYQFAAVQFSTSYKTEFDSDYVVRKDPDALLKHVKHMLLLTNTFGAINYV  
ATEVFREELGARPDATKVLIIITDGEATDSGNIDA AKDIIRYIIGIGKHFQTKESQETLH  
KFASKPASEFVKILDTFEKLKDLFT ELQKKIYVIEGTSKQDLTSFNME LSSSGISADLSR  
GHAVVGAVGAKDWAGGFLLDLKADLQDDTFIGN EPLTPEVRAGYLG YTVTWLPSRQKTSLL  
ASGAPRYQHMG RVLLFQEPQGGGHWSQVQTIHGTQIGSYFGGELCGVDVDQDGETELLLI

GAPLFYGEQRGGRVFIYQRRQLGFEEVSELQGDPGYPLGRFGEAITALTDINGDGLVDVA  
VGAPLEEQGAUYIFNGRHGGLSPQPSQRIEQTQVLSGIQWFGRS IHGVKDLEGDGLADVA  
VGAESQMIVLSSRPVDMVTLMFSFAEIPVHEVECSYSTSNKMKEGVNITICFQIKSLI  
PQFQGRLVANLTYTLQLDGHRTRRRGLFPGGRHELRRNIAVTTSMSCDTDFSFHFVPCVQD  
LISPINVSLNFSLWEEEGTPRDQRAQGKDIIPPILRPSLHSETWEIPFEKNCGEDKKCEAN  
LRVSFSPARSRALRLTAFASLSVELSLSNLEEDAYWVQLDLHFPPGLSFRKVEMLKPHSQ  
IPVSCEELPEESRLLSRALSCNVSSPIFKAGHSVALQMMFNLTLVNSSWGDSVELHANVTC  
NNEDSDLLEDNSATTIIPILYPINILIQDQEDSTLYVSFTPKGPKIHQVKHMYQVRIQPS  
IHDHNIPTLEAVVGVPPQPPSEGPITHQWSVQMEPPVPCHYEDLERLPDAAEPCPLPGALFR  
CPVVFRQEILVQVIGTLELVGEIEASSMFSLCSLSISFNSSKHFHLYGSNASLAQVVMK  
VDVVYEQMLYLVLSGIGGLLLLLLIFIVLYKVGFFKRNLKEKMEAGRGPNGIPAEDS  
EQLASGQEAGDPGLKPLHEKDSSESGGKD

>P05555

MTLKALLVTALALCHGFNLDTEHPMTFQENAKGFGQNVVQLGGTSVVVAAPQEAKAVNQT  
GALYQCDYSTSRCHPIPLQVPPEAVNMSLGLSLAVSTVPQQLLACGPTVHQCKENTYVN  
GLCYLFGSNLLRPPQQFPEALRECPQQESDIVFLIDGSGSINNIDFQKMKEFVSTVMEQF  
KKSKTFLSLMQYSDEFRIHFTFNDFKRNPSPRSHVSPKQLNGRTKTASGIRKVVRELFH  
KTNGARENAKILVVITDGEKFGDPLDYKDVPEADRAGVIRYVIGVGNAFNKPQSRREL  
DTIASKPAGEHVQVDNFEALNTIQNQLQEKIFAIEGTQTGSTSSFEHEMSQEGFSASIT  
SNGPLLGSVGSFDWAGGAFLYTSKDKVTFINTTRVDSMNDAYLGYASAVILRNRVQSLV  
LGAPRYQHIGLVVMFRENFGTWEPHTSIKGSQIGSYFGASLCSVMDADGNTNLILIGAP  
HYEYKTRGGQVSVCPPLPRGRARWQCEALLHGDQGHPWGRFGAALTVLGDVNGDKLTDVAI  
GAPGEQENQGAUYIFYGASIASLSASHSHRIIGAHFSPGLQYFGQSLSGGKDLTMDGLMD  
LAVGAQGHLLLLRAQPVLRLLEATMEFSPKKVARSVFACQEQVLKNKDAGEVRVCLRVKRN  
TKDRLREGDIQSTVTYDLALDPVRSRIRAFFDETKNNTRRRTQVFLMQKCE'TLKLILPD  
CVDDSVSPIILRLNYTLVGEPLRSFGNLRPVLAMDAQRFFTAMFPFEKNCGNDSICQDDL  
SITMSAMGLDTLVVGGPQDFNMSVTLRNDGEDSYGTQVTVYYPSGLSYRKDSASQNPLTK  
KPFVFKPAESSSSSEGHGALKSTTWNINHPIFPANSEVTFNVTFDVDSHASFGNKLLLLKA  
IVASENNMSRTHKTKFQLELPVKYAIYMIVTSDESSIRYLNFTASEMTSKVIQHQQYQFNN  
LGQRSLPVSVVFWIPVQINNVTVDHPQVIFSQNLSSACHTEQKSPPHSNFRDQLERTPV  
LNCSVAVCKRIQCDLPSFNTQEIFNVTLKGNLSFDWYIKTSHGHLLLVSSTEILFNDSAF  
ALLPQGESYVRSKTETKVEPYEVHNPVPLIVGSSIGGLVLLALITAGLYKLGFFKRQYKD  
MMNEAAPQDAPPQ

>P80746

MAFPPIRRRLRLGPRGLPLLLSGLLLPLCRAFNLDVESPAEYSGPEGSYFGFAVDFFVPSA  
SSRMFLLVGAPKANTTQPGIVEGGQVLKCDWSSHRCQPIEFDATGNRDYAKDDPLEFKS  
HQWFGASVRSKQDKILACAPLYHWRTEMKQEREPVGTFCFLQDGTKTVEYAPCRSKNIDAD  
GQGFQGGFSIDFTKADRVLGGPGSFYWGQLISDQVAEIVSKYDPKVYSIKYNNQLAT  
RTAQAIFFDSYLGYSVAVGDFNGDGIDDFVSGVPRAARTLGMVYIYDGKNMSSLHNFTGE  
QMAAYFGFSVAATDINGDDYADVFIGAPLFMDRGSQKLEQVGVSVSLQKASGDFQTIK  
LNGFEVVFARFGSAIAPLGLDQDGFNDIAIAAPYGGEDKKGIVYIFNGRPTGLNAVPSQI  
LEGKWAARSMPPSFGYSMKGATDIDKNGYPDLIVGAFGVDRVLYRARPVITVNAGLEVY  
PSILNQENKTCPLPGTDLKVSCFNVRFLKADGKALPTKLDQVLELLLDKLGKGAIRR  
ALFLHNRSPGHSKNMTISRGGMQCEELIAYLRDESEFRDKLTPITIFMEYWLDIRTAAD  
ATGLQPILNQFTPANVSRQAHILLDCGEDNVCKPKLEVSVSDSQKKIYIGDDNPLTLIVK  
AQNQEGEGAYEAELIVSIPLQADFIGVVRNSEALARLSCAFKTENQTRQVVCDLGNPMKAG  
TQLLAGLRFVHQSEMDSVKFDLQIQSSNLFDKVSPVVSYKVDLAVLAAVEIRGVSSP  
DHIFLPIPNWKYKENPETEEDVGPVVQHIYELRNNGPSSFSKAMLHLQWPYKYNNTLLY

ILQYDIDGPMNCTSDMEINPLRIKISNSQTSEKNDTVGGQGDRNHLITKRDLTLNEGDVH  
TLGCGIAECLKIVCQVGRLLDRGKSAILYVRSLLWTETFMNKENQNHYSYSLKSSASFNVIE  
FPYKNLPIEDIFNSTLVTTNVTWGIQPAPMPVPVWVILAVLAGLLLLLAVLVFVMYRMGF  
FKRVRPPQEEQEREQLQPHENGEENSET

>P20702

MTRTRAALLLFTALATSLGFNLDTEELTAFRVDSAGFGDSVVQYANSWVVVGAPQKITAA  
NQTGGLYQCGYSTGACEPIGLQVPPEAVNMSLGLSLASTTSPSQLLACGPTVHHECGRNM  
YLTGLCFLLLGPTQLTQRLPVSROEQECPROEQDIVFLIDGSGSISSRNFATMMNFVRAVISQ  
FQRPSTQFSLMQFSNKFQTHFTFEEFRSSNPLSLLASVHQLQGFTYTATAIQNVVHRLF  
HASYGARRDAAKILIVITDGGKKEGDSLQYKDVIPMADAAGIRYAIIGVGLAFQNRNSWKE  
LNDIASKPSQEHIFKVEDFDALKDIQNQLKEKIFAIEGTETTTSSSSFELEMAQEGFSAVF  
TPDGPVLGAVGSFTWSSGAFLYPPNMSPTFINMSQENVDMRDSYLGSTELALWKGVSLSL  
VLGAPRYQHTGKAVIFTQVSRQWRMKA EVTGTQIGSYFGASLCSVDVSDGSTDVLVIGA  
PHYEQTRGGQVSVCPPLRGWRRWCDVAVLYGEQHPWGRFGAALTVLGDVNGDKLTDVV  
IGAPGEEENRGAVYLFHGVLGPSISPSHSQRIAGSQLSSRLQYFGQALSGGQDLTQDGLV  
DLAVGARGQVLLLRTRPVLWVGVSQFIPAEIPRSAFEQVSEQTLVQSNICLYIDK  
RSKNLLGSRDLQSSVTLDLALDPGRSLSPRATFQETKNRSLSRVRLGLKAHCENFNLLLP  
SCVEDSVTPITLRLNFTLVGKPLLAFRNLRPMLAADAQRYFTASLPFEKNCGADHICQDN  
LGISFSFPGLKSLLVGSNLELNAEVMVWNDGEDSYGTTITFSHPAGLSYRYVAEGQKQGG  
LRSLHLTCDSAPVGSQGTWSTSCRINHLIFRGAQITFLATFDVSPKAVLGDRLLLLTANV  
SSENTPRTSKTTFQLELPVKYAVYTVVSSHEQFTKYLNFSESEEKESHVAMHRYQVNNL  
GQRDLVPSINFVWPVELNQEA VWMDEVSHPQNP SLRCSSEKIAPPASDFLAHIQKNPVL  
DCSIAGCLRFRCDVPSFSVQEEELDFTLKGNLSFGWVRQILQKKVSVVSAEITFDTSVYS  
QLPGQEA FMRAQT TTVLEKYKVHNPTPLIVGSSIGGLLLLLLALITAVLYKVGFFKRQYKEM  
MEEANGQIAPENGTQTPSPSEK

>P12606

MAHPVFTVGLLTCLVLCINAQQGGTECLKANAKSCGECIQAGPNCGWCTKVDFLQEGEP  
TSARCDLAALKSKGPCEDDIQNPRGRKQKLDIPITSKGKGERMDPANITQLRPQQMV  
ELRSGEPQTFNLTFRRAEDYPIDLYYLMDSLFSMKDDLENVKS LGTALMTEMEKITSDFR  
IGFGSFVEKTVMPYISTTPAKLINPCTSDQNCTSPFSYKNVNLTKDGKLFNDLVGKQOI  
SGNLDSPEGGFDAIMQVAVCGEQIGWRNVTRLLVVFSTDAGFH FAGDGKLGIVLPNDGKC  
HLHENMYTMSHYDYPSIAHLVQKLSENNIQTIFAVTEDFQPVYQELKNLIPKSAVGTLS  
SNSSNVIQLIIDSYNLSSELILENSKLP EGV TISYKSFCKNGVKGTGEDGRKCSNISIG  
DQVEFEISVTAHKCPKKGQAESIKIKPLGFNEEVEIILQFLCECDCQDKGTPNSPECHFG  
NGTFECGACRCNDGRIGKECECSTDEVNSEMDAYCRRENSSEICSNNGDCICGQCVCKK  
RDNPNVYSGKYCEDNFNCDRSNGLICGGKGI CKRVCECFPNYSGSACDCSEDTSTCM  
AKNGQICNGRIGICDCGRCKCTDPKFQGP TCELCQTCVGVCAEHKECVQCRAFQKGEKQDV  
CMEQCMHFNISLVDSREELPQPQQA EAL THCKEKDAEDCW FYFTYSVDSKNEVMHVVKE  
PECPSGPDIIPIVAGVVAGIVLIGLALLLIWKLLMI IHDRREFAKFEKEKMNAKWD TGEN  
PIYKSAVTTVVNPKYEGK

>P05107

MLGLRPPLLALVGLLSLGCVLSQECTKFKVSSCRECIESGPGCTWCQKLNFTGPGDPDSI  
RCDTRPQLLMRGCAADDIMDPTSLAETQEDHNGGQQLSPQKVTLYLRPGQAAAFNVTFR  
RAKGYPIDLYYLMDSLYSMLDDLNRNVKLLGGDLLRALNEITESGRIGFGSFVDKTVLFPV  
NTHPKLRNCPNKEKECQPPFAFRHVLKLTNNSNQFQTEVKGQLISGNLDAPEGGLDAM  
MQVAACPEEIGWRNVTRLLVFATDDGFHFAGDGKLGAILTPNDGRCHLEDNLYKRSNEFD  
YPSVGQLAHKLAENNIQPIFAVTSRMVKTYEKLTEIIPKSAVGELSEDSSNVVQLIKNAY

NKLSSRVFLDHNALPDTLKVITYDSFCSNGVTHRNQPRGDCDGVQINVPITFQVKVTATEC  
IQEQSFVIRALGFTDIVTVQVLPQCECRCDQSRDRSLCHGKGFLECGICRCDTGYIGKN  
CECQTQGRSSQELEGSCRKDNNSIICSLGDCVCGQCLCHTSDVPGKLIYGQYCECDTIN  
CERYNGQVCGGPGRGLCFCGKCRCHPGFEGSACQCERTTEGCLNPRRVECSGRGRRCRNV  
CECHSGYQLPLCQCECPGCPSPCGKYISCAECLKFEKGFPGKNCSAACPGLQLSNNPVKGR  
TCKERDSEGCWVAYTLEQQDGMTRYLIYVDESRECVAGPNIAAIVGGTVAGIVLIGILLL  
VIWKALIHLSDLREYRRFEKEKLSQWNNDNPLFKSATTTVMNPKFAES

>P05106

MRARPRRPLWATVLAALGALAGVGVGGPNICTTRGVSSCQCLAVSPMCAWCSDEALPLG  
SPRCDLKENLLKDNCAPESEIEFPVSEARVLEDRPLSDKSGSDSSQVTQVSPQRIALRLRP  
DDSKNFSIQVRQVEDYPVDIYYLMDLSYSMKDDLWSIQNLGTKLATQMRKLTSLNLRIGFG  
AFVDKPVSPYMYISPEALENPCYDMKTTCLPMFGYKHVLTLDQVTRFNEEVKKQSVSR  
NRDAPEGGFDAIMQATVCDEKIGWRNDASHLLVFTTDAKTHIALDGRLAGIVQPNQGQCH  
VGSNDHYSASTTMDYPSLGLMTEKLSQKNINLIFAVTENVVNLQYSELIPGTTVGVLS  
MDSNVLQLIVDAYGKIRSKVELEVRDLPEELSLSFNATCLNNEVIPGLKSCMGLKIGDT  
VSFSIEAKVRGCPQEKEKSFTIKPVGFKDSLIVQVTFDCDCACQAQAEPNSHRCNNGGT  
FECGVCRGPGWLGSQLCESEEDYRPSQQDECSPREGQPVCSQRGECLCGQCVCHSSDFG  
KITGKYCECDDFSCVRYKGEKSGHGQCSCGDCLCSDWTGYCNC'TRTRDTCMSSNGLL  
CSGRGKCECGSCVCIQPGSYGDTCEKCPDACTFKKECVECKKFDREGALHDENTCNRY  
CRDEIESVKELKDTGKDAVNCTYKNEDDCVVRFYEDSSGKSILYVVEEPEC PKGPDIL  
VVLLSVMGAILLIGLAALLIWKLLITIHDRKEFAKFEERARAKWDTANNPLYKEATSTF  
TNITYRGT

>P16144

MAGPRPSPWARLLLLAALISVLSGLTLANRCKKAPVKSCTECVRVKDCAYCTDEMFRDRR  
CNTQAELLAAGCQRESIVVMESFQITEETQIDTTLRRSQMSPQGLRVRLRPGEERHFEL  
EVFEPLESPVDLYILMDFSNSMSDDLNLKMGQNLARVLSQLTSDYTI GFVKFVDKVS  
PQTDMRPEKLKEPWPNSDPPFSFKNVI SLTEDVDEFRNKLQGERISGNLDAPEGGFDAIL  
QTAVCTRDI GWRPDSTHLLVSTESAFHYEADGANVLAGIMSRNDERCHLDTTGTYTQYR  
TQDYPSVPTLVRLAKHNIIPIFAVTNYSSSYEKLHTYFPVSSLGVLQEDSSNIVELLE  
EAFNRIRSNLDIRALDSPRGLRTEVTSKMFQKTRTGSFHIRRGEVGIYVQLRALEHVDG  
THVCQLPEDQKGNHKLKPSFSDGLKMDAGIICDVCTCELQKEVRSARCSFNQDFVCGQCV  
CSEGWSGQTCNCSTGSLSDIQPCLREGEDKPCSGRGECCQGHCVYGEGRYEGQFCEYDN  
FQCPRTSGFLCNDRGRCSMGQCVCEPGWTGPCSDCPLSNATCIDSNGGICNRRGHCECGR  
CHCHQOSLYTDTICEINYSAIHPGLCEDLRSCVQCQAWGTGEKKGRTCEECNFKVKMVE  
LKRAEEVVVRCSEFRDEDDCTYSYTMEDGAPGPNSTVLVHKKKDCPPGSFWWLIPLLLL  
LLPLLALLLLLCKWYCACCKACLALLPCNRRGHMVGFKEDHYMLRENLMASDHLDTPLR  
SGNLKGRDVVRWKVTNNMQRPGFATHAASINPTELVPYGLSLRLARLCTENLLKPDTRC  
AQLRQVEEENLNEVYRQISGVHKLQQTFRQPNAGKKQDHTIVDVTVLMAPRSAPALLK  
LTEKQVEQRAFHDLKVAPGYTTLTADQDARGMVEFQEGVELVDVRVPLFIRPEDDDEKQL  
LVEAIDVPAGTATLGRRLVNITIIKEQARDVVSFEQPEFSVSRGDQVARIPVIRRVLDGG  
KSQVSYRTQDGTAGNRDYPVEGELLFQPGAEWKEQVKLLELQEVDSLGRQVRRFH  
VQLSNPKFGAHLGQPHSTTIIIRDPELDRSFTSQMLSSQPPPHGDLGAPQNPNAKAAGS  
RKIHFNWLPPSGKPMGYRKYWIQGDSESEAHLLDSKVPSVELTNLYPYCDYEMKVCAYG  
AQGEGPYSSLVSCRTHQEVSEPGRLAFNVVSSVTQLSWAEPAE'TNGETAYEVCYGLV  
NDDNRPIGPMKKVLVDNPKNRMLLIENLRESQPYRYTVKARNGAGWGPEREAIINLATQP  
KRPMSIPIIPDIPVDAQSGEDYDSFLMYSDDVLRSPSGSQRPSVSDDTGCGWKFEPLLG  
EELDLRRVTWRLPPELIPRLSASSGRSSDAEAPHGPPDDGGAGGKGGSLPRSATPGPPGE  
HLVNGRMDFAFPGSTNSLHRMTTTSAAAYGTHLSPHVPHRVLSSTLTRDYNLSLTRSEH

SHSTTLPRDYSTLTSVSSHDSRLTAGVPDTPTRLVFSALGPTSLRVSWQEPRCERPLQGY  
SVEYQLLNGGELHRLNIPNPAQTSVVVEDLLPNHSYVFRVRAQSQEGWGREREGVITIES  
QVHPQSPLCPLPGSAFTLSTPSAPGPLVFTALSPDSLQLSWERPRRPNGDIVGYLVTCEM  
AQQGGPATAFRVDGDSPE SRLTVPGLSENVYPYKFKVQARTTEGFGPEREGITITIESQDGG  
PFPQLGSRAGLFQHPLQSEYSSITTTHTSATPFLVDGPTLGAQHLEAGGSLTRHVTQEF  
VSRTLTTSGTLSTHMDQQFFQT

>P80747

MPRAPALLFSCLLGLCALVPRLPGLNICTSGSATSCEECLLIHPKCAWCFKEDFGSLRSV  
TSRCDLKANLIRNGCGVEFESPASSTQVLRSLPLSSKGSSPAGSDVIQLTPQEVTVTLRP  
GDRTAFLQLQVRQVEDYPVDLYYLMDSLSSMKDDLENIRSLGTKLAEEMRKLTSNFRLGFG  
SFVDKNI SPFSY TAPRYQTNPCIGYKLFPCVPSFGFRHLLPLTDRVDSFNEEVRKQRVS  
RNRDAPEGGFDAVLQAAVCKEKIGWRKDALHLLVFTTDDVPHIALDGLGGLVQPHDGQC  
HLNEANEYTASNQMDYPSLALLGEKLAENNINLI FAVTKNHMYLYKNFTALIPGTTVEIL  
HGDSKNILQLI INAYNSIRSKVELSVWDQPEDLNLFFATCQDGVSYPGQRKCEGLKIGD  
TASFVSVEARSCPSKHVQHTFTLRPVGFRDLSLEVGVTYNCRCGCSAGLEPDSARCSNG  
TYVCGLCECNPYGLGTRCECQEGESQSGYQNLCREAEGKPLCSGRGQCSCNQCSCFESEF  
GKIYGSFCECDFNSCARNKGVLCSGHGECHCGECKCHAGYIGDNCNCSTDISTCQARDGH  
ICSDRGHCVCQCQCTEPGAFGETCEKCPCTCPDACSTKRDCVECLLLHSGSSADNQTQCN  
LCKDEVITRVDITVKKDDQEAFLCFYKTAKDCVMMFTYSELPSGKSNLTVLREPECGTAPS  
AMTILLAVVGSILLTG FALLVIWKL LVTIHDRREFAKFQSERSRARYEMASNPLYRKPIS  
THTVDFTFNKFNKSYNGTVD

>P18564

MGIELLCLFFLFLGRNDHVQGGCALGGAETCEDCLLIGPQCAWCAQENFTHPSGVGERCD  
TPANLLAKGCQLNFIENPVSQVEILKNKPLSVGRQKNSSDIVQIAPQSLILKLRPGGAQT  
LQVHVRQTEDYPVDLYYLMDSLASMDDDLNTIKELGSRLSKEMSKLTSNFRLGFGSFVEK  
PVSPFVKTTPEEIANPCSSIPYFCLPTFGFKHILPLTND AERFNEIVKNQKISANIDTPE  
GGFDAIMQAAVCKEKIGWRNDSLHLLVFSADASHFGMDSKLAGIVIPNDGLCHLDSKNE  
YSMSTVLEYPTIGQLIDKLVQNNVLLIFAVTQEQVHLYENYAKLIPGATVGLLQKDSGNI  
LQLIISAYEELRSEVELEVLGDTEGLNLSFTAICNNGTLFQHKKCSHMKVGD TASFSVT  
VNIPHERRSRHII IKPVGLGDALELLVSPENCDCQKEVEVNSKCHHGNGSFQCGVCA  
CHPGHMGRCECEDMLSTDSCKEAPDHPSCSGRGDCYCGQCICHLSPYGNIIYGPYCQCD  
NFSCVRHKGLLCGGNGDCDCGECVCRSGWTGEYCNC TTTSTDCVSEDGVLCSGRGDCVCG  
KCVCTNPGASGPTCERCPTCGDPCNSKRSCIECHLSAAGQAREECVDKCKLAGATISEEE  
DFSKDGSVSCSLQGENECLITFLITTDNEGKTI IHSINEKDCPKPPNIPMIMLGVSLAIL  
LIGVLLLCIWKLLVFSFHDRKEVAKFEAERSKAKWQTGTNPLYRGSTSTFKNVTYKHREKQ  
KVDLSTDC

>P26011

MVDSSTVLIIFLLVLGGGQSELDTKITSSGEAAEWEDPDL SLQGSCQVPVSCQKCILSHP S  
CAWCKQLNFTASGEAEARRCARREELLARGCPAQELEEPGRGRQEVLDKPLSQDRGEGA  
TQLAPQRIRVTLRPGEPQKFRVRFLRAAGYPVDLYYLMDSL SYSMKDDL ERVRQLGHALLV  
RLQEVTHSVRIGFGSFVDKTVLPFVSTVPSKLLHPCPSRLERCQPPFSFHHVLSLTGDAQ  
AFEREVGRQNVSGNLDSPGGFDAILQAALCQEQIGWRNVSRLLVFTSDDTFHTAGDGKL  
GGIFMPDGRCHLDSNGVYTNSAEFDYPSVGQVAQALTAANIQPIFAVTGATLPVYQELR  
QLIPKSAVGELSEDSSNVVQLIMDAYDSLSSVTLEHSPLPPGVSISFESHCKGPEKTEG  
EAGDRGQCNDVRVNQTVDFWVTLQATHCLPEAHVLRRLWALGFSEELTVELHTVDCNCGD  
AQPAPHYCSDGQGLQCGICSCAPGRLGQLCECSEADLSSPDLESGCRAPNGTGPLCSGK  
GRCQCGRCSGQSSGRLCECDDAS CERHEGILCGGFGHCQCGVCHCHANHTGRACECSK

SVDSVCVSPGGLCSGHGYCKNRCQCLDGYYGALCDQCLGCKSPCEQYRDCAECGAFGTG  
PLAANCSVVCADVNVTLTLAPNLDGWCERTIDNQLFFFVVEHAASGIVLVRVPQEKGV  
DHTRAIILGCTGGIVAVGLGLVLAAYRLSVEIYDRREYRRFEKEQQQLNWKQDNNPLYKSA  
ITTTVNPRFQGTNGRSPSLSLTREAD

>P26012

MCGSALAFFTAAFVCLQNDRRGPASFLWAAWVFSVLVGLGQGEDNRCASSNAASCARCLA  
LGPECGWCQEDFISGGRSERCDIVSNLISKGCSVDSIEYPSVHVIIPTEINEINTQVTP  
GEVSIQLRPGAEANFMLKVHPLKPKYPVDLYYLVDVSASMHNNEKLNLSVGNLDRKMAFF  
SRDFRLGFGSYVDKTVSPYISIHPERIHNQCSDYNLDCMPPHGYIHVLSLTENITEFEKA  
VHRQKISGNIDTPEGGFDAMLQAAVCESHIGWRKEAKRLLLVMTDQTSHLALDSKLAGIV  
VPNDGNCHLKNVYVVKSTTMEHPSLQGLSEKLIIDNNINVIFAVQGKQFHWYKDLLPLLP  
TIAGEIESKAANLNNLVVEAYQKLISEVKVQVENQVQGIYFNITAIICPDGSRKPGMEGCR  
NVTSNDEVLFNVTVTMCKCDVTGGKNYAIKPIGFNETAKIHIHRNCSCQCEDNRGPKGK  
CVDETFLDKCFQCDENKCHFDEDDQFSSESCKSHKDQPVCSGRGVCVCGKCSCHKIKLKG  
VYGKYCEKDDFSCPHYHGNLCAGHGECEAGRCQCFSGWEGDRQCPSAAAQHCVNSKGQV  
CSGRGTCVCGRCECTDPRSIGRFCEHCPTCYTACKENWNCMQCLHPHNLSQAILDQCKTS  
CALMEQQHYVDQTSECFSSPSYLRIFFFIIFIVTFLIGLLKVLIIIRQVILQWNSNKIKSSS  
DYRVSASKKDKLILQSVCTRAVTYRREKPEEIKMDISKLNHETFRCNF

>Q27591

MTSLGGRAFLWIYLVFLIAEISHSDADSIDDQCRHADSCERCLSAHLECAWCTDKEYQVG  
YRCLSRRLNLYNCSETDIYENQPVLDVLDQDKPLKDYETSDQAVQVTPQRAYLKLKVGNT  
QRMKLSYRTARNNPLDLYVLMDLTWTMRDDKKTLEELGAQLSQTLLKNLTGNYRLGFGSFA  
DKPTLPMILPQHRENPCAAERATCEPTYGYRHQLSLTDDIPAFTSAVANSKITGNLDNLE  
GGLDALMQVIVCTKEIGWKEQARKVVILVTDGFMHLAGDGLLAGIQRNDKQCHLNKAGE  
YTGSLNYDYPSEEEIYRELLRRKINVIFAVTEEVVSSYWELSALMKEISYVDILSADSSN  
ILELIKKSYESLIKRTQFADNSPDFIDMAYYTDCCGGQFPQSLQKRNVCNNVTLGKQIDFYV  
DVTLLKYPDNQVYTHKIRVEETSLSSEFMDLDVELQRPCPCQETPDPENEEGRFLCDYKGY  
LYCGMCECDEGWTGTYCNCPTDATNVTSNALLQKCRQPFSDKSTSELVCSNHGDCDCGT  
CLCDPGYTGPFCECRECLDCDEKLADCFGQCVCYKWSGSKCNCGDGTDACVGPTGEIC  
SERGTCQCEECQCEEPYLKGFCEIDPEKDNKLCIFYEPCVTCLIEQKQGMGVCENLTEIC  
SSLDRQETYPYNFVHELDPEQDQCLVRLVNKHGIQCDSFFVYQVIDHSNFLTQIQAVDCEP  
PDYVALVGYISAFTHLIGLLIIFILWYIRAKDAREYAKFEEDQKNSVRQENPIYRDPVG  
RYEVPKALSVKYDENPFAS

>P11584

MILERNRRCQLALLMIAILAAIAGQTDAQKAAKLTAVSTCASKEKCHTCIQTEGCAWCMQ  
PDFKQSRQYQNTSSLCPPEEFAYSPIITVEQILVNNKLTNQYKAELAAGGGGSAMSGSSSS  
SYSSSSSSSSSFYSQSSSGSSASGYEEYSAGEIVQIQPQSMRLALRVNEKHNIKISYSQA  
EGYPVDLYYLMDSLKSMEDDKAKLSTLGDKLSETMKRITNMFHLGFGSFVDKVLMPYVST  
IPKLEHPCENCKAPYGYQNHMPLNNTESFSNEVKNATVSGNLDAPEGGFDAIMQAIAC  
RSQIGWREQARRLLVFSTDAGFHYAGDGKLGVIAPNDGECHLSPKGEYTHSTLQDYPSI  
SQINQVKVDNAINIIFAVTASQLSVYEKLVHEIQGSSAAKLDNDSNNVVELVKEEYRKIS  
SSVEMKDNATGDVKITYFSSCLSNQPEVQTSKCDNLKEGQQVSFTAQIQLLKCPEDPRDW  
TQTIHISPVGINEVMQIQLTMLCSCPCENPGSIGYQVQANS CSGHTSMCGICNCDDSYF  
GNKCECSATDLTSKFANDTSCRADSTSTTDCSGRGHCVCGACECHKRPNPIEISGKHCE  
CDNFSCERNRNLCSGPDHGTCEGRCCKCPGWTGSNCGCQESNDTCMPPPGGGEGICSGHG  
TCECGVCKCTVNDQGRFSGRHCEKCPCTCSGRQCQLKDCVQCQMYKTGELKNGDDCARNCT  
QFVPPVGEKVEIDETKDEQMCKFFDEDDCKFMFKYSEQGELHVYAQENKECPAKVFMGLGI



VMGVIAAIVLVGLAIIILLWKLTTIHDRREFARFEKERMNAKWDTGENPIYKQATSTFKN  
PMYAGK

>P00987

MSSGGLLLLLLGLLTLCAELIPVSSRQRHRDCDKPPDKGNCGPVRRAFYYDTRLKTCKAFQ  
YRGCNGNGNHFKTETLCRCECLVYP

>P08802

MSSSRVSVYSSSSVVGSPYRSLSSAPRFTPGSSAASVHAGAGGSGARISVSRVSTVGS GF  
GGGFSGASNVNLFGGVQNEKETMQDLNDR LASYL ERVRSLESANKKLEVQIRQHTEKKGP  
AKDWSPYYMTIEDLKKQVFNSIVENSQ LVLQIDNARLAADDFRVKYESEVAIRMSVETDI  
GGLRKLIDDTNISRLNLENEFESLKEELIFLKKNHQDDVNELQAQIASSAVTVEVDAPKS  
QDLGKIMADLRAQYDEMAQKNREDVEKLYQSKVEEHTVQVNLDAEALHTAKSSVTELRRT  
MQSLEIELES LRNQKASLEGLTLDTEARYAMELEMLGGTAMALETEL VQVRNDCQRQQQE  
YQALLNTKMKLEAEIQTYRRLLEGDSFDLQDAVPVVTQTQTVKKVITTTQRLVDGKVVAES  
NNTTEVIKS

>P02537

MSNYSIKQSAKNYSSSSSGGFRGGHGGNEYFCVGGEGDFGGMGGFGACGAGYGGGAGY  
GGGAGGAGYGGGAGGGGAGYGGGFGGGSGAGYGGGFGGGAGGGYGGGFGGGFGGGAGGMD  
IFSTNEKQTMQNLNDR LASYL DKVHALETANTELERKIKEWYEKQRP GSSSGDGAKDYSK  
YYTMINDLKNQIIAASIENAKFLLQNDNARLAADDFKMKFENEQYMRQTV EADINGLRRV  
MDDLTL SKSDLESQLESLEELAYLKKNHEDELKGMQVTQVGVNVEMNAAPSSDLTKIL  
NDMRSQYEDLAKRNRAAAEQFNRMSTDLKNTLSQGI EQQKESKSELTELKRTLQSLEIE  
LQSQLAMKKSLEMTLAEVEGSFCMKLSRLQEMIVNVEEQIARLKGES ECQTAEYQQLLDI  
KTRLENEIETYRRLLDGDL SKPKSGGGTSTNTGSTSSKGSTRTVKRREIEEVVDGKVVS  
TKVVDM

>P13645

MSVRYSSSKHYSSSRSGGGGGGGCGGGGGVSSLRISSSKGS LGGGFSSGGFSGGSF SRG  
SSGGGCFGGSSGGYGG LGGFGGG SFRGSYSSSFGGSYGGSFGGSFGGSFGGSFGGG  
GFGGGGFGGGFGGGFGGDGGLLSGNEKVTMQNLNDR LASYL DKVRALEESNYELE GKIKE  
WYKHHGNSHQGEPRDYSKYKTIDDLKNQILNLT TDNANILLQIDNARLAADDFRLKYEN  
EVALRQSVEADINGLRRVLDLTLTKADLEMQIESL TEELAYLKKNHEEMKDLRNVSTG  
DVNVEMNAAPGVDLTQLLNMR SQYEQLAEQNRKDAEAWFNEKSKELTTEIDNNIEQISS  
YKSEITELRRNVQALEIE LQSQLALKQSLEASLAETEGRYCVQLSQIQAQISALEEQ LQQ  
IRAETECQNT EYQQLLDIKIRLENEIQTYRSLLEGE GSSGGGRGGGSFGGGYGGSSGG  
GSSGGGYGGGHGGSSGGGYGGSSGGSSGGGYGGSSSSGGHGGSSSSGGHGGSSSSGGYG  
GGSSGGGGGGYGGSSGGSSSSGGGYGGSSSSGGHKSSSSG SVGESSKGP RY

>Q8AWA7

MSFSSRSIGGYGGMSTR LGRSASVYEGGGSSGGYRISQSSMGGGGYGGGYGGGGYRG  
GGGYGGGCAISSSFQSF GAFRGGGAGGGGLSGGNEKAEMQGLNDR LAEYIEKVRFL ENAN  
QELELR IKELLKKGKPGNKDYSAYYTTMQELRDKILAQIMENARVSLEIDNARLAADDFR  
SKWETELALRSSVEADINNL RGLLDEYSMARMGLEGEIESLREELIFMRKNHEEEL AALR  
AQLEGSSMSVEVDSTKGD LHKILAEVRAQYEAMI AKNRVDQEEAFNKQAQSVQVAVQH  
SQASQA AKVEVTETRRAMQSLQAELDSL RGLIRSL EDQLQDTEERNARDLSTYTMQIQRL  
EGELSNLRHGINQQLKEYADLLNMKMKLEAEIATYRRLLEGEDSRMGNISANSTSGLITV  
SGGGGGGGGGVSGGGGGGMSMTMTSSSSSGGGGGSSSSGGGSVVKTTTTESSSYSTGY  
RS

>Q5K2P6

MSYSSFSIAQGSRVPSLSGTRSSSSSYSLKSDLIPQSRSSHVYGTSGSIRISSPSMPSAI  
VSSYSSTLSSALPSSSYGGNSYSSSSTSFSSGGTDFLLGTSGKEAMQNLNDRDLADYLARVR  
SLEDNRNRELEQKIREWEYEQGAGTKRKFDFSHYFKIIADLQNLQINAGNMENARILLKIDNA  
KLAADDFKQKWEAEQALRLGVEADIHGLRKLIDEMTLARTDLEMQIEGHKEEKAYLIKSH  
DEDMKALRSQGGQVNVVEVDAAPAEDLTKKLEIRQRYEQLAEKNRKESDWFIKKSEEL  
NKNMASSTEALQTSKTEINELRRTIQGLEIELQSQQSMKGALEGQLADTEHRYSSSTLMNL  
QNIINQKEAELSNI RADIESQASKYKILLDVKTRLENEISTYRTLLEGDAGRSHSSSHLS  
STVSKDKVPVSSPNVITKVRTIVEEKINGQVISKKEYEGSPDQLSYY

>Q99456

MDLSNNTMSLSVRTPGLSRRLSSQSVIGRPRGMSASSVGSYGGSAFGFGASCAGGGFSAA  
SMFGSSSGFSGGSGSSMAGGLGAGYGRALGGGSFGGLGMFGGSPGGGSLGILSGNDGGL  
LSGSEKETMQNLNDRLASYLDKVRALEEANTELENKIREWEYETRGTGTADASQSDYSKYY  
PLIEDLRNKIISASIGNAQLLLQIDNARLAAEDFRMKYENELALRQGVADINGLRRVLD  
ELTLTRTDLEMQIESLNEELAYMKKNHEDELQSFVGGPGEVSVEMDAAPGVDLTRLND  
MRAQYETIAEQNRKDAEAWFIEKSGELRKEISTNTEQLQSSKSEVTDLRRAFQNLIELQ  
SQLAMKKSLEDSLAEAEADYCAQLSQVQQLISNLEAQLQVRADAERQNVDHQRLLNKVA  
RLELEIETYRRLLDGEAQGDGLEESLFTVDSKSKQAQSTDSKDPKTRKIKTVVQEMVNG  
EVSQVQEIIEELM

>Q61781

MATCSRQFTSSSSMKGSCGIGGGSSRMSSILAGGSCRAPSTYGGMSVTSSRFSSGGACGI  
GGGYGGSFSSSSFGGGLGSGFGGRFDGFGGGFGGGLGGGFGGGLGGGLGGGIGDGLLVGS  
EKVTMQNLNDRLATYLDKVRALLEEANTELEVKIRDWYQRQRPTEIKDYSPYFKTIEDLKS  
KILAATVDNANVLLQIDNARLAAEDFRTKFETEQLSRMSVEADINGLRRVLDDELTLARAD  
LEMQIESLKEELAYLKKNHEEEMASMRGQVGGDVNVEMDAAPGVDLSRILNEMRDQYEKM  
AEKNRKDAEWEFFSKTEELNREVATNSELVQSGKSEISELRRMQNLIELQSLSMKAS  
LENNLEETKGRYCMQLAQIQEMIGSVEEQLAQLRCEMEQQNQEYKILLDVKTRLEQEIAT  
YRRLLEGEDAHLSSSQFSSSSQFSSSGSQSSRDVTSTNRQIRTKVMDVHDGKVVSTHEQVL  
RTKN

>Q5K2P2

LLLLGHASTSTRGFSGNSFKSDLIPQSRSSHVYGTSGSIRISSPSVPSAIVSSYSSTLS  
SALPSSSYGGNSFSSSSTSFSSGGSDLLLGTSGKEAMQNLNDRLASYLKVRSLGKKNHEL  
ELKIKDWYSQVIPGTGGPDARDYGHLEKEIEDLQNKVNNCRVDTATILLHIDNAKLAADD  
FRNKYENEQSLRLGVEADINGLKRVLDELALAKADTDMQIEGLRDELQYLLKKNHEEDMKA  
ASSGIAGQVNVVELDAAPGTNLLDELDAACRRDHEAMLQMRREAERWYNEKAKDVKDKAGE  
AQETLVSHSTSEISDLKRSIQSLEIELQTLARKSSLESTLAGTESQYGMRIQEIQMKINV  
FEDQISDLRAKMEFQSQEYQMLLDVKQRLEAEIATYRMLLDSEDSKGSINHKILTAIEK  
LVDGIVLSTEVLEKQIPVLSY

>Q90303

MTSFSRQSFMSGGGIGGSSMRGPMGMSMRSSGIGGGGGGHISAMRAGSVYGGAGGHGV  
RISTGTRTFASGGGGGGGASYFGGGGGGGGFGYGSAGGGFGGGMDAKVNVSEKATM  
QNLNDRLATYLEKVSLEKANGDLELQIRQFLENKTSPPDARDYSAYHATISDLQDMIQDA  
TRINGGVYLAIDNAKLATDDFKTKYENELAMRQSVEADIAGLKRLLEDELTLARSLEMQI  
EGLKEELIYLKKNHEEELASMRSQMTGTVNVVEVDAAPQEDLSRVMAEIREQYEGVSAKNQ  
RELDQVQTKSETLTKEVTANTETLQVSKTEVTELRRTLQGLEIELQSELSKKSLEGTTL

ADTESRYSIQLTQLQARVTSLEEQIVHLRGDMDRQSQEYQMLLDIKTRLEMEIAEYRRL  
DGGATSFSTSGGGGGGGGGVVSSTKTITVKTI EEDIVDGKVVSS'TTK

>P08777

MTSYRSSSSASYSSGSSSKGGFGSRSLAGSNSYGGSSFGAGFSSGVS GFSSSGGNFAMAE  
AASSSFGGNEKHAMQNLNDRLASYLEKVRAL EATNSDLE GKIRNWYDKQSDAGIGAGSKD  
YSKYFEIIAELRNKIRAATIDNATVTLQIDNARLAADDFRLKFENELALRQSVEGDSNGL  
RRVLDELILARGDFELQIESL TEELAYLKKNHEEEMSHAKSQSAGKVS VEMDAALGVDLT  
SILNNMRADYEILAEKNRRDAELWFNQKSGELKKEISVGV EQVQASKSEITELKRSLQSL  
EIELQSQLAMKQSV EGNLNELQGFYSSQLQQIQNTIGSLEEQLLQIRSDMEHQNTEYKLL  
LDIKTRLEMEIQTYRRLLEGELGQVTTVANTSSVESKTESSTSTTRTRMVKTIVEEVVD  
GKVVSSRVE

>Q9D312

MDFSRQSFHRSLSSSSQGPALSMGSLYRKGTVQRLGAAPSVYGGAGGHGTRISVSKAVM  
SYGGDLNNGSDLFGGNGK LAMQNLNDRLANYLEKVRSL EQSNSRLEAQIKQWYETNAPST  
IRDYSSYYAQIKELQNVKDAQVQNAQCVLRIDNAKLAAEDFRLKFETERGMRIAVEADL  
QGLSKVYDNLTLQKTDLEIQIEELNKDLALLKKEHQEEVEVLRRLQLGNNVNVEVDAAPGL  
NLGEIMNEMRQRYEVL AQKNLQEAKEQFERQSOTLQQQVTVNTEELKGFVQVTELRRTY  
QNLEI ELQSHLSMKESLERNLEEDVKARYASQLAAIQEMLSSLEAQLMQIRSDTERQNQEH  
NILLDIKTRLEQEIATYRRLLEGEDIKTTEYQLSTLEMKDIKKTRKIKTVVEEVVDGKVV  
SSEVKEIEESV

>Q2M2I5

MSCSSRASSSRAGGSSARVSAGGSSFS SGRCLGGSSAQGFRGGASSCSLSGGSSGAF  
GGSFGGGFGSCSVGGGFGGASGSGTGFGGGSSFGGVSGFGRGSGFCGSSRFSSGATGGFY  
SYGGGMGGVGDGGLFSGGEKQTMQNLNDRLANYL DKVRAL EEA NTDL ENKIKEWYDKYG  
PGSGDGGSGRDYSKYYSIIEDLRNQIIAATVENAGIILHIDNARLAADDFRLKYENELCL  
RQSVEADINGLRKVLDDLTMTRSDLEMQIESFTEELAYLRKNHEEEMKNMQSSGGEVTV  
EMNAAPGTDLTKLLNDMRAQYEELAEQNRREAEERFNKQSASLQAQISTDAGAATSAKNE  
ITELKRTLQALEI ELQSQLAMKSSLEGLADTEAGYVAQLSEIQ TQISALEEEICQIWGE  
TKCQNAEYKQLLDIKTRLEVEIETYRRLLDGEGGSSFAEFGGRNSG SVNMGSRDLVSGD  
SRSGSCSGQRDSSKTRVTKTIVEELVDGKVVSSQVSSISEVKVK

>A6H712

MSFRLSSGSRRLCSPAGSGQLTGGR TGFRAGNACGGLGAGSSFSGPLGSVSSRGSF SHGG  
GGLGSGVCTGFLENEHGLLP GNEKVTLQNLNDR LASYL DHVCTLE EANADLEQKIKGWYE  
KYGPGSGRQLAYDCSKYFSVTE DLKRQIISVTT CNASIALQENARLTADDFRLKYENEL  
ALNQSV EADINGLHRVMEELTLCTSDLEIQCEALSEELTCLKKNHQEEMKVMQGAAGNV  
NVEINAAPGVDLTVLLNMRAEYEDLAEQNRREDAEAWFNEKSTSLHQQISDDAGAATAAR  
NELMELKRNLO TLEI ELQSLMAMKHSYEC SLAETESNYCHQLQQIQEQIGATEDQLQQIR  
METEGQKLEHERLLDVKIFLEKEIEMYCKLIDGEGRKSSTYCKSEGRGPKNS ENQVKDS  
KEEAVVKTVVGELDQLGSVLSLRVHSVEEKSSKISNITMEQRLPSKVPQ

>Q6A163

MDTKGCTTTNSPSTPCQNC SRITNVSTISSNNGCHPGGLTVNNCQ PAGHVLRIPWDQGCQ  
PTPRFCRKPIYLMNNFNARFSLDDCSWY GEGINSNEKETMQILNERLANYLQKVRMLERE  
NAELESKIQEESNKELPVLCPDYLSY YTTIEELQQKILCTKAENSRLVSQIDNTKLTADD  
LRAKYEA EVSLRQLVESDANGLKQILNVLT LGKADLEAQVQSLKEELLCLKNNHKEEINS  
LQCQLGERLDIEVTAAPSADLNQVLQEMRCQYEPIMETNRKDVEQWFNTQIEELNQQVVT

SSQQQQCCQKEIIELRRSVNTLEVELQAQHRMRDSQECILTEARYTALLTQIQSLIDN  
LEAQLAEIRCALERQNOQEYIILLDVKSRLECEITTYRSLLESSDGKRPCYPRATKCEPSP  
WTCKSGAIESTAPACTSSSPCSLKEHCSACGPLSRILVKICTITKEIKDGKVISSYEHV  
QPCFIIRPAKV

>Q6IFX3

MASDGSPSCCSSEPCAGASGCATASFCPTNTTCLPNTCSTSRCQTPSFLCRASLPACCLS  
PCYLAGGCNSPCLVGSACWCEEGSFNSNEKETMQFLNDRRLASYLERVRSLEENNAELECR  
IREQCEPNAPLVCPDYQRYFDTIEELQOKILCTKAENSRLAVQVDNCKLAADDFRSKYES  
ELSLRQLVENDITGLRGILGELTLCKSDLEAHVESMKDDLICLKKGHEEEVNLLREQLGD  
RLSVELDTAPTVDLNKVLDEMRCQYERVLANNRRDAEEWFAAQTEELNQQKSSAEQLEG  
CQTEMLELKRKANTLEIELQAQQTLESLECTVAETEAQYSTQLAQMQLIDSVEHQLAE  
IRCDLERQNOQEYQVLLDTKARLECEINTYRGLLEKEDSRLPCNPGSGAPMPNSTCEPCSN  
SMCEPCSAYVICTVENCCA

>P08778

MSYSTRSISQSARFGVLASPGVNRARSVAGGASTVRMSSANVTSSAFGGSSAFAGSSAFA  
GSPAFNVSVTSNNGKETMQNLNDRLANYLDRVRSLEQANHELELKIREYLDKKAAVGSLD  
YSGYYNTINLLRSQINDATIDNTRLVLSIDNAKLAADDFKIKYESEMAIRTGAESDIVGL  
RRVLDELTLNKTDLLELEIESLKEELIYLKKNHEEELAVVRSSARGNVQVDSAPPVDLA  
QIMADVRSQYESMMEKNRQELEACYKGQSENLNHEVATNTAALQTSKTAITDLKRTIQSL  
EIELQSLLSMKGALEGTLAETEAQYGAQLNHLQAMITQVEMELQNLRSADADHQSLEYKRL  
LDAKTRLEMEIATYRRLLEGEDTRFSQTETQKAVTIVSKEQSSSSIKKVKTVIEEVVDGK  
VVSSRVEELTETS

>O18740

MNCRQFLSSHCSRDSGGGGGSKMFSNRRSSFSGASGGGGRFSSRSFSGGSSGACGRGG  
GGSFSSSYGGGSGGGSFAGSFGGHSRGRFSGGSGGGFSGGFGGGFSGGSGGGFSGGPGG  
FGSGFDGAGGILGADEKTTMQDLNSRLASYLDKVALEDANKELSKIREWYDKQGSRT  
FHRDYSPPYDTIEDLNQIVNITADNNTLLDLNTRMTLDDIRMKCDIENNLRLAVNAD  
INGLRKVLDDLTMQKSDLEMHYESLQEEIALKKNHEDEMSQLTGQNSGDVNVEMNAAPG  
RDLTKILNDMREEYERISAKNRKDIIEEQYETQMSQMEQEVMSGQEMESNHKEVTQLRHS  
IQEMEIELQSLSKSALEKSLEDTKNHYCGQLQQLQEQIRSLEGGITEIRGEIECQNOE  
YSLLLNIKTRLEQEIKTYSLLEGGQEDFESHESGQSHFGSGGSRQQGGIGGSHGRGSRG  
GSGGSSYGGGSSSGGSGGSHGGGSGGSSYGGGSSSGGSGGRGGSGGSSYGGGSGSGGGSSG  
SYGGGSSSGGSGGSHGGGSGGSSYGGGSSSGGSGGRGGSGGSSYGGGSGSGGGRGGGCEE  
GSGSGGRSGGSSYGGGSGSGGSSSCSYGGGSSSGGSGGSSYGGGSSSGGSGGKGGSGCSY  
SGGSSSGGSGGSSYGGGSSSGRSGGRGGSGAGSYGGGSGSGGGRGGGCEEGSGSGGRSGG  
SYGGGSGSGGRSGGSSYGGGSGSGGSGGSSYGGGSGSKGGSGRSSQVQSSSSKSGECDDTQ  
GYHIQY

>Q3TTY5

MSCQISCRSRGGGGGGGGFRGFSSGSAVVSGGSRRSNTSFSCISRHHGGGRGGSGGGGF  
GSQSLVGLGGYKSISSSVAGNSGGYGGSSFGGSSGFGGGRGFGGGQFGGSGGFGGGSGF  
GGGQFGGGSRFGGGSGFGGGGFGGGSRFGGGPGGFPGGPGGFIHEVSVNQSL  
LQPLDVKVDPEIQNVKSQEREQIKTLNKNFASFIDKVRFLQONQVLRTKWELLQQLDVG  
SRTTNLDPIFQAYIGMLKKQVDRLSAERTSQESELNMQDLVEDFKKKYEDEINKRTSAE  
NDFVTIKKDVDSYMDKTELQARLDILAQEVNFLRTLQDAELSLLQDQVTDTNVILSMDN  
NRNLDLDSIIAEVQNOYEMIAHKSAAESEELYHKSKEELQVAVKHGDSLKEIKMEISEL  
NRTIQRLOGEISHVKKQCKGVQDSIADAEQRGEHAIKDARGKLTDLLEALQQCREDLARL

LRDYQELMNTKLSLDVEIATYRKLLEGEECRMSGDFSDNVSVSITSSTISSSVASKTGFG  
SGGQSSGGRGSYGGRRGGGGGGSTYGSGRSSGSRGSGSGSGGGGYSSGGSRGSGGGY  
GSGGSRGSGGGYSGGGSGSGGGYSSGGSRGSGGGVSSGGSRGSSSSGGSRGG  
SSSGGGGYSSGGSRGSSSSGAGSSSEKGGSGSGEGCGSGVTFSFR

>P04266

FLEQQNKVLETKWKLLEQEQTKGTTKRANLDPLFEKYIADLKKYLDNLISEKGRLLQELK  
NLQLLVEDYKKKYEDEINKRTKAENDFVLLKKDVAAYMVKTELEAKVDTLTSEINFLRT  
RDAAELSQVHDQVTDTSVVLTMNDRDLNLDSEI KEVKCQYEQIAQRSKLEAEALYDQKY  
KQLQQTVEGHGDSIKNSKTEISDLNRKIQRKAEIENVKKQIASLNQSIAGAEERGNLSL  
KDAEKKLKDLDAERKLLKADMARQLKEYQELMSAKLALNLEISTYRYMLEGEEGRISGQI  
VNVKVISVLSGGSSVYTALGGAAGMGGGGGGGMGSGHGGGYGGMVFGGGMCGMGDMGMG  
GGMGGGMGSGHGGGYGHGGAFCFAGAGMGYEGGSMHGGGSSYGHSGGKTSVAIASTTST  
TKKTY

>P13647

MSRQSSVSFRSGGSRSFSTASAITPSVSRTSFTSVSRSGGGGGGGFGRVSLAGACVGGY  
GSRSLYNLGGSKRISISTSGGSRNRFGAGAGGGYGFGGGAGSGFGFGGGAGGGFGLGGG  
AGFGGGFGGPGFPVCPGGIIEVTVNQSLLTPLNLQIDPSIQRVREEREQIKTLNKF  
SFIDKVRFLQEQNKVLDTKWTLLQEQGKTQVRQNLPLFEQYINNLRRLQDSIVGERGRL  
DSELRNMQDLVEDFKNKYEDEINKRTTAENEFVMLKKDVAAYMKNKVELEAKVDALMDEI  
NFMKMFDAELSQMQTHVSDTSVVLSDMNNRNLDLDSIIAEVKAQYEEIANRSRTEAESW  
YQTKYEELQQTAGRHGDDLNRNTKHEISEMNRMIQRLRAEIDNVKKQCANLQNAIADAEQR  
GELALKDARNKLAEELEALQKAKQDMARLLREYQELMNTKLALDVEIATYRKLLEGEECR  
LSGEGVGPVNISSVTVSSVSSGYGSGSGYGGGLGGGLGGGLAGGSSGSYSSSSGGV  
GLGGGLSVGGSGFSASSGRGLGVGFSGGGSSSSSVKFVSTTSSSRKSFKS

>Q6IG03

MNRQFTCKSGAANRFGSGCSAVLSGGSSASSYRAGGKGLGGGFSSRSLYSLRSPRSISFNV  
ASGSGRTGGYGFGRNRASGFAGSMFGGGALGPSNPSLCLPGGIHQVTVNKSLLAPLNVEL  
DPEIQKVRQEREQIKALNKFASFIDKVRFLQEQNQVLQTKWELLQQLDLSNCRRLNLEP  
VYEAHISSLQKQLDSLSDRVRLLDSELGRMDAVEDCKKRYEEEEINKRTTAENEFVVLKK  
DVAAYMSKVELQAKVDALDGEIKFLKCLYEGETTQMOSHISDTSVVLSDMNNRNLDLDS  
IIAEVRAQYEDIAKSKAEAEEMVYQTKFQELQLAAGRHGDDLKHTRNEISELTRLIQRLR  
SEIESVKKQCSNLETAIADAEQRGDCALKDAQAKLDDLERALHQAKEELARMLREHQELM  
SMKLALDIEIATYRKLLEGEECRMSGHEHTNAVISVSSSTTGAVGAGTSFGFSNPSTYG  
YRPSSVAGGYGILSGGCVTGSGNCSPRGDTKTRLGSASEFKEVSGKTLALGSPSKTMRA  
DRQSSISVQLWFS

>A6QNX5

MSLSPCRARRGFSARSACSAQSVGRGRTGFSRSLSSFGGCRGGRGRTWGSWGRLGVRL  
GEGSGGPGLSLCPPGGIQQVTINQSLLIIPKIEIDPQFQVVRTQETQQIRVLNNQFASF I  
DKVRFLQEQNKVLETKWHLLQQQGLSDRPQGLSFFEAYLVRRLTQLEELQKKRGS LDAE  
LKSCQGQEEEEYKAKYEHEANRRATLENDFVVLKKDADGVLLSKMEMESKVEDLKEYICFL  
KHYEEELQQLQTQASDMVVLSDMNNRCLDFRDLIAEVRARYEEIARTSKAEAEMLYQT  
KYRELQACAQLHGNSMKETKVQITQLQQTIKKLSQIETVKSQNASLQVAIADAEQRGEL  
ALKDAQTKLAEEAALRTAKQDIARLLHDYQELMSVKLSLDIEIATYRRLLEGEECRMSG  
ECASQVTISVGGGSTVVSAGGAGGLAGTCLGGVKGSFGSRCSVVKGGSSIVKGGSSVV  
IGSSIIILGSEQGPAVGSVSGSSSSSTSHITLKKTVESLKTSTVY

>Q8VED5

MRSSLSRQTFSTKGGFSSNSASGGGSRMRTSYSSVTMSRSGGGGGVRSGSSSGGFGSR  
SLYNLGGKNI SVSMACGASSGRALGGFGSGAYVGLGASRQTFGPVCPGGIQEVTVNQSL  
LTPLNVEIDPEIQRVRTQEREQIKTLNKNFASFIDKVRFLQONKVLETKWALLQEQSQN  
TGVARSLPEFFENYLSTLRRQLDTKQSERGRLDMELRNVQDNLEDFKNKYEDEINKRTAL  
ENEFVLLKKDVDAAYMGRMDLHGKVDLSLTQEIDFLQQLFEMELSQVQTNVSDTNVILSMD  
NNRNLDLDSIIAEVKAQYELIAQKSRAEAEESWYQTKYEELQVTAGKHGDSLDRDTKNEIAE  
LTRTTQRLQGEVDAAKKQCQQLQTAIAEAEQNGEMALKDAKKKLGDLDTALHQAKEDLAR  
MLREYQDLVSVKLALDMEIATYRKLLESEESRMSGDCPSAISISVTGNSTVCAGGTAGF  
GNGLSLGGAGGASKGGFGSSVSYGAAKGGQVSGGTSILRKT'TTVKTSRRY

>Q6KB66

MACRSCVVGFSSSLSSCEVTPVGSPPGTSGWDSRAPGPGFSSRSLTGCWSAGTISKVTV  
NPGLLVPLDVKLDPVAVQQLKNQEKEEMKALNDKFASLIGKVQALEQRNQLLETRWSFLOG  
QDSAI FDLGHL YEEYQGR LQEELR KVSQ ERGQLEANLLQVLEKVEEFRIRYEDEISKRTD  
MEFTFVQLKKDLDAECLHRTELETKLKSLESFVELMKT IYEQELKD LAAQVKDVS VTVGM  
DSRCHIDL SGIVEEVKAQY DAVAARSLEEA EAYSRSQLEEQAARS AEY GSSLQSSRSEIA  
DLNVRIQKLR SQILSVKSHCLKLEENIKTAE EQGELAFQDAKTKLAQLEAALQQAKQDMA  
RQLRKYQELMNVKLALDIEIATYRKLVEGEEGRMDSPSATVVS AVQSRCKTAASRGLSK  
APSRKKKGSKGPVIKITEMSEKYFSQEVSE

>P05787

MSIRVTQKSYKVSTSGPRAFSSRSYTSGPSRISSSSF SRVGS SNFRGGLGGGYGGASGM  
GGITAVTVNQSLLSPLVLEVDPNIQAVRTQEKEQIKTLNKNFASFIDKVRFLQONKMLE  
TKWSLLQOQKTARSNMDFESYINNLRRQLETLGQEKLEAE LGNMQGLVEDFKNKYE  
DEINKRTEMENEFVLIKKDVDEAYMNKVELESRL EGLTDEINFLRQLYEEEIRELQSQIS  
DTSVVL SMDNSRSLDMDSIIAEVKAQYEDIANRSRAEAE SMYQIKYEELQSLAGKHGDDL  
RRTKTEISEMNRNISRLQAEIEGLKGQRASLEAAIADAEQRGELAIKDANAKLSELEAAL  
QRAKQDMARQLREYQELMNVKLALDIEIATYRKLLEGEESRLESQMNSIHTKT'TSGYA  
GGLSSAYGGLTSPGLSYSLGSSFGSAGSSSFRTSSSRVAVVKKIETRDGKLVSESSDV  
LPK

>Q9NYS0

MKGKCKVVVCGLLSVGKTAILEQLLYGNHTIGMEDCETMEDVYMASVETDRGVKEQLHLHY  
DTRGLQEGVELPKHYFSFADGFVLVYSVNNLESFQRVELLKEIDKFKDKKEVAIVVLGN  
KIDLSEQRQVDAEVAQQWAKSEKVRLEWVTVTDRKTLIEPFTLLASKLSQPQSKSSFPLP  
GRKNKGNSNSEN

>Q26626

MQAEDARYLKRKVKGGSIDVHPTEKALVVNYELEATILGEMGDPMLGERKECQKIIRLRS  
LNSTTDIAALAREVVEKCKLIHPSKLPVEVEQLLYYLQNRKETTQKAGAKKGELTGKLDKDP  
PPYEGTELNEVANINDIEDYIELLYEDNPEKVRGTALILQLARNPDNLEELQSNETVLGA  
LARVLREEWKHSVELATNIVYIFFCFSSFSQFHSIVAHFKIGALVMGVVEHELKHHLSWN  
EELLKKKKTAEENPASKRDFEKSTKKYHGLLKKQEQLLRVSFYLLLNLS EDPKVELKMKN  
KNIIRLLIKTLERDNAELLILVVSFLKKLGIYVENKNEMAQQI IERLAKLVPCDHEDLL  
NITLRLLLNLSFDTDLRGMIKLGMLPKFVELLANDNHRLVVLVLYHVSQDDKAKSMFT  
YTDCIPMIMKMMLESPTERLEIELVALGINLACNKHNAQLICEGNGLRLLMRRALKFRDP  
LLLK MIRNISQHDGPSKAQFIEYISDVARIIKESNDEELVVEALGIMANLTIPLDYEMI  
INEFGLVPWIKKLEPGAEDDLVLEVVMVLTGTVATDDSCAAMLAKSGIIQSLIELLNAK  
QEDDEIVCQIVYVYQMFHEATREVIKLTQAPAYLIDLMDKNSEIRKVCNTLDIIS

EFDEEWARKIKLEKFRWHNSQWLEMVESQQIDDGEGGLMYGDESYSPIQESDILDRPDL  
FYGQTGYEDGEMYDQVTPPEYVDEYGNVQNGEYLGRPASAMYGNRYQSEYESLRPGSRVA  
YLTEDGQPLDEYGNPIEVYAESVDQYGRPVPTPTTYQYGSQAQQGPGYPY

>O27112

MTEEYFIQGNDACARGAIKAGCRFFAGYPIPTSTEIAEEMALLLPREGGVFVQMEDEIGA  
LGAVIGAVWSGVRGMTATSGPGFSLMQEHVGYAAMTETPLVIVNVQRGSPSTGQPTMASQ  
SDMMQARWGSBGDYEIIALSPPSSVQECFDFTVRAFNLAEERYRVPVMVMGDEIVGHMREKI  
TIPDRVKIRKRRGSPVPEEFLPFSAPEDGVPEMPAFGDGYRIPVTGLTHDEGGYPDASN  
PEGHRLVKRLCDKILRHRDRISDVQEELTEDAYITVISYGAPSRSVATAVKMAREDGVR  
AGYLKINTPWPFPETEVRAAAERSGKLLVEMNLGQMFYEVQRVAAGMAEVELLPKIGGE  
IHRPEEILNMILKMNR

>O29782

MKAEYADYLRTEMLPTIWCAGCPNGIVLASFIRAVKRGFERDKTVVVSIGCSGRITQYL  
DFETVHTTHGRALAFATGIKLAPELVVFMGDGDAVAIGGNHF IHACRRNIDLTAVVI  
NNSLYGMTGGQLAPTTPEGAKTKTSPYGNVERPFDIAKLAIAAGASYVARFTAYQPRWIE  
KAIFEAMQHGHFSVVEVVTGCPHQR IKPADLLKHLKENFRRRDNVSLDEIQPTDIGVFK  
KEVMEEFCEKIEKL RMYVRKGENKENV

>O27113

MEKRENPYLRYLRRERLPHIFCAGCGNGIVLNSFFKGMEMAGIDFDNIAMVSGIGCSSRI  
PGYVNCDSLHTTHGRPISFATGLKLGNP SLDVVFTGDGDAAAAIGGNHLIHGARRNIDMT  
VICINNSIYGMTGGQISPTFPEGSYGSTAPYGALEDPFDLAELVTAAGASYVARWTTAHP  
LQLANSIKKGLKNRGSFIEAISQCPTYFGRKNRMRSPVEMMRFMKENS LNRRKALKMEP  
DEVEGKIIVGEFANRPQPELCEKICSMVDEKSGRALDMIRSAYRDD

>O27114

MIEVRKEIRIAGFGGQGVILAGIVLGKAASLYDGLYAVQTQSYGPEARGGASRAEVVISD  
HEIDYPKVQSPDILVAMSHQALLTYMDDLKRGGALIVDPDMVVEAEIEDFIRAREVKYFR  
APATRTAEERVGITIVANVMIGALTEATGIVSVRAAEEAIKDSVPPGTEEKNLMAFQAG  
RELIMEGSR

>Q9NSB4

MSYHSFQPGSRCSQSFSYSVAVPMRVMTHYAVSKGPCRPGGGRGLRALGCLGSRSLCNV  
GFGRPRVASRCGGTLPFGYRLGATCGPSACITPVTINESLLVPLALEIDPTVQRVKRDE  
KEQIKCLNNRFASFINKVRFLEQKNKLETKWNFMQQQRCCQTNIEPIFEGYISALRRQL  
DCVSGDRVRLSELSLQAALLEGYKKKYEELSLRPCVENEFVALKKDVEDTAF LMKADLE  
TNAEALVQEIDFLKSLYEEEICLLQSQISETSVIVKMDNSRELDVDGIIAEIKAQYDDIA  
SRSKAEAEAWYQCRYEELRVTAGNHCDNLRNRKNEILEMNKLIQRLQQETENVKAQRCKL  
EGAI AEAEQQGEAALNDACKLAGLEEALQKAKQDMACLLKEYQEVMSKLGLDIEIATY  
RRLLEGEHRLCEGIGPVNISVSSSKGAFLYEPCGVSTPVLSTGVLR SNGGCSIVGTGEL  
YVPEPQGLLSCGSGRKSSMTLGAGGSSPSHKH

>Q9NSB2

MSCRSYRVSSGHRVGNFSSCSAMTPQNLNRFRANSVSCWSGPGFRGLGSFGSRSVITFGS  
YSPRIAAVGSRIHCGVRFVAGCGMGFGDGRGVGLGPRADSCVGLGFGAGSGIGYFGGGP  
GFGYRVGGVGPAAPSITAVTVNKSLLTPLNLEIDPNAQRVKKDEKEQIKTLNKFASF I  
DKVRFLEQQNKLETKWSFLQEQKCI RSNLEPLFESYITNLRRQLEVLVSDQARLQAERN  
HLQDVLEGFKKKYEVEVCRANAENEFVALKKDVDAAFMNKSDLEANVDTLTQEIDFLKT

LYMEEIQLLQSHISETSVIVKMDNSRDNLNDGIIAEVKAQYEEVARRSRADAEAWYQTKY  
EEMQVTTAGQHCDNLRNIRNEINELTRLIQRLKAEIEHAKAQRAKLEAAVAEAEQQGEATL  
SDAKCKLADLECALQQAKQDMARQLREYQELMNAKLGLDIEIATYRRLLEGEESRLCEGV  
GPVNISSVSSSRGGLVCGPEPLVAGSTLSRGGVTFSGSSSVCATSGVLASCGPSLGGARVA  
PATGDLNSTGTRSGSMLISEACVPSVPCPLPTQGGFSSCSGGRSSSVRFVSTTTSCRTKY

>Q9Z2T6

MSCRSYRISP GCGVTRNFSSCSAVAPKTGNRCCI SAAPFRGVSCYRGLTGFSSRSLCNPS  
PCGPRMAVGGFRSGSCGRSFGYRSGGVCGPSPPCITTVSVNESLLTPLNLEIDPNAQCVK  
YEEKEQIKCLNSKFAAFIDKVRFLQONKLLQFYQNRKCCESNLEPLFGGYIEALR  
REAECVEADSGRLAAELNHVQEAMEGYKKKYEVALRATAENEFVVLKDDVDCAYLRKS  
DLEANVEALVEESSFLKRLYEEVVCVLAHISDTSVIVKMDNSRDNLNMDCVVAEIKAQYD  
DVASRSRAEAESWYRTKCEEMKATVIRHGETLRRTKEEINELNRMIQRLTAEIENAKCQR  
AKLEAAVAEAEQQGEAALADARCKLAELEGALQKAKQDMACLLKEYQEVMSKLLALDIEI  
ATYRRLLEGEEQRLCEGVGSVNVCVSSSRGGVTCGGLTYGTPGRQIVSGPSVTGGSITV  
MAPDSCSPCQPRASSFTCGSSRSVRFA

>Q23976

MSTWNPENDVDLLSGSEDEEDVSMKRDIYHGREAILFVVDANLQTAGVERLLEALNIIRTA  
FISGLLVNDKDLIGLIFANTKHSPPPLEASALDNIVMPDNCAVFLPLRQLTKPIVEHYLE  
FMGGVETQFADVYGLAEPDGRGRFDLMIRLCIEMLEKCGKLNNAKIAVYTDVREPHPSN  
SNHFQAALQKASDLEGEFEFHVIPMVDDFDYEPFYKEFITLSRAIELDAFQVPDAQMLR  
EILSDRKLKQDFLRRLGHFSFYLGPNLSMSVQYNYFQRRAYPRKVQILRRDNSVVRTK  
RVITVQKQKDDGSQDIEHEYQIKVTGGWYTCNVGERDLRISMDQLNRVRNLHKPQMMLLG  
FKHRSSLPEVSYIKPANFMYPPDDQSIIGSKRLFRALWERCLVRDKIAICLFMCKRKSIPR  
YVALVPVEAPDNGEDKNYRSLLCGDGFKIVYLPEAKHIRHLDLQDWNNTENTADEQKVEF  
FQKIIKKLRVDYQPNLINDPSLDALQANLLALSLDFSTDTKGLDNLLDTSQQDKRIEKL  
PDYEMFAPEAEPPKRAAKSTTAGASGPKMAKIDDDQLKEFEFVKSLNKDEALTSCAAQ  
LHFILQHHFDVTMPKSSKKAKLVAKIEELHK

>P12956

MSGWESYYKTEGDEEAEQEEENLEASGDYKYSGRDSLIFLVDASKAMFESQSEDELTPF  
DMSIQCIQSVYISKIISDRDLLAVVFGYGTEDKNSVNFKNIVYLQELDNPQAKRILELD  
QFKGQQQKRFQDMMGHGSDYSLSEVLWVCANLFSVQFQKMSHKRIMLF'TNEDNPHGNS  
AKASRARTKAGDLRDTGIFLDMHLKPKGGFDISLFYRDIISIAEDEDLRFVHFEESSKLE  
DLLRKVRAKETRKRALSRKLNKDIVISVGIYNLVQKALKPPPILYRETNEPVKTKT  
RTFNTSTGGLLLPSDTKRSQIYGSRQIILEKEETEELKRFDDPGLMLMGFKPLVLLKHH  
YLRPSLFVYPEESLVIGSSTLFSALLIKCLEKEVAALCRYTPRRNIPPYFVALVPQEEEL  
DDQKIQVTPPGFQLVFLPFADDKRKMPFTEKIMATPEQVGMKAI VEKLRFTYRSDSFEN  
PVLQQHFRNLEALALDLMEPEQAVDLTLPKVEAMNKRLGSLVDEFKELVYPPDYNPEGKV  
TKRKHNEGSGSKRPKVEYSEEELKTHISKGTLGKFTVPMLKEACRAYGLKSGLKKQELL  
EALTKHFDQ

>O94395

MENDEQIDETENFAIGKYAILFVIEVSPSMLDPVDEFTPSSLQMALICAYQLAAQRVITN  
PSDIMGVLLYGTESSTGRFANQMMLLDIDPPDAERIKSLQSFQKDFQFSKEKFKPCSCQV  
SLSSVLYHCSVIFTTAKAENFEKRLFLITDNDHPAWDATERDIIQRAKDLRDLDIQVHPV  
FLDPPTHFRINIFYSDFLYIVYGRQDVSNLVNRGQAQLQHMLNMITALQKPKRAHFHLK  
MDLGNVDRIGVEAFILLKRLSAKTNWVYAKGERFAVAVPQSKQVSFATKKELKKDEIRR  
SYSYGGSSVVFSGDELNKVRSFEPPTLRIGFRDFSTLKPWHCLKPAVFLRPKDDEIIGS



GAVFSAIHKLLASNKIGIAWFVSRPNANPCFVAMLATPGSIHIRDDFELPLGIFLVQLP  
TADDIRSLPPINPNPISMPNSLIETMQRILRGMELRSYQPGKYNNPSLQWHYKVLQALAL  
DEEIPDFVDNTLPKYKAIQKRVGEYMGDVNNIVAEYRNDISDKNGIKEEEEEQGPVKK  
ARIEKSGKPIFAEDDRLKQLYIEGVLDEIKALKVSQLKDILRDRGLRVSGKKADLLDNL  
TNYVKKL

>P32807

MRSVTNAFNGSELNDQVDETGyrkFDIHEGILFCIELSETMFKESSDLEYKSPLEILE  
SLDELMSQLVITRPGTAIGCYFYCNREDAKEGIYELFPLRDINATFMKKLNDLLEDLSS  
GRISLYDYFMFQQTGSEKQVRLSVLFTFMLDTFLEEIPGQKQLSNKRVF'FTDIDKPQEA  
QDIDERARLRRLTIDLFDNKVNFATFFIGYADKPFDFNEFYSDILQLGSHTNENTGLDSEF  
DGPSTKPIDAKYIKSRILRKKKEVKRIMFQCPLILDEKTNFIVGVKGYTMYTHEKAGVR  
LVYEHEDIRQEAYSKRKFLNPITGEDVTGKTVKVYPYGDLDINLSDSQDQIVMEAYTQK  
AFLKIIIGFRSSSKSIHYFNNIDKSSFIVPDEAKYEGSIRTLASLLKILRKKDKIAILWGK  
LKSNSHPSLYTLSPSSVKDYNEGFYLYRVPFLDEIRKFP'LLSYDDGSEHKLDYDNMKKV  
TQSIMGYFNLRDGYNPSDFKNPLLQKHVKVLHDYLLQIETTFDENETPNTKKDRMMREDD  
SLRKLYYIRNKILESEKSEDP'IIQRLNKYVKIWNMFYK'FNDDNISIKEEKKPFDKKPKF  
NI

>Q9HGM8

MSDKECTV'FVLDL'GKDMGTCHHGRSHSDLEWTL'SYFHDEL'SHKFLANRKT'DVVGIVGYKC  
DDTKNDLAEQEAYWNI'SVLYPIQ'TALF'SKLSQSVSQT'KPSNTMQ'GLISAIVVSFDLMAR  
HCKKNKWK'KKMIVLTAARGI'IDFSDYIGIAEQ'LLQHDVFL'GVYGVDFDQEDIN'YSEPLKE  
SQKKENEVRIQE'FVESCHGOYCT'FQQIYNNIGK'PWVRKVRPVAI'FRGT'FSIGNRDSKDT'S  
ISIQ'VEYR'PTRLTKPPTSSAFYENDMSK'NYECLNIENS'NVENKSMESDAVST'VRSY'MVR  
DPKTNDSFEVKREDLESGYSYGR'TIVPISRS'EDV'LALD'TIPGYEILGFIPKSSLP'IIYYT  
ISDTNIIVPKDDFESKLN'FSAFVQSLEREHRYAL'ARFVSKDKGVPVLLV'LMPYVEFKRHY  
LVDIQLPFAEDVRPYS'FSEFEKLSNEEDMRQ'IDFAVSNYIDNMDL'DSSDCGFNPP'FEPEN  
TFSMIPHRLQQAISYYANSPEGLPQPNIY'LTRYTNP'PKSLLDNCILDLKLIKEKLT'VNV  
PVKPKYSSQETA'FDTGAPISEEQIEELLNSGLDEQE'GKLLV'LHVSEKDPVGT'FTEVLKN  
PFGLEDALTEMEKVIKNI'IDKSKYDLALQSLQSLR'LHSILEDEVERF'NEYLTRLKKDVMQ  
NNKPKENELINKIRSSGLDII'LHDELTRHDNF'NNI

>Q04437

MSSESTTFIVDVSPSMMKNNVSKSMAYLEYTLLNKSKKSRKTDWISCYLANCPVSENSQ  
EIPNVFQIQSFLAPVTTTATIGFIKRLKQYCDQSHDSSNEGLQSMIQCLLVVSLDIKQQ  
FQARKILKQIVVFTDNLDDLITDEEIDL'LTEELSTR'II'IDCGKDTQEERKKS'NWLKLV  
EAIPNSRIYNNMELLVEITSPATS'VVKPVRV'FSGELRLGADILSTQTSNPSGSMQDENCL  
CIKVEAFPATKAVSGLNRKTAVEVEDSQQKERYVGVKSIIEYEIHNEGKKNVSEDDQSG  
SSYIPVTISKDSVTKAYRYGADYVVLPSV'LVLDQTVYESFPGLDLR'GFLNREALPRYFLTS  
ESSFITADTRLGQCSDLMAFSALVDVMLENRKIAVARYVSKKDSEVNMALCPVLI'EHNS  
INSEK'FVKSLTLCRLPFAEDERVTDFPKLLDR'TT'SGVPLKKE'TDGHQIDELMEQFVDS  
MDTDELPEIPLGNYQPIGEVTTDTTLP'PLPSLNKQ'EENK'KDLRIP'TVFVYRQQQV'VLE  
WIHQLMINDSREFEIP'ELPDSLKNKISPYTHKK'FDST'KLVEVLG'IKKVDK'KLDSELKTE  
LEREKIPDLETLLKRGEQHSR'GSPNNSNN

>P13010

MVRSGNKA'AVVLCMDVGF'TMSNSIPGIESPFEQAKK'VITMFVQRQVFAENKDEIALV'LFG  
TDGTDNPLSGGDQYQNI'VHRHMLP'PDFLLEDIESKIQPGSQQADFLDALIVSMDVIQH  
ETIGKKFEKRHIEIFTDLSSRF'SKSQLDII'IHSLK'KCDISLQFFL'PFSLGKEDGSGDRGD

GPFRLGGHGSPFPLKGI TEQQKEGLEIVKMVMISLEGEDGLDEIYSFSESLRKL CVFKKI  
ERHSIHWPCLRTIGSNLSIRIAAYKSILQERVKKTWTVVDAKTLKKEDIQKETVYCLNDD  
DETEVLKEDI IQGFRYGS DIVPFSKVDEEQMKYKSEGKCF SVLGFCKSSQVQRRFFMGNQ  
VLKVFAARDDEAAVALSSLIHALDDLDMVAIVRYAYDKRANPQVGVAFPHIKHNIECLV  
YVQLPFMEDLRQYMFSSLNKSKKYAPTEAQLNAVDALIDSMSLAKKDEKTD TLEDLFPTT  
KIPNPRFQRLFQCLLHRALHPREPLPPIQQHIWNMLNPPAEVTTKSQIPLSKIKTLFPLI  
EAKKKDQVTAQE I FQDNHEDGPTAKK LKTEQGGAHFSVSSLAEGSVTSVGSVNP AENFRV  
LVKQKASFE EASNQLINHIEQFLDTNETPYFMKS IDCIRAFREEA IKFSEEQRFNFLK  
ALQEKVEIKQLNHFW EIVVQDGITLITKEEASGSSVTAEEAKKFLAPKDKPSGDTAAVFE  
EGGDVDDLDMI

>O15230

MAKRLCAGSALCVRGRGPAPLLLLVGLALLGAARAREEAGGGFSLHPPYFNLAEGARIAA  
SATCGEEAPARGSPRPTE DLYCKLVGGPVAGGDPNQT IQGQYCDICTAANSNKAHPASNA  
IDGTERWWQSPPLSRGLEYNVNTLDLQGVFHVAYVLIK FANSRDPDLWVLER.SMDFGR  
TYQPWQFFASSKRDCLERFGPQTLERITRDDAAICTTEYSRIVPLENGEIVVSLVNGRPG  
AMNFSYSPLLREFTKATNVRLRFLRTNTLLGHLMGKALRDP TVTRRYYSIKDISIGGRC  
VCHGHADACDAKDPD PFR LQCTCQHNTCGGTCDRCCPGFNQQPWK PATANSANECQSCN  
CYGHATDCYYDPEVDRRRASQSLDGT YQGGVCIDCQHHTTG VNCERCLPGFYRSPNHPL  
DSPHVCRRNCNESDFTDGT CEDLTGRCYCRPNFSGERCDVCAEGFTGFPSCYPTPSSND  
TREQVLPAGQIVNDCSAAGTQGNACRKDPRVGRCLCKPNFQGT HCELCAPGFYGPQCQP  
CQCSSPGVADDRCDPTGQCRCRVGFEGATCDRCAPGYFHFPLCQLCGCSPAGTLP EGCD  
EAGRCLCQPEFAGPHCDRCRPGYHGFPCNCACTCDPRGALDQLCGAGGLCRCRPGYTGTA  
CQECSPGFHGFPCVPC HCSAEGSLHAACDPRSGQCSCRPRVTGLRCDTCVPGAYNFPYC  
EAGSCHPAGLAPVDPALPEAQVPCMCRAHVEG PSCDRCKPGFWGLSPSNPEGCTRCSCDL  
RGT LGGVAECQPGTGQCFCKPHVCGQACASCKDGGFFGLDQADYFGCRSCRCDIGGALGQS  
CEPRTGVCRCRPNTQGPTCSEPARDHYPDLHHLRLELEEAATPEGHAVRF GFNPLEFEN  
FSWRGYAQMAPVQPRIVARLNLTSPDLFWLVFRYVNRGAMSVSGRVS VREEGRSATCANC  
TAQSQPVAFFPPSTEPAFITVPQRGFGEFPVLPNGT WALRVEAEGVLLDYVLLPSAYYEA  
ALLQLRVTEACTYRPSAQQSGDNCLLYTHLPLDGFPSAAGLEALCRQDNSLPRPCPTEQL  
SPSHPLITCTGSDVDVQLQVAVPQPGRYALVVEYANEDARQEVGVAVHTPQRAPQQGLL  
SLHPCLYSTLCRGTARDTQDHLAVFHL DSEASVRLTAEQARFFLHGVTLPVIEEFSP E FV  
EPRVSCISSHGAFGNPNSAACLP SRFPKPPQPIILRDCQVIPLPPGLPLTHAQDLTPATSP  
AGPRPRPPTAVDPDAEPTLLREPQATVVFTTHVPTLGRYAFLLHGYQPAHPTFPVEVLIN  
AGR VQGHANASFCPHGYGCR TLVVCEGQALLDVTHSELTVTVRVPKGRWLWLDYVLVVP  
ENVYSFGYLREEPLDKSYDFISHCAAQGYHISPSSSSSLFCRNAAA SLSLFYNNAARPCGC  
HEVGATGPTCEPFGGQCPCHAHVIGRDCSRCATGYWGFPCNCRPCDCGARLCDEL TGQCIC  
PPRTIIPDCLLQCPQTFGCHPLVGCEECNCSGPGIQELTDPTCDTDSGQCKCRPNVTGRR  
CDTCSPGFHGYPRCRPCDCHEAGTAPGVCDPLTGQCYCKENVQGPCKDQCSLGTFSLDAA  
NPKGCTRCFCFGATERCRSSSYTRQEFVDMEGWVLLSTDRQVVPHERQPGTEMLRADLRH  
VPEAVPEAFPELYWQAPPSYLGDRVSSYGGTLRYELHSETQRGDVFPME SRPDVVLQGN  
QMSITFLEPAYPTPGHVHRGQLQLVEGNFRHTE TRNTVSR EELMMVLASLEQLQIRALFS  
QISSAVFLRRVALEVASPAGQ GALASNVELCLCPASYRGDSCQECAPGFYRDVKGLFLGR  
CVPCQCHGHS DRCLPGSGVCVDCQHNT EG AHCERCQAGFMSSRDDPSAPCVSCPCPLSVP  
SNNFAEGCVLRGGRTQCLCKPGYAGASCERCAPGFFGNPLVLGSSCQPCDCSGNGDPNLL  
FSDCDPLTGACRGLRH TTGPRCEICAPGFYGNALLPGNCTRCDCTPCGTEACDPHSGHC  
LCKAGVTGRRCDRCQEGHFGFDGCGGCRPCACGPAAEGSECHPQSGQCHCRPGTMGPQCR  
ECAPGYWGLPEQGCRRQC PGGRCDPHTGRCNCPPGLSGERC DTCSQQHQVPVPGGPVGH  
SIHCEVCDHCVVLLLDL ERAGALLPAIHEQLRGINASSMAWARLHRLNASIADLQSQLR  
SPLGPRHETAQQLEVLEQQSTSLGQDARRLGGQAVGTRDQASQLLAGTEATLGHAKTLLA

AIRAVDRTLSELMSQTGHLGLANASAPSGEQLLRTLAEVERLLWEMRARDLGAPQAAAEA  
ELAAAQRLRLARVQEQLSSSLWEENQALATQTRDRLAQHEAGLMDLREALNRAVDATREAQE  
LNSRNQERLEEALQRKQELSRDNATLQATLHAARDTLASVFRLLHSLDQAKEELERLAAS  
LDGARTPLLQRMQTFSPAGSKLRLVEAAEAHAQQLGQLALNLSSIILDNQDRLTQRAIE  
ASNAYSRIQLQAVQAAEDAAGQALQQADHTWATVVRQGLVDRAQQLLANSTALEEAMLQEQ  
QRLGLVWAALQGARTQLRDVRAKKDQLEAHIQAAQAMLAMDTDETSKKIAHAKAVAAEAQ  
DTATRVQSQLQAMQENVERWQGYEGLRGQDLGQAVLDAGHSVSTLEKTLPLQLLAKLSIL  
ENRGVHNASLALSASIGRVRELIQAARGAASKVKVPMKFNRSVQQLRTPRDLADLAAYT  
ALKFYLQGPPEPEPGQGTEDRFVVMGSRQATGDYMGVSLRDKKVHVYQLGEAGPAVLSI  
DEDIGEQFAAVSLDRTLQFGHMSVTVERQMIQETKGDVAPGAEGLLNLRPDDFVYVGG  
YPSTFTPPPLLRFPYRGCIEMDTLNEEVVSLYNFERTFQLDTAVDRPCARSKSTGDPWL  
TDGSYLDGTGFARISFDSQISTTKRFEQELRLVSYSGVLFFLKQQSQFLCLAVQEGSLVL  
LYDFGAGLKKAVPLQPPPPLTSASKAIQVFLGGSRKRVLVRVERATVYSVEQDNDLELA  
DAYYLGGVPPDQLPPSLRWLFPTGGSVRGCVKGIKALGKYVDLKRNLTTGVSAGCTADLL  
VGRAMTFHGHGFLRLALSINVAPLTGNVYSGFGFHSQAQDSALLYRASPDGLCQVSLQQGR  
VSLQLLRTEVKTQAGFADGAPHYVAFYSNATGVWLYVDDQLQMKPHRGPPPELQPQPEG  
PPRLLLGGLPESGTIYNFSGCISNVFVQRLGPFQRFVLDLQNLGSVNVSTGCAPALQAQT  
PGLGPRGLQATARKASRRSRQPARHPACMLPPLRLTRDSYQFGGSLSSHLEFVGIILARH  
RNWPSLSMHVLRSSRGLLLFTARLRPGSPSLALFSLNGHFVAQMEGLGTRLRAQSRQRS  
RPGRWHKVSVRWEKNRILLVTDGARAWSQEGPHRQHQAHEHPQHTLFGGLPASSHSSK  
LPVTVGFSGCVKRLRLHGRPLGAPTRMAGVTPCILGPLEAGLFFPGSGGVITLDLPGATL  
PDVGLELEVRPLAVTGLIFHLGQARTPPYLQLQVTEKQVLLRADDGAGEFSTSVTRPSVL  
CDGQWHRLAVMKSGNVLRLVEVDAQSNHTVGPLLAAGAPAPLYLGGLEPEPMAVQPWPPA  
YCGCMRRLAVNRSPVAMTRSVEVHGAVGASGCPAA

>Q9Z127

MAVAGAKRRAVATPATAAAEEERQAREKMLEARRGDGADPEGEGVTLQRNITLLNGVAII  
VGTIIIGSGIFVTPTGVLKEAGSPGLSLVVWAVCGVFSIVGALCYAELGTTISKSGGDYAY  
MLEVYGSPLPAFLKLWIELLIIRPSSQYIVALVFATYLLKPVFPPTCPVPEEAAKLVAACLCV  
LLLTAVNCYSVKAATRVDQAFAAAKLLALALIILLGFIQMGKDMGQGDASNQQKLSFEG  
TNLDVGNIVLALYSGLFAYGGWNYLNFVTEEMINPYRNLPALIIISLPVTLVYVLTNLA  
YFTTLSTNQMLTSEAVAVDFGNHYHLGVMSWIIPVFVGLSCFGSVNGSLFTSSRLFFVGSR  
EGHLPSVLSMIHPQLLTPVPSLVFTCIMTLMYAFSRDIFSIINFFSFFNWLVALAIGM  
MWLRFKKPELERPIKVNALPVFFILACLFLIAVSFWKTPMECGIGFAIILSGLPVYFFG  
VWKNKPKWILQAI FSVTVL CQKLMQVVPQET

>Q9UHI5

MEEGARHRNNTTEKKHPGGESDASPEAGSGGGVALKKEIGLVSACGIIVGNIIGSGIFV  
SPKGVLENAGSVGLALIVWIVTGFITVVGALCYAELGVTIPKSGGDYSYVKDIFGGLAGF  
LRLWIAVLIYPTNQAVIALTFSNYVLQPLFPTCFPPESGLRLLAAICLLLLTWVNCSSV  
RWATRVQDIFTAGKLLALALIIIMGIVQICKGEYFWLEPKNAFENFQEPDIGLVALAFLQ  
GSFAYGGWNFLNYVTEELVDPYKNLPRAIFISIPLVTFVYVFANVAVVTAMSPQELLASN  
AVAVTFGEKLLGVMWIMPISVALSTFGVNGSLFTSSRLFFAGAREGHLPSVLAMIHVK  
RCTPIPALLFTCISTLLMLVTSDMYTLINYVGFINYLFYGVTVAGQIVLRWKKPDI PRPI  
KINLLFPPIIYLLFWAFLLVFSLWSEPVCIGLAIMLTGVPVYFLGVYWQHKPKCFSDFI  
ELLTLVSQKMCVVVYPEVERGSGTEEANEDMEEQQQPMYQPTPTKDKDVAGQPQP

>P01130

MGPWGKLRWTVALLLAAAGTAVGDR CERNEFQCQDGKCI SYKWVCDGSAECQDGSDESQ  
ETCLSVTCKSGDFSCGGRVNRICIPQFWRCQDQVDCDNGSDEQGCPPKTCQSQDEFRCHDGK

CISRQFVCDSDRDCLDGSDEASCPVLTGCPASFCNSSTCIPQLWACDNDPDCEDGSDEW  
PQRCRGLYVVFQGDSSPCSAFEFHCLSGECIHSSWRCDGGPDCKDKSDEENCAVATCRPDE  
FQCSDGNCIHGSRQCDREYDCKDMSDEVGCVNVTLCEGPNKFKCHSGECITLTKVCNMAR  
DCRDWSDEPIKECGTNECLDNNGGCSHVCMNDLKI GYECLCPDGFQQLVAQRRCEDIDECQD  
PDTCSQLCVNLEGGYKQCCEEGFQLDPHTKACKAVGSIAYLFF'TNRHEVRKMTLDRSEYT  
SLIPNLRNVVALDTEVASNRIYWSDL SQRMICSTQLDRAHGVSSYDTVISRDIQAPDGLA  
VDWIHSNIYWTDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVVDPVHGFMWTDWGTPA  
KIKKGLNGVDIYSLVTENIQWPNGITLDDL SGRLYWVDSKLHSISSIDVNGGNRKTILE  
DEKRLAHPFSLAVFEDKVFWDI INEAI F SANRLTGSVDNLLAENLLSPEDMVL FHNLTQ  
PRGVNWCERTTSLNNGCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSCLTEAEAAVA  
TQETSTVRLKVSSTAVRTQHTTTRPVPDTSRLPGATPGLTTVEIVTMSHQALGDVAGRGN  
EKKPSSVRALSIVLP IVLLVFLCLGVFLLWKNWRLKNINS INF'DNPVYQK'TTEDEVHICH  
NQDGYSYPSRQMVSLLEDDVA

>Q44428

MDKFVTHLGKIMPLRRSDVDTDQI I PAVYLKRVTRTGFEDGLFSAWREDPGFVLHNPAAH  
GATILVAGPNFGTGSRRQHAWWALRDWGFKVV I

>P96196

MKAFTQHTGLVAPLDRANVDTDQI I PKQFLKSIKRTGFPGPNLFDWRYLDVGQPGQDCSA  
RPLNTGFVNLNLPYQ GASVLLARENFGCGSSREHAPWALDEYGFRTVIAPSFADIFFNNS  
FKNGLLP I I LPEAEVDELFRQCESTEGYRLTVDLAAQT VTRPDGKALSFEIDPFRKHCLL  
NGLDDIGLTLRDADAIRVFEEKHRQASPWLFGAIK

>P56935

MFKFTGHAGIVVPLDISNIDTDI I I PKQFLKRVNKGFGKYLFHDWRFIDANQLVKNEDF  
ILNKKIYKNASILLTRENFGCGSSREHAVVSLVDYGFKVI I APSPADIFYNNSFNKLLL  
ITLSSSEITFLFDIVKNNIGITFDVSLVEKTVTVNKEVFSFELDDFHYFCLLNDLDNIDL  
TMKHLSEIKSYESRISDFLLERRDFQS

>O31294

MNIPPIYTGSI VPLDISNIDTDAI I PKQFLKQVTKTGFKGHLFNNWRYTDHNNK I LNPDF  
NLNKPCYRESTILLTRDNFGCGSSREHAWALLDYGIK I I I SSSFSDFYTNFSFNNQLL  
ITLTKTTIDLFFNLIKKNKINEITVDL I ENYVFFEEKRYFYLSNFHRMCILNGLDEIDF  
TLQHYKKIKKYGNQIPNFFVYNSIS

>Q02144

MEKFTIYKGTSPVMNDNIDTDQI I PKQFLKAI DKKGFGKNLFYEWRYLKDYDENPDF I L  
NAPKYKKASLLISGDNFGSGSSREHAAWALSDYGFRAI I AGSYSDFYNNALKNGLLP I K  
QPREVLNQLTKLSSQEEITIDLPHQLI I TSLGDFHFEIDPIWKDKLINGLDDIGITLQYE  
EAI S AYEQKNQ

>Q44022

MEPFTMHRGVAAPLLRINIDTDAI I PSREMKRVS RHGLAEGLFAGWRYLAGTDRSPDPLF  
VLNQPEYTGASILLAGSNFGCGSSREHAWALKEFGIRAI VAPGFGAIFHNNCVRNGLLP  
VVLPMATVQALADDDCAAAPATRVTVDLRQLEVVSPAGARYGFTLGSEQRQMLLEGLDPI  
ALTLKLASSIDAFQGADRLRRPWIHFDG

>Q9ZND4

MLEKFTVIRGKAVPLRGEDIDTDR I LPARFMKVLTFEGLGQYLFYDERFDEKGNPKPHPL

NDPRYRGATILLVESGFGSGSSREHAPQAIKRAGFKAIIGESFAEIFFGNATAIGLPCVS  
LAPEDLGVLFRRSVEENPELEVEIDLNVNKEVRFGRDTAPLFIREEAREALVEGLWDPIGEL  
LEAGELLDQFDRKLPYPRRTE

>P28175

MVLASFLVSLVGLVILGILAQMRPVQSRGVDLGLCDETRFECKCGDPPGYVFNVPMKQCTYFY  
RWRPYCKPCDDLEAKDICPKYKRCQECKAGLDSCVTCPPNKYGTWCSGECQCKNGGICDQ  
RTGACTCRDRYEGAHCEILKGCPLLPSPDSQVQEVNRNPPDNPQTIDYSCSPGFKLKGVARI  
SCLPNGQWSSFPKCIRECAKVSSPEHGKVNAPSNGMIEGATLRFSCDSPYYLIGQETLT  
CQNGNQWSGQIPQCKKLVFCPDLDPVNHAEHQVKIGVEQKYGQFPQGTEVTYTCSGNYFL  
MGFNTLKCNPDGSSWGSQPSVCVKVADREVDCCSKAVDFLDDVGEVRIHCPAGCSLTAGT  
VWGTAIYHELSSVCRAAIHAGKLPNSGGAVHVNNNGPYSDFLGSDLNGIKSEELKSLARS  
FRFDYVSSSTAGRSGCPDGFVEEENCYVVTSKQRAWERAQGVCTNMAARLAVLDKDLIP  
SSLTETLRGKGLTTTWIGLHRLDAEKPFVWELMDRSNVVLDNLTFWASGEPGNETNCVY  
LDIRDQLQPVWTKSCFQPSFACMMDLSDRNKAKCDDPGPLENGHATLHGQSIDGFYAG  
SSIRYSCEVLHLYSGTETVTCTTNGTWSAPKPRCIKVITCQNPVPVSYGSVEIKPPSRTN  
SISRVGSPFLRLPRLPLPLARAAPPPKPRSSQPSTVDLASKVKLPEGHYRVGSRAIYTC  
ESRYEELLSGQRRCDNSGNWSGRPASCPVCGRSDSPRSPFIWNGNSTEIGQWPWQAGI  
SRWLADHNMWFLQCGGSLNNEKWIIVTAAHCVTYSATAEIIDPSQFKIYLGKYRDDRSD  
DYVQVREALEIHVNPNYDPGNLNFDIALIQLKTPVTLTTRVQPICLPTDITTREHLKEGT  
LAVVTGWGLNENNTYSEMIQQAVLPVVAASTCEEYKEADLPLTVTENMFCAGYKKGRYD  
ACSGDSGGPLVFADDSRTERRWVLEGI VSWGSPSGCGKANQYGGFTKVN VFLSWIRQFI

>P42702

MMDIYVCLKRPSWVMDNKRMTASNQWLLSTFILLYLMNQVNSQKKGAPHDLCVTNNL  
QVWNCSSWKAPSGTGRGTDYEVCIENRSRSCYQLEKTSIKIPALSHGDYEITINSLHDFGS  
STSKFTLNEQNVSLIPDTPPEILNLSADFSTSTLYLKWDRGVSVPHRSNVIWEIKVLRKE  
SMELVKLVTHNTTLNGKDTLHHWSWASDMPLECAIHFVEIRCYIDNLHFSGLEEWSWSP  
VKNISWIPDSQTKVFPQDKVILVGSIDITFCVVSQEKVLSALIGHTNCPLIHLDGENVAIK  
IRNISVSASSGTVNVTFTEDNIFGTVIFAGYPPDTPQQLNCETHDLKEIICSWNPGRVTA  
LVGPRATSYTTLVESFSGKYVRLKRAEAPTNESYQLLFQMLPNQEIYNFTLNAHNPLGRSQ  
STILVNITEKVYPHTPTSFKVKDINSTAVKLSWHLPGNFAKINFLCEIEIKKSNSVQEQR  
NVTIKGVENSSYLVALDKLNPTLYTFRIRCSTETFWKWSKWSNKKQHLTTEASPSKGPD  
TWREWSDDGKNLIIYWKPLPINEANGKILSYNVSCSSDEETQSLSEIPDPQHKAERLDK  
NDYIISVVAKNSVGSPPSKIASMEIPNDLKEIQVVGMGKILLTWHYDPNMTCDYVIK  
WCNSSRSEPCMLDWRKVPNSSTETVIESDEFRPGIRYNFFLYGCRNQYQLLRSMIGYIE  
ELAPIVAPNFTVEDTSADSIKVKWEDIPVEELRGFLRGYLFYFGKGERDTSKMRVLESGR  
SDIKVKNITDISQKTLRIADLQGKTSYHLVLRAYTDGGVGPEKSMYVVTKENSVGLIIAI  
LIPVAVAVIVGVVTSILCYRKREWIKETFYDPDIPNPENCKALQFQKSVCEGSSALKTLEM  
NPCTPNNVEVLETRSAFPKIEDTEIISPVAERPEDRSDAEPENHVVSYPPIIEEIPN  
PAADEAGGTAQVIYIDVQSMYQPAKPEEEQENDPVGGAGYKPMHLPINSTVEDIAAEE  
DLDKTAGYRPQANVNTWNLVSPDSPRSIDSNSEIVSFGSPCSINSRQFLIPPKDEDSPKS  
NGGGWSFTNFFQNKPNP

>P15131

MWKLCLRLAVLAVCLSTATQAQSDLFLLSPKRSGAPQPVARYCGEKLSNALKLVCRGNY  
NTMFKKASQDVSDSESEDNYWSGQSADEAAEAAAAALPPYPILARPSAGGLLTGAVFRRR  
TRGVFDECCRKSCSISELQTYCGRR

>O88917

MARLAAALWSLCVTTVLVTSATQGLSRAGLPFGLMRRELACEGYPIELRCPGSDVIMVEN  
ANYGRTDDKICDADPFQMENTVCYLPDAFKIMSQRCCNNRTQCVVVAGSDAFDPDPCPGTYK  
YLEVQYDCVPYKVEQKVFVCPGTLQKVLLEPTSTHESEHQSGAWCKDPLQAGDRIYVMPWI  
PYRTDTLIEYASWEDYVAARHTTTTYRLPNRVDGTGFVVYDGAFFNKERTRNIVKYDLRT  
RIKSGETVINTANYHDTSPYRWGGKTDIDLAVDENGLWVIYATEGNNGRLVVSQNLNPYTL  
RFEGTWETGYDKRSASNAFMVCGVLYVLRVSVYVDDDSEAAGNRVDYAFNTNANREEPVSL  
AFPNPYQFVSSVDYNPRDNQLYVWNNYFVVRYSLFEGPPDP SAGPATSPPLSTTTTARPT  
PLTSTASPAATTPLRRAPLTHPVGAINQLGPDLPATAPAPSTRRPPAPNLHVSPLEFC  
EPREVRVQWPATQOQMLVERPCPKGTRGIASFQCLPALGLWNPRGPDLSNCTSPWVNQV  
AQKIKSGENAANIASELARHTRGSIYAGDVSSSVKLMEQLLDILDAQLQALRPIERESAG  
KNYNKMHKRERTCKDYIKAVVETVDNLLRPEALESWKDMNATEQVHTATMLLDVLEEGAF  
LLADNVREPARFLAAKQNVVLEVTVLSTEGVQVELVFPQYAYASESSIQLSANTIKQNSRN  
GVVKKVVFILYNNLGLFLSTENATVKLAGEAGTGGPGGASLVVNSQVIAASINKESSRVFL  
MDPVIFTVAHLEAKNHFNANCSFWNYSESRMLGYWSTQGCRLVESNKTHHTCACSHLTNF  
AVLMAHREIYQGRINELLSSVITWVGIVISLVCLAICISTFCFLRGLQTDNRNTHKNLCCI  
NLFLAELLFLVGIDKTQYEVACPIFAGLLHYFFLAAFSWLCLEGVHLYLLLVEVFESEYS  
RTKYYYYLGGYCFPALVVGIAAAIDYRSYGTEKACWLRVDNYFIWSFIGPVSFVIIVNLVF  
LMVTLHKMIRSSSVLKPDSRLDNISWALGAIALLFLLGLTWAFFGLLFINKESVVMAYL  
FTTFNAFQGVFIFVFHCALQKKVHKEYSKCLRHSYCCIRSPPGGAHGLKTSAMRSNTRY  
YTGTQVPGQGRHIHQVSLGPRGRSALPESQKDPGGQSGPGDPLTFGLCPSRIRRMWNDTV  
RKQTESSFMAGDINSTPTLNRTGMNHLTNPVLPQPRGGTSPYNTLIAESVGFNPSSPPV  
FNSPGSYREPKHPLGGREACGMDTLPNGNFNNSYLSRSGDFPPGDGGPEPPRGRNLADA  
AAFEKMIISELVHNNLRGASGGAKGPPPEPPVPPVPGVSEDEAGGPGADRAEIELLYKA  
LEEPLLLPRAQSVLYQSDLDESESCAEDGATSRPLSSPPGRDSL YASGANLRDSPSYPD  
SSPEGPNEALPPPPAPPGPPEIYYTSRPPALVARNPLQGYQVRRPSHEGYLAAPSLEG  
PGPDGDGQMQLVTSL

>088923

MVSSGCRMRLSLWFIMIIISFSPNTEGFSRAALPFGLVRRRELSCEGYSIDLRCPGSDVIMIE  
SANYGRTDDKICDADPFQMENTDCYLPDAFKIMTQRCCNNRTQCVVVTGSDVFPDPCPGTY  
KYLEVQYECVPYMEQKVFVCPGTLKAIVDSPSIYEAQKAGAWCKDPLQAADKIYFMPWT  
PYRTDTLIEYASLEDFQNSRQTTTTYKLPNRVDGTGFVVYDGAFFNKERTRNIVKFDLRT  
RIKSGEAIINYANYHDTSPYRWGGKTDIDLAVDENGLWVIYATEQNNGMIVISQLNPYTL  
RFEATWETTYDKRAASNAFMICGVLYVVRVSVYQDNESEAGKNVIDYIYNTRLSRGEHVDV  
PFPNQYQYIAAVDYNPRDNQLYVWNNNFILRYSLEFEGPPDPAQVPTTAVTITSSAELFKT  
TVSTTSSTSQRPVSSSTVAGPQEGSRGKTPPAVSTTKIPPVTNIFPLPERFCEALEMKG  
IKWPQTQRGMVERPCPKGTRGTASYLCMASTGTWNPKGPDLSNCTSHWVNQLAQKIRSG  
ENAASLANELAKHTKGTVFAGDVSSSVRLMEQLVDILDAQLQELKPSEKDSAGRSYNKLQ  
KREKTCRAYLKAIVDVTVDNLLRAETLDCWKHMNSSEQAHTATMLLDTLEEGAFVLADNLL  
EPTRVSMPTDNIVLEVAVLSTEGVQVQDFTFHLGFKGAFSSIQLSANTVKQNSRNLAKVV  
FIIYRSLGPFLLSTENATVKLGADLLGRNSTIAVNSHVLSVVSINKESSRVYLTDPVLF SMP  
HIDSDNYFNANCSFWNYSESRMMGYWSTQGCRLVDTNKTRTTCACSHLTNFALLMAHREI  
VYKDGVHKLKLLTVITWVGIVVSLVCLAICIFTFCFFRGLQSDRNTIHKNLGINLFAEFI  
FLIGIDKTQYTIACPVFAGLLHFFFLAAFSWMCLEGVQLYMLLVEVFESEYSRKKYYYVA  
GYLFPATVVGVSAAIDSKSYGTL EACWLHVDNYFIWSFIGPVTFIILLNIFLIVITLCKM  
VKHSNTLKPDSRLNINNYRVCDGYNTDLPGYEDNKPFIKSWVLGAFALLCLLGLTWS  
FGLLFVNEETVVMAYLFTAFNAFQGLFIFIFHCALQKKVRKEYAKCFRHWYCCGGLPTES  
PHSSVKASTSRTSARYSSGTQSRIRRMWNDTVRKQSESSFISGDINSTSTLNQGMTGNYL  
LTNPLLRPHGTNNPYNTLLAETVVCNAPSAPVFNSPGHSNNTRDTSAMD TLPNGNFNN  
SYSLRKADYHDGVQVDCGLSLNDTAFEKMIISELVHNNLRGSKNTHNLELKLKLPVKPVIG

GSSSEDDAIVADASSLMHGDNPGLEFRHKELEAPLIPQRTHSLLYQPQKKVKPEATDSYV  
SQLTAEADEHLQSPNRDSLTYTSMPLNRDSPYPESPDMADLSPSRRSENEIYYKSMPLN  
LGAGRQLQMCYQISRGNSDGYIIPINKEGCIPEGDVREGMQQLVTSL

>P45657

MGGAQVLLLLLTLTGLVTHGTPPLVVDPISGLGLGVLGLDLGSMGSGRPPCRPIN  
VTVAVEKEECPQCMVTTTTACGGYCRTREPVIYRSPPLGPPQSSCTYALRYERWDLWGCP  
IGSDPKVILPVALSCRCARCPAITSCTVQGLGPAFCGAPGGFGGQ

>P19794

MEMLQGLLLWMLLSVGGVWASRGPLRPLCRPINATLAAEKEACPICITFTTTSICAGYCRS  
MVRVMPAALPPIQPVCTYRELRFSGSIRLPGCPPGVDPMVSFVVALSCHCGPCRLLKTTDC  
GGPRDHPLACAPQTSSSCKDPPSQPLTSTSTPTPGASRRSSHPLPINTS

>P80071

RHVCHLANATISAEKDHPVCITFTTTSICTGYCQTMDFVYKTALSSFKQNICTYKEIRYD  
TIKLPDCLPGTDPFFFTYPVALSCYCDLCKMDYSDCTVESSEPDVCMKRRISI

>P84810

MMKLVLFGIIVILFSLIGSIHGISGNYPNYPYGGYCYCTILGENEYCKKICRIHGVRVYGY  
CYDSACWCETLKDEDVSVWNAVKKHKKNPYL

>P98064

MRFLSFWRLLLYHALCLALPEVSAHTVELNEMFGQIQSPGYPDSYPSDSEVTWNITVPEG  
FRIKLYFMHFNLESSYLCEYDYVKVETEDQVLATFCGRETTDTEQTPGQEVVLSPGTFMS  
VTFRSDFSNEERFTGFDAHYMAVDVDECKEREDEELS CDHYCHNYIGGYCSCRFYILH  
TDNRTCRVECSGNLFTQRTGTITSPDYPNYPKSSSECSYTDLEEGFMVSLQFEDIFDIE  
DHPEVPCPYDIYIKIKAGSKVWGPFCGEKSPEPISTQTHSVQILFRSDNSGENRGWRLSYR  
AAGNECPKLQPPVYKIEPSQAVYSFKDQVLVSCDTGYKVLKDNVMDTFQIECLKDGAW  
SNKIPTCKIVDCGAPAGLKHGLVTFSTRNNLTTYKSEIRYSCQQPYKMLHNTTGVTCS  
AHGTWTKVLKRSPLTCLPVCVGPKFSRQKISRIFNGRPAQKGTMPWIAMLSHLNGQPF  
GGSLGNSNWVLTAAHCLHQSLDPEEPTLHSSYLLSPSDFKIIMGKHWRRRSDEDEQHHLV  
KRTTLHPLYNPSTFENDLGLVELSESPRLNDFVMPVCLPEQPSTEGTMVIVSGWGKQFLQ  
RFPENLMEIEIPIVNSDTCQEAYTPLKKKVTKDMI CAGEKEGGKDACAGDSGGPMVTKDA  
ERDQWYLVGVVSWGEDCGKKDRYGVYSYIYPNKDWIQRITGVRN

>Q9NZL9

MVGREKELSIHFVPGSCLVVEEVNIPNRRVLVTGATGLLGRAVHKEFQQNNWHAVGCGF  
RRARPKFEQVNLDSNAVHHI IHDFQPHVIVHCAAERRPDVVENQPDAAASQLNVDASGNL  
AKEAAAVGAFLIYISSDYVFDGTPPYREEDIAPAPLNLYGKTKLDGEKAVLENNLGAAVL  
RIPILYGEVEKLEESAVTVMFDKVQFSNKSANMDHWQRFPTHVKDVATVCRQLAEKRML  
DPSIKGTFHWSGNEQMTKYEMACAIADAFNLPSHRLPITDSPVLGAQRPRNAQLDCSKL  
ETLGIGQRTPFPRIGIKESLWPFLLIDKRWRQTVFH

>Q9UBB5

MRAHPGGGRCCPEQEEGESAAAGSGAGGDSAIEQGGQGSALAPSPVSGVRREGARGGGRG  
RGRWKQAGRGGGVCGRGRGRGRGRGRGRGRGRGRGRGRGRGRGRPPSGGSLGGDGGGCGGGGSGGGG  
APRREPVPFPGSAGPGRGPRATESGKRMDCPALPPGWKKEEVIRKSGLSAGKSDVYYF  
SPSGKKFRSKPQLARYLGNVTDLSSFDVRTGKMMPSKLLQKNKQRLRNDPLNQNKGKPDNLN  
TTLPPIRQTASIFKQPVTKVTNHPSNKKVSDPQRMNEQPRQLFWEKRLQGLSASDVTEQII

KTMELPKGLQGVGPGSNDETLLSAVASALHTSSAPITGQVSAAVEKNPAVWLNTSQPLCK  
AFIVTDEDIRKQEERVQQVRKKLEELMADILSRAADTEEMDIEMDSGDEA

>P33374

MATYETQGFKLNDGRRRIIVDPVTRIEGHMRCEVNLDANNVIRNAVSTGTMWRGLEVILK  
RADPADAWAFVERICRVCTGCHALASVRAVEDALGIKIPKNAHLIREMMAKTLQVHDHV  
HFYHLHALDWVDVVSALNADPKRTSALQQTVSPAHLSSPGYFRDVQIRLKKFVESGQLG  
PFMNGYWGPNAYKLPPEANLMAVTHYLEALDLQKEWVKIHTIFGGKNPHPNYLVGGMPCV  
DSNLDGSGAAGAPLNMERLNFVRARIEEAIEFVKNVYLPDVLAI GTIYKDAGWLYGGGLS  
ALNVMDYGTYPVNYDPTTDQLPGGAILNGNWDEIFPVDPRDPEVQVEFVAHSWKYK  
TKGLHPWDGVTEPNFVLGPKAVGTPTDIKQLDEDAKYSWIKVAALAGHAMEVGPLVALHP  
RIRARAEDPKSYRAHYLREQVENSARAIN TGIPQALGLKQTDYTVKQLLPTTIGRTLARA  
LEAQYCGNMLDDWHEMMAKAGDLTTANVDKWEPSAWPKEAKGVGHVAAPRGACGHWI  
RIKDGKIEYQCVVPTTWNGSPRDSKQIGAFEASLMNTMPAKPEEPVEILRTVHSFDP  
LACSTHVIRPDGQERVVVKVR

>Q46046

MSNSYQTQGYTVNNAARRLVVDPITRIEGHMRCEVNI DEQNIITNAVSCGTMFRGLEIIL  
QGRDPRDAWAFVERICGVCTGVHALASVYAIEDAIGIKVPDNANIIRNIMLATLWCHDHL  
VHFYQLAGMDWIDVNLNALKADPRATSQLAQSLSAWPMSSPGYFFDVQNRLLKFFVDGGQLG  
IFRNGYWGHPQYKLSPEANLMGFAHYLEALDFQREIKIHTVFGGKNPHPNWIVGGMPCA  
INIDQSGAVGAVDMERLNLVQSIITRTADFINNVMVPDALAIGQFNKPWSQIGTGLSDKC  
VLSYGAFDPDIANDFSAKSLMLPGGAVINGDFNNVMPVDLADQQQIQEFVDHAWYRYPDDQ  
LGRHPFEGITEPWYNPGDVKGSDDTDIQQLEQERYSWIKAPRWRGHAMEVGPLARTLIAY  
HKGDAATIESVDRMMSALKLPLSGMQSTLGRILCRAHEAQWAVSKLQYFFDKLMTNLKNG  
NLATANTEKWEPPASWPQQCRGIGFTEAPRGALGHWASIRDQKIDVYQCVVPTTWNASPRD  
PEGQIGAYEAALMGTQMAIPDQPLEILRTLHSFDPCLACSTHVLGDDGSELIAVQVR

>P31883

MTRKIVVDPITRIEGLHRIE VVV DENNVIQDAFSTATLWRGLETIILKGRDPRDAGFFTQR  
ICGVCTYSHYKAGISAVENALGIKPPNAELIRSLMSISLILHDHTVHFYHLHGLDWCDI  
TSALKADPVAASKLAFKYSNP IATGADELTA VQKRVAEFAAKGNLGPANAYWGHKTYR  
FSPEQNLIVLSHYLKALEVQRVAAQMMAIWGAKQPHQSLTVGGVTSVMDALDPSRLGDW  
LTKYKYVADFNRAYYADVMAAEVFKSEPSVLGGCNVKNFYSYQEIPLNKTEWMYSTGI  
VMDGDI TKVHEINEDLITEEATHAWYKENKALHPYDQQDPNYTGFKDME TVGPDGTMVK  
TKVIDEKGYTWIKAPRYGGKPLEVGPLATIVVGLAAKNPRIEKVATQFLKDTGLPLAAL  
FTTLGRTAARMLECKLSADYGF EAFNSLIANLKV DQSTYTTYKIDKNKEYKGRYMGTVPR  
GVLSHWVR IKNQVIQNYQAVVPSTWNAGPRDANGTKGPYEASLVGMKLQDLSQPLEIRV  
IHSFDP CIACAVHVM DTKGNELSQYRVDPITVGCNL

>P0ACE0

MSQRITIDPVTRIEGLHRI DCEIENGVVSKAWASGTMWRGMEEIVKNRDP RDAWMI VQRI  
CGVCTTTHALSSVRAAESALNIDVPVNAQYIRNII LAAHTTHDHIVHFYQLSALDWVDIT  
SALQADPTKASEMLKGVSTWHLNSPEEFTKVQNKIKDLVASGQLGIFANGYWGHPAMKLP  
PEVNLIAVAHYLQALECQRDANRVVALLGGKTPHIQNLAVGGVANP INLDGLGVLNLERL  
MYIKSFIDKLSDFVEQVYKVD TAVIAAFYPEWLTRGKGAVNYLSVPEFP TDSKNGSFLFP  
GGYIENADLSSYRPITSHSDEYLIKGIQESAKHSWKDEAPQAPWEGTTIPAYDGWSDDG  
KYSWVKSPTFYGKTVEVGPLANMLVKLAAGRESTQNKLEIVAIYQKLTGNTLEVAQLHS  
TLGRIIGRTVHCCELQDILQNQYSALITNIGKGDHTTFVKPNIPATGEFKGVGFLEAPRG  
MLSHWMIKDGIIISNYQAVVPSTWNSGRPNFNDDVGPYEQSLVGTVPVADPNKPLEVVRTI



HSFDPCMACAVHVVDADGNEVVSVKVL

>Q46045

MNTNNEETFYQAMRRKGVSRRSFLKYCSLAATSLGLGAAMTPRIAWALENKPRIPVVIH  
GLECTCCTESFIRSSHPLAKDVILSLISLDYDDTLMAAAGTQAEVFEEDILSRYHGRYIL  
AVEGNPPLGEGMFCISGGRPFIEKAKRAAAGASAI IAWGTCASWGCVCVQAARPNPTQATP  
IDKVIITDKPIVKVPGCPPIPDVMSAIIITYMVTFDRLPELDRLGRPLMFYQRIHDKCYRR  
AHFDAGEFVESWDDDAARKGYCLYKMGCKGPTTYNACSTTRWNGGVSFP IQSGHGCLGCS  
ENGFWRDGSFYSRVVDIPQMGTHSTADTVGLTALGVVASSVGVHAVASAVNQHNHRHKQQL  
ADAGQQSPDNEDKQA

>P31884

MLEEKGIERRDFMKWAGAMTAMLSLPATFTPLTAKAAELADRLPVIWLHMAECTGCSESL  
LRTDGPIDSLIFDYISLEYHETVMAAAGWQAEHNLEHAI EKYKGRYVLMVEGGIPAGSS  
EFYLTVGPHTTGAEHARHASANAAAIFAIGSCSSFGGVQAARPNPTNAQPLSKVTNKPV  
INVPGCCPPSEKNIVGNVLFHILFGTLPSVDAFNRPWAYGLRIHDLCEERRGRFDAGEFVQ  
EFGDEGAKKGYCLYKVGCKGPYTFNNSKLRFNQHTSWPVQAGHGCIGCSEPDFWDTMGP  
FEEPVANRLYATAFDGLGADKTADKIGITLLAATAVGVAAHAVLSMMVKDKENN

>P69743

MTGDNTLIHSHGINRRDFMKLCAALAAATMGLSSKAAAEMAESVTNPQRPPVIWIGAQECT  
GCTESLLRATHPTVENLVLETISLEYHEVLSAAFGHQVEENKHNAL EKYKQYVVLVDGS  
IPLKDNIGYCMVAGEPIVDHIRKAAEGAAAIAIGSCSAWGGVAAAAGVNPTGAVSLQEV  
PGKTVINIPGCCPPNPHNFLATVAHIITYGKPKLDDKNRPTFAYGRLIHEHCERRPHFDA  
GRFAKEFGDEGHREGWCLYHLGCKGPETYGNCSLQFCVGGVWPVAIGHPCYGCNEEGI  
GFHKGIIHQLANVENQTPRSQKPDVNAKEGGNVSAGAIIGLLGGVVGLVAGVSVMAVRELGR  
QQKKNADSRGE

>O57209

MDANIVSSSTIATYIDALAKNASELEQRSTAYEINNELELVFIKPLITLTVNVIISTIQ  
ESFIRFTVTNKEGVKIRTKIPLSKVHGLDVKNVQLVDAIDNIVWEKKSLVTENRLHKECL  
LRLSTEERHIFLDYKKGSSIRLELVNLIQAKTKNFTIDFKLKYFLGSGAQSKSLLHAI  
NHPKSRPNTSLEIEFTPRDNEKVPYDELIKELTTLRHRIFMASPENVILSPPINAPIKTF  
MLPKQDIVGLDLENLYAVTKTDGIPITIRVTSKGLYCYFTHLGYIIRYPVKRIIDSEVVV  
FGEAVKDKNWTVYLIKLIIEPVNAINDRLEESKYVESKLVDICDRIVFKSKKYEGPFTTTS  
EVVDMLSTYLPKQPEGVILFYSGKPKSNIDFKIKKENTIDQTANVFRYMSSEPIIFGES  
SIFVEYKFKFSNDKGFPEYKSGKIVLYNGVNYLNNIYCLEYINTHNEVGIKSVVPIKFI  
AEFLVNGEILKPRIDKTMKYINSEYDYGQHNIVEHLRQDSIKIGDIFNEDKLSDVGHQ  
YANNDKFRNLNPEVSYFTNKRTRGPLGILSNYVKTLISMYCSKTFLLDSDNKRKVLAI  
DFGNGADLEKYFYGEIALLVATDPDADAIARGNERYNKLNLSGKTKYKFDYIQETIRSDTFV  
SSVREVFYFGKFNIIDWQFAIHYSFHPHYATVMNLSSEL TASGGKVLITTMGDGKLSKL  
TDKKTFI IHKNLPSSENYMSVEKIADDRIVVYNPSTMSTPMTEYI IKKNDIVRVFNEYGF  
VLVDNVDFATIIERSKKFINGASTMEDRPSTKNFFELNRGAIKCEGLDVEDLLSYVYVY  
FSKR

>O72908

MNTDRITAFIKNGISARMPFYDTLPDMDLVFGKNHLP SLEYGANYFLQLSKINDINRLST  
EMLSLYTHDLNKESDISKLFEPYNIKTIKSYGRSIQADAVVVDLRPSNSLYKNEHPYYS  
NNYLKENNLYICDYTIMITFEIYRPIFELSTEKTCIKVPTLFGKTI VNAVRVYCSLFRYV  
KLYKLSADSWLKDSAIIVCQQPHAANINKFITYIRKVTKSQTWLDSNNVNFILIHDSVER

VFIEKFLSFSYKIYESLYYVHSLLYSSMTSDLQSLDNEYQKKLIKLLRG

>Q08512

MDKITRNIREGIHILLPFYENLPDISLSLGSPLPSLEYGTNYFLQLSRVNDLNRLPTDM  
LSLFTHDIMLPETDMEKVYDILNIKSVKSYGKSIKADAVVADLSARNRLFKKDRELIKSN  
NYLTDNNLYISDYKMLTFEVFRPLFDLSSEKYCIVKLPFLFGKCVIDTIRVYCSLFKSVR  
LFKCASDSWLKDSAIVASDIYKKNIDIFMSHIRSVLKSQYWKDSNNVQFSILKESVDKE  
FINKFLEFSTSVYYESLYYVHSLLYSSMISDNKSIENEYQKKLTKLLL

>P49735

MDNPSSPPPNTPSDAAERRDLRAAMTSPVGDFFEFENEDEILGDQTVRDEAEEDGEEELF  
GDNMENDYRPMPELDHYDPALLDDEDDFSEMSQDRFAAESEMRDRRAAGIHRDDRDLG  
FGQSDDEDDVGPRAKRRAKEKAAVGEVEDTEMVESIENLEDTKGHSTKEWVSM LGPRTEI  
ANRFQSFRLRTFVDERGAYTYRDRIRRMCEQNMSSFVVSYTDLANKEHVLAFLPEAPFQM  
LEIFDKVAKDMVLSIFPTYERVTTIEHVRISSELPLIEELRFRKLHLNQLVRTLGVVTAT  
TGVLPLQLSVIKYDCVKCGYVLGPFVQSQNTIEKPGSCPECQSTGPF SINMEQTLYRNYQK  
ITLQESPGRI PAGRI PRSKDVILLADLDCQCKPGDELEVTGIYTNNYDGS LNTDQGFVVF  
ATVIIANHVVVKDSKQVQSLTDEDIATI QKLSKDP RIVERVVASMAPS IYGHDI KRAL  
ALALFGGESKNPGEKHKVRGDINLLICGDPGTAKSQFLKYTEKVAPRAVFTTGQGASAVG  
LTAYVRRNPVSREWTL EAGALVLADQGVCLIDEFDKMNQDRTS IHEAMEQQSISISKAG  
IVTSLQARCTVIAAANPIGGRYDPSMTFSENVNLSEPILSRFDVLCVVKDEFDPMQDQQL  
AKFVVHSHMKHHPSEEEQPELEEPQLKTVD EIPQDLLRQYIVYAKENIRPKLTNIDEDKI  
AKMYAQLRQESFATGSLPITVRHIESVIRMSEAHARMHLRENVM EADVSM AIRMMLESFI  
EAQKFSVMKKMRSTFQKYL SFQKDHSSELLFFILRQLTLDQLAYIRCKDGP GATHVEIMER  
DLIERAKQLDIVNLKPFYESDLFR TNGFSYDPKRR IILQIVVDGNTA

>P40377

MDSFRKRGRRDSESLPFSESENSL GATPLSLPPSSPPPEFSDEAAEALVEEDIEDLDGEA  
LDVEDEEGEDLFGGEMERDYQONLELD RYDIEELDDNDLEELD IGARRAVDARLRRRDI  
ELDAAAGRTKPA AFLQDEDDDLDSNLGTGFTRHRRIYDEYSPNVGALDESGELPLESIA  
DVKADSI AEWVTLDPVRRTIAREFKNFLLEYTDENGTSVYGNRIRTLGEVNAESLMVNYA  
HLGESKPI LAYFLANAPAPIFRIFDRVALEATLLHYPDYERIHSDIHVRITNLPTCFTLR  
DLRQSHLNCLVRVSGVVTRRTGLFPQLKYIRFTCTKCGATLGPFFQDSSVEVKISFCHNC  
SSRGPFFVINSERTTVYNNYQRITLQESPGTVPSGRLPRHREVILLADLVDVAKPGEEIDVT  
GIYRNNFDASLNTKNGFPVFATII EANHISQLDGS GNTDDDFSLSRLTDDEEREIRALAK  
SPDIHNRI IASMAPSIYGHRSIKTAIAAALFGGVPKNINGKHKIRGDINVL LLDGDPGTAK  
SQFLKYVEKTAHRAVFATGQGASAVGLTASVRKDPITNEWTLEGGALVLADKGVCLIDEF  
DKMNQDRTS IHEAMEQQSISISKAGIVTTLQARCTVIAAANPIGGRYNTTIPFNQNVEL  
TEPILSRFDILQVVKDTVNP EIDEQLANFVVSSHIRSHPAFDPNMDVLK KVPTEGTIDAK  
PIPQDLLRKYIHFAREKVFPRLQQMDEEKISRLYSMDMRRESLATGSYPI TVRHLES AIRL  
SEAFAKMQLSEFVRPSHIDKAIQVIIDSFVNAQKMSVKRSLSRTF AKYLI

>P30666

MTELLADEVFKDRVRI FQEYLEHDTDDANVTLYQEAILRMLNMGQRRLIVNIDELRDYNR  
ELADGVLLKPLEYVEPFDEALRN VVSTLIDPVVHKDLKDKLFYVGFGRSFGDHHVNPRTL  
RAMHLNKMISLEGIVTRCSFVRPKVIKSVHYCEATKRHHFKQYADATMNGGLSFQSTVYP  
TQDENG NPLSIEFGFSTFRDHQSISLQEMPERAPPQ LPRSIDILLDDDLVDTVKPGDRV  
NIVGQYRSMGSKTSGNTSATFRTVLLANNVLLGNKPGLGNVGGGALDITDADIRNINKL  
ARKKNVFELLSTSLAPSIYGYEYVKA ILLLLGGTEKNLTNGTHIRGDINILMVGDPST  
AKSQLLRFVLNTAPLAIATTGRGSSGVLTA AVTTDKETGERRLEAGAMVLADRGVVCID

EFDKMSDIDRVAIHEVMEQQTVTIKAGIHTSLNARCSVIAAANPIYGQYDIRKDPHQNI  
ALPDSMLSRFDLLFIVTDDIDDKKDRALSEHVLRMHRYLPPGVEPGTPVRDSLNSVLNVG  
ATNAAGVSTENVEQEVEVETPVWETFSSLLHANARTKKKELLNINFVRKYIQYAKSRHPIL  
NQATAEYITNIYGLRNDLQGNQRRTSPLTARTLETLIRLSTAHAKARLSSVVEVKDAK  
AAEKILRYALFREVVKPKRKKKKQRLEAGEEFDSEDDNSDDMDIEESEEMDMNMVIDS  
GSRVTRSQNATSQSQESGSEIGSSIAGTAGSYNVGTSNTQLSWPSTHSTLPATSRELAS  
SDRNINTGTSVASEVSASVSEQSTVSLPREKMSVFMARLASLTKSELFSEECASLEDVLE  
SINNIEDDVGFSREEAIVALKEMDAQNKIMFSDNVVYRI

>P49739

MDYGGGFEDHELREAQREYLDLDFLDDDDQDQGLYHGKVRDMIGSNEHRLIVNLNDVRRKNDK  
RANLMLNDAFAETIAFQRALKDLVASIDATYAKQFEFESVGFEGSFGSKHVSPRTL TASL  
LGLSLVCVEGIVTKCSLVRPKVMRSVHYCPATKKTLEKYSDLTSLEAFPSSSIYPTKDEE  
NNPLETEYGLSTYKDHQTLISIQEMPEKAPAGQLPRSVDI IADDDLVDKCKPGDRVQIVGI  
YRCLPSKQGGFTSGTFRTILLANNIKLMSKEIAPTFSADDVAKIKKFKCAHAKDIFEHLS  
KSLAPSIHGHEYIKKAILCMLLGGNEKVLENGTRIRGDINVLLIGDPSVAKSOLLRYVLH  
TAPRAIPTTGRGSSGVGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSMDRT  
AIHEVMEQGRVTIAKAGIQARLNARCSVLAANPVYGRYDQYRTPMENIGLQDSLLSRFD  
LLFIVLDKMDADNDQEIADHVLRMHRYRTPGEQDGYALPLGCSVEIFATDDPNASDVTQD  
ELQIYEKHDNLLHGPRKNKSKIVSMQFIRKYIHVAKLIKPVLTSEAADYISQYAKIRNH  
DQINNSARTMPVTARALETMIRLSTAHAKVRMSKTIERQDAETALELVQFAYFKKVLAK  
EKKKTKDKLDHLENLSQDLSQESVRKSSRRAGKIADSQDSDMPYSFSEQDSSLNENLSQ  
SLRPQRKKAESQDGKRSLSQNRKTEFKAALLKAFKSSRSQSVAVSQLELELINKGNPEPFE  
RSEVKEALDNMQNDNQVMVSEDVVFLI

>P29458

MSSSQSGRANELRTPGRANSSSREAVDSSPLFFPASSPGSTRLTTPRTTARTPLASSPL  
LFESSSPGNIPQSSRSHLLSQRNDLFLDSSSQRTPRSTRRGDIHSSVQMSTPSRRREVD  
PQRPGVSTPSSLLFSGSDALTFSAHPSSSEVADDTVRVIWGTNVS IQESIASFGRFLRGF  
KKKYRPEYRNELMPPDAEQLVYIEALRNMRIMGLEILNLDVQDLKHYPPTKKLYHQLYS  
YPQEIIPIMDQTIKDVMLDLGNTNPPEDVLNDIELKIYKIRPFNLEK CINMRDLNPGDID  
KLISIKGLVLRCTPVIIPDMKQAFFRCSVCGHCVTVEIDRGRIAEPIKCPREVCGATNAMQ  
LIHNRSEFADKQVIKQETPDVVPDQTPHSVSLCVYDELVDSARAGDRIEVTGIFRCVP  
VRLNPRMRTVKSLFKTYVDVVHIKKQDKRRLGTDPTLES DIAEDAALQIDEVRKISDEE  
VEKIQQVSKRDDIYDILSRSLAPSIYEMDDVKKGLLLQLFGGTNKS FHKGASPRYRGDIN  
ILMCGDPSTSKSQILKYVHKIAPRGVYTSKGKSSAVGLTAYITRDQDTKQLVLESGALVL  
SDGGICCIDEFDKMSDATRSILHEVMEQQTVTVAKAGIITTLNARTSILASANPIGSKYN  
PDLPVTKNIDLPPPTLLSRFDLVYLILDRVDETLDRKLANHIVSMYMEDTPEHATDMEVFS  
VEFLTSYITYARNINPVI SEEAAKELVNAYVGMKRLGEDVRASEKRITATTRQLESMIR  
LSEAHAKMHLRNVEVGDVLEAARLIKTAIKDYATDPATGKISLDLIYVNERETLVPEDM  
VKELANLISNLTVGGKTMVLSQQLTRFREQSSTRLDASDFEACLGAFFREQSSTRLDASDF  
EACLGALEERRGRIKIVITSAGHRIVRSIAQTD

>P30664

MSSPTSTPSRRRNKRGRGNSPPTPHGEEVQSPPSQRRRTEDSTSIGELLPMPTSPSGDVQ  
SPSGQELLFSSPAPSRHSAHQSELDLSSPLTYGTPSSRVEGTPRSGIRGTPARQRPDLGS  
ARKVKQVDLHSDQPAAEELVTSEQSLGQKLVWGTVDVNVATCKEKFQRFVQRFIDPSAKE  
EDNVGLDLNEPIYMRLEEINVVGDPFLNIDCDHLRNFDQDLRYQLVCYPQEVIPTFDMA  
ANEIFFERYPDSILEHQIQVRPYNALKTRNMRSLNPEDIDQLITISGMVIRTSQIIPEMQ  
EAFFKQVCAFTTRVEIDRGRIAEPSVCKHCNTTHSMALIHNRSMFSDKQMIKLQESPED

MPAGQTPHTTILYGHNDLVQVQPGDRVNVVTGIYRAVPIRVNPRVRNVKSVYKTHIDVIH  
YRKTDSKRLHGEDIDTEQKLFTEERVAMLKELAAKPDIERLAAALAPSIYEHEDIKKG  
LLQLFGGTRKDFSHTRGRKGFRAEVNILLCGDPGTSKSQLLQYVFNLVPRGQYTSKGSSA  
VGLTAYVMKDPETRQLVLQGTALVLSDNIGCCIDEFDKMNESTRSVLHEVMEQQTSLIAK  
AGIICQLNARTSVLAAANPVESQWNPKKTITIENIQLPHTLLSRFDLIFLMLDPQDEAYDR  
RLAHLVALYYQSEEQMKEEHLDMAVLKDYIAYARTYVNPRLSEEASQALIEAYVSMRKI  
GSGRGMVSAYPRQLESLIRLSEAHAKVRFVSNKVFETIDVEEAKRLHREALKQSATDPRTGI  
VDISILTTGMSATARKRKEELAQVLKLIQSKGKTPALKYQQLFEDLRGQSDAAITKDMF  
DEALHALADDDYLTVTGKTVRLL

>P41389

MAAATGWERSAVYYTPVLPGEQELDSNVSHKFNFIQFIEEFVIDNDFIYRTQLRDNLVVK  
QYMLNIDLRLHLSYNEDLAHLLLSQPTDILPLFESAVTTVAKRLLYRSQENASTNIPTCQ  
VTLRYDANILPIRNLTASHISKLVVPGIIGASTLSCRATALHLVCRNCRATRILQISG  
GFSGVQLPRVCEAPVLDGEKKDCPMPDFIIDHSHKSTFIDQQVLKQEQAPDMVPVGEPRH  
ILLNADRYLTNQITPGTRCVITGIFSIQNKSVKASGAVAIRNPYIRVVGIQMSNDGSK  
STPLFSEEEEEEFLEISRTPNLYDIIISNSISPAIYGNVDIKKAIACLLFSGSKILPDGM  
RLRGDINVLLGDPGTAKSQFLKFVERLAPIAVYTSKGSSAAGLTASIQRDSVTREFYL  
EGGAMVLADGGIVCIDEFDKMRDEDRVAIHEAMEQQTISIAGAGITTLNSRTSVLAAAN  
PIFGRYDDMKTPGENIDFQSTILSRFDMIFIVKDEHDETKDRNIARHVINLHTNLQESSE  
TLAIGEIPFDKFRRYINYCRHKCAPNLDAEAAEKLSSQFVAIRKLVHQSEQDSNSRSTIP  
ITVRQLEAIRITESLAKMSLSPIASEAHATEAIRLFLTSTLAAATQSSPEVTEEVKKIE  
ASLRKRLPIGFQASYRMLIREYVNGHGYSQHALEMALQIRSSKETIQLRNGGQTVYRSGV

>P55862

MSGFDDLVVYSDSFGGEQQVGGDQAKKSQLKKRFREFLRQYRIGTDRTGFTFKYRDEL  
KRHYNLGEYWIEVEMEDLASFDEDLADYLYKQPTHEHLQLLEEEAAQEVADDEVTRPRPAGEE  
TIQEIQVMLRSDANPANIRSLKSEQMSHLVKIPGIIAATAVRAKATKISIQCRSCRNTI  
GNIAVRPGLEGYAMPRKCNTAQAGRPNCPLDPYFIIIPDKCKCVDFQTLKQESPDAVPHG  
ELPRHMQLYCDRYLCKDVVPGNRVVTIMGIYSIRKSGKTSTKGRDRVGVGIRSSYIRVVG  
QVDTEGTGRSAAGAITPQEEEEFRRLAAKPDYETVAKSIAPSIYGSSDIKKAIACLLFG  
GSRKRLPDGLTRRGDVNLLMLGDPGTAKSQLKLFVERCSPIGVYTSKGSSAAGLTASVM  
RDPVSRNFIMEGGAMVLADGGVVCIDEFDKMREDDRVAIHEAMEQQTISIAGAGITTLN  
SRCSVLAAANSVYGRWDDTKGEENIDFMPTILSRFDMIFIVKDEHNEQRDMTLAKHVMNV  
HLSARTQSSSVEGEVDLNTLKKYIAYCRAKCGPRLSAEAAEKLKNRYILMRSGAREHERE  
TEKRSSIPITVRQLEAIVRISESLGKMKLQPFATETDVEEALRLFQVSTLDAAMSGSLSG  
VEGFTTQEDQEMLSRIEKQMKKRFAIGSQVSEHSIIQDFLKQKYPEHAHKKVLSLMMRRG  
EIQHRLQRKVLRIK

>P49731

MSSLASQGNASTPAYRYGFQTSSEVGRPTVSMPSQPESSAMLEDDGMVKKRPFPAAGIA  
IPKVIDTTGESVREAFEEFLLSFSDDRVAGGDALPSASQEKYYVQQIHGLAMYEIHTVYV  
DYKHLTSYNDVLALAIVEQYYRFSPLLRALQKLEKFEPEYYRSSLRENASLSPNFKA  
SDKTFALAFYNLPFRSTIRDRLTDRIGRLTTITGTVTRTSEVRPELAQGTFIGEECHTVV  
SNVEQAFRYTEPTQCPNELCANKRSWRLNISQSSFDWQKVRIQENSNEIPTGSMPTLD  
VILRGDIVERAKAGDKCAFTGILIAVPDVSQGLGIPGVKPEAYRDSRNFGGRDADGVTGLK  
SLGVRDLTYKLSFLACMVQPDANDKSGADVGRDGSQGIIEEQDEFLLQSLSQEEIDDLRAM  
VHSDHIYSRLTNSLAPSVYGHEIIKKGILLQLMGGVHKLTPEGINLRGDLNICIVGDPST  
SKSQFLKYVCNPLPRAIYTSKGASSAAGLTAAVVKDEETGDFTEIAGALMLADNGICAID  
EFDKMDLSDQVAIHEAMEQQTISIAGAGIQATLNARTSILAAANPIGGRYNRKTTLRNNI

NMSAPIMSRFDLFFVVLDECNESVDRHLAKHIVDIHRLRDDAMQPEFSTEQLRQYIRYAR  
TFKPKLNTESCAEIVKYYKQLRMDDAQGAGKNSYRITVRQLESMIRLSEA IARANCVDDI  
TPAFVNEAYSLLRQSI IHVERDDIEVEEDDAEAQELENDNTNTTNGNDNVSSEEALQKPK  
VKITYDKYVSIMNGILQVLRQRSTEGVDGVPAGDLVQSYLELREDQFHTEEDI IYEVGLV  
RKVLTRLVHESIIMEIQNLTD SAVRLPFEEERVFSIHPNCDIDALLSNGDVPN

>Q5FWY4

MELGGPAAAGDTDIAGQQLFKDELSDKCQKLFLEFLEECKGKDGSNLYVSAAEELIRPER  
NTLAVNFTDIEYYNQQLATTIQEEYRVYPHLCRAVRSFARQMGNI PANKEFYIAFSDFP  
ARQKIRELSSAKIGTLLRISGQVVRTHPVHPELVSGTFLCQDCQSI VKDVEQQFRYTQPT  
ICKNPVCANRRRFTLDTNKSRLFVDFQKVRIQETQAE LPRGAI PRSVEI I LRAEAVESAMA  
GDRCDFTGT LIVVPDV SALAAGDARMETGAKVTGGEGFNSEGVQGLKALGVRDLSYRLAF  
LACYVGATNPRFGGKDLREEDQTAESIKNQMTVQEWKVFEMSQDKNLYHNLCTSLFPTI  
HGND EIKRGVLLMLFGGVPKTTMEGTSLRGDINVCIVGDPSTSKSQFLKHVEEFSPRAVY  
TSGKASSAAGLTA AVVKDEESHEFVIEAGALMLADNGVCCIDEFDKMDLKDQVAIHEAME  
QQTISITKAGVKATLNARTSILAAANPVGGRYERSKSLKHNVNLSAPIMSRFDLFFILVD  
ECNEVTDYAIARRIVDLHARNEESI ERVYSIEDIQRYLLFARQFQPKITKEAEEFIVEQY  
RRLRQRDGSVAKSSWRITVRQLESLIRLSESMARMHCSDEVQPKHVKEAFRLLSKSIIR  
VDTPDVSFDQGEDEKNI EGENNGNLNNGEEAMETNQDEP INEKPSSNAGLKMSFAEYKQI  
SNLLVLYMQMEETEECHLTTTDLVNWY LKEMEAEIETETELILKKRLIEKVIHRLIYY  
DHILIELNKSELKTMDDTKETGEDAAEDRILVVNPNYMLED

>O75001

MALPTIDLKIP EYEECQHKITDFLSHFQEQVQDGGQONQDISMSDAGDEPFLKSKYMDIL  
QKISNRESNVINVDLNDLYEFDPSDTQLLHNI ESNAKRFVELFSQCADALMPPPTVEINY  
RNEVL DVMQQRVQRNENIDPEHKGFPELTRGYDLYFRPVTRNKKPFSVRDLRGENLGS  
LLTVRGIVTRTSDVKPSLTVNAYTCDRCGYEVFQEI RQKTF LPMSECP SDECKKNDKAGQ  
LFMSTRASKFLPFQEVKI QELTNQVP IGHIPRSLTVHLYGAI TRSVNPGDIVDISGIFLP  
TPYTGFAMRAGLLTDTYLECHYVSQI IKNYTNIEKTPQSEAAIAELNQGGNVYEKLAKS  
IAPEIYGHEDVKKALLLLL VGGVTKELGDGMRIRGDINICLTGDPGVAKSQLLKYISKVA  
PRGVYTTGRGSSGVGLTAAVMRDPVTDEM VLEGGALVLADNGICCIDEFDKMD ESDRTAI  
HEVMEQQTISISKAGITTTLNARTSILAAANPLYGRYNPKVAPIHNINLPAALLSRFDIL  
FLILDTPSRETDEHLAQHVTVVHMHNEQPKMDFEPLDPMIRHYISSARQYRPVVPKDV  
DYVTGAYVQLRQNRDEANERQFAHTTPRTL LAILRMGQALARLRF SNRVEIGDVDEAL  
RLMSVSKSSLYDDLDPSSHDTTITSKIYKIR DMLNSIPDVEGNERSLTLRAIRERVLAK  
GFTEDHLINTIQEYTDLGVLLTTNNGQTIMFLDPDLHMEN

>Q91876

MPRDYQTEKEKCKTFLQEFYKDDEIGKKHFKYGVQLANIAHREQVALYIDLDDLA EEDPE  
LVDAICENTRRYTNLFADAVQELL P QYKEREVVHKDALDVYIEHRLMMEQRGRDPNEMRD  
SQNQYPPELMRRFELYFKAPSSSKARVVRDVKADSIGKLVNIRGIVTRVTEVKPMMVVAT  
YTCDQCGAETYQPIQSPTFMPLIMCPSRECQTNRSGRRLYLQTRGSKFIKFQELKIQEHS  
DQVPVGNIPRCMSVYVRGENTRLAQPGDHVGITGVFLPMLRTGFRQVVQGLLSETYLECH  
RLVKMNKSEDELGTEELSEEELRQITEEDFYEKLAASIAPEIYGHEDVKKALLLLL VGG  
VDNSPRGMKIRGNINICLMDGPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVMKD  
PVTGEMTLEGGALVLADQGVCCIDEFDKMMDTDRTAIHEVMEQQTISIAKAGIMTTLNAR  
CSILAAANPAYGRYNPKKTVEQNIQLPAALLSRFDVLWLIQDKPDRDNDLRLAQHITYVH  
QHSKQPPSQFQPLDMKLMRRYITMCKRKQPAIPEALADYLTAAAYVEMRKEARTNKDMTFT  
SARTLLSVLRLSTALARLLEDVVEKEDVNEAMRLMEMSKDSL LGDKGHTSRTQRPADVI  
FSTIREMVPEKGARSVKYSEAEQRCVSKGFTPAQFEAALEEEYELNVLVNQARTKITFV

>Q09591

MHIKSIHLDFKSYQKHTDILDFSPTFNAITGYNGSGKSNILDSICFIMGINKLDNIRAK  
SMHELISHGGTKAIVQVRFDNTDKRCSPPFGMEHLDEIVVQRIITAQATGKGCATSYTLLNG  
HAATNGKMQDFFFRGVGLNVNPNHFLIMQGRITTVLNMKPEEILGMVEEAAGTKMYDQKKK  
DAEKTNFLKDAKLKEVDRIQSSIDPRMVKFRREDRKNMVEVTRLKKLKENFSRKYEAQY  
FQTCEAVKKSACEIEDAKKGIEDLGEKFNQLDLDLKNKEDEKMMESRDDQHEEAALSA  
AHLKQSIMLQKETVKNQLVETINKLKEGEQINKSLSKDREVLDAKRKEHEDSKAANSK  
DIQSQSDDEALVTKYRNDLESLTRGTIANDKGEHVSIESEIQSCKSTASQMSSGITAAKK  
RGERLHNQIKHLEGEKATLSARSKSDIGSADNYQKEVDEINKQLQLLGFNIDADTEKREH  
AAKLHESITKLKMDTRLLNSYKDGRYALNYQRPPLHIDKFDEKRDVFGYVAHLIKMKPG  
CEQFAVAADIALGGVGLGNVVVSTQDIARILIDGKAFTSRKTMIPVSENARNASSYNTLPD  
VKLRRAKEIAEKYNDTVTKMIDLIEYPDFISNTILNAVQILVVVDSLVDVAREIAYDEVAK  
TRMITRRGDDVVRTNGIMTGGYNDPGNKPALIALEPMYARRPQIEAQQRELDALNRELQLT  
EASSQKCRDLNQLATAMRKLQVKTNNINSEFGIVVRDLKVHSEEYEKNQAEIEATVKT  
LKDVEDKIKTLESMKNKDKNSQEKRKELTALLQKAEQTVQKNRGEKARREVMLLQAT  
VEEMEKTIKKDEGIWEQKKKECDELEEKLPNAIAALKDAELEQKAAQAKLNDLKNQRQI  
STRLGKIAKECDALIREKAKTKSKREEKEKELTSLQQSEASNRKEARSKLKKFEWLSDEE  
AHFNKKGGLYDFEGYTVSKGKDEIKELTDKIEITLERSCCIQNVSNLDTCEAKVLDIKNKR  
ERITEDFNMLKKTATLTKKKVDELIRAHESVNKDFGQIFNCLLPDAHASLVPPEGKTVC  
EGLEVKVSFGGVKDSLHELSSGQRSLVALSLILAMLKFKPAPPLYILDEVDAALDLSHTA  
NIGMMIKTHFHNNQFIIVSLKQGMFSNADVLVQTRFADGHSTCTRLNGGDI AVLCDQKVL  
QAQALELTDAGKAKKDAAAKKGAQKNDKEPPKKKPIVVDDDDFE

>P40692

MSFVAGVIRRLDETVVNR IAAGEVIQR PANAIKEMIENCLDAKSTSIQVIVKEGGLKLIQ  
IQDNGTGIRKEDLDIVCERFTTSKLSQSFEDLASISTYGFGEALASISHVAHVTTTKTA  
DGKCAIRASYSQGLKAPPKPCAGNQGTQITVEDLFYNIATRRLKALKNPSEYKILEVV  
GRYSVHNAGISFSVKKQGETVADVRTLPNASTVDNIRSI FGNVAVSRELIEIGCEDKTLAF  
KMNGYISNANYSVKKCIFLLFINHRLVESTSLRKAIEVYAAAYLPKNTHPFLYLSLEISP  
QNVVDNVHPTKHEVHFLHEESILERVQQHIESKLLGNSSRMYFTQTLLPGLAGPSGEMV  
KSTTSLTSSSTSGSSDKVYAHQMVRTDSREQKLD AFLQPLSKPLSSQPQAI VTEDEKTDIS  
SGRARQQDEEMLELPAPAEVAAKNQSLGDTTKGTSEMSEKRGPTSSNPRKRHRESDVE  
MVEDDSRKEMTAACTPRRRIINLTSVLSLQEEINEQGHEVLREMLHNHSFVGCVNPQWAL  
AQHQTKLYLLNNTTKLSEELFYQILIIDYFANFGVLRRLSEPAPLFDLAMLALDSPESGWTEE  
DGPKEGLAEYIVEFLKKAEMLADYFSLIDEENLIGLPLLDNYVPPLEGLPIFILRL  
ATEVNWDEEKECFESLSKECAMFY SIRKQYISEESTLSGQQSEVPGSIPNSWKWTVEHIV  
YKALRSHILPPKHFTEDGNILQLANLPDLYKVFERC

>P38920

MSLR IKALDASVVNKIAAGEIIISPVNALKEMMENSIDANATMIDILVKEGGIKVLQITD  
NGSGINKADLPILCERFTTSKLSQKFEDLSQIQTYGFGEALASISHVARVTVTKVKEDR  
CAWRVSYAEGKMLESPPKPVAGKDGTTILVEDLFFNIPSRRLRALRSHNDEYSKILDVVGRY  
AIHSKDIGFSCKKFGDSNYSLSVKPSYTVQDRIRTVFNKSVASNLI TFHISKVEDLNLES  
VDGKVCNLFISKKSISPIFFINNRLVTCDLLRRALNSVYSNYLPKGNRPFYILGIVIDP  
AAVDNVNHPTKREVRFLSQDEIEEKIANQLHAELSAIDTSRTFKASSISTNKPESLIPFN  
DTIESDRNRKSLRQAQVVENSYTTANSQLRKAKRQENKLVRIDASQAKITSFLSSSQQFN  
FEGSSTKRQLSEPKVTNVSHSQEAELTLNESEQPRDANTINDNDLKDQPKKKQKLG DYK  
VPSIADDEKNALPISKDGYIRVPKERVNVNLT SIKKLEKVVDDSHRELTDIFANLNYVG  
VVDEERRLA AIQHDLKLFIDYGSVCYELFYQIGLTD FANFGKINLQSTNVSDDIVLYNL

LSEFDELNDDASKEKIIISKIWDMSMLNEYYSIELVNDGLDNDLKSVKLKSPLPLLLKGYI  
PSLVKLPFFFIYRLGKEVDWEDEQECLDGLREIALLYIPDMVPKVDTSASLSEDEKAQF  
INRKEHISSLLEHVLFPICKRRFLAPRHILKDVVEIANLPDLYKVFERC

>Q07980

MTIHQLSPESQWKIVSSSFIYGPVAAVRELLDNSIDSGAKKVFIDVDSTTGGCEYISVKD  
DGSGVDIIDRPSMCLEYTTSKMSSSLGDISILTTLGFRGEALFLLSNLCNQKGSQMQUVETKT  
ADDVIGEKWLVDKGGITNGKRYKVCSPVGTTVILRKLGLLRARYLEISSRPRKTFDEL  
IYLINHYSLIHRNIRFYFSLVSLQKNGAIERKQMQETLDPKISRARSLSLLARLKKPVPL  
NFIVEENFVIDEKINLDLILPRMVPESDVINIKRRFKFLSVNERALSNLETKTISKLL  
SSIYRDFSLLDPMVWFINLNCDTKLLDVNIEPEKNDVMIKSFEVIFKKIENKLLKLLLEER  
IGIETNMLGDKHVQPSINEKTSALVIPTPAENEISKGCGAVSGKDKTDIPQKNSDLIV  
PTFYDEANLENTTIVAATPSPTKFSSEKALDEQTLTISYRSSSSSGMASEDSTNWRHN  
FQQELSENSEVAGAGSSTLPSSLTYNYIETIPENEDLELSKDASISNPFMITKIRNVNKK  
LSENLEAKRTSCGDANKRGMNERQLSNTEKKELIKLQQTYGKRNNTVDMTIPRNSKKK  
VTDNYIKKASCMHKTRPKLMHFSEYTNMYVYTLKNEKIVKHSDSNFAKETLWLRSRDDAT  
SPSSSLLQALRAHVKKPGHIEATTNEWCLFTPDSP

>Q9UHC1

MIKCLSVEVQAKLRSLGAISSLGQCVEELALNSIDAIAKCVAVRVNMETFQVQVIDNGFG  
MGSDDEKVGNRIFTSKCHSVQDLENPRFYGFRGEALANIADMASAVEISSKKNRTMKTF  
VKLFQSGKALKACEADVTRASAGTTVTVYNLFYQLPVRKCMDPRLEFEKVRQRIEALS  
MHPSISFSLRNDVSGSMVLQPKTKDVCISRFQIYGLGKSQKLREISFKYKEFELSGYIS  
SEAHYNKNMQFLFVNKRLVLRTKLHKLIDFLLRKESIICKPKNGPTSRQMNSLRHRSTP  
ELYGIYVINVQCQFCEYDVCMEPAKTLIEFQNWDTLLFCIQEGVKMFLKQEKLFVELSGE  
DIKEFSEDNGFSLFDATLQKRVTSDERSNFQACNILDSEYEMFNLQSKAVKRKTTAENV  
NTQSSRDSEATRKNNTDAFLYIYESGGPGHSMKTEPSLQNKDSSCSESKMLEQETIVASE  
AGENEKHKKSFLHSSLENPCGTSLEMFLSPFQTPCHFEESEGQDLEIWKESTTVNGMAAN  
ILKNRIQONQPKRFKDATEVGCQPLPFATTLWGVHSAQTEKEKKKESNCGRRNVFSYGR  
VKLCSTGFITHVVQNEKTKSTETEHSEFKNYVRPGPTRAQETFGNRTRHSVETPDIKDLAS  
TLSKESGQLPNKKNCRNTNISYGLENEPTATYTMFSAFQEGSKKSQTDICILSDTSPSPFWY  
RHVSNDSRKTDKLIIGFSKPIVRKLLSLSSQLGSLEKFKRQYGVENPLDTEVEESNGVTT  
NLSLQVEPDILLKDKNRENSDVCKITTMHEHSDSDSSCQPASHILDSEKFPFSKDEDCLE  
QQMPSLRESPMTLKELSLFNRKPLDLEKSSESLASKLSRLKGSERETQTMGMMSRFNELP  
NSDSSRKDSKLCVLTQDFCMLFNKHEKTENGVIPTSDSATQDNSFNKNSKTHSNSNTT  
ENCVISETPLVLPYNNKVTGKDSVLIIRASEQQIGSLDPSGMLMNPVEDATGDQNGIC  
FQSEESKARACSETEESNTCCSDWQRHFDVALGRMVYVKNMTGLSTFIAPTEDIQAACK  
DLTTVAVDVLENGSQYRCQPFRRSDLVLPFLPRARAERTVMRQDNRTVDDTVSSESLQS  
LFSEWDNPFVARYPEVAVDVSSGQAESLAVKIHNILYPYRFTKGMIHSMQVLQQVDNKF  
ACL MSTKTEENGEAGGNLLVLVDQHAHERIRLEQLIIDSYEKQQAQSGRKKLLSSTLI  
PPLEITVTEEQRRLLWCYHKNLEDLGLFEVFPDTSDSLVLVGVKVPFCFVEREANELRRGR  
STVTKSIVEEFIREQLELLQTTGGIQGTLPLTVQKVLASQACHGAIKFNDGLSLQESCR  
IEALSSCQLPFQCAHGRPSMLPLADIDHLEQEKQIKPNLTKLRKMAQAWRLFKAEC DTR  
QSLQQSMPPCEPP

>Q12083

MSQHIRKLDSDVSRKLSQACTVSLASAVREIVQNSVDAHATTIDVMIDLPNLSFAVYDD  
GIGLTRSDLNILATQNYTSKIRKMNLDLVTMKTYYGYRGDALYSISNVSNLFCVSKKKDYNS  
AWMRKFPKSVMLSENTILPIDPFWKICPWSRTRKSGTVVIVEDMLYNLPVRRRILKEEPP  
FKTFNTIKADMLQILVMHPMISLNVQYTDKLRINTEVLFRRSKNITEGLTKHQMSQVLRN

VFGAIIPPDMLKKVSLKFNEYQIEGII SKMPVGLKDLQFIYINGRRYADSAFQGYVDSL  
QAQDFGEKGMSSLKTKSVGKPYRSHPVFILDVRCPQTIDDLLQDPAKKIVKPSHIRTIEP  
LIVKTI RSFLTFQGYLTPDKSDSSFEIVNCSQKTATLPDSRIQISKRNVLNSKMKIARI  
NSYIGKPAVNGCRINNSTINYEKIKNIRIDGQKSRLRNKLSRPPYDSGFTEDYDSIGKTI  
TDFSISRSVLAKYEVINQVDKFFILIRCLDQSIHNCPLLVLDQHACDERIRLEELFYSL  
LTEVVTTGTFVARDLKDCCIEVDRTEADLFKHYQSEFKKWGIGYETIEGTMETSLEIKTL  
PEMLTSKYNGDKDYLMVLLQHAHDLKDFKKLPMDLSHFENYTSVDKLYWWKYSSCVPTV  
FHEILNSKACRSAVMFGDELTRQECIILISKLSRCHNPFECAGHRPSMVP I AELK

>Q9BWT6

MSKKKGLSAEEKRTRMMEIFSETKDVFLKDLKLEKIAPKEKGITAMSVKEVLQSLVDDGMV  
DCERIGTSNYYWAFPSKALHARKHKLEVLESQLESGSQKHASLQKSIEKAKIGRCETEER  
TRLAKELSSLRDQREQLKAEVEKYKDCDPQVVEEIRQANKVAKEAANRWDNIFAIKSWA  
KRKFGFEENKIDRTFGIPEDFDYID

>P80090

MASVHLTLTKAFMVTVFLTLLLNVSITRGTTOHTCSILSRPHPRGLCGSTLANMVQWLCS  
TYTTSSKVKRQAEPDEEDDAMSKIMISKKRALSYLTKRESRPSIVCECCFNQCTVQELLA  
YC

>P31241

MAGVRLVFTKAFMVTVLLTLLLNIGVKAPEGQFSACSFSSRPHPRGICGSDLADLRAFIC  
SRRNQPAMVKRDAETGWLLPETMVKRNAQTDLDDPLRNIKLSSESALTYLTKRQRTTNLV  
CECCYNVCTVDVFYCY

>P91797

MNASVESCLTFTFVLVALCVGLTIGQQVNTCTMFSRQHPRGLCGNRLARAHANLCFLLRN  
TYPDIFPRKRSVDNTFEKVYSIPLSVLAELDLSDDDYGAYVSKKDIPIRSETNGLSGANF  
ESSAFDKQLELPAMKSTTSQLFRIKLRGSRKREVMAEPLVDCCYNECSVRKLATYC

>Q5T2T1

MPALSTGSGSDTGLYELLAALPAQLQPHVDSQEDLTFWLWDMFGEKSLHSLVKIHEKLHYY  
EKQSPVPI LHGAALADDLAEELQNKPLNSEIRELLKLLSKPNVKALLSVHDTVAQKNYD  
PVLPPMPEDIDDEEDSVKIIIRLVKNREPLGATIKKDEQTGAIIVARIMRGGAADRSGLIH  
VGDELREVNIGIPVEDKRPEEIIQILAQSQGAITFKIIPGSKEETPSKEGKMF IKALFDYN  
PNEDKAIPCKEAGLSFKKGDILQIMSQDDATWWQAKHEADANPRAGLIPSKHFQERRLAL  
RRPEILVQPLKVSNRKSSGFRKSFRLSRKDKKTNKSMYECKKSDQYDTADVPTYEEVTPY  
RRQTNEKYRLVVLVGPVGVGLNELKRKLLISDTQHYGVTVPHTRARRSQESDQVEYIFI  
SKHLFETDVQNNKFI EYGEYKNYYGTSIDSVRSVLAKNKVCLLDVQPHTVKHLRRTLEFK  
PYVIFIKPPSIERLRETRKNAKIISSRDDQGAAPFTEEDFQEMIKSAQIMESQYGHFLD  
KIIINDDLTVAFNELKTTFDKLETETHWVPVSWLHS

>P11913

MASRRALNLAQGVKARAGGVINPFRRLATPHSGTGIKTQTTTLKNGLTVASQYSPYAQ  
TSTVGMWIDAGSRAETDETNGTAFLEHLAFKGTTKRTQQQLELEIENMG AHLNAYTSRE  
NTVYFAKALNEDVPCVDILQDILQNSKLEESAIERERDVILRESEVEKQLEEVVFDHL  
HATAYQHQPGLGRTILGPRENIRDITRTELVNYIKNNYTADRMVLVGAGGVPHEQLVEMAD  
KYFSKLPATAPVSSASILSKKKPDFIGSDIRIRDDTIPTANIAIAVEGVSWSDDDYFTGL  
VTQAI VGNYDKALGNAPHQSGSKLSGFVHKHDLATSFMSFSTSYSDTGLWGIYLVTDKLDL  
VDDL VHFSLREWTRLCSNVSEAEVERAKAQLKASILLSLDGT TAVAEDIGRQIVTTGRRM



SPAIEIERIIDAVSAKDVMDFANKKIWDQDIAISAVGSIEGLFDYARIRGDMSRNAF

>P20585

MSRRKPASGGLAASSAPARQAVLSRFFQSTGSLKSTSSSTGAADQVDPGAAAAAAAAA  
AAPPAPPAPAFPPQLPPHVATEIDRRKKRPLENDGPVKKKVKVQKQKEGGS DLGMSGNSE  
PKKCLRTRNVSKSLEKLKEFCDSALPQSRVQTESLQERFAVLPKCTDFDDISLLHAKNA  
VSSSESKRQINQKDTTLFDLSQFGSSNTSHENLQKTASKSANKRSKSIYTPLELQYIEMK  
QQHKDAVLCVECGYKYRFFGEDAEIAARELNIYCHLDHNFMTASIPTHRLFVHVRRLVAK  
GYKVGVVQQTETAALKAIGDNRSSLFSRKLTLALYTKSTLIGEDVNPLIKLDDAVNVDEIM  
TDTSTSYLLCISENKENVRDKKKGNIFIGIVGVQPATGEVVFDSFQDSASRSELETRMSS  
LQPVELLLPSALSEQTEALIHRRATSVSVQDDRIRVERMDNIYFEYSHAFQAVTEFYAKDT  
VDIKGSQIISGIVNLEKPVICSLAAIIKYLKEFNLEKMLSKPENFKQLSSKMEFMTINGT  
TLRNLEILQNQTDMMKTGSLWLDHTKTSFGRRKLLKQVTPLLKLRREINARLDAVSEV  
LHSESSVFGQIENHLRKLPIERGLCSIYHKKCSTQEFFLIVKTLYHLKSEFQAIIPAVN  
SHIQSDLLRVTILEIPELLSPVEHYLKIILNEQAQVGDKTELFKDLSDFLIKKRKDEIQ  
GVIDEIRMHLQEIIRKILKNPSAQYVTVSQEFMIEIKNSAVSCIPTDWKVGSTKAVSRF  
HSPFIVENYRHLNQLREQLVLDCAEWLDFLEKFSSEHYHSLCKAVHHLATVDCIFSLAKV  
AKQGDCRPTVQEEKIIVIKNGRHPVIDVLLGEQDQYVPNNTDLSEDSEVMIIITGPNMG  
GKSSYIKQVALITIMAQIGSYVPAEEATIGIVDGIPTRMGAADNIYKGRSTFMEELDTA  
EIRKATSQSLVILDELGRGTSTHDGIAIAYATLEYFIRDVKSITLFLVTHYPPVCELEKN  
YSHQVGNVHMGLVSEDESKLDPGTAEQVPDFVTFLYQITRIGIAARSYGLNVAKLADVPG  
EILKKAHKSKLEGLINTKRKRLKYFAKLWMTMNAQDLQKWTEEFNMEETQTSLLH

>P52701

MSRQSTLYSFFPKSPALSDANKASARASREGGRAAAAPGASPSPGGDAWSEAGPGRPL  
ARSASPPKAKNLNGGLRRSVAPAAPTSCDFSPGDLVWAKMEGYPWWPCLVYNHPFDGTFI  
REKGSVVRVHVQFFDSDPTRGWVSKRLLKPYTGSKSKEAQKGGHFYSAPPEILRAMQRAD  
EALNKDKIKRLELAVCDEPSEPEEEEEEMEVTYVTDKSEEDNEIESEEEVQPKTQGSRR  
SSRQIKRRVISEDSEDIIGSDVEFKPDTKEEGSSDEISSGVGDSESEGLNSPVKVARKR  
KRMVTGNGSLKRKSSRKETPSATKQATSISSETKNTLRAFSAPQNSESQAHVSGGGDDSS  
RPTVWYHETLEWLKEEKRRDEHRRRPDHPDFDASTLYVPEDFLNSCTPGMRKWWQIKSQN  
FDLVIICYKVGKFYELYHMDALIGVSELGLVFMKGNWAHSGFPEIAFGRYSDSLVQKGYKV  
ARVEQTETPEMMEARCRKMAHISKYDRVVRREICRIITKGTQYTSVLEGDPSENYSKYLL  
SLKEKEEDSSGHTRAYGVCFVDTSLGKFFIGQFSDDRHCSRFRTLVAHYPPVQVLFKGN  
LSKETKTILKSSLSCLSQEGLIPGSQFWDASKTLRLLLEEEYFREKLSDGIGVMLPQVLK  
GMTSESDSIGLTPGEKSELALSALGGCVFYLKCLIDQELLSMANFEEYIPLDSDTVSTT  
RSGAIFTKAYQRMVLDVAVTLNNLEIFLNGTNGSTEGTLLEVRDVTCHTPFGKRLKQWLCA  
PLCNHYAINDRLDAIEDLMVVPDKISEVVELLKLPDLERLLSKIHNVGSPLKSNHPDS  
RAIMYEETTSKKKIIDFLSALEGFKVMCKIIGIMEEVADGFKSKILKQVISLQTKNPEG  
RFPDLTVELNRWDTAFDHEKARKTGLITPKAGFSDYDQALADIRENEQSLEYLEKQRN  
RIGCRTIVYWGIGRNRYQLEIPENFTTRNLPEEYELKSTKKGCKRYWTKTIEKKLANLIN  
AEERRDVSLKDCMRRLFYNFDKNYKDWQSAVECIAVLDVLLCLANYSRGGDGMCRPVIL  
LPEDTPPFLELKGSRHPCITKTFFGDDFIPNDILIGCEEEEQENGKAYCVLVTGPNMGGK  
STLMRQAGLLAVMAQMGCYVPAEVCRLTPIDRVFTRLGASDRIMSGESTFFVELSETASI  
LMHATAHSLVLVDELGRGTATFDGTAIANAVVKELAEETIKCRTLFSTHYHSLVEDYSQNV  
AVRLGHMACMVENECEDPSQETITFLYKFIKACPKSYGFNAARLANLPEEVIQKGRKA  
REFEKMNQSLRFLREVCLASERSTVDAEAVHKLTLIKEL

>P32559

MNSASFLQSRLLISRSFLVRRSLKRYSGLAKPYTFQOPTIYALSTPANQTSALAIIRISGT

HAKYIYNRLVDSSTVPPIRKAILRNIYSPSSCSVKPHDQKESKILLDTSLLLYFQAPYSF  
TGEDVLELHVHGGKAVVNSILKAIGSLHDRSSGKDIRFALPGDFSRRAFQNGKFDLTQLE  
GIKDLIDSETESQRRSALSSFNQDNKILFENWRETI IENMAQLTAI IDFADDNSQEIQNT  
DEIFHNVEKNI ICLRDQIVTFMQKVEKSTILQNGIKLVLLGAPNVGKSSLVNSLTNDDIS  
IVSDIPGTTDRSDIDAMINVNGYKVI ICDTAGIREKSSDKIEMLGIDRAKKKSVQSDLCLF  
IVDPTDL SKLLPEDILAHLSKTFGNKRI IIVVNKSDLVSDDEMTKVLNKLQTRLGSKYP  
ILSVSCKTKEGIESLISTLTSNFESLSQSSADASPVIVSKRVSEILKNDVLYGLEEFFKS  
KDFHNDIVLATENLRYASDGI AKITGQAIGIEEILDSVFSKFCIGK

>Q06455

MISVKNRNTWRALSLVIGDCRKKGNFEYCQDRTEKHSTMPDPSVDVKTQSRLTPPTMPPPP  
TTQGAPRTSSFTPTTLTNGTSHSPTALNGAPSPPNGFSNGPSSSSSSSLANQQLPPACGA  
RQLSKLKRFLTTLQQFGNDISPEIGERVRTLVLGLVNSTLTIEEFHSKLQEATNFPLRPF  
VIPFLKANLPLLQRELLHCARLAKQNPAYLAQHEQLLLDASTTSPVDSSELLLDVNENG  
KRRTPDRTKENGFDREPLHSEHPSKRPTIISPGQRYSPNGLSYQPNGLPHPTPPPPQHY  
RLDDMAIAHHRDSYRHPSHRDLRDRNRPMGLHGTRQEEMIDHRLTDREWAEWKHLDDL  
LNCIMDMVEKTRRSLTVLRRQCQEADREELNYWIRRYSDAEDLKKGGGSSSSSHRQQSPVN  
PDPVALDAHREFLHRPASGYVPEE IWKKAEEAVNEVKRQAMTELQKAVSEAERKAHDMIT  
TERAKMERTVAEAKRQAAEDALAVINQQEDSSESCWNCGRKASETCSGCNTARYCGSFCQ  
HKDWEKHHHICGQTLQAQQQGDTPAVSSSVTPNSGAGSPMDTPPAATPRSTTPGTPSTIE  
TTPR

>P53594

MDVHEYQAKELLASFGVAVPKGAVAFSPDQAVYAAATELGGSFWAVKAQIHAGARGKAGGL  
KLCRTYNEVRDAARDLLGKRLVTLQTGPEGKPVQRVYVETADPFERELYLYVLDRAER  
VRVIASQRGGMDIEEIAAKEPEALIQVVVEPAVGLQQFQAREIAFQLGLNIKQVSAAVKT  
IMNAYRAFRDCDGTMLEINPLVVTKDDRVLALDAKMSFDDNALFRRRNIADMHDPSQGD  
REAQAAEHNSYIGLEGEIGCIVNGAGLAMATMDMIKHAGGEPANFLDVGGGASPDVAT  
AFRLVLSDRNVKAILVNI FAGINRCDWVAEGVKAAREVKIDVPLIVRLAGTNVDEGKKI  
LAESGLDLITADTLTEAARKAVEACHGAKH

>P53070

MLRVTTLASSCTSFPLQVLRRLTISSLTSTFQPTTKTQVVVIGAGHAGCEAAAASSRTGA  
HTTLITPSLTDIGKCSNPSIGGVGKILVKEIDALDGLMGKVTDLAGVQFKMLNRSKGP  
AVWGPRAQIDRELYKYMQRELSDKKAHPNLSLLQNKVADLILYDPCGCHKVIGVVLDD  
GTQVGADQVIITTTGFLSAEIHIGDKRIAAGRIGEQPTYGISNTLQNEVGFQLGRKLTGT  
PARLAKESIDFSALEVQKGDALPVPMSFLNETVSVSEPTKQLDCFGTHTTPQMHDFLRNNL  
HQSIHIQDTTIKGPYKPSIEAKILRFPDRSSHKIWLEPEGFNSDVIYPNGISNSMPEV  
QLQMMRLIPGMANVEILQPAYGVEYDYVDRQLKPSLETKLVDGLFLAGQINGTTGYEEA  
AAQGI IAGINAGLLSRQEREQLVLKRSEAYIGVLIDDLINNGVIEPYRMFTSRSEFRISV  
RADNADFRLTPIGAQLGII SPVRLSQYSRDKHLYDETIRALQNFKLSSQKWSLLQANIA  
PQAENRSAWEIFRFKMDLHKLYECIPDLPINLLDIPMHVVTKINIQQKYEPYIVKQNF  
VKAFQADENMLLPQDYDYRQLPTLSTECKLLLNRVQPLTIGQARRIQGITAAALFELYRV  
ARKPSQPVM

>Q59676

MAKEKEKLFSEFPPVSREAWIDKITADLKGVPFEKKLWVRTNEGfNVNPFYRREDIEDLK  
TTTTSLPDEYPYVRSTRMHNEWLVRQDIVVGDNVAEANEKALDLLNKGVDSLGFYLLKVVHI  
NVDTLAALLKDIELTAVELNFNCCITRAADLLSAFSAYVKKVGADPNKCHGSVSYDPFKK  
QLVRGVSNDPDKMTLPVMDAARELPAFRVLNVNAVNLSDAGAFITQELGYALAWGAELL

DKLTDAGYKPEEIASRIKFNFGIGSNYFMEIAKFRAARWLWAQIVGSYGDQYKNETAKIH  
QHATTSMWNKTVFDHAVNLLRTQTETMSAAIAGVDSITVLPFDVITYQQSDDFSEIARNQ  
QLLLKKEECHFDKVIDPSAGSYIETLTNSIGEEAWKLFLESVEDAGGFTQAAETASIQKAV  
NASNIKRHQSVATRREIFLGTNQFPNFTEVAGDKITLAQGEHDCNCVKSEIPLNFSRGAS  
EFEALRLATEKSGKTPVVFMLTIGNLAMRLARSQFSSNFFGCAGYKLIDNLGFKSVEEGV  
DAALAAKADIVVLCSSDDEYAEYAPAAFDYLAGRAEFVVAGAPACMADLEAKGIRNVVHV  
KSNVLETLRAFNDKFGIR

>P11652

MSSTDQGTNPADTDDLTPTTLSLAGDFPKATEEQWEREVEKVLNRGRPPEKQLTFAECLK  
RLTVHTVDGIDIVPMYRPKDAPKKLGYPGVAPFTRGTTVRNGMDAWDVRALHEDPDEKF  
TRKAILEGLERGVTSLLLRLVDPDAIAPEHLDEVLSVVLLEMTKVEVFSRYDQGAAAEALV  
SVYERSDKPAKDLALNGLDPIAFAALQGTPEPDLTVLGDWVRRRLAKFSPDSRAVTIDANI  
YHNAGAGDVAELAWALATGAEYVRALVEQGFTATEAFDTINFRVTATHDQFLTIIARLRL  
REAWARIGEYVFGVDEDKRGARQNAITSWRDVTREDPYVNILRGSIAFSAVGGAESITT  
LPFTQALGLPEDDFPLRIARNTGIVLAEVNIGRVNDPAGGSYYVESLTRSLADA AWKEF  
QEVEKLGGMASKAVMTEHVTKVLDACNAERAKRLANRKQPI TAVSEFPMIGARSIETKPPF  
AAPARKGLAWHRDSEVFEQLMDRSTSVSERPKVFLACLGTRRDFGGREGFSSPVWHIAGI  
DTPQVEGGTTAEIVEAFKKSGAQVADLCSSAKVYAQQGLEVAKALKAAGAKALYLSGAFK  
EFGDDAAEAELKIDGRLFMGMDVVDTLSSSTLDILGVAK

>Q05064

MTVLPDDGLSLAAEFDPATHEQWHRLVEGVVRKSGKDVSGTAAEEALSTTLEDGLTTRPL  
YTARDAAPDAGFPGFAPFVRGSVPEGNTPGGWVDRQRYASADPARTNEAVLTDLENGVTS  
LWLTLGSAGLPVTGLERALDGVYLDLVPVALDAGSEATAARELLRLYEAAAGVADDAVRG  
TLGADPLGHEARTGEKSTSFAAVAELARLCGERYPGLRALTVDALPYHEAGASAAQELGA  
SLATGVEYLRALHDKGLGVEKAFQAQLEFRFAATADQFLTI AKLRAARRLWARVAEVSQVP  
AAGAQRQHAVTSPVMMTRRDPWVNMRLTTVACL GAGVGGADAVTVLPFDHELGLPDAFAR  
RIARNTSTILLEESHLARVIDPAGGSWYVERLTDELAAAWDFFKIEIRADGQVAALRSQ  
LVGDRIAATWAERRKKLARRREPITGVSEFP LLTERPVEREPAPAAPPGGLPRVRRDEAY  
EELRGRSDAHLEATGARPKVFI AALGPAAAHTARATFAANLFMAGGVEPVHDPVSVDAET  
AAEAF AASGATVACLCSDDVLYAEQAEAVARALKSAGALRVFLAGRGEFADIDEYV FAGC  
DAVAVLTSTLDRMGVA

>P49709

MPVSASLAYKNYDYDYDSIQPYFYFDNDDDFYHHQQGQPQPAPSEDIWKKFELLPTPP  
LSPSRRQSLSTAEQLEMVSEFLGDDVVNQSFICDADYSQSFIKSII IQDCMWSGFSA  
LEKAVSERLASLHAARKELISDSSSNRLSASYLQDLSTSASECIDPSVVFPPYPLTESSKS  
NKVAPSQPMLVLDTPPNSSSSSSGSDSEDEEEEEEEEEEEEEEEEEEEEEEEEEIDVVTVEKR  
QKRNEADVSDSRYPSPVLVLRCHVSTHQHNYAAHPSTRHDQPAVKRLRLETSSSNRHGKQ  
RKCTSPRTSDSEDNDKRRTHNVLERQRRNELKLSFFALRDEIPEVANNEKAAKVILKKA  
TECIHSMQLDEQRLLSIKEQLRRKSEQLKHRLQQLRSSH

>P01109

MPLSASLPSKNYDYDYDSVQPYFYFEEEEENFYLAQQRGSELQPPAPSEDIWKKFELLP  
TPPLSPSRRSSLAAASCFPSTADQLEMVTELLGGDMVNOFSICDPDES FVKSII IQDCM  
WSGFSAAKLEKVVSEKLATYQASRREGGPAASRP GPPPPSGPPPPPPAGPAASAGLYLHD  
LGAAAADCIDPSVVFPPYPLSERAPRAAPPANPAALLGVDTPPTTSSDSEEEQEED EID  
VVTLAEANESESSTESSTEASEEHCKPHHSPLVLRCHVNIHQHNYAAPPS TKVEYPAK  
RLKLD SGRVLKQISNNRKCSSPRTSDSEENDKRRTHNVLERQRRNELKLSFFALRDQIPE

VANNEKAPKVILKKATEYVLSIQSDEHRLIAEKEQLRRRREQLKHKLEQLRNSRA

>P01106

MPLNVSFTNRNYDLDYDSVQPYFYCDEEENFYQQQQQSELQPPAPSEDIWKKFELLPTPP  
LSPSRRSGLCSPSYVAVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPD  
DETFIKNII IQDCMWSGFSAAAKLVSEKCLASYQAARKDSGSPNPARGHSVCSTSSLYLQD  
LSAAASECIDPSVVFYPLNDSSSPKSCASQDSSAFSPSSDLSLSTESSPQGSPEPLVL  
HEETPPTTSSDSEEEQEDEEEIDVVSVEKROAPGKRSESGSPSAGGHKPPHSPLVLKRC  
HVSTHQHNYAAPPSTRKDYPAAKRVKLDVSRVLRQISNMRKCTSPRSSDTEENVKRRTHN  
VLERQRRNELKRSFFALRDQIPELENNEKAPKVILKKATAYILSVQAEQKLI SEEDLL  
RKRREQLKHKLEQLRNSCA

>P10166

MDFDSYQHYFYDYDCGEDFYRSTAPSEDIWKKFELVPSPTSPPPWGSFGAVDPASGINP  
GEPWPGGGAGDEAESRGHSKAWGRNYASII RRDCMWSGFSARERLERVSDRLAPGAPRG  
NPPKAPATPDGTPSLEASNAPATQCQLGEPKTQACSGSESPSDSEGEEIDVVTVEKRRS  
LDIRKPVTTITVRADPLDPCMKEFHISIHQQQHNYAARFPPESCSQEGDPEPGPQEEAPEI  
EAPKEKEEEEEEEEEEEIVSPPVGVSEAPQSCHPKPVSSDTEEDVTKRKNHNFLEKRRND  
LRSRFLALRDQVPTLASCSPKAPKVILSKALEYLQALVGAEKKMATEKRQLRCRQQQLQK  
RIAYLSGY

>Q05404

MDVGCNNHYFYDVMKEDFYRCIAPSEDIWKKFELVPGFPLSPGGCPGGGGTDWGAEELM  
DLGWESPMKLTGLSSVLLRDCMWSGFSTRERLEKVIHERLTTASPRATNPQKPVADHEN  
SEPGVNSIEQNATPLVVPTPVPEKVPNSSGSESTSDSEDEIDVVTIEKRKSYGGRQPV  
ITVRADPTATKLFHISIHQQQHNYAARLPPEPNSMSPQPNFHSP IKEEPGEVTSPPALQQ  
CSSPMPGSPLASGSSDSEDIVKKNHNYLERKRRNDLRSRFLALREEVPSLTRSTKTPKV  
VVLKSKATEFLKGLVIOEQQLTAERFKLWSRHQQQLLRRISHLKGR

>P04198

MPSCSTSTMPGMICKNPDLDFDSLQPCFYDDEDDFYFGGPDSTPPGEDIWKKFELLPTPP  
LSPSRGFAEHSSEPPSWVTEMLLENELWGS PAEEDAFGLGGLGGLTPNPVILQDCMWSGF  
SAREKLERAVSEKLQHGRGPPTAGSTAQSPGAGAASPAGRGHGGAAGRAGAALPAELA  
HPAAECVDPVAVVFPFVNKREPAPVPAAPASAPAAAGPAVASGAGIAAPAGAPGVAPPRPG  
GRQTSGGDHKALSTSGEDTSLSDSDEDEDEEEDEEEIDVVTVEKRRSSNTKAVTFTTIT  
VRPKNAALGPGRAQSSELILKRCLPIHQQHNYAAPS PYVESEDAPPQKKIKSEASPRPLK  
SVIPPKAKSLSPRNSDSEDSERRRNHNILERQRRNDLRSSFLTLRDHVPPELVKNEKAAKV  
VILKKATEYVHSLQAEHQQLLLEKEKQLQARQQQLLKKIEHARTC

>P24793

MPGLVSRNLDLEFDSLQPCFYDDEDDFYLCDPDSAPPGEDIWKKFELLPTPPPLSPSRGL  
HGDPLSPGLPGDYGDSVDWASELLVLPPEADLLGGSGWELGLSPCNVKSII IQDCMWSG  
FSAREKLERAVSEKLGKASCTPEPTIPHPPSSTVGSVSGRGVDMNPAAHCVDPVAVFP  
FPFNKGESCRTPASSANPPPCTTTTIVPTSTTARNCTQPCTSSSSSGEESHSESDDEDEE  
EEEEDEEEIDVVTVEKRRNSSNKSVTSLTITVRPKNTILVSSKTAQNEVILKRCAPVH  
QQHNYAAPS PYVETE EVAPPQKLRNELPRLVKNVVP TKPKSSSPRNYDSEDSERRRNHN  
ILERQRRNDLRSSFLTLRDHVPPELIKNEKAAKVILKKATEYVHSLHADEQQLLLEKEK  
QLRQQQLLKKIEHLRTC

>Q6LP50

MSLTYDPSETIYPFPQKPVPLSEQEKLTHVEKIKALLKEKDAVLVAHYTDPDIQALAEETGGFVGDLSLEMARFNGHSAKTLIICGVRFMGESAKILTPEKNVLMPTLEAECSLDLGCADKFSEFCDAHPDHTVVVYANTSAAVKARADWVVTSSIALEIVEHLDSEGKDIIWGPDRHLGAYIQKNTGAEMLLWQGEVHVHDEFSAKALRDMKALYPDAAVLVHPESPASVVALADAVGSTSQLIKAAKELPNTKLIIVATDKGIFFFKMQQMVPDKELVEAPTAGAGATCRSCAHCPCWAMNGLKAIESALVEGGEKHEIFVDEALRVKSLIPLNRMLNFAAELQLKVKGNA

>Q8XWM5

METHIKTVEFERPNMLAEAQSGASCVAHAWAKVPPALSREERDALKARIKRLKERNVLAHYVVDADLQDLAEETGGCVSDSLEMARFGRDHSKATLVVAGVRFMGETAKILSPEKTVLMPDLDATCSLDLGCPPDTFAAFCDAPDRTVVYANTSAAVKARADWMTSSIGLKIVQHLHEQGQKILWAPDRHLGSIYIQQTGADMLLWQGSCLVHDEFKGVLELDLLRAEHPHAKVLVHPESPSPVVAQADVVGSTSQLIAAAQSLPADAFIVATDNGILHKMRMAAPGKRFIEAPTAGNSATCKSCAHCPCWAMNALTNLAEVLETGRNEIHVDPQIGQQAVRCITRMLDFAAREKTTVRPQGDLAANTQLFQGVGPA

>Q8D343

MSKKKETDSYLSSDIKKSKDFKIIISNLLKINDAVIVSHYYTTPDIQAITEATGGKVADSL  
EMAKFGKNHKAKTLLVAGVRFMGETAKILNPEKIVLMP TLKAECSLDLSCPEKEFNKFC  
NHPDRITIVVYANTSAAIKARAHWIVTSSIAIDLIDYLDRLGEKIIWAPDKHLGRYIQKQT  
GADILIWNGTCIVHDEFKSQSLNMKKIYPKSAI LAHPESPENVLNLADF IGSTSQLIQA  
AKSINQKTI I IATDKGIFFFKMQQACPKILIEAPTSGEGLTCLSCARCPWMKMNINRII  
KSLTNKKKHNEINIPHDLQKKALKPLMRMLKFSQKVI

>Q56351

MRGQDPSRLIRPAAMAGLLL FALVGAALPQAEPAVQIVPALDRLGRADVRGQIPPLGRPI  
TDDVRRMRNYPEQPPVIPH SIDGYQLTVNTNRCMDCHKPQFTEGSGAPMISVTHFQDRDG  
QVLTDVTPRRYFCTACHVQQTDVQPLVFNQFRDGYRHAGGP

>P39186

MKPSRSWASLLAVCAVLLAALAMQAIFFPAPARAQGLVDAMRGPTAIANEPRAPLLYPTENKDIRRTRNYTMQPPTIPHKIDGYQLDKDFNRCMFCHARTRTEETQAI PVSITHYMDRDN  
NVLADVSPRRYFCTQCHVPQADTKPLIGMNFVDVDTILKRRPGAKGAAK

>Q8NI08

MDTKEEKKERKQSYFARLKKKKQAKQNAETASAVATRTHTGKEDNNTVVLEPDKCNIAVE  
EEYMTDEKKKRKSNQLKEIRRTELKRYYSIDDNQNKTHDKKEKMMVVQKPHGTMEYTAGN  
QDTLNSIALKFNITPNKLVELNKLFTHTIVPGQVLFVDPDANSPTSSTLRLSSSSPGATVSP  
SSSDAEYDKLPDADLARKALKPIERVLSSTSEEDPGVVKFLKMNCRYFTDGGKVVGGVM  
IVTPNNIMFDPHKS DPLVIENGCEEYGLICPMEEVVSIALYNDISHMKIKDALPSDLPQD  
LCPLYRPGEWEDLASEKDINPFSKFKSINKEKRQQNGEKIMTSDSRP IVPLEKSTGHTPT  
KPSGSSVSEKLLKLDSSRETSHGSPTVTKLSKEPSTSSAFESTAKENFLGEDDDFVDLE  
ELSSQTGGGMHKKDTLKECLSLDPEERKKAESQINNSAVEMQVQSALAF LGTENDVELKG  
ALDLETCEKQDIMPEVDKQSGSPESRVENTLNIHEDLDKVKLIEYYLTKNKEGPQVSENL  
QKTELSDGKSIIEPGGIDITLSSSLSQAGDPITEGNKEPDKTWVKKGEPLPVKLNSSSTEAN  
VIKEALDSSLESTLDNSCQGAQMDNKSEVQLWLLKRIQVPIEDILPSKEEKSKTPPMFLC  
IKVKGPMRKS FATHAAMVQYQYKRRKQPEYWFVAVPRERVDHLYTFFVQWSPDVYKDAK  
EQGFVVVEKEELNMIDNFFSEPTTKSWEIITVEEAKRRKSTCSYYEDEDEEVLPLRPHS  
ALLENMHIEQLARRLPARVQGYPWRLAYSTLEHGTSLKTLYRKSASLSDSPVLLVIKMDMN  
QIFGAYATHPFKFS DHYYGTGETFLYTFSPHFVKVFKWSGENSYFINGDISSLELGGGGGR

FGLWLDADLYHGRSNSCSTFNNDILSKKEDFIVQDLEWAFD

>Q9Y4A8

MKHLKRWWSAGGGLLHLTLLLSLAGLRVDLDLYLLLPPPTLLQDELLFLGGPASSAYALS  
PFSASGGWGRAGHLHPKGRELDPAAPPEGQLLREVRALGVFPVPRTSVDAWLVHLSVAAGS  
ADEAHGLLGAAAASSTGGAGASVDGGSQAVQGGGDPRAARSGPLDAGEEEKAPAEPTAQ  
VPDAGGCASEENGVLRKHEAVDHSSQHEENEERVSQAQKENSLLQNDDEENKIAEKPDWE  
AEKTTESRNERHLNGTDTFSFLEDLFQLLSSQPENSLEGISLGDIPPLPGSISDGMNSSAH  
YHVNFSAISQDVNLHEAAILLCPNNTFRRDPTARTSOSQEPFLQLNSHTTNPEQTLPGTN  
LTGFLSPVDNHRNLTSDLLYDLIDINIFDEINLMSLATEDNFDPIDVSQLFDEPDSDSG  
LSLSDSSHNNTSVIKSNSSSHVCDEGAIGYCTDHESSSHHDLEGAVGGYYPEPSKLCCHLDQ  
SDSDFHGDLTFFQHVFNHTYHLQPTAPESTSEFPFPWPGKSQKIRSRYLEDTDRNLSRDEQ  
RAKALHIPFSVDEIVGMPVDSFNSMLSRYLTDLQVSLIRDIRRRGKNKVAAQNCRRKRL  
DIILNLEDDVCNLQAKKETLKRQAQCNKAINIMKQKLHDLYHDFSRRLRDDQGRPVNPN  
HYALQCTHDGSILIVPKELVASGHKKETQKGRK

>Q16621

MSPCPPQQSRNRVIQLSTSELGEMELTWQEIFMSITELQGLNAPSEPSFEPQAPAPYLGPP  
PPTTYCPCSIHPDSGFPLPPPPYELPASTSHVDPDPYSYGNMAIPVSKPLSLSGLLSEPL  
QDPLALLDIGLPAGPPKQEDPESDSGLSLNYSDAESLELEGTAGRRRSEYVEMYVVEY  
PYSLMPNSLAHSNYTLPAEETPLALEPSSGPVRAKPTARGEAGSRDERRALAMKIPFPTD  
KIVNLPVDDFNELLARYPLTESQLALVRDIRRRGKNKVAAQNCRRKRLLETIVQLERELER  
LTNERERLLRARGEADRTLEVMRQQLTLEYRDIHQHLRDESGNSYSPEEYALQQAADGTI  
FLVPRGTKMEATD

>Q04861

MAGEDPYIMGVSDPQMFAMDQLMGMSTIFNNTGYITSDLPLRTADGPYLQIIEQPKQRGF  
RFRYVCEGPHSHGGLPGASSEKNKKSYPQVKICNYVGPQKVIQVLTNGKYRHLHAHSLVG  
KFCEDGVCTVNAGPKDMVVGFANLGIHLVTKKKVFETLETRMIDACKKGYNPGLLVHPEL  
GYLQAEGCGDRQLTEREREIRQAQVQTKEMDLVSVRLMFTAFLPDSNNGGFTRRLDPVI  
SDAIYDSKAPNASNLKIVRMDRTAGCVTGGEEIYLLCDKVQKDDIQIRFYEEDENGGMWE  
GFGDFSPDTHVHRQFAIVFKTPKYRDNITKPVSVFVQLRRKSDLETSEPKPFLYYPEIKD  
KEEVQRKRQKLMPNFSDGYGGGSGAGGGGMFGGGGGGAGSGFSYPSYGYSAFGGMHFHPG  
TTKSNAGMKHELNSSTVKKDEESSDKQSDKWDTKHDVKEVTEKNECRTSGHNEEKEDAS  
LCCKDEGNKPKCGCQDGLFLEKAMQLAKRHCNRLFYAVTGDVRLMLLAVQRHLTAVQDDN  
GDNVHLHSIIHLHRELVKNLLEVMPPDMNYNNIINMRNDLYQTPHLHAVITKQAEVVEDLL  
KAGANVNLLDRHGNSVLHLAAAEGDDKILSLLKHKQKASSMIDLNGEGLSAIHMVVTAN  
SLSCLKLLIAAGVDVNAQEQQSGRTALHLAVEQENVPLAGCLLLEGDADVDSTTYDGTTP  
LHIAAGRGFTKLAAVLKAAGADPHVENFEPLFDVEEDVKDDDDDEGIVPGTTPLDMAANW  
EVYDILNGKPYIAAAAVSEDLSSQGPLRELNESSKQQLYKLLLETPDPSKNWSTLAEKLG  
GILNNAFQLSPSPSKTLLDNYKISGGTGQELIAAFTQMDHTEAIEVIQKALSSSQRSQSHQ  
EDKTIEAFPSLSPSFAKEETGELYNHKFKQDPESTCDSGVETSFRKLSFTYSDSLNSKSS  
ITLSKMTLGYGRKAQCKAVIYLTR

>P21219

MSEHVNKYTEYEARTKAIETLLYERGLITPAAVDRVVSYYENEIGPMGGAKVVAKSWVDP  
EYRKWLEEDATAAMASLGYAGEQAHQISAVFNDSQTHHVVCTLCSCYPWPVLGLPPAWY  
KSMEYRSRVVADPRGVLKRDFGFDIPDEVEVRVWDSSEIRYIVIPERPAAGTDGWSEEL  
TKLVSRSMSIGVSNALTPQEVIV

>P29378

MTAHNPVQGTLP RSNEEIAARVKAMEAILVDKGLISTDAIDHMSSVYENEVGPQLGAKIV  
ARAWVDPEFKQRLRLTDATSACREMGVGGMQGGEEMVLENTGTVHNMVCTLCSCYPWPVL  
GLPPNWKYPAYRARAVRDRPGLVLAIEFGYTPDPDVEIRIWDSSAELRYWVLPQRPAGTEN  
FTEEQLADLVTRDSLIGVSVPTTPSKA

>P97051

MGQSHTHDHHHDGYQAPPEDIALRVKALESLLEKGLVDPAAAMD LVVQTYEHKVGPRNGA  
KVVAKAWVDPAYKARLLADATAAIAELGFGSGVQGEDMVILENTPAVHNVFVCTLCSCYPW  
PTLGLPPAWYKAAAYRSRMVSDPRGLVLAIEFGLVIPANKEIRVWDTTAE LRYMVLPERPGT  
EAYSEEQLAELVTRDSMIGTGLPTQPTPSH

>Q7SID2

MTENILRKSDEEIQKEITARVKALESMLEIQGILTTSMIDRMAE IYENEVGPLGAKVVV  
KAWTDPEFKRLLADGTEACKELGIGGLQGEDMMWVENTDEVHVVVCTLCSCYPWVPLG  
LPPNWFKEPQYRSRVVREPRQLLKEEFGEVPPSKEIKVWDSSEMRFV VLPQRPAGTDG  
WSEELATLVTRDSMIGVEPAKAV

>P13448

MSVTIDHTTENAAPAQAPVSDRAWALFRALDGKGLVDPDGYVEGWKKT FEEDFSRRGAEL  
VARAWTDPEFRQLLLTDGTAAVAQYGYLGPQGEYIVAVEDTPTLKNVIVCSLCSCTAWPI  
LGLPPTWYKSFYERARVVRPRKVLSEMGTEIASDIEIRVYD TTAETRYMVLQP RPAGTE  
GWSQEQLOEIVTKDCLIGVAIPQVPTV

>P27763

MDGFHDLGGFQGFQGVPH TINSLSYKQVFKQDWEHLAYS LMFVGV DQLKKFSVDEVRHAV  
ERLDVRQHVGTQYYERYIIATATLLVETGVITQAE LDQALGSHFKLANPAHATGRPAITG  
RPPFEVGD RVVVRDEYVAGHIRMPAYVRGKEGVVLHRTSEQWPFDAIGHGDL SAAHQPT  
YHVEFRVKDLWGDAADDGYVVVDLFE SYLDKAPGAQAVNA

>P97052

MNGIHD TGGAHGYGPVYREPNEPVFRYDWEKTVMSLLPALLANANFN LDEFRHSIERMGP  
AHYLEGTYEHWLHV FENLLVEKGVLTATEVATGKAASGKTATRVLT PAIVDDSSAPGLL  
RPGGGFSFFPVGDKVRVLNKNPVGHTRMPRYTRAKWGQWSSTMVCFVTPDTAAHGKGEQP  
QHVVYTVSFTSVELWGDASSPKDTIRVDLWDDYLEPA

>Q7SID3

MNGVYDVG GTDGLGPINRPADEPVFRAEWEKVAFAMFPATFRAGFMGLDEF RFGIEQMNP  
AEYLESPYYWHWIRTYIHHGVRTGKIDLEELERRTQYYRENPDAPLPEHEQKPELIEFVN  
QAVYGGLPASREVD RPPKFKEGDVVRFSTASPKGHARRARYVRGKTGT VVKHHGAYIYPD  
TAGNGLGECPEHLYTVRFTAQELWGPEGDPNSSVYYDCWEPYIELVDTKAAAA

>P13449

MDGVHDLAGVQGFQGVPH TVNADIGPTFHAWEHL PYSLMFAGVAELGAF SVDEVRYVVE  
RMEPRHYMMTPYYERYVIGVATLMVEKGILTQDELESLAGGPFPLSRPSESEGR PAPVET  
TTFEVGQRRVRDEYVPGHIRMPAYCRGRVGTISHRTTEKWPFPDAIGHGRNDAGEEPTY  
HVKFAAEELFGSDTDGGSVVVDLFE GYLEPAA

>Q53117

MNGVFDLGGTDGIGPVDPPAEPEVFRADWEKAAAF TMFSALFRAGWFGIDEFRHGVEKMDP

ALYLKSPYYKHWIASFEYHGKRTGKLDLAELDRRTQYYLANPDAPLPEHGPNQELIDFAN  
AVVPSGAPAIRPTDKEPRFKIGDVVRMSSDVPFGHTRIAGYVRGKVGRVISHHGSFVYPD  
SAGNGRGDDPQHLYTLQFDATELWGEQYAEPNVTTTTFDDAWDPYLTTLVTAPEGAAA

>P21220

MDGIHDTGGMTGYGPVYPYQKDEPFFHYEWEGRTLSILTWMHLKGISWWDKSRFFRESMGN  
ENYVNEIRNSYYTHWLSAAERILVADKIITEEERKHRVQEILEGRYTDRKPSRKFDPAQI  
EKAIERLHEPHSLALPGAEPFSLSGDKIKVKSMNPLGHTRCPKYVRNKIGEIVAYHGCQI  
YPSSSAGLGDDPRPLYTVAFSAQELWGDDGNGKDVVCVDLWEPYLISA

>P29379

MDGIHDLGGRAGLGP IKPESEDEPVFHSWERSVLTMF PAMALAGAFNLDQFRGAMEQIPP  
HDYLT SQYYEHWMIHAGIEAGIFDSDELDRRTQYYMDHPDDTTPTRQDPQLVETISQ  
LITHGADYRRPTDEAAFAVGDKVIVRSDASPNTHTRRAGYVRGRVGEVVATHGAYVFPD  
TNALGAGESPEHLYTVRFSATELWGEPAAPNVVNHIDVFEPYLLPA

>P11633

MAATKEAKQPKEPKRTRRRKKDPNAPKRRLSAYMFFANENRDIVRSENPDVTFGQVGR I  
LGERWKALTAEEKOPYESKAQADKKRYESEKELYNATRA

>Q07896

MAKRNRSQFRIQERTAKKRKHEDSLEGNVFNQAPEDMDENTIYSAKGSSWDEEEQDYEM  
VPRKNRSDTSNLVEGLPIKVNGKVERKLHKAQEKPKDDDEEDEDSDSSEDEGPNEEQE  
AEAKEDEPDTEEKILQLKEDIADLVTKVMEPEENTAALGRLCKMVESKNPNTCKFSMLA  
LVPVFKSIIIPGYRIRPLTETETEKKEKVSKEVSKLRNFEQALVYNYKNYVGR LQSLSKTPSN  
AAPIQVSLGILATQAAKELISTASHFNFRDIF TLLLRICKPRISTDPTS IQI IQTFET  
LLNEDEEGSISFEILRIFNKILKTRNFNIEESVLNMLLSLDVLDHYDPNTKLGKGNVSAPK  
LKKKDRVHLSKKQRKARKEMQQIEEEMRNAEQAVSAEERERNQSEILKIVFTIYLNILKN  
NAKT LIGSVLEGLTKFGNMANFDLLGDFLEVMKELISDTEFDNLSSAEVRKALLCIVSAF  
SLISNTQYMKVNVDL SKFVDGLYALLPYICLDADIELSYRSLRLADPLNNEI IKPSVNV S  
TKAELLLKALDHVFFRSKSGTKERATAFTKRLYMCISHTPEKTSIAILKFIDKLMNRYPE  
ISGLYSSSEDRIGNGHFIMEADNPSRSNPEAATLWDNALLEKHYPVVTGGLRSLSSRSKE  
CSK

>P98008

MSSFNPHLKFQSQAVAKPYFVFALILFVGVQLFGLIMGLQYVVGDFLFP LLLPFNVARMVH  
TNLLIVWLLFGFMGAAYYLIPEESDCELHSPKLAIILFWVFAAAGVLTILGYLFVPYAAL  
AEMTRNDLLPTMGREFLEQPTITKIGIVVVALGFLYNIGMTMLKGRKTVVSTVMMTGLIG  
LAVFFLF AFYNPENLSRDKFYWWFVHLWVEGVWELIMGAMLAFLIKVTGVDREVIEKW  
LYVIIAMALITGIIIGTGHFFWIGAPTVWLWVGSIFSALEPLPFFAMVLFALNMVNRRRR  
EHPNKAASLWAI GTTVTAFLGAGVWGMHTLAPVNYTHGSQ LTAAHGH LAFYGAYAMIV  
MTMISYAMPRLRGLGEAPDARAQRIEVWGFWLMTISMIAITLFLTAAGVVQIWLQRIPAD  
GAAMSFMTADQLAIFFWLRFIAGVFFLIGLVCYLYSFRQRGRVPVVVAAPAAA

>Q59646

MSETFTKGMARNIYFGGSVFFILLFLALTYHTEKTLPERTNEAAMSAAVVRGKLVWEQNN  
CVGCHTLLGEGAYFAPELGNVVGRRGEEGFNTFLQAWMNIQPLNVPGRRAMPQFHLSEG  
QVDDLAEFLKWSKIDTNQWPPNKEG

>P46531



MPPLLAPLLCLALLPALAARGPRCSQPGETCLNNGKCEAANGTEACVCGGAFVGPCCQDP  
NPCLSTPCKNAGTCHVVDRRGVADYACSCALGFSGPLCLTPLDNACLTNP CRNGGTCDLL  
TLTEYKCRCPGWSGKSCQQADPCASNPCANGGQCLPFEASYICHCPPSFHGPTCRQDVN  
ECGQKPRLCRHGGTCHNEVGSYRCVCRATHGTGPNCEPYVPCSPSPCQNGGTCRPTGDVT  
HECACLPGFQTQNCENIDDCPGNNCKNGGACVDGVNTYNCPCPPEWTGQYCTEDVDECQ  
LMPNACQNGGTCHNTHGGYNCVCVNGWTGEDCSENIDDCASAACFHGATCHDRVASFYCE  
CPHGRTGLLCHLNDACISNPCNEGSNCDTNPVNGKAICTCPSGYTGPAQSQDVDECSLGA  
NPCEHAGKCIINTLGSFECQCLQGYTGPRCEIDVNECVSNPCQNDATCLDQIGEFQCMCMP  
GYEGVHCEVNTDECASSPCLHNGRCLDKINEFQCECPTGFTGHLCQYDVDECASTPCKNG  
AKCLDGPNTYTCVCTEGYTGTHCEVDIDECDPDPCHYGSKDGVATFTCLCRPGYTGHH  
ETNINECSSQPCRLRGTCQDPDNAYLCFCLKGTTPNCEINLDDCASSPCDSGTCLDKID  
GYECACEPGYTGSMCNSNIDECAGNPCHNGGTCEDGINGFTCRCPYHDPCLSEVNEC  
NSNPCVHGACRDSLNGYKCDGPGWSGTNCDINNNECESNPCVNGGTCKDMTSGIVCTCR  
EGFSGPNCQTNINECASNPCLNKGTICDDVAGYKCNCLLPYTGATCEVVLAPCAPSPCRN  
GGECRQSEDIYESFSCVCP TAGAKGQTCEVDINECVLSPCRHGASCQNTHTGGYRCHCQAGY  
SGRNCETDIDDCRPNPCHNGGCTDGINAFCDCLPGFRGTFCEEDINECASDPCRNGAN  
CTDCVDSYTCPCPAGFSGIHCENNTPDCTESSCFNGGTCVDGINSFTCLCPPGFTGSYCQ  
HVVNECDSRPCLLGGTCQDGRGLHRCTCPQGYTGPNQNLVHWCDS SPCKNGGKCWQHT  
QYRCECPSGWTLGYCDVPSVSCVAAQRQGV DVARLCQHGGCLVDAGNTHHCRCQAGYTG  
SYCEDLVDECSPPCQNGATCTDYLGYSCKCVAGYHGVNCSEEEIDECLSHPCQNGGTCL  
DLPNTYKCS CPRGTQGVHCEINVDDCNPPVDFVSRSPKCFNNGTCVDQVGGYSCTCPPGF  
VGERCEGDVNECLSNPCDARGTQNCVQRVNDHFCECRAGHTGRRCESVINGCKGKPCCKNG  
GTCAVASNTARGFICKCPAGFEGATCENDARTCGSLRCLNGGTCISGPRSPCTCLCLGPFT  
GPECQFPASSPCLGGNPCYNQGTCEPTSESPFYRCLCPAKFNGLLCHILDYSFGGAGRD  
IPPLIEEACELPECQEDAGNKVCSLQCNHACGWDGGDCSLNFNDPWKNCTQSLQWKY  
FSDGHCDSDQNSAGCLFDGDFCQRAEGQCNPLYDQYCKDHFSDGHCDQGCNSAECEWDGL  
DCAEHVPERLAAGTLVVVVLMPPEQLRNS SFHFLRELSRVLHTNVVFKRDAHGQQMIFPY  
YGREEELRKHP IKRAAEGWAAPDALLGQVKASLLPGGSEGGRRRRELDPM DVRGSIVYLE  
IDNRQCVQASSQCFQSATDVAAFLGALASLGLNIPYKIEAVQSETVEPPPPAQLHFMYV  
AAAAFVLLFFVCGVLLSRKRRRQHGLWFPEGFKVSEASKKKRREPLGEDSVGLKPLKN  
ASDGALMDDNQNEWGDEDLETKKFRFEFPVLPDLDDQTDHRQWTQQHLDAADLRMSAMA  
PTPPQGEVDADCMDVNVGRPDGFTPLMIASCSSGGLETGNSEEEEDAPAVISDFIYQGAS  
LHNQTDRTGETALHLAARYSRSDAAKRLLEASADANIQDNMGRTP LHAAVSADAQGVFQI  
LIRNRATDL DARMHDGTTPLILAAARLAVEGMLLEDLINSHADVNAVDDLKGSALHWAAAVN  
NVDAAVVLLKNGANKDMQNREETPLFLAAREGSYETAKVLLDHFANRDI TDHMDRLPRD  
IAQERMHHDIVRLLDEYNLVRSPQLHGAPLGGTPTLSPPLCSPNGYLGSLKPGVQGKKVR  
KPSKGLACGSKEAKDLKARRKKSQDGKGCLLDSSGMLSPVDSLES PHGYLSDVASPPLL  
PSPFQQSPSVPLNHLPGMPDTHLGI GHLNVAAKPEMAALGGGRLAFETGPPRLSHLPVA  
SGTSTVLGSSSGALNFTVGGSTSLNGQCEWLSRLQSGMVPNQYNPLRGSVAPGPLSTQA  
PSLQHGMVGPLHSSLAASALSQMMSYQGLPSTRLATQPHLVQTQQVQPQNLQMQQNLQP  
ANIQQQSLQPPPPPPQPHLGVSSAASGHLGRSFLSGEPSQADVQPLGPSLAVHTILPQ  
ESPALPTSLPSSLVPPVTAQAQFLTPPSQHSYSSPVDNTPSHQLQVPEHPFLTPSPESPQD  
WSSSSPHSNVSDWSEGVSSPPTSMQSQIAR IPEAFK

>035516

MPDLRPAALRALLWLWLCGAGPAHALQCRGGQEPVNEGTCVTYHNGTGFCRCPEGFLGE  
YCQHRDPCEKNRCQNGGTCVPQGM LGKATCRCAPGFTGEDCQYSTSHPCFVSRPCQNGGT  
CHMLSRDITYECTQVGF TGKQCQWTDACL SHPCENGSTCTSVASQFSCKCPAGLTGQKCE  
ADINECDIPGRCQHGGTCLNLP GS YRCQCGQGF TGQHCDSPYVRGLPCVNGGT CRQTGDF  
TLECNCLPGFEGSTCERNIDDCPNHKCQNGGVVDGVNTYNCRCPPQWTGQFCTEDVDEC

LLQPNACQNGGTCTNRNGGYGCVCVNGWSGDDCSENIDDCAYASCTPGSTCIDRVASFSC  
LCPEGKAGLLCHLDDACISNPCHKGALCDTNPLNGQYICTCPQGYKGADCTEDVDECAMA  
NSNPCEHAGKCVNTDGAHFCECLKGYAGPRCEMDINECHSDPCQNDATCLDKIGGFTCLC  
MPGFKGVHCELEVNECQSNPCVMNGQCVDKVNRFQCLCPPGFTGFPVCQIDIDDCSSTPCL  
NGAKCIDHPNGYECQCATGFTGILCDENIDNCDPDPCHHGQCQDGDIDSYTCICNPGYMG  
ICSDQIDECEYSSPLNDGRCIDLNVNGYQCNCQPGTSGLNCEINFDDCASNPCMHGVCVDG  
INRYSCVCSPGFTGQRCNIDIDECASNPCRKGATCINDVNGFRICPEGPHHPSCYSQVN  
ECLSNPCIHGNCTGGLSGYKCLCDAGWVGVNCEVDKNECLSNPCQNGGTCNNLVNGYRCT  
CKKGFKGYNCQVNIIDECASNPCLNQGTCFDDVSGYTCHCMLPYTGKNCQTVLAPCSPNPC  
ENAAVCKEAPNFESFSCLCAPGWQGKRCTVDVDECI SKPCMNNGVCHNTQGSYVCECPPG  
FSGMDCEEDINDCLANPCQNGGSCVDHVNTFSCQCHPGFIGDKCQTMNECLSEPCKNGG  
TCSYDVNSYTCPCPAGFHGVHCENNIDECTESSCFNGGTCVDGINSFSCLCFVGFPGFC  
LHDINECSSNPCLNAGTCVDGLGTYRCICPLGYTGKNCQTLVNLCSRSPCKNKGTVCQEK  
ARPHCLCPPGWDGAYCDVLNVSCAAAALQKGVVVEHLQHSIGICINAGNTHHCQPLGYT  
GSYCEEQLDECASNPCQHATCNDFIGGYRCECVPGYQGVNCEYEVDCEQNQPCQNGGTC  
IDLNVNHFKCSPPGTRGLLCEENIDECAGGPHCLNGGQCVDRIGGYTCRCLPGFAGERCE  
GDINECLSNPCSSEGLDCVQLKNNYNCICRSAFTGRHCETFLDVCPQKPCLNNGGTCAVA  
SNMPDGFICRCPGFSGARLQSSCGQVKCRRGEQC IHTDSGPRCFCLNPKDCESGCASN  
CQHGGTCYPQRQPPHYSCRCPPSFGGSHCELYTAPTSTPPATCQSQYCADKARDGICDEA  
CNSHACQWDGGDCSLTMEDPWANCTSTLRCWEYINNQCDEQCNTAECLFDNFECQRNSKT  
CKYDKYCADHFKNHCDQGCNSEECGWDGLDCASDQPENLAEGTLIIVVLLPPEQLLQDS  
RSFLRALGTLHTNLRIRKQDSQALMVYPYFGEKSAAMKKQKMTRRSLPEEQEQEQEVIG  
SKIFLEIDNRQCVQDSQCFKNTDAAAALLASHAIQGTLSYPLVSVFSELESPRNAQLLY  
LLAVAVVILFFILLGVIMAKRKQAWLPLAAGRFTLRRDSSNHKRREPVGQDAVGLKNLS  
VQVSEANLIGSGTSEHWVDDEGPQPKKAKAEDEALLSEDDPIDRRPWTQQHLEADI SHT  
PSLALTPPQAEQEVLDVNVVRGPDGCTPLMLASLRGGSSDLSDEDEDAEDSSANIITDL  
VYQGASLQAQTDRTGEMALHLAARYSRADAARLLDAGADRNAQDNMGRCPHAAVAGDA  
QGVFQILIRNRVTDLDARMNDGTTPLILAAARLAVEGMVAELINCQADVNAVDDHGKSALH  
WAAAVNVEATLLLLKNGANRDMQDNKEETPLFLAAREGSYEAAKILLDHFANRDI TDHM  
DRLPRDVARDRMHHDIVRLLDEYNVTPSPPGTVLTSALSPVLCGPNRSFSLKHTPMGKK  
ARRPNTKSTMPTSLPNLAKEAKDAKGSRRKCLNEKVQLSESSVTLSPVDSLESPTHYVS  
DATSSPMITSPGILQASPTPLAAAAPAAPVHTQHALSFSNLHDMQPLAPGASTVLPVSVS  
QLLSHHHIAPPSSSAGSLGRLHPVVPADWMNRVEMNETQYSEMFGMVLAPAEGAHPGI  
AAPQSRPPEGKHMSTQREPLPIVTFQLIPKRSIAQAAGAPQTQSSCPPAVAGPLPSMYQ  
IPEMPRLPSVAFPPMTMPQQEQVAQTIVPTYHPPASVKGYPPTPSQHSYASSNAERT  
PSHGGLQGEHPYLTPSPESPDQSSSSPHSASDWSVTTSPTPGGGGGGQRGPGTHMSE  
PPHSNMQVYA

>Q61982

MGLGARGRRRRRRLMALPPPPPPMRALPLLLLLLAGLGAAAAPPCLDGSPCANGGRCTHQQP  
SLEAACLCPLPGWGERCQLEDPCHSGPCAGRGVCQSSVVAGTARFSCRCLRGFQGPDCSQ  
PDPCVSRPCVHGAPCSVGPDRFACACPPGYQGCQSDIDECRSGTTCRHGGTCLNTPG  
SFRCQCPGTYGLLLENVVPVPCAPSPCRNGGTCRQSSDVTYDCACLPGFEGQNCVNVDD  
CPGHRCLNGGTCVDGVNTYNCQCPPEWTGQFCTEDVDECQLQPNACHNGGTCFNLLGGHS  
CVCVNGWTGESCSQNIIDCATAVCFHGATCHDRVASFYCACPMGKTGLLCHLDDACVSNP  
CHEDAICDTNPVSGRAICTCPPGFTGGACDQDVDECSIGANPCEHLGRCVNTQGSFLCQC  
GRGYTGPRCETDVNECLSGPCRNOATCLDRIGQFTICMAGFTGTyceVDIDECQSSPCV  
NGGVCKDRVNGFSCTCPSGFSGSMCQLDVDECASTPCRNGAKCVDQPDGYECRCAEGFEG  
TLCERNVDDCSPDPCHHGRCVDGIAFSACAPGYTGIRCESQVDECRSQPCRYGGKCLD  
LVDKYLCRCPPGTTGVNCEVNIDDCASNPCTFGVCRDGINRYDCVCQPGFTGPLCNVEIN

ECASSPCGEGGSCVDGENGFHCLCPPGSLPPLCLPANHPCAHKPCSHGVCHDAPGGFRCV  
CEPGWSGPRCSQSLAPDACESQPCQAGGTCTSDGIGFRCTCAPGFQGHQCEVLSPTPSL  
CEHGGHCESDPDRLTVCSPPGWQGPCRQQDVDECAGASPCGPHGTCTNLPGNFRICIHR  
GYTGPFCQDIDDCDPNCLHGGSCQDGVGSFSCSCLDGFAGPRCARDVDECLSSPCGPG  
TCTDHVASFTCACPPGYGGFHCEIDLPCDSSCFNGGTCVDGVSSFSCLCRPGYTGTTC  
QYEADPCFSRPLHGGICNPTHPGFECTCREGFTGSQCQNPVDWCSQAPCQNGGRVCQTG  
AYCICPPGWSGRLCDIQSLPCTEAAAQMGVRLQQLCQEGGKCIDKGRSHYVCPEGRTGS  
HCEHEVDPCTAQPCQHGGTCRGMGGYVCECPAGYAGDSCEDNIDECASQPCQNGGSCID  
LVARYLCSPPGTLGVLCEINEDDCDLGPSLDSGVQCLHNGTCVDLVGGFRCNCPPGYTG  
LHCEADINECRPGACHAAHTRDCLQDPGGHFRCVCHPGFTGPRCQIALSPCESQPCQHG  
QCRHSLGRGGGLTFTCHCVPPFWGLRCERVARSCRELQCPVGIPCCQTARGPRCACPPGL  
SGPSCRVSRAASPGATNASCASAPCLHGGSCLPVQSVFFRCVCAPGWGGPRCETPSAAP  
EVPEEPRCPRAACQAKRGDQNCRECNTPGCGWDGGDCSLNVDDPWRQCEALQCWRLFNN  
SRCDPACSSPAclyDNFDCYSGGRDRTCNPVYEKCADHFADGRCDQGCNTEECGWDGLD  
CASEVPALLARGVLLVTLVLLPPEELLRSSADFLQRLSAILRTSLRFRILDARGQAMVFPYH  
RPSPGSESRRRELGPVIGSVVMLEIDNRLCLQSAENDHCFPDAQSAADYLGALSAVER  
LDFPYPLRDVRGEPLEAPEQSVPLPLLVAGAVFLLIIFILGVMVARRKREHSTLWFPEG  
FALHKDIAAGHKGRREPVGQDALGMKNMAKGESLMGEVVTDLNDSECPEAKRLKVEEPM  
GAEPEPDCRQWTQHHLVAADIRVAPATALTPPQGDADADGVDVNVGRPDGFTPLMLASFC  
GGALEPMPAEDEADDTASASIIISDLICQGAQLGARTDRGTETALHLAARYARADAARLL  
DAGADTNAQDHSGRTPHHTAVTADAQGVFQILIRNRSTDLDARMADGSTALILAARLAVE  
GMVEELIASHADVNAVDELGKSALHWAAVNNVEATLALLKNGANKMDQDSKEETPLFLA  
AREGSYEAALLLDHLANREITDHLDRLPDVAQERLHQDIVRLLDQPSGPRSPSGPHGL  
GPLLCPGAFPLPGLKAVQSGTKKSRPPGKTGLGPQGTRGRGKLTACPGPLADSSVTL  
SPVDSLDSRPFSGPPASPGGFPLEGYPYATTATAVSLAQLGASRAGPLGRQPPGGCVLSF  
GLLNPAVAVPLDWARLPPPAPPGPSFLLPLAPGPQLLNPGAPVSPQERPPPYLAAPGHGEE  
YPAAGTRSSPTKARFLRVPSEHPYLTPSPESPEHWASPSPPSLSDWSDSTPSPATATNAT  
ASGALPAQPHPI SVPSLPQSQTQLGQPQEVTPKRQVMA

>P31695

MQPQLLLLLLLPLNFPVILTRELLCGGSPEPCANGGTCLRLSQQGICQCAPGFLGETCQ  
FPDPCRDTQLCKNGGSCQALLPTPPSSRSPTSPLTPHFSTCPGFTGDRQCQTHLEELCP  
PSFCSNGGHCVYQASGRPQCSCPEGWTGEQCQLRDFCSANPCANGGVCLATYPQIQCRCP  
PGFEGHTCERDINECFLEPGPCPQGTSCHNLTLSYQCLCPVQEGPQCKLRKGACPPGSC  
LNGGTCQLVPEGHSTFHLCLCPPGFTGLDCEMNPDDCVRHQCQNGATCLDGLDITYTCLCP  
KTWKGWDCSEIDICEARGPPRCRNGGTCQNTAGSFHCVCVSWGAGCEENLDDCAAT  
CAPGSTCIDRVGSFSCLCPPGRTGLLCHLEDMCLSQPCHVNAQCSTNPLTGSTLCLCQPG  
YSGSTCHQDLDECQMAQQGSPCEHGGSCINTPGSFNCLCLPGYTGSRCEADHNECLSQP  
CHPGSTCLDLLATFHCLCPPGLEGRLEVEVNECTSNPCLNQAACHDLLNGFQCLCLPGF  
TGARCEKMDCESSTPCANGRCRDQPGAFYCECLPGFEGPHCEKEVEDECLSDPCPVGAS  
CLDLPGAFFCLCRPGFTGQLCEVPLCTPNMCQPGQQCQGEHRAPCLCPDGSPGCVPAED  
NCPCHHGHCRSLCVCDEGWTGPECETELGGCISTPCAHHGTCHPQPSGYNCTCPAGYMG  
LTCSEEVTAHSGPCLNGGSCSIRPEGYSCTCLPSHTGRHCQTAVDHCVSASCLNGGTCV  
NKPPTFFCLCATGFQGLHCEEKTNPSCADSPCRNKATCQDTPRGARCLCSPGYTGSSCQT  
LIDLARKPCPHARCLQSGPSFQCLCLQGWGALCDFPLSCQMAAMSQGIIEISGLCQNG  
GLCIDTGSSYFCRCPGFGKLCQDNMNPCEPNPCHHGSTCVPPQPSGYVCQCAPGYEGQN  
CSKVLEACQSQPCHNHGTCTSRPGGFHCACPPGFVGLRCEGDVDECLDRPCHPSGTAACH  
SLANAFYCQCLPGHTGQRCEVEMDLQSQPCSNGGSCIEITGPPPGFTCHCPKGFEGPTC  
SHKALS CGIHHCHNGGLCLPSPKPGSPPLCACLSGFGGPDCLTPPAPPGCGPPSPCLHNG  
TCTETPGLGNPGFQCTCPPDSPGPCRQRP GASGCEGRGGDGTCDAGCSGPGGDWDGGDCS

LGVDPDPWKGCPPHSQCWLLFRDGRCHPQCDSEECLEFDGYDCEIPLTCIPAYDQYCRDHFH  
NGHCEKGCNNAECGWDGGDCRPEGEDSEGRPSLALLVVLRRPPALDQQLLALARVLSLTLR  
VGLWVRKDESEGRNMVFPYPGTRAKEELSGARDSSSWERQAPPTQPLGKETESLGAGFVVV  
MGVDLSRCGPEHPASRCPWDGSLLLRFLAAMAAVGALEPLLPGPPLAAHPQAGTRPPANQ  
LPWPILCSPVVGVLALLGALLVQLIRRRRREHGALWLPFGFIRRPQAQQAPHRRRPPPL  
GEDNIGLKALKPEAEVDEDEGVAMCSGPEEGEAETASASRCQLWPLNSSCGELPQAAMLT  
PPQECESEVLVDVTCGPDGVTPLMSAVFCGGVQSTTGASPQRLGLGNLEPWEPLLDRGAC  
PQAHTVGTGETPLHLAARFSRPTAARRLLEAGANPNQPDRAGRTPPLHTAVAADAREVCQL  
LLASRQTSVDARTEDGTTPLMLAARLAVEDLVEELIAARADV GARDKRGKTALHWAAAVN  
NARAARSLQAGADKDAQDSREQTPLFLAAREGAVEVAQLLLELGAARGLRDQAGLAPGD  
VARQRSHWDLTLLEGAGPTTQEARAHARTTPGGGAAARCRTLSAGARPRGGGACLQART  
WSVDLGARGGKVYARCRSRSGSCGGPTTRGRRFSAGSRGRRGARASQDDWPRDWVALEAC  
GSACSAPIPPPSLTPSPERGSPQVAWGLPVHQEIPLNSVVRNLN

>Q8IUM7

MYRSTKGASKARRDQINAEIRNLKELLPLAEADKVRLSYLHIMSLACIYTRKGVFFAGGT  
PLAGPTGLLSAQELEDIVAALPGFLLVFTAEGKLLYLSESVSEHLGHSMVDLVAQGDSIY  
DIIDPADHLTVRQQLTLPALDTRDLFRCRFNTSKSLRRQSAGNKLVLIRGRFHAHPPGA  
YWAGNPVFTAFCAPLEPRPRPGPGPGPASLFLAMFQSRHAKDLALLDISESVLIYLG  
ERSELLCKSWYGLLHPEDLAHASAQHYRLLAESGDIQAEMVVRQAKTGGWAWIYCLLYS  
EGPEGPITANNYPISDMEAWSLRQQLNSEDTQAAYVLGTPTMLPSFPENILSQEECSSTN  
PLFTAALGAPRSTSFPSAPELSVVSASEELPRPSKELDFSYLTFPSGPEPSLQAEISKDL  
VCTPPYTPHQPGGCAFLFSLHEPFQTHLPTPSSTLQEQLTPTSTATFSDQLTPSSATFPDP  
LTSPLQGLTETSVRSYEDQLTPCTSTFPDQLLPSTATFPEPLGSPAHEQLTPPSTAFQA  
HLDPSQTFPEQLSPNPTKTYFAQEGCSFLYEKLPSPSSPGNGDCTLLALAQLRGPLSV  
DVPLVPEGLLTPEASPVKQSFHYSEKEQNEIDRLIQQISQLAQGMDRPFSAEAGTGGL  
PLGGLEPLDSNLSLGGAGPPVLSLDLKPWKCELDLADPDNMFLEETPVEDIFMDLSTP  
DPSEEWGSGDPEAEGPGGAPSPCNLSPEDHSFLEDLATYETAFAFETGVSAPPYDGFDEL  
HQLQSQVQDSFHEDGSGGEPFF

>O35627

MTAMLTLTETMASEEEYGRNCVVCGRATGYHFHALTCEGCKGFFRRTVSKTIGPICPFA  
GRCEVSKAQRHCPACRLQKCLNVGMRKDMILSAEALALRRARQAQRRAEKASLQLNQQQ  
KELVQILLGAHTRHVGPLFDQFVQFKPPAYLFMHHRPFQPRGPVLPPLTHFADINTFMVQ  
QIIKFTKDLPLFRSLTMEDQISLLKGAAVEILHISLNTTFCLQTENFFCGPLCYKMEDAV  
HAGFYEFLESILHFHKNLKLHLQEPYVLMATAALFSPDRPGVTQREEIDQLQEEMAL  
ILNNHIMEQQSRLQSRFLYAKLMGLLADLRSINNAYSSELQRLEELSAMTPLLGEICS

>P35331

MMKEKSIASAKASLVFFLCQMISALDVPPLDVKLLEELSQPPTITQQSPKDYIVDPRENIV  
IQCEAKGKPPPSFSWTRNGTHFDIDKDAQVTMKPNSGTLVVNIMNGVKAEEYEGVYQCTA  
RNERGAAISNNIVIRPSRSPPLWTKKLEPNHVREGDSLVLNCRPPVGLPPP IIFWMDNAF  
QRLPQSERVSQGLNGDLYFSNVQPEDTRVDYICYARFNHTQT IQQKQPI SVKVFSTKPVT  
ERPPVLLTPMGSTSNKVELRGNVLLLEECIAAGLPTPVIRWIKEGGELPANRTFFENFKKT  
LKIIDVSEADSGNYKCTARNTLGGSTHHVIVSVTVKAAPIWITAPRNLVLSPGEDGTLICRA  
NGNPKPISISWLTNGVPIAIAPEDEPSRKVDGDTIIFSAVQERS SAVYQCNASNEYGYLLAN  
AFVNVLAEPRIILTPANKLYQVIADSPALIDCAYFGSPKPEIEWFRGVKGSILRGNEYV  
HDNGTLEIPVAQKDSTGTYT CVARNKLGKTQNEVQLEVKDPTMI IKQPQYKVIQRSAQAS  
FECVIKHDPTLIPTVIWLKDNNELPDDERFLVKGDNLTIMNVTDKDDGTYTCIVNTTLD  
VSASAVLTVVAAPPTPAIIYARNPPLDLELTGQLERSIELSWVPGEENNSPITNFVIEY

EDGLHEPGVWHYQTEVPGSHTTVQLKLSPIVNYVNSFRVIAVNEIGRSQPSEPSEQYLTKSA  
NPDENPSNVQGGIGSEPDNLVITWESLKGFGQSNPGLQYKVSQRQKDVDEWTSVVVANVS  
KYIVSGTPTFPVPEIKVQALNDLGYAPEPSEVIGHSGEDLPMVAPGNVQVHVINSTLAKV  
HWDPVPLKSVRGLHQYKVVYWKVQSLSRRSKRHVEKKILTFRGNKTFGMLPGLEPYSSY  
KLNVRVVNGKGEPPASPDKVFKTPEGVPSPPSFLKITNPTLDSLTLWGSPTHNGVLT  
YILKFQPINNTHELGPLVEIRIPANESSLILKLNLYSTRYKFFNAQTSVGSQSITEEA  
VTIMDEAGILRPAVGAGKVQPLYPRIRNVTTAAAETIANISWEYEGPDHANFYVEYGVAG  
SKEDWKKEIVNGSRSFVVKGLTPGTAYKVRVGAEGLSGFRSSEDLFETGPAMASRQVDI  
ATQGWFIGLMCAVALLILILLIVCFIRRNKGGKYPVKEKEDAHADPEIQPMKEDDGTGFE  
YRSLESDAEDHKPLKKSRTPSDRTVKKEDSDDSLVDYGEVNGQFNEDGSFIGQYSGKK  
EKEPAEGNESSEAPSPVNAMNSFV

>Q9S1E6

MNKSFLVYSSLVVFAIALGLFVYLVNASKALSYLSSDPKACINCHVMNPQYATWQHSSH  
AERASCVECHLPTGNMVQKYISKARDGWNHNSVAFTLGTVDHSMKISEDGARRVQENCISC  
HASLSSTLLENADRNHQFNPKGASERLCWECHKSVPHGKVRSLTATPDNLGVREVK

>O15504

MAICQFFLQGRCRFGDRCWNEHPGARGAGGGRRQQPQQPSSGNRRGWNTTSQRYSNVIQP  
SSFSKSTPWGGRDQEKPYFSSFDGASTNRKEGFGLESENPFASLSPDEQKDEKKLLEGI  
VKDMEVWESSGQWMSVYSPVKKKPNISGFTDISPEELRLEYHNFLTSNNLQSYLNSVQR  
LINQWRNRVNELKSLNISTKVALLSDVKDGVNQAAPAFGFGSSQAATFMSPGFPVNNSSS  
DNAQNFSTNSGFAAASSGSPAGFGSSPAFGAAASTSSGISTSAFAGFGKPEVTSAA  
FSFKSPAASSFGSPGFSGLPASLATGPVRAPVAPAFGGSSVAGFGSPGSHSHTAFSKPS  
SDTFGNSSISTSLSASSSIIATDNVLFTPRDKLTVEELEQFQSKKFTLGKIPKPPPLEL  
LNV

>Q8Z9M6

MESLNALLQGMGLMHLGAGQAIMLLVSLLLLWLAIAKKFEPLLLLPIGFGLLSNIPEAG  
MALTALESLLAHHHDAGQLAVIAAKLNCAPDVHAIKEALALALPSVQNQMENLAVDMGYTP  
GVLALFYKVAIGSGVAPLVIIFMGVAMTDFGPLLANPRTLLLGAQAQFIFATVLGALTL  
NYFGLIAFTLPQAAAIGIIGGADGPTAIYLSGKLAPELLGAIAVAAYSIMALVPLIQPPI  
MRALTSEKERKIRMVQLRTVSKREKILFPVLLLLVALLLPDAAPLLGMFCFGNLMRESG  
VVERLSDTVQNGLINIVTIFLGLSVGAKLVADKFLQPQTLGILLGVIAGIGTAAGVLM  
AKLLNLCSKNKINPLIGSAGVSAVPMARVSNKVGLESDAQNFLLMHAMGPNVAGVIGSA  
IAAGVMLKYVLAM

>Q03032

MTNAALLLGGFTLMFLGMGFVLAFLFLIFAIRGMSAAVNRFFPEPAPAPKAAPAAAAP  
VVDDFTRLKPVIAAAIHHHRLNA

>P39720

MVENSTQKAPHAGNDDNSSTKPYSEAFFLGFNPTPGLEAEHSSTSPAPENSETHNRKR  
RILFVCQACWKSSTKCDREKPECGRVCVHGLKCVYDVSKQPAPRIPSKDAIISRLEKDMF  
YWKDKAMKLLTEREVNESGKRSASPINTNASGSDSPDTKKQHKMEPIYEQSGNGDINNGT  
RNDIEINLYRSHPTMIMSKVMKREVKPLSENYIIIQDCKILVTSVFLDTSKNTMIPAL  
TANANITRAQPSVANNLLKLEMLIRQCQTEDEKNRVNEFTDRILQNTNSNRNLKIGMLL  
SMLYNSVGYQYLEDHCPQGGEYSDLLRNLINCEAILPSYEIERYKNHFYEYVYPSLPF  
IELEIFEESLSQTIFFDPNPNPSKVQIRMGSTHLRAKVENLSLLLVLKLSYMSIRFLDHS  
TADSSFYLSKEIIDKYPINDFILLSPRCLASENWCACANENIISCLLYIWSFFAFSPEE

GDFFLEHPTDVISSLIMMLSTSIGLHRDPSDFPQLISPSTSDKRTLNRHRRILWLSIVTVC  
SFEASLKGRHSVSPISLMALFLNIKDPDSLTVYMNVRVGRDLSINNHTLLRIHKFTFKRA  
QLALLLSDLNLTMTYYGSFHLHSIEFIREKIEIFVEENFPVPLKSVQDKSDLDDMN  
ISEMNILSSENSSSSFHNRIMNKLMLRTSMAVFLHFETLITKDKSIFPFYKKYFMVSCMD  
ALSLINYFNKFFNGEYRHAISSLTSFNVTKFIQLALSSTIFSLGIIILRIGLAIHMLSSE  
VQKLSGTTDPRIKELNTEKVEKSTLQRDLSEALEGIYCSASEHLRFTYFPVFKMLALFDV  
IVQMRKGGELWHGIFTMIQMEQMHSRIKTLSTITLGVKLDKDRLLLEELMACNHVANFSV  
EDIDELNRNIKKEIQISSGLKPPVNTIDLNGEPPFGNAVPTFTKTWSSSLDNLEKLSAA  
AVGQSLDYNSGLRQGPLAGGGSKEQTP IAGMNNLNSINATP IVDNSSGSQPLNGFDRGQ  
ANNTPFPGYFGGLDLFDYDFLFGNDFA

>P37940

MSTNRHQALGLTDQEAVDMYRTMLLARKIDERMWLLNRSKGI PFVISCQGEAAQVGAAF  
ALDREMDYVLPYYRDMGVVLAFGMTAKDLMMSGFAKAADPNSSGGRQMPGHFGQKKNRIVT  
GSSPVTQVPHAVGIALAGRMEKKDIAAFVTFGEGSSNQDFHEGANFAAVHKLPIVIFMC  
ENNKYAI SVPYDKQVACENISDRAIGYGMGPVTVNGNDPLEVYQAVKEARERARRGEGPT  
LIETISYRLTPHSSDDDDSSYRGREEVEEAKKSDPLLTYQAYLKETGLLSDEIEQTMLDE  
IMAI VNEATDEAENAPYAAPESALDYVYAK

>P12694

MAVAIAAARVWRLNRGLSQAALLLLRQPGARGLARSHPPRQQQFSSLDLDPQFPGASAE  
FIDKLEFIQPNVISGIPYRVMRQGGQIINPSEDPHLPKEKVLKLYKSMTLLNTMDRILY  
ESQRQGRISFYMTNYGEEGTHVGSAAALDNTDLVFGQYREAGVLMYRDYPLELQMAQCYG  
NISDLGKGRQMPVHYGCKERHFVTISSPLATQIPQAVGAAAYAAKRANANRVVICYFGEGA  
ASEGDAHAGFNFAATLECP IIFFCRNNGYAI STPTSEQYRGDGI AARGPGY GIMSIRVDG  
NDVFAVYNATKEARRRAVAENQPFLIEAMTYRIGHHSTSDSSAYRSVDEVNYWDKQDHP  
ISRLRHYYLLSQGWDEEQEKAWRKQSRRKVMEAFEAERKPKPNPPLLFSVYQEMPAQL  
RKQQESLARHLQTYGEHYPLDHFDK

>P09060

MNEYAPLRLHVPEPTGRPGCQTD FSYLRLNDAGQARKPPVDVDAADTADLSYSLVRLVDE  
QGDAQGPWAEDIDPQILRQGMRAMLKTRIFDSRMVVAQRQKKMSFYMQSLGEEAIGSGQA  
LALNRTDMCFPTYRQQSILMARDVSLVEMICQLLSNERDPLKGRQLPIMYSVREAGFFTI  
SGNLATQFVQAVGWAMASAIKGDTKIASAWIGDGATAESDFHTALTFAHVYRAPVILNVV  
NNQWAI STFQAIAGGESTTFAGRGVCGGIASLRVDGNDFVAVYAASRWAAERARRGLGPS  
LIEWVTYRAGPHSTSDPSKYRPADDWSHFPLGDP IARLKQHLIKIGHWSEEEHQATTAE  
FEAAVIAAQKEAEQYGTLANGHIPSAA SMFEDVYKEMP DHLRRQRQELGV

>Q5SLR4

MVKETHRFETFTTEPIRLIGEEGEWLGDFPLDLEGEKLRRLYRDMLAARMLDERYTIILIR  
TGKTSFIAPAAGHEAAQVAIAHAIRPGFDWVFPYYRDHGLALALGIPLKELLGQMLATKA  
DPNKGRQMPHEHPGSKALNFFTVASPIASHVPPAAGAAISMKLLRTGQVAVCTFGDGATSE  
GDWYAGINFAAVQGAPAVFIAENNFYAI SVDYRHQTHSPTIADKAHAFGIPGYLVDGMDV  
LASYYVVKEAVERARRGEGPSLVELRVYRYGPHSSADDDSRYPKEEVAFWRKKDPIPRF  
RRFLEARGLWNEEWEEDVREEIRAELERGLKEAEAEAGPVPEW MFEDVFAEKPWHLRQE  
ALLKEEL

>P21839

MAAVAAFAGWLLRLRAAGADGPWRRLCGAGLSRGFLQSASAYGAAAQRRQVAHF TFQDPD  
EPVEYQQTQKMNLFQAVTSALDNSLAKDPTAVIFGEDVAFGGVFRCTVGLRDKYKDRVF

NTPLCEQGIVGFGIGIAVTGATAIAEIQFADYIFPAFDQIVNEAAKYRYSRSGDLFNCGSL  
TIRSPWGCVGHGALYHSQSPEAFFAHCPGIKVVVPRSPFQAKGLLLSCIEDKNPCIFFEP  
KILYRAAVEQVPVEPYNIPLSQAEVIQEGSDVTLVAVGTQVHVIREVAAMAQEKLGVSCE  
VIDLRTILPVDVDTVCKSVIKTGRLLVSHEAPLTGGFASEISSTVQEECFNLLEAPISR  
VCGYDTPFPHIFEPFYIPDKWKCYDALRKMINY

>P35485

DQNGKVVNEKMEPKLPKETLLKMYKTAVLGRNADIKALQYQRQGRMLTYAPNMGQEAQI  
GMAAAMEPQDWNSPMYRELNTLLYRGDKLENVFLYWGNERGSIKPEGVKILPTNIIIGS  
QSNIAAGLAMASKIRKTNEVTAFTIGDGGTAHGEFYEGLNFAASFAPVVAVIQNNQWAI  
STPVRKASNSETLAQKGVAFGIPYIQVDGNDMLAMYVASKEAMDRARKGDGPTLIEAFTY  
RMGPHTTSDDDPCSIYRTKEEENEWAKKDQIARFKTYLINKGYWSEEDKKLEEEVLAEIN  
DTFKKVESYGANVELIEIFEHTYAEMTPQLKEQYEEHKKYLEGVK

>Q4MTG0

MGTKTKKTLFNVDEQMKAIAAQFETLQILNEKGEVVNEAAMPELSDQLKELMRRMVYTR  
VLDQRSISLNRQGRLGIFYAPTAGEASQLASHFALEAEDFILPGYRDVPLVWHGLPLYQ  
AFLFSRGHFMGNQMPENVNALAPQIIIGAQIIQTAGVALGMKLRGKKSVAITYTGDGGAS  
QGDFYEGMNFAGAFKAPAIFFVQNNRYAISTPVEKQSAAKTVAQKAVAAGIYGIQVDGMD  
PLAVYAATAFARERAVNGEPTLIETLTFRYGPHTMAGDDPTRYRTKDIENEWEQKDP  
IVRFRAFLNKGLWSQEVEEKVIEEAKEDIKQAIKADQAPKQKVTDLMEIMYEKMPYNLAE  
QYEIYKEKESK

>P47516

MAILIKNKVPTTLYQVYDNEGKLIIDPNHKITLTDQLKHAYYLMNLSRMDKMLVWQRA  
GKMLNFAPNLGEEALQVGMGLGLNENDWVCPTFRSGALMLYRGVKPEQLLLYWNGNEKGS  
QIDAKYKTLPINITIGAQYSHAAGLGYMLHYKKQPNVAVTMIGDGGTAEGEFYEAMNIAS  
IHKWNTVFCINNNQFAISTRKLESVSDLSVKAIACGIPRVRVDGNDLIASYEAMQDAA  
NYARGGNGPVLIEFFSYRQGPHTTSDDPYIYRTKQEEEEGMKSDPVKRLRNFLFDRSILN  
QAQEEEMFSKIEQEIQAAYEKMVLDTPVSVDEVFVFDYNYQELTPELVEQKQIAKKYFKD

>Q9R9N5

MAPRKSASVSSRKTAAKPAKKDFAGGTIAEFSKEDDLKAYREMLLIRRFEKAGQLYGMG  
FIGGFCHLYIGQEAVVVMQLALKEGDQVITGYRDHGHMLACGMSARGVMAELTGRRGGL  
SKGKGGSMHMFSSKEKHFGYGGHIVGAQVSLGTGLAFANRYRGNDNVSLAYFGDGAANQGG  
VYESFNMAALWKLPIYIVENRYAMGTSVSRASAQTDFSQRGASFGIPGYQVDGMDVRA  
VKAAADEAVEHCRSGKGPILLEMLTYRYRGHSMSDPAKYRSKDEVQKMRSEHDP  
IEQVKA RLTDKGWATEDELKQIDKEVRDIVADSADFAQSDPEPDVSELYTDILL

>Q1RJX4

MDIKLGKYKPVKEEYIKSFKDMLLLRRFEKCGQLYGMGEIGGFCHLYIGQEAVISAVDM  
VKQKEDSMVTSYRDHAHIILAGTEPKYVLAELMGRATGCSKGGSMHLFVDPNKFYGGH  
GIVGAQVPIGTGLAFAEKYNGTNNICFTFLGDGAVNQGQVYEA FNMAALWGLPVVYI  
IEN NEYSMGTSVARSTFMRDLYKKGESFGIKGFQLNGMDFEEMYDGVKQAAEYVRENS  
MPLIIEVKTYRYRGHSMSDPAKYRSKEEVETYKERDPITEIRKILLENNYASEADLKE  
IEQSVKE IVKEAVEFSENSPLNEEELYTQIYV

>O66112

MAKATQDSNRPHKADVGSAINPHDLPPIPGRYHADREELLEFYRRMLMIRRFEERCQ  
LYGLGLIAGFCHLYIGQEAVAVGLQAALQPGRDSVITGYREHGHMLAYGIDPKIVMAELTGR

ASGISHGKGGSMHMFSTEHKFFGGNGIVGAQVPLGAGLAF AHKYRNDGGCSAAYFGDGSA  
NQGQVYEAYNMAALWKLPIVFIENNGYAMGTSIQRANAHTALSERGAGFGIPALVVDGM  
DVLEVRGAATVAVDWVQAGKGP IILEMKT YRYRGHSMSDPARYRSREEVNDMKENHDPLD  
NLKKDLFAAGVPEAELVKLDEDIRQQVKEAADFAEKAPLPADEELYTNILVGKY

>O66113

MAIELKMPALSPTMEEGLTRWL VKEGDSIKAGEILAEIETDKAIMEFEAVDEGVITKIL  
IPEGSENVKVGTAIAYLGTDANDVTL DGASAETKAEESAPVASPAKTEAAAVEEAAATPSL  
GKVINSAPEIPEGETEFFQOTLREALRDAMAEEMRRDDR VFMGEEVAEYQGAYKVTQGLL  
QEFGARRVVDTPISEYGFSGIGVGAAMEGLRPVIEFMTMNF SMQAIDHI INSAAKTHYMS  
GGQVRCPIVFRGPNGAAPRVGAQHTQNF GPWYAAVPGLVVLAPYDAIDAKGLLKAAIRSD  
DPVVFLECELLYGKTFDVPKMDDFVLP I GKARI IREGKDVTIVSYSIGVSFALTAEEALA  
KEGIDA EVIDLRTRLRPLDKETILQSLAKTNRI VTVEDGWPVCSISSEIAAIAMEEGFDNL  
DAPVLRVTNADTPTPYAENLEKKGLVNPEAII EAVRKVCYRK

>P72300

MTLREVSTASDLREFYDVLISGAGPAGMTAALEASAAGARVAVLDENPRPGGQIYRDI TR  
NRPERKSYLGPDYWKGKQLAEVFD RSTIDYAPRATVWSLEGRDETVAKVRNVVGVTVGGS  
ARMIEADAVVLATGAQERPMPVPGWTLQRVMTAGAAQIALKAAGAMPSEPIVLAGCGPLL  
YLLASQLIDAGVSDLTVLDTAQSTFRMSVLRHMPEFLRSPYVLK GIRLLFKVKCQACVVS  
GVRSAITGSERAEGVRFTTAGGEQAI PASSVLLHQGVIPSTNL TNAAGCELRWNDQRA  
FEPVTDNEGRSSRQGIYVAGD GSGIAGAQA AEVSGRIAALAALCDLGLVSVTAVARLKP  
LHKQARRFLRGRAFLDALYTPRSSFLAPLNPETVVCREEITVRK IREAIALRPPGPNQL  
KTFRLRCGMGQCQGR LCAATVTEIMAEERKVSPADVGT YRLRSPVKPVRLAELAQLPHTAR  
ALKAVTGRDPVDHDTNETGHISCPDTDIASCQVQRRRPTSAGIVA

>Q99650

MALFAVFQTTFFLTLLSLR TYQSEVLAERLPLTPVSLKVSTNSTRQSLHLQWTVHNLPHYH  
QELKMFVQIQIISRIETSNVIWGNYSTTVKWNQVLHWSWESELPLECATHFVRIKSLVDD  
AKFPEPNFWSNWSSWEEVSVQDSTGQDILFVFPKDKLVEEGTNVTICYVSRNIQNNVSCY  
LEGKQIHGEQLDPHVTA FNLSVPFIRNKGTNIYCEASQGNVSEGMKGIVL FVSKVLEEP  
KDFSCETEDFKTLHCTWDPGTD TALGWSKQPSQSYTLFESFSGEEKLCTHKNWCNWQITQ  
DSQETYNFTLIAENYLRKRSVNILFNLTHR VYLMNPF SVNFENVNATNAIMTWKVHSIRN  
NFTYLCQIELHGEGKMMQYNVSIKVNGEYFLSELEPATEYMARVRCADASHFWKWSEWSG  
QNFTTLEAAPSEAPDVWRIVSLEPGNHTVTLFWKPLSKLHANGKILFYNVVVENLDK PSS  
SELHSIPAPANSTKLI LDRCSYQICVIANNSVGASPASVIVISADPENKEVEEER IAGTE  
GGFSLSWKPQPGDVI GYVVDWCDHTQDVLGDFQWKNVGPNTTSTVISTDAFRPGVRYDFR  
IYGLSTKRIACLLEKKTGYSQELAPSDNPHVLVD TLTSHSFTLSWKDYSTESQPGFIQGY  
HVYLKSKARQCHPRFEKAVLSDGSECKYKIDNPEEKALIVDNLKPESFYEFFITPFTSA  
GEGPSATFTKVTTPDEHSSMLIHILLPMVFCVLLIMVMCYLKSQWIKETCYPDIPDPYKS  
SILSLIKFKENPHLIIMNVSDCIPDAIEVVS KPEGTKIQFLGTRKSLTETELTKPNYL YL  
LPTEKNHSGPGPCICFENLTYNQAASDSGSCGHVPVSPKAP SMLGLMTSPENVLKALEKN  
YMNSLGEIPAGETSLNYSVQLASPMFGDKDSLPTNPVEAPH CSEYKMQMAVSLRLALPPP  
TENSSLSSITLLDPGEHYC

>O70458

MAFSVVLHPAFLLA VL SLRASRSEVLEEPLPLTPEIHKVSFQLKLQEVNLEWTVPALTHE  
ELNMIFQIEISRLNISNTI WVENYSTTVKREEAVRWNWTS DIPLECVKHFIRIRALVDDT  
KSLPQSSWGNWSSWKEVNAKVSVEPKSLIFPKDKVLEEGSNVTICLMY GQNVYNVSKL  
QDEPIHGEQLDSHVSL LKLN NVVFLSDTG TNINCQATKGPKRIFGTVLFVSKVLEEPKNV



SCETRDFKTLDCSWEPGVDTTLTWRKQRFQNYTLCEFSKRCEVSNYRNSYTWQITEGSQ  
EMYNFTLTAENQLRKRSVNINFNLTFRVHPKAPQDVTLKIIGATKANMTWKVHSHGNNYT  
LLCQVKLQYGEVIHEHNVSVMHSANYLFSDDLDPDKYKAFVRCASANHFVKWSDWTQKEF  
STPETAPSQALDVWRQVWSENGRRIVTLFWKPLLKSQANGKIIISYNIVVENEAKPTESEH  
YCVWAPALSTNLSLDLQPYKIRITTNNSMGASPESLMVLNSDSGHEEVKEKTIKGIKDAF  
NISWEPVSGDTMGYVVDWCAHSQDQRCDLQWKNLGPNTTSTTITSSDDFKPGVRYNFRIFE  
RSVEHKARLVEKQRGYQTQELAPLVNPKVEIPYSTPNSFVLRWPDYDSDFQAGFIKGYLVY  
VKSSEMOCNQPWERTLLPDNSVLCKYDINGSETKTLTVENLQPESLYEFFVTPYTSAGPG  
PNETFTKVTTPDARSHMLLQIILPMTLCVLLSIIVCYWKSQWVKEKCPDIPNPYKSSIL  
SLIKSKKNPHLIMNVKDCIPDVLEVINKAEGSKTQCVGSGKLHIEDVPTKPPIVPTEKDS  
SGPVPCIFFENFTYDQSAFDSGSHGLIPGPLKDTAHLGLLAPPNKFQNVLKNKYMKPLV  
ESPTEETSIIYVSQLASPMCGDKDTLATEPPVPVHGSEYKQMVVPGSLASPSLKEDNSL  
TSTVLLGQGEQ

>Q10576

MRLALLVLATIGYAVADLFTSIADMQNLLLETERNIPKILDKYIHDEEERLVQLKKLSEYY  
SKKNEISIENGLKIDITNPINAFLLIKRKIFDWKEIESKMNANKAGNVVSSITDDSYGVR  
PTADDLSGAAIAGLLRLQDQTYRLDQTLADGKIYADQGNITFSKDCFEIARAAYNEHDFY  
HTVMWMEEAQRRLGDEVEPTVEVEDILEYLAFALYKQNNLKHALKLTEELYKMNPHPR  
KGNVKWYEDLLEQEGVRRSDMRKNLPPIQNRRPDSVLGNTERTMYEALCRNEVPVSQKDI  
SRLYCYKRDPRFLVYAPIKVEIKRFNPLAVLFKDVISDDEVAAIQELAKPKLARATVHD  
SVTGKLVATYRISKSAWLKEWEGDVVETVNRIGYMTNLEMETAEELQIANYGIGGHYD  
PHFDHAKKEESKSFESLGTGNRIATVLFYMSQPSHGGGTVFTEAKSTILPTKNDALFWYN  
LYKQGDGNPDTRHAACPVLVGKIKWVSNKWIHEKGNFRPCGLKSSDYERFVGDLYGPE  
PRNAPNVSPNLAQDVWETL

>Q20065

MRAVLLVCLLAGLAHADLFTAIALDLQHMLGAEKDVTTIIDQYIEAERARLDDLRRYAHEY  
VHRNAHAESVGPFEVFNINAYLLIKRLTTEWKKVENIMLNKASTFLKNIITDNRVRSEV  
KFPGEEDLSGAATALLRLQDQTYSLDQTLDSLNGIIGGKVSNKLSGHDTFEVGRSAYNQKD  
YYHCLMWMQVALVKIENENPPTIEEWEILEYLAYSLSYQQGNVRRALSLTKRLAKIAPNHP  
RAKGNVKWYEDMLQGKDMVGDLPPIVNRKVEYDGIVERDAYEALCRGEIPPEPKWKNKL  
RCYLKRDKPKLAPIKVEILRFDPLAVLFKNVIHDSEIEVIKELASPKLKRATVQNSKT  
GELEHATYRISKSAWLKGDLDPVIDRVNRRIEDFTNLNQATSEELQVANYGLGGHYDPHF  
DFARKEEKNAFKTLNTGNRIATVLFYMSQPERGGATVFNHLGTAVFPKNDALFWYNLRR  
DGEGLRTRHAACPVLVGKIKWVSNKWIHEKQEFTRPCGLEEEVQENFIGDLSPYANDP

>Q60716

MKLQVLVLLMSWFGVLSWVQAEFFTSIGHMTDLIYAEKDLVQSLKEYILVEEAKLAKI  
KSWASKMEALTSRSAADPEGYLAHPVNAYKLVKRLNTDWPALGDLVLQDASAGFVANLSV  
QRQFFPTDEDESGAARALMRLQDQTYKLDPDTISRGELPGTKYQAMLSVDDCFGLGRSAYN  
EGDYHYHTVLWMEQVLKQLDAGEEATVTKSLVLDYLSYAVFQLGDLHRAVELTRRLSLDP  
SHERAGGNLRYFERLLEEERKSLSNQTDAGLATQENLYERPTDYLPERDVYESLCRGE  
VKLTPRRQKFLCRYHHGNRVPQLLIAPFKEEEDWSPHIVRYDVMSDEEIERIKEIAK  
PKLARATVRDPKTGVLTVASYRVSKSSWLEEDDPVVARVNRRMQHITGLTVKTAELLQV  
ANYGMGGQYEPHFDFSRDDEDAFKRLGTGNRVATFLNYMSDVEAGGATVFPDLGAAIWP  
KKGTAVFWYNLLRSGECDYRTRHAACPVLVGCKWVSNKWFHERGQEFRLPCGTTEVD

>Q7Z4N8

MGPGARLAALLAVLALGTGDPERAAARGDTFSALTSVARALAPERLLGLLRRYLRGEEA

RLRDLTRFYDKVLSLHEDSTTPVANPLLAFTLIKRLQSDWRNVVHSLEASENIRALKDGY  
EKVEQDLPAFEDLEGAARALMRLQDVYMLNVKGLARGVVFQRTGSAITDLYSPKRLFSLT  
GDDCFQVGKVAYDMGDYYHAIPWLEEAIVSLFRGSYGEWKTEDEASLEDALEDHLAFAYFRA  
GNVSCALSLSREFLLYSPDNKRMARNVLKYERLLAESPNHVVAEAVIQRPNIPHLQTRDT  
YEGLCQTLGSQPTLYQIPSLYCSYETNSNAYLLLQPIRKEVIHLEPYIALYHDFVSDSEA  
QKIRELAEPWLQRSVVASGEKQLQVEYRISKSAWLKDTVDPKLVTLNHRIAALTGLDVRP  
PYAEYLQVVNYGIGGHYEPHFDHATSPSSPLYRMKSGNRVATFMIYLSVVEAGGATAFIY  
ANLSVPVVRNAALFWWNLHRSGEGSDTLHAGCPVLVGDKWVANKWIHEYGQEFRRPCSS  
SPED

>O00459

MAGPEGFQYRALYFRRERPEDELELLPGDVLVVSRAALQALGVAEGGERCPQSVGWMPGL  
NERTRQRGDFPGTYVEFLGPVALARPGPRPRGPRPLPARPRDGAPEPGLTLPDLPEQFSP  
PDVAPPLLVLKVEAIERTGLDSESHYRPELPAPRTDWSLSVDVQWDTAALADGIKSFLLA  
LPAPLVTPEASAEARRALREAAGPVGPALEPPTLPLHRALTLRFLQLHLGRVARRAPALG  
PAVRALGATFGPLLLRAPPPSSPPPGGAPDGSEPSPDFPALLVEKLLQEHLEEQEVAPP  
ALPPKPPKAKPAPTIVLANGGSPPSLQDAEWYWGDISREEVNEKLRDTPDGTFLVRDASSK  
IQGEYTLTLRKGGNNKLIKVFHRDGHYGFSEPLTFCSVVDLINHYRHESLAQYNAKLDTR  
LLYPVSKYQQDQIVKEDSVEAVGAQLKVYHQYQDKSREYDQLYEYTRTSQELQMKRTA  
IEAFNETIKIFEEQGQTQEKCSKEYLERFRREGNEKEMQRILLNSERLKSRIAEIHESRT  
KLEQQLRQAASDNREIDKRMNSLKPDLMLQRLKIRDQYLVWLTQKGARQKKINEWLGIKNE  
TEDQYALMEDEDDLPHHEERTWYVVGKINRTQAEEMLSGKRDGTFLIRESSQRGCYACSVV  
VDGDTKHCVIYRTATGFGFAEPYNLYGSLKELVLHYQHASLVQHNDALTVTLAHPVRAPG  
PGPPPAAR

>Q7LZI1

HSCEICHNVGKSCEGSVEPCTSPEDQCGTVVLEFSPAPVSFRS IHKNCFSSSLCKLGSFD  
VNVGQNTYVRGRIQCCDEERCEEPQFSGHCASHPNGYYCPGIFGLFSLDSSANEAVCKGT  
ETKCINIAGYRKEMYPGDIAYNIKGCISSCPELSLSNRTHEVDRNELIKVECTDAVKIPP  
SECQSSGI

>Q7LZI2

MECEACIGMGKDCNSWMKTCAAHEDTCVTFQTEVIAAPVSLTVIFKACGVSDTCHLDYME  
TTLHDKVKVRIKRSCTGEDCPLPPFPGLGFQVNRPNRLHCPACIGLFSKECTEHLVSCR  
ASENQCLTVTGKEFGFLFFRALS YKGCATESL CALLKRFWDGLEDIEVDFKCTPALPPPS  
LASDV

>P15558

MTMAAKTDREALQAALPPLSGSLSIPGLSAPVRVQRDGGWIPHIKASGEADAYRALGFVH  
AQDRLFQMELTRRKALGRAAEWLGAEAAEADILVRRLGMEKVCRRDFEALGAEAKDMLRA  
YVAGVNAFLASGAPLPIEYGLLGAEPWPWPWHIAVMRRLGLLMGSVWFKLWRMLALPV  
VGAANALKLRYDDGGQDLLCIPPGVEAERLEADLAALRPAVDALLKAMGGDASDAAGGS  
NNWAVAPGRTATGRPILAGDPHRVFEIPGMYAQHHLACDRFDMIGLTVPGVPGFPHFAHN  
GKVAYCVTHAFMDIHDLYLEQFAEDGRTARFGNEFEPVAWRRDRIAVRGGADREFDIVET  
RHGPVIAGDPLEGAALTLRSVQFAETDLSFDCLTRMPGASTVAQLYDATRGWGLIDHNLV  
AGDVAGSIGHLVRRARVPSRPRENGWLPVPGWSGEHEWRGWIPHEAMPRVIDPPGGLIVTA  
NNRVVADDHPDYLCTDCHPPYRAERIMERLVASPAFAVDDAAA IHADTLSPHVGLLRARL  
EALGIQGS LPAEELRQTLIAWDGRMDAGSQAASAYNAFRRALTRLVTARSGLAQIAHPF  
AAVPPGVSPQGQVWVAVPTLLRND DAGMLKGWSWDEALSEALSVATQNL TGRGWGEEHRP  
RFTHPLSAQFPAWAALLNPVSRPIGGDGTVLANGLVP SAGPEATYGALSRYVFDVGNWD

NSRWVVFHGASGHPASPHYADQNAPWSDCAMVPMPLYSWDR IAAEAVTSQELVPA

>P06875

MKNRNRMIVNCVTASLMYYWSLPALAEQSSSEIKIVRDEYGMPHIYANDTWHLIFYGYGYV  
VAQDRLFQMEMARRSTQGTVAEVLGKDFVKFKDKDIRRNYWPDairaQIAALSPEDMSILQ  
GYADGMNAWIDKVNTNPETLLPKQFNTFGFTPKRWEFPDVAMIFVGTMANRFSdstSEID  
NLALLTALKDKYGVSQGMAVFNQLKWLVNPSAPTITIAVQESNYPLKFNQNSQTAALLPR  
YDLPAPMLDRPAKGADGALLALTAGKNRETIAAQFAQGGANGLAGYPTTSMWVIGKSKA  
QDAKAIMVNGPQFGWYAPAYTYGIGLHGAGYDVTGNTPFAYPGLVFGHNGVISWGSTAGF  
GDDVDIFAERLSAEKPGYYLHNGKWKMLSREETITVKNGQAEFTFVWRTVHGNILQTDQ  
TTQTAYAKSRAWDGKEVASLLAWTHQMKAKNWQEWtQQAQALtINWYYADVNGNIGYV  
HTGAYPDRQSGHDPRLPVPPTGKWDWKGLLPFEMNPKVYNPQSGYIANWNNSPQKDYPAS  
DLFAFLWGGADRvTEIDRLLLEQKPRLTADQAWDVIRQTSRQDLNLRFLPTLQAATSGLT  
QSDPRRQLVETLTRWDGINLLNDDGKTWQQPGSAILNVWLTSMKRTVVAAVPMPFDKWY  
SASGYETTQDGPTGSLNISVGAKILYEAVQGDKSPIQAVDLFAGKPPQEVVLAALeDTW  
ETLSKRYGNNVSNWKTpAMALtFRANFFGVPQAAAEETRHAQAEYQNRGTENDMIVFSPT  
TSDRPVLAWDVVAPGQSGFIAPDGTVDKHYEDQLKMYENFGRKSLWLTkQDVEAHKESQE  
VLHVQR

>P0A790

MIRTMLQGLHRVKVTHADLHYEGSCAIDQDFLDAAGILENEAIDIWNVtNGKRfSTYAI  
AAERGSRIISVNGAAAHCASVGDIVI IASFVTMPDEEARTWRPNVAYFEGDNEMKRtAKA  
IPVQVA

>P56065

MTFEMLYSKIHRATITDANLNYIGSITIDEDLAKLAKLREGMKVEIVDVNNGERfSTYVI  
LGKKRGEICVNGAAARKVAIGDVVIILAYASMNEDEINAHKPSIVLVDEKNEILEKG

>Q8IWT3

MVGERHAGDLMVPLGPRLQAYPEELIRQRPGHDGHPYLIrWSVLKCGEVGKVGVEEGKA  
EHILMWLSAPEVYANCPGLLGERALSkgLQHEPAGVSGSFPRDPGGLDEVAMGEMeADVQ  
ALVRRARQLAESGTPSLTAAVLHTIHVLSAYASIGPLTGvfRETGALDLLMHMLCNPEP  
QIRRSAGKMLQALAAHDAGSRAHVLLSLSQQDGIeQHMDfDSRYTLLELFAETTSSEEHc  
MAFEGIHLPQIPGKLLFSLVKRYLCVTSLLDQLNSSPELGAGDQSSPCATREKSRGQREL  
EFSMAVGNLISELVRSMGWARNLSEQGMSPPRPTRSIFQPYISGPSLLLPTIVTTPRRQg  
WVFRQRSEfSSRSGYGEYVQQTLPQGMVRMLDDYEEISAGDEGEFRQSNNGIPPVQVfW  
QSTGRTYWVHWHMLEILGPEEATEDKASAAVEKAGATVLGTAFPSWDWNpMDGLYPLPY  
LQPEPQKNERVGYLTQAEWELLFFIKKLDLCEQQPIFQNLWKNLDETLGekALGEISVS  
VEMAESLLQVLSRFEGSTLNDLLNSQIYTKYGLLSNEPSSSSSTRNHsCTPDPEEESKS  
EASFSEETESLKAKAEAPKTEAEPTKTRTETpMAQSDSQLFNQLLVTEGMTLPTEMKEA  
ASEMARALRGPGRSSLDQHVAAVVATVQISSLDTNLQLSGLSALSQAVEEVTERDHPLV  
RPDRSLREKLVKMLVELLtnQVGEKMVVVQALRLLYLLMTKHEWRPLFAREGGIYAVLVC  
MQEYKTSVLVQQAGLAALKMLAVASSEIPTFVTGRDSIHSLFDAQMTREIFASIDSATR  
PGSESLLLTVPAAVILMLNTEGCSSAARNGLLLLNLNLLCNHHTLGDQIITQELRDTLFRH  
SGIAPRTEPMPtTRTILMMLLNRYSEPPGSPERAALETPIIQGQDGSPPELLIRSLVGGPS  
AELLLDLERVLCREGSPGGAVRPLLKRLQOETQFLLLLRtLDAPGPNKtLLLSVLRVIT  
RLLDfPEAMVLPWHEVLEPCLNCLSGPSSDSEIVQELTCFLHRLASMHKDYAVVLCCLGA  
KEILSKVLdkhsAQLLLGCELrdLVTECEKYAQLYSNLtSSILAGCIQMVLGQIEDHRRt  
HQPINIPFFDVFLRHLcQGSSVEVKEDKcWEKVEVSSNPHRASKLTDHNPkTYWESNGSt  
GSHYITLHMHRGVLVRQLTLLVASEDSSYPARVVVFGGDSTSCIGTELNTVNVMPsASR

VILLENLNRFWPIIQIRIKRCQQGGIDTRVRGVEVLGPKPTFWPLFREQLCRRTCLFYTI  
RAQAWSRDIAEDHRRLQLCPRLNRVLRHEQNFAADRFLPDDEAAQALGKTCWEALVSP  
QNITSPDAEGVSALGWLLDQYLEQRETSRNP LSRASFA SRVRR LCHLLVHVEPPP  
EPSTRPFSKNSKGRDRSPAPSPVLPSSSLRNITQCWLSVVQEQVSRFLAAAWRAPDFVPR  
YCKLYEHLQRAGSELFGPRAAFMLALRSFGS GALLQQSFLTA AHMSEQFARYIDQQIQGG  
LIGGAPGVEMLGQLQRHLEPIMVLSGLELATTFEHFYQH YMADRLLSFGSSWLEGA  
VLEQ IGLCFPNRLPQLMLQSLSTSEELQRQFHLFQLQR LDKLFLEQEDEEEKRLE  
EEEEEEEEEE EA EKELFIEDPSPAISILVLSPRCWPVSP LCYLYHPRKCLPTEFC  
DALDRFSSSFYSQSQN HPVLDMGPHRRLQWTWLGRAELQFGKQILH VSTVQMWL  
LLKFNQTEEVSVETLLKDS DLS PELLQALVPLTSGNGPLTLHEGQDFPHGGV  
LRLHEPGPQRSGEALWLIPPQAYLNVEKD EGRTLEQKRNL L SCLLVRI LKAH  
GEKGLHIDQLVCLVLEAWQKGNPPGTLGHTVAGGVA CTSTDVLSCILHLLGQGY  
VKKRRDRPQILMYAAPEPMGFCRGQADV PFCGSQSETSKPSP EAVATLASLQ  
LPAGRTMSPQEVEGLMKQTVRQVQETLNLEPDVAQHLLAHSHWGAEQLLQ  
SYSEDPEPLLLAAGLCVHQAVPVRPDHCPVCVSP LGCDDDLPSLCCMHYCCK  
SCWNEY LTRRIEQNLVLNCTCPIADCPAQPTGAFIRAI VSSPEVISKYEKALLR  
GYVESCSNL TWC TNPQGC DRILCRQGLGCGTTCSKCGWASCFNCSFPEAHY  
PASCGHMSQWDDGGYDGM S VEAQSKHLAKLISKRCPSQAPIEKNEGCLHMT  
CAKCNHGF CW RCLKSWKPNHKDYNC S AMVSKAARQEKRFDYNERCTFHHQ  
AREFAVNLNRVSAIHEVPPRSFTFLNDACQGLE QARKVLAYACVYSFYSDAE  
YMDVVEQQTENLELHTNALQILLEETLLRCRDLASSLRL RADCLSTGMELLRRI  
QERLLAILQHS AQDFRVGLQSPSVEAWEAKGNM PG SQPQASSGP EAE  
EEEEDEDDVPEWQQDEFDEELDND SFSYDESENLDQETFFF GDEEED EDEAYD

>Q9UGN5

MAARRRRSTGGGRARALNESKRVNNGNTAPEDSSPAKKTTRRCQRQESKMPVAGGKANKD  
RTEDKQDGM PGRSWASKRVSESVKALLLKGKAPVDPECTAKV GKAHVYCEGNDVYD  
VMLN QTNLQFN NNKYLIQLLEDDAQRNF SVWWRWGRV GKMGOHSLVACSGNLN  
KAKEIFQKFLDKTKNNWEDREKFEKVP GK YDMLQMDYATNTQDEEETKKEESL  
KSPLKPESQLDLRVQE LIKLI CNVQAMEEMMEMKYNTKKAPLGKLTVAQIKAGY  
QSLKKIEDCIRAGQHGRALME ACNEFYTRIPHDFGLRTPPLIR TQKELSEKIQ  
LLEALGDI EIAIKLVKTELQSP EHP LDQ HYRN LHCALRPLDHESYEFKVISQY  
LQSTHAPTHSDYTM TLLDLFEVEKDGEKEAFREDL HNRMLLWHGSRMSNWV  
GILSHGLRIAPPEAPITGYMFGKGIYFADMSSKSANYCFASRLK NTGLLLLSE  
VALGQCNELLEANPKAEGLLQGKHSTKGLGKMAPSSAHFVTLNGSTVPLGP  
ASDTGILNPDGYTLNNEYIVYNPNQVRMRYLLKVQFNFLQLW

>P34446

MREGSFPRRIGLLLGLLGLLAGVATFNIDTKNVVVHMMAGNYFGYSLDFYHEQKMPV  
LV VGAPEAESNNPNLAGIRRP GAVYACSVNRATCREVHV DKMKNLKKLNGSHLVP  
IEEKSH QFFGATVRSNDKHKDIVVCAPKYTYFYSKFEVIEPVGTCFYAENGFDNA  
EEFSSCKQEPA RHGRHRLGYGQC GFSAAVPGKKNQNRVFIGAPGVWYWGAMF  
SQNIKNQTD RPNTEY GSK EYDHDMMGYSTATGDFDGDGIDDIVAGVPRGNDLH  
GKLVLYTSK LKMMINLTDEVSTQH G QYCGGSVAVADV NKDGRDDIIMGCP  
FYTDYGSVKDAKTQERKPQYDVGKVI VMLQTAPGV FGKQIAVVGDDQWGRF  
GHAVAAAGDLNLDGYNDVIVGAPYAGKNKQGAVYVIHGSKD GVR ELPTQKIE  
GANIGHGNIKSFGFSLTGNEVDVGNMPDIAVGAWKSGNAAVLLTKPVVTVT  
GQTEPESALISVEDKNCDVDGKLGKQACKHINTCFKYEGKGDTPNDLEFDLRFN  
LDDHSP EPRAYFLQKDVKSDRSIKVAQGSKTRDHPSSIEQRVRLEKGRQKCFR  
HRFFASSTMKDKL SPIHWSVNYTYVESKTGKLRGDKLEPAIDTTVPLSFQNKIN  
IANNCGKDDLCVPDLKVTA VADREKFL LGTQDNTMLINVTVQNGGEDSYETKLY  
FDVPQGF EYGGIESVGGDGSKSAPA CSPTSDEPDSGKWTFACDLGNPLPANKV  
VSSVVRVTASSDKPPLAPISINAHVNSSNDE EAHTVADNKVTF T I PVDFKNQ  
LSLNGRSNPEQVDF SMTNKTRVDAFDDNEIGPVVSHLYQ ISNRGPSEVDSATL  
DIFWPSFSTEGHLLYIITEPVVNP PNKGRCRVKQLQNVNPLNLR I

TNEHVPTEPPVAKTPNEYSREEDDES YEDETTTQSQSTRHQSTQHQTTHQSGP VHVYEKD  
EEKIRQNTGNWQYVEDK KKKKGDY EYIPDDQ EYDGD DFE EDEDFDRAGSKRVKRNPTPK  
K K K K G G E H R G E P R S D K A R F S D L R E A V K L S K E A G G V V D Y K G P L S R A S V D C N S L R C T H I E C D  
I Y D L K E D E F V L V E I F S R L Y T N T L V D E K N P G G D I S S L A L A R V T S T K Y N L P H K P T L I T A V S T  
N M N A I A S E E G R D L P W W L Y L L A I L I G L A I L I L L L L W R C G F F K R N R P P T E H A E L R A D R Q P  
N A Q Y A D S Q S R Y T S Q D Q Y N Q G R H G Q M L

>Q27874

M P P S T S L L L L A A L L P F A L P A S D W K T G E V T G K V V E K S E F F C Y S L S R D N Y T C S A C I Q Y H E S C  
A W C G A P M F D E K K P Y A R C D S R A K L M E H G C P N S Y I E D P A T K L D I T E D S K L S D Q G Q V E S E E E E A  
V Q I K P Q E M Y V E I R P K S R V R F N V T Y R Q A V D Y P V D L Y Y L M D L S Y S M K D D K Q K L S E L G D L L A E  
R M R T V T K N F R L G F G S F I D K K L M P F I D P R I E K Q L S P C P T P C A E P Y G F K H Q M S L T T N T A K F K  
A E V D K A E I S G N L D A P E G G F D A V V Q A L A C N K T I G W R E R A R K M I V F S T D A G F H F A G D G R L A G  
V V E P N D G T C H L D R E G Y Y T E T L N Q D Y P S I A L L H Q M I K D R K A N V I F A V T K N N Q D L Y T Q L S N A  
L P D V S S S V G V L A N D S R N I V D L I E K E Y L K I S E K I I M V D N A N A S E G L K L T Y R S M C L D G T T L K  
D T N V C E G I R V G D E V Q F E V T L E N T H C I D K R D F V L R I G P S G L D E T L I V N V K V L C D C D C E R Q D  
R I V T N S A D C N G G D M V C G V C R C K G G N V G K Y C E C N R P G M S T A A L N E K C K R T N E S A I C E G R G V  
C N C G R C E C N P R A N P E E Q I S G E F C E C D N F N C P R H D R K I C A E H G E C N C G K C I C A P G W T G R A C  
E C P I S T D S C L S A N G K I C N G K G E C I C G R C R C F D S P D G N R Y S G A K C E I C P T C P T K C V E Y K N C  
V M C Q Q W Q T G P L N E T A C D Q C E F K V I P V E E L P N L N E T T P C Q F V D P A D D C T F Y Y L Y Y D E A T D  
N A T V W V R K H K D C P P P V P V L A I V L G V I A G I V I L G I L L L L L W K L L T V L H D R S E Y A T F N N E R L  
M A K W D T N E N P I Y K Q A T T T F K N P V Y A G K A N

>P23759

M A A L P G T V P R M M R P A P G Q N Y P R T G F P L E V S T P L G Q G R V N Q L G G V F I N G R P L P N H I R H K I V  
E M A H H G I R P C V I S R Q L R V S H G C V S K I L C R Y Q E T G S I R P G A I G G S K P R Q V A T P D V E K K I E E  
Y K R E N P G M F S W E I R D R L L K D G H C D R S T V P S G L V S S I S R V L R I K F G K K E E E D E A D K K E D D G  
E K K A K H S I D G I L G D K G N R L D E G S D V E S E P D L P L K R K Q R R S R T T F T A E Q L E E L E K A F E R T H  
Y P D I Y T R E E L A Q R T K L T E A R V Q V W F S N R R A R W R K Q A G A N Q L A A F N H L L P G G F P P T G M P T L  
P P Y Q L P D S T Y P T T T I S Q D G G S T V H R P Q P L P P S T M H Q G G L A A A A A A A D T S S A Y G A R H S F S S  
Y S D S F M N P A A P S N H M N P V S N G L S P Q V M S I L G N P S A V P P Q P Q A D F S I S P L H G G L D S A T S I S  
A S C S Q R A D S I K P G D S L P T S Q A Y C P P T Y S T T G Y S V D P V A G Y Q Y G Q Y G Q S E C L V P W A S P V P I  
P S P T P R A S C L F M E S Y K V V S G W G M S I S Q M E K L K S S Q M E Q F T

>P40424

M D E Q P R L M H S H A G V G M A G H P G L S Q H L Q D G A G G T E G E G G R K Q D I G D I L Q Q I M T I T D Q S L D E  
A Q A R K H A L N C H R M K P A L F N V L C E I K E K T V L S I R G A Q E E E P T D P Q L M R L D N M L L A E G V A G P  
E K G G G S A A A A A A A A S G G A G S D N S V E H S D Y R A K L S Q I R Q I Y H T E L E K Y E Q A C N E F T T H V M  
N L L R E Q S R T R P I S P K E I E R M V S I I H R K F S S I Q M Q L K Q S T C E A V M I L R S R F L D A R R K R R N F  
N K Q A T E I L N E Y F Y S H L S N P Y P S E E A K E E L A K K C G I T V S Q V S N W F G N K R I R Y K K N I G K F Q E  
E A N I Y A A K T A V T A T N V S A H G S Q A N S P S T P N S A G S S S S F N M S N S G D L F M S V Q S L N G D S Y Q G  
A Q V G A N V Q S Q V D T L R H V I S Q T G G Y S D G L A A S Q M Y S P Q G I S A N G G W Q D A T T P S S V T S P T E G  
P G S V H S D T S N

>Q8S9F2

M Y I L V W K E G Q Q I R T F Q D L E E C G Q F Q T A S N I T D G Q I F S I N V T P T M S K G G E T G E T Q L R R L M Y  
L S A S T E P E K C N A E Y L A D M A H V A T L R N K Q I G V S G F L L Y S S P F F F Q V I E G T D E D L D F L F A K I  
S A D P R H E R C I V L A N G P C T G R M Y G E W H M K D S H I D N I T K H P A I K T I L F Q I A R S F S S M W S Y L P  
K N A A N M L L L G K N P N K Q A P E P M S V V V T F I Y L V E F S S I L A H P G L T E Q C A D I L A A F V D A C V R N  
V E G T G G Q V A K F I T G I C M A Y W P I N R A E D A L V G L Q Q L S E D L A E L R S Q Q P P G S A L S L I Y S R C G

VHYGRALLCNAGFRKADFTLLGDCINTASRITSLSVKLKVPLLLSFEVRCLLGDEMREEL  
ESSGLHKVKGRDKPVQVYQFNAPELDSAMVRAKIEQFNPGRYRALCPVKPYESLHPAQR  
PIFDDTPRENQPKLSQVQRRDSLVDRLSLIAKLAFFSSMMAGGEGQLITLTYISQAAHPM  
SRLDLASIQRIAFARNESNITGSLLYVSGLFVQTLLEGPKGAVVSLYLKIRQDKRHKDVV  
AVFMAPIDERVYGSPLDMTSATEEMLATFPPLQDVLSQLAKSFISLETYVVPSTVVRYLTA  
GNNPRNLQPVSVVEVMLATDICSFTPLSEKCSLTEVWTICNTFIDACTSAICNEGGEVIK  
LIGDCVTAYFPPTGADNAVHACQEIVSFCAQLRDAFHDVLDRCRSVVACGVGLDFGQVIMA  
QCGSLGMTEFVVAGEVSARVMEVEALTREAGRAIVITEPVADRLSPKLRDTGIVPCQEGV  
DGVPCYGILGPEWELDVATIKKNIYGFHDARALAAAMKKVDDGTNAPGRGAPAGGIPSSPK  
VRPPGRTNVSSYTPDPNEALDPRMAESVFLDMCHQRGDTANNSIAVKLRQAANDDRDL  
GRMLQGPHELMPVMAIKHLTNLRMLNMSDNFVDDMNNGELVESCIPMRSLQVLDLSSNP  
GLTKVIALKRLIKHNTQVREILLNGTRIAPTQQRKLQSSMNVNRLCASTDLKGSHKYE

>O46504

MLPRLLAVVRGPGSCRGWREGSPARGSASATVAPPVALPAQAQVVVCGGGIMGTSVAYHL  
SKMGWKDVVLEQGRLAAGSTRFCAGILSTARHLAIEQKMADYSNKLYHQLEQETGIQTG  
YTRTGSIFLAQTQDRLISLKRINSRLNVIGIPCEIISPKKVAELHPLLNVDLGVAMHVP  
EDAVVSSADVALALASAASQSGVQIYDRTSILHVMVKKGQVAGVETDKGQIQCCYFVNCA  
GQWAYELGLCSEEPVSIPLHACEHFYLLTRPWETPLPSSTPTVVDADGRYIRNWQGGIL  
SGGFENPKPIFTEGKNQLEIQNLQEDWDHFEPLSSLLRMPQLETLIVKLVNCPETF  
TPDMRCIMGESPSVRGYFVLVGMNSAGLSFGGGAGKYLAEMVYGYPSENVWELDLKRF  
ALQSSRTFLRHRVMEVMPLLYDLKVPWRDFQTRQLRTSPLYDRLDAQGARWMEKHGFER  
PKYFIPPKDLLALEQSKTFYKPDWFEIVESEVKCKEAVCVIDMSSFTKFEITSTGDQA  
LEILOYLFSNDLDVVPVGHIVHTGMLNERGGYENDCSIARLSKRSFFMISP TDQQVHCWAW  
LKKYMPEDSNLILEDVTWKYTALNLI GPRTVDVLSSELSYAPMTPDHFP SLFCHEMSVGYA  
NGIRVMSMTHTGEPGFMLYIPIEYALHVYNEVMSVGQKYGIRNAGYYALRSLRIEKFFAF  
WGQDLNLTTPLECGGESRVKLDKGVDFIGRDALLQQRQNGVYNRLTMFILDDHDTDLDL  
WPWWGEPYRNGRYVGKTTSSAYGYTLERHVCLGFVHNFSEDTGEEQVVTADF INRGEYE  
IDIAGHRFQAKAKLYPVP SLLTHKRRKEDVELSDLHGK

>O60925

MAAPVDLELKKAFTELQAKVIDTQQKVKLADIQIEQLNRTKKHAHLTDTEIMTLVDETNM  
YEGVGRMFIQSKEAIHSQLEKQKIAEEKIKELEQKKSYLERSVKEAEDNIREMLMARR  
AQ

>P46988

MSQIAQEMTVSLRNARTQLDMVNQQLAYLDRQEKLAELTKKELESYPTDKVWRSCGKSF  
LQDKSKYVNDLSHAETVLLDQRKTLKIKKNYLETTVEKTIDNLKALMKN

>Q9UHV9

MAENSGRAGKSSGSGAGKGAVSAEQVIAGFNRLRQEQRGLASKAAELEMELNEHSLVIDT  
LKEVDETRKCYRMVGGVLVERTVKEVLPALENNKEQIQKIIETLTQQQLQAKGKELNEFRE  
KHNIRLMGEDEKPAAKENSEGAGAKASSAGVLVS

>P40005

MEQRNNVFQAKYNEYKQILEELQTKIIEELGHDKDEHTIVIKTLKDAEPTRKCYRMIGGAL  
VESDVQTSLEPILKTKENIEGTISKMKETLIQTAKFEFEKWKKNKIQVVK

>P61758

MAAVKDCSGKGMATGNRRLLHLGIPEAVFVEDVDSFMKQPGNETADTVLKKLDEQYQKY

KFMELNLAQKKRRLKGQIPEIKQTLLEILKYMQKKKESTNSMETRFLADNLYCKASVPPT  
DKMCLWLGANVMLEYDIDEAQALLEKNLSTATKNLDSLEEDLDFLRDQF'TTTEVNMARVY  
NWDVKRRNKDDSTKNKA

>P48363

MDTLFNSTEKNARGIPQAPFIEENVNEIIKDPSEDFELCFNKFQERLSKYKFMQESKLATIK  
QLKTRIPDLENTLKIICQSLRNHSDEGDESDEPILLHYQLNDTLYTKAQVDIPEDRADLKV  
GLWLADVMLEYPIDEAIEILLKKKLADSEQSLTVSTEDVEFLRENIT'TMEVNCARLYNWD  
VQRRQDLKQAQEGTKNLKI

>Q9NQP4

MAATMKKAAAEDVNVTFEDQQKINKFARNTSRITELKEEIEVKKKQLQNLEDACDDIMLA  
DDDCLMIPYQIGDVFISHSQEETQEMLEEAKKNLQEEIDALESRVESIQRVLADLKVQLY  
AKFGSNINLEADES

>P53900

MELLPQGQRNNTQVTFEDQQKINEFSKLIIMRKDAIAQELSLQREEKEYLDDVSLEIEELID  
EDEPVQYKVGDLFIFMKQSKVTAQLEKDAERLDNKIETLEDKQRDIDSRLDALKAILYAK  
FGDNINLER

>Q99471

MAQSINITELNLPQLEMLKNQLDQEVFLSTLSIAQLKVVQTKYVEAKDCLNVLNKSNEGK  
ELLVPLTSSMYVPGKLHDVEHVLIDVGTGYVVEKTAEDAKDFFKRKIDFLTKQMEKIQPA  
LQEKHAMKQAVMEMMSQKIQQLTALGAAQATAKA

>Q04493

MSSQKIDLTKLNPEQLNAVKKQFDQELQHF'TQSLQAL'TMAKGF'TECIDDIKT'VSQAGNE  
GQKLLVPASASLYIPGKIVDNKKFMVDIGTGYVVEKSAEAAIAFYQKKVDKLNKESVQIQ  
DIIKEKTQYSLSIEAQIRQAAIRQHEAMSKQQQQQKKESSTA

>O15212

MAELIQKKLQGEVEKYQQLQKDLKSKSMSGRQKLEAQLTENNIVKEELALLDGSNVVFKLL  
GPVLVKQELGEARATVGKRLDYITAEIKRYESQLRDLERQSEQQRETLAQLQQEFQRAQA  
AKAGAPGKA

>P52553

MSELGAKYQQLQNELEEFIVARQKLETQLQENKIVNEEFDQLEEDTPVYKLTGNVLLPVE  
QSEARTNVDKRLEFIETEITRCEKNIRDKQEELEKMRSELIKLNNTAASTGPGR

>O27646

MEDQQRLEEIVNQLNIYQSQVELIQQQMEAVRATISELEILEKTLSDIQGKDGSETLVPV  
GAGSFIKAEKDTSEVIMSVGAGVAIKKNFEDAMESIKSQKNELESTLQKMGENLRKITD  
IMMKLSPQAEELLKKVRSGE

>O26774

MELPQNVQHQLAQFQQLQQAQAI SVQKQTVEMQINETQKALEELSRAADDAEVYKSSGN  
ILIRVAKDELTEELQEKLETQLREKTIERQEERVMKKLQEMQVNIQEAMKGAGINPGMG  
N

>P22225

MSGKEVEGVVSPADQQQPAVPEVTDITLEAARKQKIHNLKLTACTLSNEEYVQDLHVSEW  
SETQKQKLQAAHEKAHELLASVEGGTKWSLTEAYDIKKLMRVCGLEMSVRELYKPEDKPO  
FMEIVALKKTMNELKQHHNKTRTVSFTGMIDNAIAKLEKIEDELRRSQLDASEMAQVPVA  
ALKNIEDTMNVAVVQTALLGNEEQIKAQLAAVEKANEIRNVAIADGEMAI AEEQYYIKAQ  
LLEHLVELVADKFRIGQTEDEKNSFSKIEHEVQKKSQESASIKDAKRRLKQHCEDDLRLN  
LHDAIQKADLEDAEAMKRFATQKEKSERFIHENLDKQDEAWRRIQEELERVLQRLGTERFE  
EVKRRIEENDREEKRKVEYQQFLDVCQGQHKKLELSVYNCDLALRCMGMLEEIVAEGCSA  
VKSRHDKTNDLSDLRQLVHQEYLEAFRRLYKTLGQLVYKKEKRLEEIDRNIRTTTHIQLE  
FAIETFDPNAKLHSDKKKDLKYLRAQVEEELMMLKDKMAQALEMFGPTEDALNQAGIDFV  
HPAEVEVESGNMDRRSKMVEYRAHLAKQEEVKIAAEREELKRKSKMLQSQQYRGRTMPQITQ

>P49354

MAATEGVGEAAQGGEPGQPAQPPPPQHPPPPQQQHKKEEMAAEAGEAVASPMDDGFVSLDS  
PSYVLYRDRAEWADIDPVPQNDGPNPVVQIIYSDKFRDVYDYFRAVLQRDERSERAFKLT  
RDAIELNAANYTVWHFRVLLKSLQKDLHEEMNYITAIIEEQPKNYQVWHHRVIVEWLR  
DPSQELEFIADILNQDAKNYHAWQHRQWVIQEFKLWDNELQYVDQLLKEDVRNNSVWNQR  
YFVISNTTGYNDRAVLEREVQYTLEMILKLVPHNESAWNYLKGILQDRGLSKYPNLLNQLL  
DLQPSHSSPYLIAFLVDIYEDMLENQCDNKEDILNKALELCEILAKEKDTIRKEYWRYIG  
RSLQSKHSTENDSPTNVQQ

>O60052

MDPIDPELNEILDFTTEYGPLTPIPQDDGENPLAKICYTTGYEQGMAYFRAIMAKKEYSLR  
ALNLTGFLIMNPAHYTVWAYRFQILNHTPSYIDNELEWLDEIAEDFQKNYQVWHHRQKI  
LSLTKNYERELEFTKKMFEIDSKNYHVWSYRVWILQNFNDYSQELKLTNELLEKDIYNNS  
AWNHRFYVLFETSKVVSWSLEEEELNYLKDKILFAPDNQSAWNYLQVLDKSGPSKLDNLI  
ANLRKNLPALHKPLLEFLAMYEPSSEEIYQKLANEVDVPHAALWTWMSQRSNP

>Q92696

MHGRLKVKVTSEEQAEAKRLEREQKLLKLYQSATQAVFQKRQAGELDESVELETSQILGANP  
DFATLWNCRRREVLLQOLETQKSPEELAAALVKAELGFLSCLRVNPKSYGTWWHRCWLLGRL  
PEPNWTRELELCARFLEVDERNFHCWDYRRFVATQAAVPPAEELAF'TDSLITRNFSNYSS  
WHYRSCLLPQLHPQPDSPGQGRLPEDVLLKELELVQNAFF'TDPNDQSAWFYHRWLLGRAD  
PQDALRCLHVSDEACTVFSRPLLVGSRMEILLMLVDDSPILIVEWRTPDGRNRPSHVW  
LCDLPAASLNDQLPQHTFRVIWTAGDVQKECVLLKGRQEGWCRDST'TDEQLFRCELSVEK  
STVLQSELESCKELQELEPENKWCLLTIILLMRALDPLLYEKETLQYFQTLKAVDPMRAT  
YLLDLRSKFLLENSVLKMEYAEVRVHLHLAKDLTVLCHLEQLLLVTHLDLSHNRLRTPP  
ALAALRCLEVLQASDNAIESLDGVTNLPRLQELLLCNRLQQPAVLQPLASCPRLVLLNL  
QGNPLCQAVGILEQLAELLPSVSSVLT

>P23815

KNGDLRTPVITIFDARGCKDHANKEYTGPKAGGADDEMCKVAMQKIAVAEDAAALVLKE  
CLSELKARKK

>P23816

KNGDLRAPHYVEIFDARGCDAKNSQYTGPKSGDMDDQC'VKVSMVAVPKVSEATAEKKRQEF  
LGFKETAINVPOIAGKTKKY

>P80555

MSIVTKSIVNADAEARYLSPGELDRIKSFVAGGQQLRRIAQALTDNRERLVKQAGDQLFQ  
KRPDVVSPGGNAYGQEMTATCLRDLDYLRLLVTVYGVIVAGDVTPIEEIGVIGVREMYKSLG



TPIEAVGEGVRALKNAASTLLSAEDAAEAGSYFDYVVGALQ

>P80557

MAQDAITAVINSADVQGGKYLDTAALEKCLKAYFSTGELRVRAATTISANAAAIVKEAVAKS  
LLYSDITRPGGNMYTTRRYAACIRDLDYLLRYATYAMLADGPSILDERVLNGLKETYNLS  
GVPVGVATVQAIQAIKEVTASLVGADAGKEMGIYLDYISSGLS

>P11390

MTIVSQVILKADDELRYPSGGELKNITDFFKTGEQRLRIAQVLSSEKKIVDQASRKLWQ  
RRPDFIAPGGNAYGQRQRAQCLRDYGWYLRRLITYGVLAGDKEPIESIGLLGAREMYNSLG  
VPLPGMAEAIRTLKEASLALLSSADATVAAPYFDFLIQGMETI

>P07553

MRDAVTSLIKNDVAGRYFDRNAIESLKSIFYESGTQRVQAAKAINANAAAIVKQTGSKLF  
DEQPELIRPGGNAYTTRRYAACLRDLDYLLRYATYAIVAGSMDVLDERVLQGLRETYNSL  
GVPVIGPTVIRGIQIMKEIVKEQLGAAGIPNTSFVDEPFDDYMTRELGEKDI

>P00307

MVKTPITDAIAAADTQGRFLSNTELQAVNGRYQRAAASLEAARALTANAQRLIDGAAQAV  
YQKFPPYTTQTSGPNYAADARGKSKCARDIGHYLRRIITYSLVAGGTGPLDEYLIAGLNEIN  
DAFELSPSWYIEALKYIKANHGLSGQAANEANTYIDYVINALS

>P00312

MTFDAFTKVVQAADARGEFLSDAQLDALSRLVAEGNKRIDTVNRITGNASSIVANAARAL  
FAEQPSLIAPGGNAYTNRMAACLDRMEIILRYVITYAVFTGDASILDDRCLNGLRETYLA  
LGVPASVAEGVRKMKDAVAIVSDRNGITQGDCAIISELGSYFDKAAAAVA

>P30943

MSAKIIAFSAVVATASAFAPTAGFVPRRLRSGATSVNMAMDKSAKAPVITIFDHRGCSRAP  
KEYTGAKAGGKDDMMVKAQSVKIEVSTGTAEGVLATSLAKMTK

>Q00433

MFAKTLASLAVIGSAAAYVPMMSMDMGRREVQAGAAAAAVTPFLSGAPAGAAMDKSAKA  
PQITIFDHRGCSRAPKESTGGKAGGQDDEMMVKVASTKVTVSESDAAKKLQEFITFEKGI  
DGPFTSKN

>Q08086

MKSVVTTVVTAADAAGRFPSONDLEAVQGNIQRAAARLEAAEKLAAGLDAVTKEAGDACF  
NKYPYLKQPGGEAGENQTKVDKCYRDLGHYLRRLINYCLVGGTGPLDEWGIAGAREVYRTL  
GLPTGPVYEALTYTRDRACAPRDMSPQALNEFKSYLDYVINALS

>P0A316

MKSVITTVVGAADSASRFPSASDMESVQGSIQRAAARLEAAEKLAGNYDQVAQEAVDAVY  
NQYPNGATGRQPRKATEGKEKCKRDFVHYLRRLINYCLVTGGTGPLDELAINGQKEVYKA  
LSIDAGTYVAGFSHLRSGCAPRDMSAQALTAYNQQLLDYVINSLG

>Q02180

MLDAFSRSVVSADAKTAPVGGSDLAGLRSYVRDGNKRLDAVNAITSNASCIVSDAVTGMI  
CENTGLIQAGGCNYPNRRMAACLDRDGEIVLRYISYALLAGDASVLLDDRCLNGLKETIYIAL  
GVPTQSAGRAVAIMKASATAHIGETNTPGLGGKFRFRKMETTQGDCAALVAEAGAYFDRVI

GAIS

>P07598

MSRTVMERIEYEMHTPDPKADPKLHFVQIDEAKCIGCDTCSQYCPTAAIFGEMGEPHSI  
PHIEACINCGQCLTHCPENAIYEAQSWVPEVEKCLKDGVKCIAMPAPAVRYALGDAFGM  
PVGSVTTGKMLAALQKLGFAHCWDTEFTADVTIWEEGSEFVERLTKKSDMPLPQFTSCCP  
GWQKYAETYYPELLPHFSTCKSPIGMNGALAKTYGAERMKYDPKQVYTVSIMP CIAKKYE  
GLRPELKSSGMRDIDATLTTRELAYMIKKAGIDFAKLPDGKRDSL MGESTGGATIFGVTF  
GVMEALRFAYEAVTGKKPDSWDFKAVRGLDGIKEATVNVGGTDVKVAVVHGAKRFKQVC  
DDVKAGKSPYHFIEYMACPGGCVCGGGQPVMGVLEAMDRTTTRLYAGLKKRLAMASANK  
A

>P13628

MQIVNLTRRGFLKAACVVTTGGALISIRMTGKAVAAAKQLKDYMMDRINGVYGADAKFPVR  
ASQDNVQVQKLYADFLEKPM SHKAEQLLHTHWVDRSKAIERMKAQGAYPNPRAKEFEGNT  
YPYE

>Q6PXP0

MVKRVSKEEMDALERSCSQPFEEERFLIVSGTKWCGN NIAANYSDLGFLEADKCCRHDH  
HCDHIASGETKYGLENKGLFTILNCDCEAFDHLKEISNNVTDIRQKGAENVWRFYF  
QWYNANCYRLYCKDEKSARDEACTNQYAVVKKNF'TVQ

>P21852

MSGCRAQNAPGGIPVTPKSSYSGPIVVDPVTRIEGHLRIEVEVENGVKNAYSSSTLFRG  
LEIILKGRDPRDAQHFTQRTCGVCTYTHALASTRCVDNAVGVHIPKNATYIRNLVLGAQY  
LHDHIVHFYHLHALDFVDVTAALKADPAKAAKVASSISPRKTTAADLKAVQDKLKT'FVET  
GQLGPFTNAYFLGGHPAYYLDPETNLIATAHYLEALRLQVKAARAMAVFGAKNPHTQF'TV  
VGGVTCYDALTPQRIAEFEALWKETKAFVDEVYIPDLLVVAAYKDWTQYGGTDNFI'TFG  
EFPKDEYDLNSRFFKPGVVFKRDFKNIKPFDKMQIEEHVRHSWYEGAEARHPWKGQTQPK  
YTDLHGDDRYSWMKAPRYMGEPMETGPLAQVLIAYSQGHPKVKA'VTDVAVLAKLGVGPEAL  
FSTLGRTAARGIETAVIAEYVGVMLQEYKDNI'AKGDNVICAPWEMPKQAE'GVGFVNAPRG  
GLSHWIRIEDGKIGNFQLVVPSTWTLGPRCDKNNVSPVEASLIGTPVADAKRPVEILRTV  
HSFDPCACGVHVIDGHTNEVHKFRIL

>Q06173

MRFSVGLGKEGAEERLARRGVSRRDFLKFCTAIAV'TMGMGPAFAPEVARAL'TGSRRPSV  
YLHNAECTGCSESVLRAFQPYLDELILD'TISLDYHETIMAAAGDAAEAALHQAVANPDGF  
ICIVEGAIPTADNGIYGKVANHTMLSICSDIVPKAKAVIAYGTCATFGGVQAAKPNPTGA  
KGLNDALKHLGVNAINLAGCPPNPYNLVGTLVYYLKNNAAP'EMDEFNRPLMFFGQSVHDN  
CPRLKHFDAGEFAPSF'EFSEEAR'KGWCLYELGCKGPSTMN'NCPKIKFNQTNWPVEAGHPCI  
GCSEPDFWDEKSPFYES

>P13063

MSLSRREFVKLCSAGVAGLGISQIYHPGIVHAMTEGAKKAPVIWVQGGCTGCSVSL'LN  
VHPRIKEILLDVISLEFHPTVMASEGEMALAHMYEIAEK'FNGNFFLLVEGAIP'TAKEGRY  
CIVGETLDAKGHHHEVTMMELIRD'LAPKSLATVAVGTCSAYGGIPAAEGNVTGSKSVRDF  
FADEKIEKLLVNVPGCPPHPDWMVGT'LVAASHV'LNPT'EHPLPELDD'DGRPL'LLFFGDNIH  
ENCPYLDKYDNSEFAETFTKPGCKAELGCKGPSTYADCAKRRW'NNGINWCVENAVCIGCV  
EPDFPDGKSPFYVAE

>Q99570

MGNQLAGIAPSQILSVESYFSDIHDFFEYDKSLGSTRFFKVARAKHREGLVVVKVFAIQDP  
TLPLTSYKQELEELKIRLNSAQNCLPFQKASEKASEKAAMLFRQYVRDNLVYDRISTRPFL  
NNIEKRWIAFQILTAVDQAHKSGVRHGDIKTENVMVTSWNWVLLTDFASFKPTYLPEDNP  
ADFNYYFFDTSRRRTCXYIAPERFVDGGMFATELEYMRDPSTPLVDLNSNQRTRGELKRAMD  
IFSAGCVIAELFTEGVPLFDLSQLLAYRNGHFFPEQVLNKIEDHSIRELVTQMIHREPDK  
RLEAEDYLKQQRGNAPPEIFYTFLQPYMAQFAKETFLSADERILVIRKDLGNI IHNLCGH  
DLPEKAEGEPKENGLVILVSVITSCLQTLKYCDSKLAALELILHLAPRLSVEILLDRITP  
YLLHFSNDSVPRVRAEALRTLTKVLALVKEVPRNDINIYPEYILPGIAHLAQDDATIVRL  
AYAENIALLAETALRFLELVQLKNLNMENDPNNEEIDEVTHPNGNYDTTELQALHEMVQQK  
VVTLLSDPENIVKQTLMENGITRLCVFFGRQKANDVLLSHMITFLNDKNDWHLRGAFFDS  
IVGVAAYVWGQSSSILKPLLQOGLSDAEFVIVKALYALTMCQQLGLLQKPHVYEFASDI  
APFLCHPNLWIRYGAVGFITVVARQISTADVYCKLMPYLDPYITQPI IQIERKLVLLSVL  
KEPVRSRIFDYALRSKDITSLFRHLHMRQKKNRNGSLPDCPPPEDPAIAQLLKKLLSQGMT  
EEEEEDKLLALKDFMMKSNKAKANIVDQSHLHDSQKGVIDLALGITGRQVDLVKTKQEP  
DDKRARKHVQDSNVNEEWKSMFGSLDPPNMPQALPKGSDQEVITGKPPRSESSAGICV  
PLSTSSQVPEVTTVQNKKPVIPVLSSTILPSTYQIRIT'TCKTELQQLIQKREQCNAERI  
AKQMMENA EWESKPPPPGWRPKGLLVAHLHEHKSAVNRIRVSDEHSLFATCSNDGTVKIW  
NSQKMEGKTTTTTRSILTYSRIGGRVKTLTFCQGSHYLAIASDNGAVQLLGI EASKLPKSP  
KIHPLOSRILDQKEDGCVVDMHHFN SGAQSVLAYATVNGSLVGVWDLRSSNAWTLKHDLK  
SGLITSFAVDIHQCWLCIGTSSGTMACWDMRFQLPIS SHCHPSRARIRRLSMHPLYQSWV  
IAAVQGNNEVSMWDMETGDRRFTLWASSAPPLSELQPSPHSVHGIYCSPADGNPILLTAG  
SDMKIRFWDLAYPERSYVAGSTSSPSVSYRKI IEGTEVVQEIQNKQKVGPSDDTPRRG  
PESLPVGHHDIIITDVATFQTTQGFIVTASRDGIVKVWK

>P52960

MYFTDESSPAMNRVGGKRNRLSFVCQACRKAKTKCDQEKPRCGRCTKQNLFCIYDVARQA  
APRNPKNKDATIARLKEIRYWRNKTVDLTQEKKDFYTALKRPTEELAARRTCKSLQENSF  
PISLYKTHPRIMTKVMKREINPLSEKYLIFQDFTLKTLIASVLLSCSRNSMIPALNADI  
SRRTQPCVKNVVKMREVLKNSKYESQRKSINEFTDRLLQRKNPEEQIAVNKVISLLY  
SNRESSYLEDTCPTENDYSDLLKGYINEIEKTLPPKAIIEQYLSHFFEHIFHLIPFASKE  
MLEESIHTTVQYNELGEVRLSMGTTLIRNKMENLCILLLILRIAYISLTFIEDKIEDYSP  
YITKEMLEQYPIQSEVIFLAQQILASENWCACANENTISCLLYIWCAVVFSPTEGDFLLE  
QPSDVIINLVILIGTISGLHRDPSDFPALNHPEASDKRLLNLRRIQWLSIISMATLESSL  
KGRLLVSPLSMIDLFIDVRDPNCVEIYKRVKDLTGSESEQLEIHEIFFHRAQLALF  
LSDLNNTISYSGSVPMDTLETLRVKANELLNKFKQLRSVDINIYDEEKTQKLTFN SIL  
NSISLSGQILGKLMMLRASIALMLYFETLAMERSECLSFYKYFFQCCADTISLIRFFFL  
YFNGSYEVLSLVCFITTKVIQLAVPTTMFTLLVIIMRVELAKNMLLVKCNENARGDI  
SDLPEIKEKIKSLDTIKENFERLLEEVYLLASQNLRFKYFYIFKMLTLFDVFIQRLRKGQ  
LFSGLFVKVDKDLTTKKIATMLELTLGINLNDKSDHLIDRLKGNLTVNFTLDQLYQIIKE  
FDRIKNIGVADPQNSLNPSPKPNMKDNTPTIELLLNSSVENESVPPYSSSNDPTNVGNAST  
YSLAHNISNQNEENMPPSIGSSESNRAAPNLNFMPINNNYNNSGSNINNNDNVKLP SNF  
KNYYDPPMSSLDISMDVPDIFGSLDFFDYDLLFQND

>P27465

MAASVCRPYVRSPLPGVMPWRSSSCHYEY TAMHHFLG SFQKLPFEPFNTGARKIHTAPVRS  
LFLLRPVPILLATGGGYAGYRQYEKYRDQKLEKLGLEIPPKLASHWEVALYKSVPTRLLS  
RAWGRLNQVELPYWLRRPVYSLYIWTFGVMNTEAAVEDLHHYRNLESEFFRRKLPQARPV  
CGLHSVISP SDGKILTFGQVKCEVEQVKGVTYSL ESFLGPRTYTEDLSFP PASSRDSFR  
NQLVTRREGNELYHCVIY LAPGDYHCFHSP TDWTVSHRRHFP GSLMSVNP GMARWIKELFC

HNERVVLSGDWKHGFFSLTAVGATNVGSIRIYFDQDLHTNSPRYSKGSYNDLSFVTHANK  
EGIPMRKGEHLGEFNLGSTIVLIFEAPKDFNFRLKAGQKIRFGEALGSL

>P42337

MPPRPSSGELWGIHLMPPRILVECLLPNGMIVTLECLREATLVTIKHELFFREARKYPLHQ  
LLQDETSYIFVSVTQEAEREFFDETRRLCDLRLRFQPFLLKVIIEPVGNRREEKILNREIGFV  
IGMPVCEFDVMVKDPEVQDFRRNILNVCKEAVDLRDLNSPHSRAMYVYPPNVESSPELPHK  
IYNKLDKGQIIVVIWVIVSPNNDKQKYTLKINHDCVPEQVIAEAIRKKTRSMLLSSEQLK  
LCVLEYQGYILKVCGCDEYFLEKYPLSQYKYIRSCIMLGRMPNMLMAKESLYSQLPID  
SFTMPSYSRRISTATPYMNGETSTKSLWVINSALRIKILCATYVNVNIRDIDKIYVRTGI  
YHGGEPLCDNVNTQRVPCSNPRWNEWLNVDIYIPDLPLRLARLCLCSICSVKGRKGAKKEHC  
PLAWGNINLFDYTDTLVSGKMALNLWVPVPHGLEDDLNPIGVTGSNPNKETPCLELEFDWF  
SSVVKFPDMSVIEEHANWSVSREAGFSYSHTGLSNRLARDNELRENDKEQLRALCTRDP  
SEITEQEKFDFLWSHRHYCVTIPEILPKLLLLSVKWNRSDEVAQMYCLVKDWPPKPEQAME  
LLDCNYPDPMVRSAFVRCLKEYLTDDKLSQYLIQLVQVLKYEQYLDNLLVRFLLKALTN  
QRIGHFFFFWHLKSEMHNKTVSQRFGLLLESYCRACGMYLKHLNRQVEAMEKLINLTDILK  
QEKKDETQKVQMKFLVEQMRQPDFMDALQGFLSPLNPAHQGNLRLLEECRIMSSAKRPLW  
LNWENPDIMSELLFQNEIIFKNGDDLQDMLTLQIRIMENIWQNQGLDLRMLPYGCLS  
IGDCVGLIEVVRNSHTIMQIQCKGGLKQALQFNSHTLHQWLKDKNKGEIYDAAIDLFTRS  
CAGYCVATFILGIGDRHNSNIMVKDDGQLFHIDFGHFLDHKKKFGYKREVRVFPVLTQDF  
LIVISKGAQEYTKTREFERFQEMCYKAYLAIRQHANLFINLFSMMLGSGMPELQSFDDIA  
YIRKTLALDKTEQEALEYFTKQMNDAHHGGWTTKMDWIFHTIKQHALN

>P42338

MCFSFIMPPAMADILDIWAVDSQIASDGSIPVDFLLPTGIYIQLEVPREATISYIKQMLW  
KQVHNYPMFNLLMDIDSYMFACVNQTAVYEELEDETRRLCDVRPFLPVLKLVTRSCDPGE  
KLDSKIGVLIQKGLHEFDSLKDPEVNEFRRKMRKFSEEKILSLVGLSWMDWLKQTYPPEH  
EPSIPENLEDKLYGGKLIIVAVHFENCQDVFSFQVSPNMNPKVNELAIQKRLTIHGKEDE  
VSPYDYVLQVSGRVEYVFGDHPLIQFYIRNCVMNRALPHFILVECKIKKMYEQEMIAI  
EAAINRNSNLPLPLPKKTRIISHVWENNPFQIVLVKGNKLNTEETVKVHVRAGLPHG  
TELLCKTIVSSEVSGKNDHIWNEPLEFDINICDLPRMARLCAVYAVLDKVKTKKSTKTI  
NPSKYQTIRKAGKVHYVPAWVNTMVFDFKQGLRTGDIILHSWSSFPDELEEMLNPMGTVQ  
TNPYTENATALHVKFPENKKQPYYPFDKIEKAAEIASSDSANVSSRGKKFLPVLKE  
ILDRDPLSQLCENEMDLIWTLRQDCREIFPQSLPKLLLLSIKWNKLEDVAQLQALLQIWPK  
LPPREALLELDFNYPDQYVREYAVGCLRQMSDEELSQYLLQLVQVLKYEFPFLDCALSRFL  
LERALGNRRIGQFLFWHLRSEVHIPAVSVQFGVILEAYCRGSGVGHMKVLSKQVEALNKLK  
TLNSLIKLNNAVKLNRAKGEAMHTCLKQSAAREALSQPLNPCVILSELYVEKCKYMD  
SKMKPLWLNVNKFEGEDSVGVIFKNGDDLQDMLTLQMLRLMDLLWKEAGLDRMLPYG  
CLATGDRSGLIEVVSTSETIADIQLNSSNVAAAAAFNKDALLNWLKEYNSGDDLDRAIEE  
FTLSCAGYCVASYVLGIGDRHSDNIMVKKTGQLFHIDFGHILGNFKSKFGIKREVRVFPIL  
TYDFIHVIQOGKTGNTTEKFRFRQCCEDAYLILRRHGNNLITLFFALMLTAGLPELTSVKD  
IQYLKDSLALGKSEEEALKQFKQKFDEALRESWTTKVNWMAHTVRKDYRS

>O35904

MPPGVDCPMEFWTKKEESQSVVDFLLPTGVYLNFPVSRNANLSTIKQVLWHRAQYEPLFH  
MLSDPEAYVFTCVNQTAEQQELEDEQRRLCDIQPFLLPVLRLVAREGDRVKKLINSQISLL  
IAKGLHEFDSLDRDPEVNDFRTKMRQFCHEAAAHRQQLGWVEWLQYSFPLQLEPSARGWRA  
GLLRVSNRALLVNVKFESEESFTFQVSTKDMPLALMACALRKKATVFRQPLVEQPEEYA  
LQVNGRHEYLGNYPCHFYICSLHSGLTPHLTMVHSSSILAMRDEQSNPAPQVQKPR  
AKPPPAPAKKPSVSLWSLEQPFSEIELIEGRKVNADERMMLVQAGLPHGNEMLCKTVSS

SEVNVCSPEPVWVKQRLEFDISVCDLPRMARLCFALYAVVEKAKKARSTKSKKADCP IAW  
ANLMLFDYKDLKLTGERCLYMWPSVPDEKGE LLNPAGTVRGNPNTE SAAALVIYLP EVAP  
HPVYFPALEKILELGRHGERGRIT EEELQLREILERRGSGELYEHEKDLVWKM RHEVQEH  
FPEALARLLLVTKWNKHEDVAQMLYLLCSWPELPVLSALELLDSSFPDCYVGSFAIKSLR  
KLTDDELQYLLQLVQVLKYESYLDCELT KFLGRALANRKHGFLFWHLHSEM HVPSVA  
LRFGLIMEAYCRGSTHMKVLMKQGEALSKL KALNDFVKVSSQKTKPQTKEMMHMCMRQ  
ETYMEALSHLQSP LDPSTLLEEVCVEQCTFMD SKMKPLWIMYSSEEAGSAGNVGIIFKNG  
DDL RQDMLTLQMIQLMDVLWKQEG LDRMTPYGC LPTGDR TGLIEVVLHSDTIANIQLNK  
SNMAATAAFNKDALLNWLKSKNPG EALDRAIEEFTLSCAGYCVATYVVLGIGDRHSDNIMI  
RESGQLFHIDFGHFLGNFKTKFGINRERVPFILT YDFVHVIIQQGKTNNSEKFERFRGYCE  
RAYTILRRHGLLFLHLFALMRAAGLPELSCSKDIQYLKDSLALGKTEEEALKHFRVKFNE  
ALRESWKTKVNWLAHNVSKDNRQ

>P48736

MEL ENYKQP VVLREDNCR RRRRMRKPRSAAAASLSSMELIPIEFVLP TSQRKCKSPETALLH  
VAGHGNVEQMK AQVWLRALETSVAADFYHRLGPHHFLLLYQKKGQWY E IYDKYQV VQTLD  
CLRYWKATHRSPGQIHLVQRHPPSEESQAFQRQLTALIGYDVT DVSNVHDDELEFTRRGL  
VTPRMAEVASRDPKLYAMHPVWTSKPLPEYLWKKIANNCIFIVIHRSTTSQTIKVS PDDT  
PGAILQSFFTMAKKKSLMDIPESQSEQDFVLRVCGRDEYLVGETPIKNFQVVRHCLKNG  
EEIHVVLDTPDPALDEVRKEEWPLVDDCTGVTGYHEQLTIHGKDHE SVFTVSLWDCDRK  
FRVKIRGIDIPVLPRNTDLTVFVEANI QHGQQVLCQRRTSPKPFTEEVLWNVWLEFSIKI  
KDL PKGALLNLQIYCGKAPALSSKASAE SPSSKSKGVQLLYVNL LLDHRFLRRGEY  
VLHMWQISGKGEDQGSFNADKLT SATNPKENSMSISILLDNYCHP IALPKHQPTPDEG  
DRVRAEMP NQLRKQLEAIATDPLNPLTAEDKELLWHFRYESLKH PKAYPKLFS SVKWGQ  
QEI VAKTYQLLARREVWDQSALDVGLTMQLLDCNFSDENVRAIAVQKLESLEDDDLVHYL  
LQLVQAVKFEFYHDSALARFL LKRGLRNKRIGHFLFWFLRSEIAQSRHYQQRFAVILEAY  
LRGCGTAM LHDF TQQVQVI EMLQKVTLDIKSLSAEKYDVSSQVLSQLKQKLENLQNSQLP  
ESFRVPYDPGLKAGALAEKCKVMASKKKPLWLEFKCADPTALSNETIGIIFKHGDDL RQ  
DMLILQILRIMESI WETESLDLCLLPYGCISTGDKIGMIEIVKDATTIAKIQQSTVGNTG  
AFKDEVLNHWLKEKSPTEEFQA AVERFVYSCAGYCVATFVLGIGDRHNDNIMITETGNL  
FHIDFGHILGNYSFLGINKERVFPVLT PDLFVMGTSGKKTSPHFQKFQD ICVKAYLAL  
RHHTNLLIILFSMMLMTGMPQLTSKEDI EYIRDALTVGKNEEDAKKYFLDQIEVCRDKGW  
TVQFNWFLHLVLGIKQGEK HSA

>P14242

MTQIHQINDIDVHRITSGQVITDLTTAVKELVDNSIDANANQIEIIFKDYGLSIECSDN  
GDGIDPSNYEFLALKHYTSKIAKFQDVAKVQTLGFRGEALSSLCGIAKLSVITTTSPPKA  
DKLEYDMVGHITSKTTT SRNKGTTVLVSQLFHNL PVRQKEFSKTFKRQFTKCLTVIQGYA  
IINAAIKFSVWNITPKGKKNLILSTMRNSSMRKNIS SVFGAGGMRGLEEVDLVLDLNPFK  
NRMLGKYTD DDPDFLDLDYKIRVKGYISQNSFGGRNSKDRQFIYVNRKRPVEYSTLLKCCN  
EVYKTFNNVQFP AVFLNLEL PMSLIDVNVTPDKRVILLHNERAVIDIFKTTLSDYNRQE  
LALPKRMC SQSEQQAQKRLKTEVFDDRSTHESDNENYHTARSESNQSNHAFHNSTTGI  
DKSNGTELTSVMDGNYTNVTDVIGSECEVSDSSVVLDEGNSSTPTKKLPSIKTDSQNL S  
DLNLNNSNPEFQNI TSPDKARSLEKVV EEPVYFDIDG EK FQEKAVLSQADGLVFDNEC  
HEHTNDCCHQERRGSTDTEQDDEADSIYAEIEPVEINVRTPLKNSRKSISKDNYRSLSDG  
LTHRKFEDILEYNLSTKNFKEISKNGKQMSSII SKRKSEAQENIKNKDELEDFEQGEK  
YLTLTVSKNDFKKMEVVGQFN LGFII VTRKVDNKYDLFIVDQHASDEKYNFETLQAVTVF  
KSQKLIIPQVELSVI DELVVL DNLPVFEKNGFKLKI DEEEEF GSRVKLLSLPTSKQTLF  
DLGDFNELIHLIKEDGGLRRDNIRCSKIRSMFAMRACRSSIMIGKPLNKKTMTRVVHNLS  
ELDKPWNC PHGRPTMRHLMELRDWSSFSKDYEI

>P54278

MERAESSSTEPAKAIKPIDRKSVMHQICSGQVVLSTAVKELVENS LDAGATNIDLKLD  
YGVDLIEVSDNGCGVEEENFEGLTLKHHTSKI QEFADLTQVETFGFRGEALSSLCALSDV  
TISTCHASAKVGTMLFMDHNGKIIQKTPYPRPRGTTVSVQQLFSTLPVRHKEFQRNIKKE  
YAKMVQVLHAYCII SAGIRVSCTNQLGQGRQPVVCTGGSPSIKENIGSVFGQKQLQSLI  
PFVQLPPSDSVCEEYGLSCSDALHNLFYISGFI SQCTHGVGRSSTDRQFFF INRRPCDPA  
KVCRLVNEVYHMYNRHQYPFVVLNISVDSECVDINVTDPKRQILLQEELLLLAVLKTSLI  
GMFSDSVNKLNVSQOPLLDVEGNLIKMHAAADLEKPMVEKQDQSPSLRTGEEKKDVSISRL  
REAFSLRHTTENKPHSPKTPERRSPLGQKRGMLSSSTSGAISDKGVLRPQKEAVSSSHG  
PSDPTDRAEVEKDSGHGSTSV DSEGF SIPDTGSHCSSEYAASSPGDRGSQEHVDSQEKAP  
ETDSDSFDVDCNSQEDTGCKFRVLPQPTNLATPNTKRFKKEEILSSSDICQKLVNTQDM  
SASQVDVAVKINKKVPLDFSMSSLAKRIKQLHHEAQQSEGEQNYRKFRAKICPGENQAA  
EDELKREISKTMFAEMEII GQFNLFIIITKLNEDIFIVDQHATDEKYNFEMLQQHTVLQG  
QRLIAPQTLNLTAVNEAVLIENLEIFRKNGFDFVIDENAPVTERAKLISLPTSKNWTFGP  
QDVDELIFMLSDSPGVMCPRSRVKQMFASRACRKSVMIGTALNTSEMKKLITHMGEMDHP  
WNCPHGRPTMRHIANLGVISQN

>P07001

MRIGIPRERLTNETRVAATPKTVEQLLKLGF TVAVESGAGQLASFDKAFVQAGAEIVEG  
NSVWQSEIILKVNAPLDDEIALLNPGTTLVSVFIWPAQNPELMQKLAERNVTVMAMDSVPR  
ISRAQSLDALSSMANIAGYRAIVEAAHEFGRRFTGQITAAGKVPPAKVMVIGAGVAGLAA  
IGAANSLGAIVRAFDRPEVKEQVQSMGAEFLELDFKEEAGSGDGYAKVMSDAFIKAEME  
LFAAQAKEVDII VTTALIPGKPAPKLITREMVD SMKAGSVIVDLAAQNGGNCEYTPGEI  
FTTENGVKVI GYTDLPGRLLPTQSSQLYGTNLVNLKLLCKEKDGNITVDFDDVIRGVTV  
IRAGEITWPAPPIQVSAQPQAAQKAAPVVKTEEKCTCSPWRKYALMALAIILFGWMASVA  
PKEFLGHFTVFALACVVGYYVWVNSHALHTPLMSVTNAISGIIVVGALLQIGQGWVSF  
LSFIAVLIASINIFGGFTVTQRMLKMFKN

>P0AB67

MSGGLVTAAYIVAAILFIFSLAGLSKHETS RQGNNGFIAGMAIALIATIFGPDTGNVGI  
LLAMVIGGAIGIRLAKKVEMTEMPELVAI LHSFVGLAAVLVGFNSYLHHDAGMAPILVNI  
HLTEVFLGIFIGAVTFTGSVVAFGKLCGKISSKPLMLPNRHKMNLAAALVVSFLLLIVFVR  
TDSVGLQVLALLIMTAIALVFGWHLVASIGGADMPVVVSMNLNSYSGWAAAAAGFMLSNDL  
LIVTGALVGSSGAILSYIMCKAMNRSFISVIAGGFGTDGSSTGDDQEVGEHREITAEETA  
ELLKNSHSVII TPGYGMVAQAQYPVAEITEKLRARGINVRFGIHPVAGR LPHMNVLLA  
EAKVPYDIVLEMDEINDDFADTDTVLVIGANDTVNPAQDDPKSPIAGMPVLEVWKAQNV  
IVFKRSMNTGYAGVQNPLFFKENTHMLFGDAKASVDAILKAL

>Q04636

MSTDFDRIYLNQSKFSGRFR IADSGLGWKISTSGGSAANQARKPFLLPATELSTVQWSRG  
CRGYDLKINTKNQGVQLDGF SQQDDYNIKNDFHRRFN IQVEQREHSLRGWNWGTDLAR  
NEMVFALNGKPTFEIPYARINNTNLT SKNEVGIEFN IQDEEYQPAGDELVEMRFYIPGVI  
QTNVDENMTKKEESSNEVVPKEDGAEGEDVQMAVEEKSMAEAFYEELKEKADIGE VAGD  
AIVSFQDVFFTTTPRGRYDIDIYKNSIRLRGKTYEYKLRQIQRIVSLPKADDIHHLLVL  
AIEPPLRQGQTTYPFLVLQFQKDEETE VQLNLEDEDEYENYKDKLKKQYDAKTHIVLSHV  
LKGLTDRRVIVPGEYKSKYDQCAVSCSFKANEGYLYPLDNAFFFLTKPTLYIPFSDVSMV  
NISRAGQTSTSSRTFDLEVVLRSNRGSTTFANISKEEQQLLEQFLKSKNLRVKNEDREVQ  
ERLQ TALGSDSDEEDINMG SAGEDDESVD EDFQVSSDNDADEVAEEFDSDAALS DAEGGS  
DEERPSKKPKVE

>P03314

MSGRKAQGKTLGVNMVRRGVRSLSNKIKQKTKQIGNRPGPSRGVQGFIFFFLNFNLTGKK  
ITAHKRLWKMLDPRQGLAVLRKVKRVVASLMRGLSSRKRRSHDVLTVQFLILGMLLMTG  
GVTLVRKNRWLLLNVTSEDLGKTFVSGTGNCTTNILEAKYWCPDSMEYNCNLSPREEPD  
DIDWCYGVENVRVAYGKCDASGRSRRSRAIDLPTHENHGLKTRQEKWMTGRMGERQLQ  
KIERWFVRNPFPAVTALTIAYLVGSNMTQRVVIALLVLAVGPAYSAHCIGITDRDFIEGV  
HGGTWSATLEQDKCVTVMAPDKPSLDISLETVAIDRPAEVRKVCYNAVLTHVKINDKCP  
STGEAHLAEENEEDNACKRTYSDRGWNGCGLFGKGSIVACAKFTCAKSMSLFEVDQTKI  
QYVIRAQLHVGAQENWNTDIKTLKFDALSGSQEVEFIGYGKATLECQVQTAVDFGNSYI  
AEMETESWIVDRQWAQDLTLPWQSGSGGVWREMHHLVEFEPHAATIRVLALGNQEGSLK  
TALTGAMRVTKDTNDNLYKLHGGHVSCRVKLSALTLKGTSYKICTDKMFFVKNPTDTGH  
GTVVMQVKVSKGAPCRIPVIVADDLTAAINKGILVTVNPIASTNDDEVLEEVNPPFGDSY  
IIVGRGDSRLTYQWHKEGSSIGKLFQTQTMKGVRELAVMGDTAWDFSSAGGFFTSVGKGIH  
TVFGSAFQGLFGGLNWITKVIMGAVLIWVGINTRNMTMSMSMILVGVIMMFLSLGVGADQ  
GCAINFGRKREKCGDGFIFRDSDDWLNKYSYYPEDPVKLASIVKASFEEGKCGLNSVDS  
LEHEMWRRADEINAI FEENEVDISVVVQDPKNVYQRGTHPFSRIRDGLQYGWKTWGKNL  
VFSPGRKNGSFIIDGKSRKECPFSNRVWNSFQIEEFGTGVFTTRVYMDAVFEYTDICDGS  
ILGAAVNGKKS AHGSPTFWMGSHVENGTWMIHTLEALDYKECEWPLTHTIGTSVEESEM  
MPRSIGGPVSSHNIIPGYKVQTNQVMPVPLEVKREACPGTSVIIDGNCDGRGKSTRSTT  
DSGKVIPEWCCRSTMPVPSFHGSDGCWYPMEIRPRKTHESHVRSWVTAGEIHAVPFGL  
VSMMIAMEVVLKRKRQGPQMLVGGVLLGAMLVGQVTLDDLKLTAVGLHFHEMNNGD  
AMYMALIAAFSIRPGLLIGFGLRTLWSPRERLVLTLGAAMVEIALGGVMGGLWKYLNVA  
LCILTINAVASRKASNTILPLMALLTPVTMAEVRLAAMFFCAVVIIGVLHQNFKDTSMQK  
TIPLVALTLTSTYLGTLTQPFLGLCAFLATRIFGRRSIPVNEALAAAGLVGLAGLAFQEME  
NFLGPIAVGGLMLLVS VAGRVDGLELKKLGEVSWEEAEISGSSARYDVALSEQGEFKL  
LSEEKVPWDQVVMVMTSLALVGAALHPFALLLVLAGWLFHVRGARRSGDVLWDIPTPKIEE  
CEHLEDGIYGFQSTFLGASQRGVVAQGGVFHTMWHVTRGAFVLRNGKKLIPSWASVKE  
DLVAYGGSWKLEGRWDGEEVQLIAAVPGKNVNVQTKPSLFFKVRNGGEGIGAVALDYPSG  
TSGSPIVNRNGEVIGLYGNGILVGDNSFVSAISQTEVKEEGKEELQEIPTMLKKGMTTVL  
DFHPGAGKTRRFLPQILAEACARRRLRTLVLAPTRVVLSEMKEAFHGLDVKFHTQAFSAHG  
SGREVIDAMCHATLTYRMLPEPTRVVNWEVIIMDEAHFLDPASIAARGWAAHRARANESAT  
ILMTATPPGTSDEFPHSNGEIEDVQTDIPSEPWNTGHDWILADKRPTAWFLPSIRAANVM  
AASLRKAGKSVVVLNRKTFEREYPTIKQKKPDFILATDIAEMGANLCVERVLD CRTAFKP  
VLVDEGRKVAIKGPLRISASSAAQRRGRIGRNPNRDGDSSYYSEPTSENNAAHVCWLEAS  
MLLDNMEVRRGMVAPLYGVEGKTPVSPGEMRLRDDQRKVFRELVRNCDLPVWLSWQVAK  
AGLKTNDRKWC FEGPEEHEILNDSGETVKCRAPGGAKKPLRPRWC DERVSSDQSALSEFI  
KFAEGRRGAAEVLVVLSELPDFLAKKGGEMDTISVFLHSEEGSRAYRNALSMMPEAMTI  
VMLFILAGLLTSGMVIFFMSPKGISRMSMAMGT MAGCYLMFLGGVKPTHISYVMLIFFV  
LMVVVIPEPGQORSIQDNQVAYLIIGILTLVSAVAANELGMLEKTKEDLFGKKNLIPSSA  
SPWSWPDLDLKPAAWTVYVIGIVTMLS PMLHHWIKVEYGNLSLSGIAQSASVLSFMDKGI  
PFMKMNISVIMLLVSGWNSITVMPLLCGIGCAMLHWSLILPGIKAQQSKLAQRRV FHGVA  
ENPVVDGNPTVDIEEAPEMPALYKELALYLLALLSLASVAMCRTPFSLAEGIVLASAAL  
GPLIEGNTSLLWNGPMAVSMTGVMRGNHYAFVGVMYNLWKMKTGRRGSANGKTLGEVWKR  
ELNLLDKRQFELYKRTDIVEVDRDTARRHLAEGKVD TGVAVSRGTAKLRWFHERGYVKLE  
GRVIDLGCGRGGWCYAAAQKEVSGVKGF TLGRDGHEKPMNVQSLGWNII TFKDKTDIHR  
LEPVKCDTLLCDIGESSSSVTEGERTVRVLDTVEKWLACGVDNFCVKVLAPYMPDVLEK  
LELLQRRFGGTVIRNPLSRNSTHEMYVSGARSNVTFVNTSRLLMRRMRRPTGKVTLE  
ADVILPIGTRSVETDKGPLDKEAIEERVERIKSEYMTSWFYDNDNPYRTWHYCGSYVTKT  
SGSAASMVNGVIKILTYPWDRIEEVTRMAMTDTTPFGQQRVFKKVDTRAKDPPAGTRKI

MKVVNRWLFRLHAREKNPRLCTKEEFI AKVRS HAAI GAYLEE QEQWKTANEAVQDPKFWE  
LVDEERKLHQGR CRTCVYNNMMGKREKKLSEFGKAKGSRAI WYMWLGARYLEFEALGFLN  
EDHWASRENSGGGVEGIGLQYLGYVIRDLAAMDGGGFYADDTAGWDTRIT EADLDDEQEI  
LNYSMPHHKKLAQAVMEMTYKNKVVKVL RPAPGGKAYMDVISRRDQRGSGQVVTYALNTI  
TNLKVQLIRMAEAEMVIHHQHVDCE SVLTRLEAWL TEHGCDRLKRMASGDDCVVRPI  
DDRFGLALSHLNAMSKVRKDI SEWQPSKGWNDWENVPFC SHHFHELQLKDGRRI VVPCRE  
QDELIGRGRVSPGNGWMIKETACL SKAYANMWSLMYFHKRDMRLLSLAVSSAVPTS WVPQ  
GRTTWSIHGKGEWMTTEDMLEVWNRVWI TNPHMQDKTMVKKWRDVPYLT KRQDKL CGSL  
IGMTNRATWASHIHLVIHRIRTLIGQEKYTDYLTVM DRYSDADLQLGELI

>P03315

MNYIPTQTFYGRWRPRPAARPWPLQATPVAPVVPDFQAQQMQLISAVNAL TMRQNAIA  
PARPPKPKKKKTTKPKPKTQPKKINGKTQQQKKKDKQADKKKKKPGKRERCMK IENDCI  
FEVKHEGKVTGYACL VGDKVMKPAHVKGVIDNADLAKLAFKKSSKYDLECAQIPVHMRSD  
ASKYTHEKPEGHYNWHGAVQYSGGRFTIPTGAGKPGDSGRPIFDNKGRVVAIVLGGANE  
GSRTALSVVTWNKDMVTRVTPEGSEWSAPLITAMCVLANATFPFCFQPPCVPCCYENNAE  
ATLRMLEDNVDRPGYYDLLQAALTCRNGTRHRRSVSQHFNVYKATRPYIAYCADCGAGHS  
CHSPVAIEAVRSEATDGM LKIQFSAQIGIDKSDNHDTKIRYADGHAIENAVRSSLKVAT  
SGDCFVHGTMGHFI LAKCPPGEFLQVSIQDTRNAVRACRIQYHHDPPVGREKFTIRPHY  
GKEIPCTTYQQTAEVTEEIDMHMPDTPDRTL LSQQSGNVKITVGGKKVKYNCTCGTGN  
VGT TNSDMTINTCLIEQCHVSVTDHKKWQFN SPFVPRADEPARKGKVHIPPPLDNITCRV  
PMAREPTVIHGKREVTLHLHPDHPTLFSYRTLGEDPQYHEEWVTA AVERTIPVPVDGMEY  
HWGNNDPVRLWSQLTTEGKPHGWPHQIVQYYYGLYPAATVSAVVGMSLLALISIFASCYM  
LVAARSKCLTPYALTPGA AVPWTLGILCCAPRAHAASVAETMAYLWDQNQALFWLEFAAP  
VACIL IITYCLRNVLCCCKSLSFLVLLSLGATARAYEHSTVMPNVVGFYKAHIERPGYS  
PLTLQMQVVETSLEPTLNLEYITCEYKTVVSPSPYVKCCGASECSTKEKPDYQCKVYTVGY  
PFMWGGAYCFCDSENTQLSEAYVDRSDVCRHDHASAYKAHTASLKAKVRVMYGNVNQTV D  
VYVNGDHAVTIGGTQFIFGPLSSAWTPFDNKIVVYKDEVFNQDFPPY GSGQPGRFGDIQS  
RTVESNDLYANTALKLARSPGMVHV PYTQTPSGFKYWLKEKG TALNTKAPFGCQIKTNP  
VRAMNCAVGNIPVSMNL PDSAFTRIVEAPTIDLTCTVATCTHSSDFGGVLTLYTKTNKN  
GDCSVHSHSNVATLQEATAKVKTAGKVTLHFSTASASPSFVVS LCSARATCSASCEPPKD  
HIVPYAASHSNVFPDMSGTALS WVQKISGGLGAF AIGAILLVVVVTCIGLRR

>P56810

MVLKVISANQAVAEAAKLAKPKVIPVYPI TPQTSISEYLAKFVADGELKAEYIRVESEHS  
AMSACV GASGAGVRVFTATSSQGLALMHEIVYAAAGLRNP IVMANANRALSAPLSIWN DQ  
QDSIAERDSGWMQIYVESGQEALDSVLLSYRVSEDRDVLLPSMVCLDGFILTH TVEPVDI  
PSQEDVDSFLPEFQPQVMLDPDEPMSLGTFTDPDYMEARYEVEKAMERSRK IIERACRE  
FSEMFGREYGLVEEYRCEDAE IILVAMGSVCSTLREVIDELRDKGKAVGLLKV RVHRPFP  
AEEIKSAVRNASKVAVLDKNITFSVGGALYTEISALLRDRREVYGFIVGLGGRDITPAHIE  
EIVRRTENPERSVTWIGLKEESE

>Q51804

MPIRKVMKANEAAAWAAKLAKPKVIAAFPITPSTLIPEKISEFVANGELDAEFIKVESEH  
SAISACV GAAAAGVRTFTATASQGLALMHEILFIAAGMRLPIVMAIGNRALSAPINIWN D  
WQDTISQRDTGWMQFYAENNQEALDLIL IAYKVAEDERVLLPAMVGFDAFILTH TVEPVE  
IPDQEVVDEFLGEYEPKHAYIDPARPITQGS LAFFPAHYMESRYTVWEAMERAKKVIDEAF  
AEFEKKFGRKYQKIEEYKTEDADIIFVTMGS LAGTLKEWIDKKREEGYKVGAAKITVYRP  
FPVEEIRELAKKAKVLAFLKKNITIGLYGAVFTDASAALINESEKPLMVDFIVGLGGRDV  
TFNQLDEALEIAEKALKEGKVENP INWIGLRWELVK



>O05651

MERVVERVAVTGAEAVANAMRQIEPDVVAAYPI TPQTPIVEYFARFVADGVVRTEMIPVE  
SEHSAMSAVVGAAAAGARAMTATSANGLALMHEIVYIAASYRLPIVMPVVNRALSGPINI  
HCDHSDAMAERDSGWIQLFAETNQEAYDFTILAVRLAEHEDVRLPVMVNL DGFILSHGVE  
PVEFY PDELVKKFV GELKPMYPLLDTEHPVTWGPLDLDYDYF EHKRQQIEAMENVKKVFP  
EIAKEFEETFGRKYWFVEPYRMEDA EHV MVALGSTNSTIKYVVDELREEGYKVGSLKIWM  
FRFPFKEQLQELLNGRKS VVVLDRAVSFGAEAPLYEAVKSALYEVAARPMLGSYVYGLGG  
RDIKPEHIRKAFEDAINGNLI ADEQRYLGLRE

>O27771

MKIPEEEFLAPGHRGCAGCGATVGVRLALKVLGKNTVAVSSTGCLEVITTPYPETAWRIP  
WIHVAFENAAAVASGVERALKAKGRDDVNVVAFAGDGGTADIGLQALSGAMERGHNI IYI  
CYDNEAYMNTGIQRSASTPYGASTTTSPHGKESFGEDRPKKNMPLIMAAHGVPYVATASI  
SYPEDFMEKVRKAKETDGPAYIHLHQ PCTTGWGFDPAKTVELGRLAVETG SWILYEIEDG  
DFRVTYRPVQRKPVEEYLNAQKRFRHLTEEQKARIQEYVDSVCQELRI

>Q9UYZ5

MAVRKPPITTTREYWAPGHAACAGCGCATALRLATKAFSEAMEEKYGDPAFAIAQATGCM  
EVVSAVFPYTAWKVPVHVAFENAAAAASGIEAAWKKKGKIKGILAI GGDGGTADIGLQA  
LSGMLERGHNVVYLMYDNEAYMNTGIQRSSSTPYGAWTTTSPPGKYSIGEDRPKKWVALI  
AAAHMIPYVATASIGNPFDVFKVKA KAAKVDGPAFVQVHCTCPTGWRTPLEKGI E IARLA  
IETGMWPLFEIENGD IWHIKIQPPGGGAKVYKEGGRVRIEFK KPIEEYLKYQGRFKHLF  
KRPEAIDELRNQIKAMWKVLGVEAILPKPEE

>Q56317

MPVNIKQLAQEFDKKEIGITQGHRLCPGCGAPITVKFVMMIARHLGYEPVVG LATGCLEV  
STSIYPYTAWSVPYIHNAFENVAATMSGVETAYKALKNKGKIPEDKKYAFIAFGDGGTY  
DIGLQSLSGMLERGHKVLVLYDNEGYMNTGNQRSGSTPPGSDTTTAPVGKLLPGKVQLK  
KNIVEIVA AHENVYAATASLSEPMDFFAKVEKALNFDGPSFLAVFSPCVRFWRVND DKT  
EISKLA VETKYWPLYEVERGVYRVTRKPRQFKPV EEFLLKAQGRFRKLLSRPDAKEIVDEL  
QEYVDRRWERLLTLEEVTKDKPIR

>Q9UYY9

MIEIRFHGRGGQGA VTAANILAEAAFI EGKYVQAF PFFGVERRGAPVTAFT RIDEKPIRI  
KTQIYEPDVVVVLDPSLLETVDVTAGLKEDGIVIVNTEKSKEEVLEKLRKPKKLALVDA  
TTIALETGLGPITNTAILGAVAKATGLVKIESVETAIKDTFSGELGEKNAKAAREAFEKT  
QIFEV

>O05650

MPVAKKYFEIRWHGRAGQGAKSASQMLAEAALEAGKYVQAFPEYGAERTGAPMRAFNRIG  
DEYIRVRS AVENPDVVVIDETLLSPAIVEGLSEDGILLVNTVKDFEFVRKKTGFNGKIC  
VVDATDIALQEIKRGPNTPMLGALVRVTGIVPLEAIEKRIEKMF GKKFPQEVIDANKRA  
LRRGYEEVKCSE

>P34471

MSYNSIRLPQDLPIYYKNFFPVKPF TKWLRYGQNNGDYFNRR EFAFILADDVHIRYRSYN  
DEHAFFKALSSTNPEKLDIGAVYNHEP INNKRHTDYQ AVERELVFDIDLTDYDPVRNCK  
DATVCPKCWKFMVLAVKILDFQLEDMFDFKARMWVFSGRRGVHCWVGDKKARMLNNYQRS  
AIATRLNLFKKNQCEVTEGRAKMTKVPPIVRDAFNVALKDGVFEKMIYDQGWL DKEDFI

TEYKFMSEVGRDDLRSLSSETYKTPQERWNMIRGLFDDDYRKSLSPKDGLLDFKMQGRDRN  
YLLYFVLQRCYPRLDVNVSTGTNHLKSPFCIHPKTGNVAVPLNVGKIEEFDVSKCPRID  
HVVEELSSLLAERGNEDENEDSKNRKFLAYKHGALAPYVENFEKFFVSACIS

>Q24317

MPEQVTDQENQAPQQOTTAVHAYNPEVLQDMLPVYRRLFPHLFPYRWLSYGSSDAIFS  
NREISFTLQDDIYIRYLCFDTQAELEKEICSRNP IKIDIGPVMHSPKNHRSIPGGLTPV  
QRELVFIDIMTDYDEVRTCCSGAGVCLCKWKFVLAARVLDVALREDFGFEHI IWIFSGR  
RGIHCWVCDYQARHLDGRGRYAVAEYLNIIITYASFAGGNSPRCSMGDRPHHSLKRALKIV  
EPMFEEIVLEDQNLFGTPKGVTKLLNMVHDDAARGELESYMQKNLEDEGAHSRLVWESFIK  
YANSMRTSTTSAWSRKLKNIVAEIQLGLLYPRLDINVTRGFNHLKAPFCIHPATGKVCV  
PFSVSAVAKFDPTTVPTITITQLLHEINAFDDKSKSYMEAPEDKSR IKDHKKTSMFKGVVVF  
EEFLRKLERSQKSASLQF

>P49642

METFDPTLPELLKLYRRLFPYSQYYRWLNYYGGVIKNYFQHREFSFTLKDDIYIRYQSF  
NNQSDLEKEMQKMNPYKIDIGAVYSHRPNQHNTVKLGAFQAQEKELVFDIDMTDYDDVRR  
CCSSADICPKCWTLMTMAIRIIDRALKEDFGFKHRLWVYSGRRGVHCWCDESVRKLSA  
VRSGIVEYLSLVKGGQDVKKKVHLSEKIHPFIRKSINIKKYFEEYALVNQDILENKESW  
DKILALVPETIHDELQQSFKSHNSLQRWEHLKKVASRYQNNIKNDKYGPWLEWEIMLQY  
CFPRLDINVSKGINHLKSPFSVHPKTGRISVPIDLQKVDQFDPFTVPTISFICRELDI  
STNEEEKEENEAEADVKHRTDYKKTSLAPYVKVFEHFLENLDSRKGELLLKSDLQKDF

>Q7KQM1

MKMEIVGDIKDSIVNENDLIFYRSLCPINDLYNWLNYKNDIKGKYTKLNDPHFFSKREF  
SFTCKKSDQGKEEYIRWLSFSNPEEFKNKLLSDLVPIKFDIGAIYNFPVSQKDQKGDIF  
LPVQKELIFDIDMNDYDDIRTCCCTDKKVCKLCKWFLTVAVLVDLTDALREDFSEHILWVY  
SGRRGIHCWVADESCRYTTDARAALADYLNILSGSDTKKKKVS IWGKDKYPMFERAFDI  
CYKYFDVLMEEQDFFKKGSHPVQKLI DYLPYASGKVTDP LKAMKLNELKEYINNNNFNSR  
EIFEKFSSIYNFLTPSNYFKRKNVSGNINMPSFVKEIVFHFTYPRLDINVSKEINHLLKS  
PFCIHNSTGRVCVPLDIKNINNFNPQSVPTLKLREQFDDPKNSHIEAENRTSLKPYIDY  
FRRHF IENILLS CV EKKKRLNENSKYVDYNNI

>O14215

MTVQIDELDDKDLDEIIANGTLDGAKQGAVDSETMIQYRHLFPWKYLFQWLNHGPVVTN  
DFAHREFAFTLPNDAYIRYLSFSNWEELKKEALNLCPSRFEVGPVYSANPRDRKTIRKST  
FHPLKKELVFDIDMTDYDDVRTCCSKTNI CEKCWPFITIAVQVLDICFHEDFGFKHILWV  
YSGRRGIHAWICDEIACSLDDRSRRMIASYLQVVVGNPQGGVRLINNLKRPLHPLTRSL  
NILKSAFVKIVLEDQDPWASKEGAENLLKLLPKDLASALRKKWEVDPERSKKNKWSID  
TVLASGSIASISPSVIAIAKQDIVLTYLYPRLDVEVSRHLNHLKSPFCVHPGTSRVCVP  
IDIERMDSFNPLKVPTVNDLLQELDKNSQNDNGHGPTMETNTTENQKDNARGQSNKGHGF  
STSLNPTYTLYFKSFSSQLFKETVGNKRKHENLEF

>Q9VPH2

MEFGLKKRARHEVKVEVASLETKYPHNVMLYHYPPPTEDVHIDEFEELALERLRLRLVDR  
ASTRNLRVLSDEWKEIVSADLTREGLRSYLRLCSTGGS AKHEADIQTRRRDYLSHFILRL  
AYCRSEDLARWFVAREMELFRYKFAALSSFEVKQFLEANGFEIHPLTEAQKDEVKDGLYE  
STVGQSVAKIELLDYKVPFTQVLDLVRGRRCFLKAGYAYVNT HDLVS LVG TKQQDEIEQ  
GLQA AKTMVEDVEADERISRTLKALHNSYTG RDYTVCRDAAVPIESLDQLSKTSMPLCMR  
MCHEHIRANHHIKHSGRMQYGLFLKGIGVALEDSLRFWREEF TKKMDADKFTRSYEYNIY

HNYGKKGSMVNYTPYSCAKI IKDVAGPGDCHGCPYKNMDQGSLKTKLSSYGLSASAIDEV  
MFFVSRGHYQIGCGKYFQLTHNSPVEPSINHPNNYFEESQIAMGNRQKRANGSAPPKARI  
RPDIKGHGDRSMLMGDDDDDELWRIAETQERIMQSQKDISEAFNDDLDLTQIDY

>P49643

MEFSGRKWRKLRLAGDQRNASYPHCLQFYLQPPSENI SLIEFENLAIDRVKLLKSVENLG  
VSYVKGTEQYQSKLESELRKLKFSYRENLEDEYEPRRRDHISHFILRLAYCQSEELRRWF  
IQQEMDLLRFRFSILPKDKIQDFLKDSQLQFEAISDEEKTREQEIVASSPSLSGLKLG  
ESIYKIPFADALDLFRGRKVYLEDGFAYVPLKDIVAIILNEFRAKLSKALALTARSLPAV  
QSDERLQPLLNLHLSHSYTGQDYSTQGNVVKISLDQIDLLSTKSFPPCMRQLHKALRENHH  
LRHGGRMQYGLFLKGI GLTLEQALQFWKQEFIKGKMDPKFDKGYSYNIRHSFGKEGKRT  
DYTPFSCLKIILSNPPSQGDYHGCPFRHSDPELLKQKLSYKISPGGISQILDLVKGTHY  
QVACQKYFEMIHNVDGCFSLNHPNQFFCESQRILNNGGKDIKKEPIQPETPQPKPSVQKT  
KDASSALASLNSLEMDMEGLEDYFSEDS

>O74761

MFRTTKSRVVEKNQNFSSASFESLSYPTRLNFYKKPPVSEISIEEFETWAIDRLVVLGEI  
ESAMLRNKTKNELNGI IKKILDKRLPMSNMARTVKGNLDEERRKDHYSHFILRLAFSR  
SDELRI RFLRAESTLFRFRFVNEETRERQAFIDSLDFQWESVSQEEKDVFYEKLQASSQR  
NIENESFFKVPFFKVPDLVERRAVFVHKGYAYVPFSEQVSLVVEEFENLKKALESTAKS  
LPRLEDEDRLLPILNHLKSGFVAPESSIVAPKSGAITAGQVDSFVSHFPLCAKHLHEVLK  
RDKHLRHFGRLQYGLFLKDIGLSVDEALVFWRKSFTNVTEDKFNKEYRYNIRHTYGLEGN  
RKNYKGYNCQQILTGPQLGPGDAHGCPYRTYSVMNLVLSALASMG IAPDSAGCREVVEAVK  
ARHYHIACTRVFELTHPNVGSLEESIHHPLQYFQLSLES

>Q8U4H7

MLDPFSEKAKELLKEFGSMNEFLQAIPSLVDIEEVMNRLKFAKESEISEDILNIEDIRDL  
ASFYAQIGALAYSPYGLELELVKKANLRIYTERIRRRRKIRSDEIGIEVKIAVEFPENDI  
KTLEKVYGGPPEYIVSLREFLDLVPDEKLSSYVYDGNVYLKDDLLKWSKAFERNVEK  
AVNI IYEIRDELPEFYRRLAGEIRSFAEKEFSDKFREVVQAGELKHHLFPPCVKNALRGVP  
QGMRNIAITVLLTSFLSYARICPNPPRRNVKIRDCKIDMRVITEEILP I IIEAGNRCSP  
LFEDQPNEIKNIWYHLGFGYTANPTLEDSGNSTWYFPPNCDKIKANAPQLCTPDKHCRYI  
RNPLTYYLRLLYLEEKRRAKHADEGSDKGGKERILQ

>Q9P9H1

MLMREVTKEERSEFYKESAKKIPKFIVDTLESREFGFDHNGEGPSDRKNQYSDIRDLE  
DYIRATSPYAVYSSVAFYENPREMEGWRGAELVFDIDAKDLPLKRCNHEPGTVCPICLED  
AKELAKDTL IILREELGFENIHVVYSGRGYHIRILDEWALQLDSKSRERILAFISASEIE  
NVEEFRRFLLEKRGWVFLKHGYPRVFRRLRGLGYFILRVNVPHELLSIGIRRNI AKKILDHKE  
EIYEGFVRKAILASFPEGVIGIESMAKLFALSTRFSKAYFDGRVTVDIKRILRLPSTLHSK  
VGLIATYVGTKEREVMKFNPFRRHAVPKFRKKEVREAYKLWRESLEYE

>P78527

MAGSGAGVRCSSLRLQETLSAADRCGAALAGHQLIRGLGQECVLS SSPAVLALQTSLVFS  
RDFGLLVFVRKSLNSIEFRECREEILKFLCIFLEKMGQKIAPYSVEIKNTCTSVYTKDRA  
AKCKIPALDLLIKLLQTFRSSRLMDEFKIGELFSKFGELALKKKIPDTVLEKVYELLGL  
LGEVHPSEMINNAENLFR AFLGELKTQMTSAVREP KLPVLAGCLKGLSSLLCNFTKSMEE  
DPQTSREIFNFVLKAIRPQIDLKRYAVPSAGLRLFALHASQFSTCLLDNYVSLFEVLLKW  
CAHTNVELKKAALSALESFLKQVSNMVAKNAEMHKNKLQYFMEQFYGIIRNVDSNNKELS  
IAIRGYGLFAGPCKVINAKDVDFMYVELIQRCKQMFLTQTDGTGDDRVYQMP SFLQSVASV

LLYLDTVPEVYTPVLEHLVVMQIDSFPQYSPKMQLVCCRAIVKVFLALAAKGPVLRNCIS  
TVVHQGLIRICSKPVVLPKGPSESESEDRASGEVRTGKWKVPTYKYVDLFRHLLSSDQM  
MDSILADEAFFSVNSSSESLNHLLYDEFVKSVLKIVEKLDLTLEIQTVGEQENGDEAPGV  
WMIPTSDPAANLHPAKPKDFSAFINLVEFCREILPEKQAEFFEPWVYSFSYELILQSTRL  
PLISGFYKLLSITVRNAKKIKYFEGVSPKSLKHSPEDEKYSFCALFVKFGKEVAVKMKQ  
YKDELLASCLTFLLSLPHNIEILDVRAYVPALQMAFKLGLSYTPLAEVGLNALEEWSIYI  
DRHVMQPYKIDILPCLDGYLKTSALSDETKNNWEVSALSRAAQGFNKVVLKHLKKTKNL  
SSNEAISLEEIRIRVVQMLGSLGGQINKNLLTVTSSDEMMSYVAWDREKRLSFAVPFRE  
MKPVIFLDVFPRVTEALATASDRQTKVAACECELLHSMVMFMLGKATQMPGEGGQAPPMYQ  
LYKRTFPVLLRLACDQVTRQLYEPLVMQLIHWFTNNKKFESQDTVALLEAILDGI VDP  
VDSTLRDFCGRCIREFLKWSIKQITPQQEKSPVNTKSLFKRLYSLALHPNAFKRLGASL  
AFNNIYREFREEESLVEQFVFEALVIYMESLALAHADEKSLGTIQCCDAIDHLCRIIEK  
KHVSLNKAKKRRRLPRGFPPSASLCLLDLVKWL LAHCGRPQTECRHKSIELFYKFVPLLP  
NRSPNLWLKDVLEKEGVSFINTFEGGGCGQPSGILAQPTLLYLGRPFSLQATLCWLDLL  
LAALECYNTFIGERTV GALQVLGTEAQSSLLKAVAFFLESIAMHDI IAAEKCFGTGAAGN  
RTSPQEGERYNYSKCTVVVRIMEFTTTLLNTSPEGWKLKLDLCNTHLMRVLVQTLCEPA  
SIGFNIGDVQVMAHLPDVCVNLKALKMSPYKDILETHLREKITAQSI EELCAVNLYGPD  
AQVDRSRLAAVVSACKQLHRAGLLHNILPSQSTDLLHHSVGTCELLSVYKGIAPGDERQCL  
PSLDLSCQQLASGLELAFAGGLCERLVSLLLNPAVLSTASLGSSQGSVIHF SHGEYFY  
SLFSETINTELLKNLDLAVLELMQSSVDNTKMVSAVLNGMLDQSFREERANQKHQGLKLAT  
TILQHWKCDSSWAKDSPLETKMAVLALLAKILQIDSSVSFNTSHGSHFPEVFTTYISLLA  
DTKLDLHLKQAVTLLPFFTSLTGGSL EELRRVLEQLIVAHFPMQSREFFPGT PRFNIV  
DCMKKFLDALELSQSPMLLELMTEVLCREQQHVMEELEFQSSFRRIARRGSCVTQVGLLES  
VYEMFRKDDPRLSFTRQSFVDRSLLTLLWHCSLDALREFFSTIVDAIDVLKSRFTKLE  
STFDTQITKMGYKILDMYSRLPKDDVHAKESKINQVFGSCITEGNELTKTLIKLCY  
DAFTENMAGENQLLERRRLYHCAAYNCAISVICCVFNELEKQYQGFLESEKPEKNLLIFEN  
LIDLKRRYNFPVEVEVPMERKKKYIEIRKEAREEAANGSDGPSYSSLSYLADSTLSEEM  
SQDFDSTGVQSYSYSSQDPRPATGRFRREQRDPTVHDDVLELEMEDELNRHECMAPL TAL  
VKHMHRSLGPPQGEEDSVPRDLPSWMMKFLHGKLGNIPLNIRLFLAKLVINTEEVFRPY  
AKHWLSPLLQLAASENNGGEGIHVMVEIVATILSWTGLATPTGVPKDEVLANRLLNFLM  
KHFVHPKRAVFRHNLEIKTLVECWKDCLSIPYRLIFEKFSGKDPNSKDNSVGIQLLGIV  
MANDLPPYDPQCGIQSSEYFQALVNNMSFVRYKEVYAAAAEVLGLILRYVMERKNILEES  
LCELVAQQLKQHONTMEDKFI VCLNKVTKSFPPADRFMNAVFFLLPKFHGVKTLCLLEV  
VLCRVEGMTELYFQLKSKDFVQVMRHRDDERQKVCLDI IYKMPKLPVELRELLNPVVE  
FVSHPSTTCREQMYNILMWIHDNYRDPESSETDND SQEIFKLAQDVLIQGLIDENPGLQLI  
IRNFWSHETRLPSNTLDRLLALNSLYSPKIEVHFLSLATNFFLEMTSMSPDYPNPMFEHP  
LSECEFEYETIDSDFRFRSTVLTMPFVETQASQGTQTRTQEGSL SARWPVAGQIRATQQ  
QHDFTLTQTADGRSSFDWLTGSSTDPDVTSPSSDLSLFAHKRSERLQRAPLKS VGPDF  
GKKRLGLPGDEVNKKVGAAGR TDLRLRRRFRMRDQEKLSLMYARKGVAEQKREKEIKSE  
LKMKQDAQVVLRSYRHGDLPIQIKHSSLITPLQAVAQRDPI IAKQLFSSLSFGILKEM  
DKFKTLSEKNITQKLLQDFNRFNLTTF SFFPPFVSCIQDISCQHAALLSLDPAAVSAGC  
LASLQQPVGIRLLEEALLRLLPAELPAKRVRGKARLPPDVLRWVELAKLYRSIGEYDVL R  
GIFTSEIGTKQITQSALLAEARSDYSEAAKQYDEALNKQDWDGEPTEAEKDFWELASLD  
CYNHLAEWKSLEYCSTASIDSENPPDLNKIWSEPFYQETYL PYMIRSKLKL LLLQGEADQS  
LLTFIDKAMHGELQKAILLEHYSQELSLLYLLQDDVDRAKYYIQNGIQSFMQNYSSIDVL  
LHQSR LTKLQSVQALTEIQEFISFISKQGNLSSQVPLKRLLLNTWTRNYPDAKMDPMNIWD  
DIITNRCFFLSKIEEKLTPLEPNMSMNVDQDGDPSDRMEVQE QEEDISSLIR SCKFSMKM  
KMIDSARKQNNFSLAMKLLKELHKEKSTRDDWL VSWVQSYCRLSHCRSRSQGCSEQVLT V  
LKTVSLLDENNVSSYLSKNILAFRDQNILLGTTYRI IANALSSEPACLAIEEEDKARRIL  
ELSGSSSESEKVIAGLYQRAFQHLSEAVQAAEEEAQPPSWSCGPAAGVIDAYMTLADFC

DQQLRKEEENASVIDSAELQAYPALVVEKMLKALKLNSNEARLKFPRLLQIIERYPEETL  
SLMTKEISSVPCWQFISWISHMVALLDKQAVAVQHSVEEITDNYPQAI VYPFIISSESY  
SFKDTSTGHKNKEFVARIKSKLDQGGVIQDFINALDQLSNPELLFKDWSNDVRAELAKTP  
VNKKNIEKMYERMYAALGDPKAPGLGAFRRKFIQTFGKEFDKHFKGGSKLLRMKLSDFN  
DITNMLLLKMNKDSKPPGNLKECSPWMSDFKVEFLRNELEIPGQYDGRGKPLPEYHVRIA  
GFDERVTVMASLRPKRIIRGHDEREHPFLVKGGEDLRQDQRVEQLFQVMNGILAQDSA  
CSQRALQLRTYSVVPMTSRLGLIEWLENTVTLKDLLNTMSQEEKAAAYLSDPRAPPCEYK  
DWLTKMSGKHDVGAYMLMYKGANRTETVTSFRKRESKVPADLLKRAVFRMSTSPFAFLAL  
RSHFASSHALICISHWILGIGDRHLNFMVAMETGGVIGIDFGHAFGSATQFLPVPELMP  
FRLTRQFINLMLPMKETGLMYSIMVHALRAFRSDPGLLTNTMDVVFVKEPSFDWKNFEQKM  
LKKGGSWIQEINVAEKNWYPRQKICYAKRKLAPANPAVITCDELLELGHKAPAFRDYVAV  
ARGSKDHNIRAQEPESGLSEETQVKCLMDQATDPNII LGRTWEGWEPWM

>075569

MSQSRHRAEAPPLEREDSGTFFSLGKMITAKPGKTPIQVLHEYGMKTKNIPVYECERSDVQ  
IHVPTFTFRVTVGDICTGEGTSKKLAKHRAAEAAINILKANASICFAVPDPLMPDPSKQ  
PKNQLNPIGSLQELAIHHGWRLPEYTLSEQEGPAHKREYTTICRLESFMETGKGASKKQA  
KRNAAEKFLAKFSNISPENHISLTVNVGHSLGCTWHSLRNSPGEKINLLKRSLLSIPNTD  
YIQLLSEIAKEQGFNITYLDIDEL SANGQYQCLAELSTSPITVCHGSGISCGNAQSDAAH  
NALQYLKIIAERK

>Q99633

MDILKSEILRKRQLVEDRNLLENKKYFKRSELAKEEEAYFERCGYKIQPKEEDQKPLT  
SSNPVLELELAEKLPMTLSRQEVIRRLRERGERIRLFGETDYDAFQRLRKIEILTPEVN  
KGLRNDLKAALDKIDQOYLINEIVGGQEPGEEDTQNDLKVHEENTTIEELEALGESLKGKD  
DHKMDMIIITKFLKFLLGWAKELNAREDYVKRSVQGLNSATQKQTESYLRPLFRKLKRK  
NLPADIKESITDIKFMLQREYVKANDAYLQMAIGNAPWPIGVTMVGIHARTGREKIFSK  
HVAHVLNDETQRKYIQGLKRLMTICQKHFPDPSKCV EYNAL

>Q27451

MSDAKNLFFFDRPSEPCFMQKGEENAVFEIPDNYYPEKYQRVSNAIGNRFGSDAGRMI  
PIRNIALPNLDLPMELPYNEQFSLFVPKHRKLAGRLIDIFMGMRDVEDLQSVCSYCQLRI  
NPYMFNYCLSVAILHRPDTKGLSIPTFAESFPDKFMDPKVFRQAREVSSVVP SGARMPIV  
IPSNYASDTEPEQRVAYFREDIGINLHHWHHLVYPPDAADRAIVNKDRRGELFYMHQ  
QIIARYNVERMCNNLSRVRRYNNFRAAIEEGYFPKLDSTVASRAWPPRFAGTTIRDLDRP  
VDQIRSDVSELETWRDRFLQAIENMSVMLPNGRQLPLDEETGIDVLGNLMESSIISRNR  
YYGDLHNMGHVVISYSHDPDHRHLEQFGVMGDSATAMRDPVFYRWHAYIDDFHLYKYKL  
TPYGNDRDLDFPNIRVSSVSI EGGGTPNTLNTLWEQSTVDLGRGMDFTPRGSVLARFTHLQ  
HDEYNYVIEVNNTGGSSVMGMFRIFIAPTVDESGKPF SFDEQRKLMIELDKFSQGVKPGN  
NTIRKSIDSSVTIPYERTFRNQADRPADPGTAGAAEFDFCGCGWPHHMLVPKGT TQGY  
MVL FVMVSNWDDRVEQDLVGCNDAASYCGIRDRKYPDRRAMGFPFDRPAPAAATLSDF  
LRPNMAVRDCIVRFTDRTRQRGQQG

>Q25519

MADIFDSFELLYDRPGPEMINTKGEDKVL FELTEQFLTPEYANNGLLELNNRFGDEEEVSR  
KIIILKNLDKIPEFPKAKQLPNDADFSLFLPSHQEMANEVIDVLM SVTENQLQELLSTCVY  
ARINLNPQLFNICYTVAIMHRRDTGKVRVQNYAEIFPAKFLDSQVFTQAREAAAVIPKTI  
PRTPIIIPRDYATATDLEEEHRLAYWREDLGINLHHWHHLVYPPSASDEKIVAKDRRGEL  
FFYMHQQIIARYNCERL CNSLKRKVFSDWREPIPEAYPKLDSLTSARGWPPRQAGMRW  
QDLKRPVDGLNVTIDDMERYRRNIEEAIATGNVILPDKSTKKLDIDMLGNMMEASVLSPN

RDLYGSIHNNMHSFSAYMHDPEHRYLESFGVIADDEATTMRDPFFYRVHAWVDDIFQSFKE  
APHNVRPYSRSQLENPGVQVTSVAVESAGGQQNVLNTFWMQSDVNLKGLDFSDRGPVYA  
RFTHLNHRPFRYVIKANNTASARRTTVRIF IAPKTDERNLPWALSDQRKMF IEMDRFVVP  
LSAGENTITRQSTESSLTIPFEQTFRDLSIQGSDPRRSELAAFNYCGCGWPQHMLVPGKT  
VGGVAYQLFVMLSNEYELDKIEQPDGRELSCVEASMFCLKDKKYPDARPMGYPFDRPSNS  
ATNIEDFSAMSNMGLQDIVIKLSDVTEPNPRNPPA

>Q7NFT6

MSTTPQEREKPVRLVDNDPVPTSTEKWGKPGWFERNLARGPKTTTWIWDLHALAHDFET  
HTSDKEEISRKIFSAHFGHLAVVCVWLSGMFWHGAYFSNFTAWMENPLGLKPSAQTVWVP  
FGQEILNDPSTVAKGFEQGGIVITSGLFHLWRAVGFTTTGQLAAMS IAML IIAALFLFAG  
WFHYHKRAPKLEWFQNVESMLNHHLAGLFLGSLFWTGHLIHVALPVKAQLDAGIAPAQV  
NPFAGLDYGLMGQYFPKGFPGNGGLGAFFTLNWGQFTDFLTFKGGLEPATGALYLTIDIAH  
HHLAIATLFI IAGHMYRTNWGIGHSI KEMLEAHKGPLTGEHRGLYEVLTTSWHAQLAIN  
LAMAGSITIIVAHHMYAMNPYPYMGTDYATQISLFTTHMWIGGFLIVGAGAHAAIFMVRD  
YDPVTNQNLLDRVLRHRDAI I SHLNWVTLFLGFHSFGLYVHNDTMQALGRPRDMFADFA  
IPLQPVFAQWIQNIHAAAPGGATAPWVGGTSPWTYTGALSSAATLQANQVLALANDKISI  
SPIHLGTADFMVHHIFALCIHVTVLILLKGVLFARSSRLIPDKANLGFRRPCDGPGRGGT  
CQSSAWDHVFLGLFWMYNTISVVIHFHFSWKMQSDVWGTVDIRSTGAVNHIIGNTDVLLGGQ  
TVALSQYAASSININGWLRDFLWAQSSAVINSYGGPLSAYGLMFLGAHF I WAFSLMFLFS  
GRGYWQELIESIVWAHNKLVAPAIQPRALSITQGRAVGVAHYLLGGIATTWAFFLARFL  
ALP

>P06511

MIIRSPEPEVKILVDRDPVKTSFEAWAKPGHFSRTIAKGPETTTWIWNLHADAHDFDSHT  
SDLEEISRKIFSAHFGQLSII FLWLSGMYFHGARFSNYEAWLSDP THIGPSAQVWVPIV  
QEILNGDVGGGFRGIQITSGFFQIWRASGITSELQLYCTAIGALVFAALMLFAGWFHYHK  
AAPKLAWFQDVESMLNHHLAGLLGLGSLSWAGHQIHVSLP INQFLNAGVDPKEIPLPHEL  
ILNRDLAQLYPSFAEGATPFFTLNWSKYADFLTFRGGLDPVTGGLWLTDTAHHHLAIAI  
LFLIAGHMYRTNWGIGHGLKDILEAHKGPFQTGQGHKGLYEILTTSWHAQLALNLAMLGSL  
TIVVAHHMYAMPYPYLATDYGTQLSLFTTHMWIGGFLIVGAAAHAIFMVRDYDPTRY  
NDLLDRVLRHRDAI I SHLNWACIFLGFHSFGLYIHNDTMSALGRPQDMFSDTAIQLQPVF  
AQWIQNTHALAPSATAPGATASTSLTWGSDLVAVGGKVALLP I PLGTADFLVHHIHAF  
IHVTVLILLKGVLFARSSRLIPDKANLGFRRPCDGPGRGGTCQVSAWDHVFLGLFWMYNS  
ISVVIHFHFSWKMQSDVWGSISDQGVVTHITGGNFAQSSITINGWLRDFLWAQASQVIQSY  
GSSLSAYGLFFLGAHFVWAFSLMFLFSGRGYWQELIESIVWAHNKLVAPATQPRALSIV  
QGRAVGVTHYLLGGIATTWAFFLARI IAVG

>Q7NFT5

MATRFPKFSQDLAQDPTTRRIWYGIATAHDFESHDMTEESLYQKLFATHFGHLAIFLW  
SSGNLFHIAWQGNFEQWVSNPTGVVPIAHAIWDPHFGKGAVEAFTPEGGAGPVNAAYSGL  
YYLYYTLGMRFNSDLYQGSIFLMVLATVFLIAGWLHLQPRFRPSLAWFKNAESRLNHHLS  
ALFGVSSLAFAGHMIHVAIPAARGQRVDWSNFLNTLPHAPLAPFFFTGNWGVYADPQAGP  
PILTFIGGLNPATGTLWLTIDIAHHHLAIAVIF I IAGHMYRTNFGIGHSIKEILDAHKGPL  
TGEHRGLYDTINNSLHFQLGLALASLGVTSLVAQHTYALPAYFYMPQDHTTMAALYTH  
HQYIAGFLMVGAFAHGAIFVVRDYDPKANENNVLARMLEHKEALISHLSWVSLFLGFHTL  
GLYVHNDVMLAFGRPEDQLLIEPVFAQFVQVQSGKII EGIPALFGGPGVTAPGEFLTGWL  
GSVNANNSPIFLPIGPGDFLVHHAIALGLHTTTLILVKGALDARGSKLMPDKKDFGFAP  
CDGPGRGGTCDISAWDAFYLAVFWMNLNTIGWVTFYWHWKWISIWGDNVAQFNASTYLMG  
WLRDYLWANSAPLIGGYSPSGGTNALSVAWMFLFGHLVWATGMFLIAWRGYWQELIET

LVWAHERTPLANLVRWKDKPVAMSI VQGRLVGLAHFTIGYILTYAAFLIASTAALYPNGP  
AAFTPAISAEQAKGVLSEFKAKVPVPGVMLLLPENIVFDFDKSSVKLDADPALNRVVGVI  
QFYGSEPEILGHTDSLGEDAYNQKLSEERASAVKAFFEKKGIEAERLTAKGYGETKPVA  
PNAKPDGSDNPDGRQONRRVEILIKTEVVPVS

>P0A408

MATKFPKFSQDLAQDPTTRRIWYAIAMAHDFESHGDMTEENLYQKIFASHFGHLAII FLW  
VSGSLFHVAWQGNFEQWVQDPVNTRPIAHAIWDPQFGKAAVDAFTQAGASNPVDIAYSGV  
YHWWYTI GMRTNGDLYQGAIFLLILASLALFAGWLHLQPKFRPSLSWFKNAESRLNHHLA  
GLFGVSSLAWAGHLIHVAIPESRGQHVGWDNFLSTMPHPAGLAPFFFTGNWGVYAQNPDTA  
SHVFGTAQAGATAILTFLLGGFHPQTESLWLTDMAHHHLAIAVLFIVAGHMYRTQFGIGHS  
IKEMMDAKDFFGTKVEGPFNMPHQGIYETYNNLSLHFQLGWHLACLGVITSLVAQHMYSLP  
PYAFIAQDHTTMAALYTHHQYIAGFLMVGAFAHGAI FLVRDYDPAQNKGNVLDRLVQHK  
AII SHLSWVSLFLGFHTLGLYVHNDVVVAFGTPEKQILIEPVFAQFIQAAHGKLLYGFDT  
LLSNPDSIASTAWPNYGNVWLPGLWLDAINSNTSLFLTIGPGDFLVHHAIALGLHTTTLI  
LVK GALDARGSKLMPDKKDFGYAFP CDGPGRGGTCDISAWDAFYLAMFWMLNTIGWVTFY  
WHWKHLGVWEGNVAQFNESSTYLMGWL RDYLWLNSSQLINGYNPFGTNNLSVWAWMFLFG  
HLVWATGFMFLISWRGYWQELIETLVWAHERTPLANLVRWKDKPVALSIVQARLVGLAHF  
SVGYILTYAAFLIASTA AAKFG

>P0A444

MTTTLQRRESANLWERFCNWTSTDNRLYVGVGFMIMIPTLLAATICFVIAFIAAPPVDI  
DGIREPVSGLLYGNNIITGAVVPSSNAIGLHFYPIWEAASLDEWLYNGGPYQLIIFHFL  
LGASCYMGQRWELSYRLGMRPWICVAYSAPLASAFVFLIYPIGQGSFSDGMPLGISGTF  
NFMIVFQAEHNILMHPFHQLGVAGVFGGALFCAMHGSLVTSSLIRETTE TESANYGYKFG  
QEEETYNI VAAHG YFGRLIFQYASFNNSRSLHFFLAAWPVVGVWFTALGISTMAFNNGF  
NFNHSVIDAKGNVINTWADI INRANLGMEVMHERNAHNFPLDLASAESAPVAMIAPSING

>P0A8K1

MLNSFKLSLQYILPKLWLTRLAGWGASKRAGWLT KLVIDL FVKYKVD MKEAQK PDTASY  
RTFN EFFVRPLRDEVRPIDTDPNVLVMPADGVISQLGKIEEDKILQAKGHNYSLEALLAG  
NYLMADLFRNGTFVTTYLSRPDYHRVHMP CNGILREMIYVPGDLFSVNHLTAQNVPNLFA  
RNERVICLFDTEFGPMAQILVGATIVGSIETVWAGTITPPREGI IKRWTWPAGENDGSVA  
LLKGQEMGRFKLGSTVINL FAPGKVN LVEQLESLSVTKIGQPLAVSTETFTVTPDAEPAPL  
PAEEIEAEHDASPLVDDKKDQV

>Q14691

MFCEKAMELIRELHRAPEGQLPAFNEDGLRQVLEEMKALYEQNQSDVNEAKSGGRSDLIP  
TIKFRHCSLLRNRCTVAYLYDRLLRIRALRWEYGSVLPNALRFHMAAEMEWFN NYKRS  
LATYMRS LGGDEGLDITQDMKPPKSLYIEVRCLKDYGEFEVDDGTSVLLKKN SQHF LPRW  
KCEQLIRQGVLEHILS

>Q12488

MYGDLGNKLVLEAKRTKQLYARSNQDVNLP MYHEDIIRN ILKEVSNLRKNTEYLKEQQQL  
GMLDDKVAKCQYFVTTLLCMERNKRCLLAYQRLRTDILDSMAWNNGLDLMSSITFSQQDT  
NNLSHQEQEYLKEYCDLITDLKSGDLVDIDLSGSLVPPSDVFDVRLVKDAGEIQTEYGV  
FNLIKDSQFFVRQSDVERLIQQGYLQKI

>Q9Y248

MDAAEVEFLAEKELVTIIPNFSLDKIYLIIGDGLGPFNPGLPVEVPLWLA INLKQRQKCR

LPPEWMDVEKLEKMRDHERKEETFTPMPSPYMELTKLLLLNHASDNIPKADEIRTLVKDM  
WDTRIAKLRVSADSFVRQQEAHAKLDNLTLMINTSGTFLTQALNHMYKLRTNLQPLEST  
QSQDF

>O94329

MALPRELEISFSPEEMEFLAGNEYINIVPSETMDQLPLVSATIPIMKPPKKCRVPLWLAL  
ELKKQNLARIVPPEWMEIGKLENIRDDELENETFSELPRWLETAHLLLNFCADDIEDVE  
DIRRILLDIREARQSKARTGLEAINEVQLTLDNLGAMEINEIRPIFREVMDRMRKIVQVS  
QEE

>P40359

MSLPAHLQQTFSPEEIQFIVENEPIKIFPRITTRQKIRGDDRGTGNHTRWQLITDDKAL  
NNMVAMRSTEVVLWIALLLKQSKCSIVAPQWLTTKELDRKIQYEKTHPDRFSELPWNWL  
VLARILFNKAKDDFHDPHELRGKIQDLREIRQIKVLKGLKYLNESHQLDNLSLLEINE  
LRPFITEIMDKLREIHTASLTAGTENDEEEFN

>Q9BRX5

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRETETAMPRLGAFFLERSAGAETDNAV  
PQGSKLELPLWLAKGLFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFG  
SQLLHFDSPENADISQSLLTQTFIGRFRIMDSSQNAYNEDTSALVARLDEMERGLFQTGQ  
KGLNDFQCWEKQASQITASNLVQNYKKRKFDTMED

>Q12146

MGYDIDDVLADGTEFPCKFQYDIPGLGYLENNPGRPITKNTKLSLPLWLARILAIVGGD  
EALVDEEPPVPFVELLPDMFSTKVMNAIKTDPVALDLHSINSHFFSLAIKWIMLFSEKEL  
ANVVSELLLQRAQELNHASSLSIDLNADSTGKNSANTNIATSTFLLKLEEMEKEIYKKS  
HESYKDTKRWMFKK

>Q4U5R3

MATLRLVPEAQAKVDVFRDLCTKTENLLGSYFPKKISELDAFLKEPDLNEANLSNLKAP  
LDIPVPDPVKEKEKEERRKQEKEDKDEKKKGEDEDKGPVGCNEKIVVLLQRVKPE  
IKDVIEWKLNLTWTLQLQIPRIEDGNNGFVAVQEKVFELMTALHTKLEGFHTQISKYFSE  
RGDAVTKAAKQPHVGDYRQLVHELDEAEYRDIRLMVMEIRNAYAVLYDIILKNFEKLLKP  
RGETKGMIIY

>O13919

MEQTLAILKNDNSTLVAEMQNQLVHDFSPNGTALPELDIKAFVQKLGQRLCHRPYVYSAF  
MDVVKALHNEIVDFPGFIERISVILRDYDLDLEYNIFLPSSYKYLLSNSGANFTLQFTT  
PSGPVSTPSTYVATYNDLPCTYHRAIGFVSRVRRALLSNPEQFFKLQDSLRFKFNSECSL  
SELQTIIVTSLLAEHPSLAHEFHNFPLPSSIFFGSKPPLGSFPLRGIQSSQFTLSNISDLLS  
QSRPDNLSPFSHLSNESSDFFKNVKNVLTVDVETYHEFLKLLNLYVQGIIDRNILVSRGFG  
FLKSNSGLWRSFLSLTSLSPPEEFLSVYNSACSDPPECGPSYRLLPVEERNISCSGRDDFA  
WGILNDDWVSHPTWASEESGFIVQRKTPYEEAMTKLEEERYEFDRHIEATSWTIKSLKKI  
QNRINELPEEERETYTLEEGLGLPSKSIYKKTIKLVYTSEHAEEMFKALERMPCLTPLPLV  
ISRLEEKNEEWSVKRSLQPGWRSIEFKNYDKSLDSQCIFYFKARDKKNVSSKFLLEADI  
LRSQAKLHFPLRSRSAFEFSFVYDNEIVLFDTCYMVCTYIVCNSPSGLKKVEHFFKNILP  
LHFGLEKDKFSIFLDQVFRGPDYDVNAPNIVGNKPVRRKRSNSITQLTEFVKQPKINGQR  
ESRSAAAARKKEESGNKSQNSQNSLSDESIGNVTPVSKKQLSQPAAAIAKASLKYPSPHDS  
LLEHQDHAGDTENEMHDDVDKEQFGYSSMYVFFRFLFNLLYERLYELQRLEDQVSIQQRI  
IPNPVSQKQKIWRDRWNDLSDVPDEKTHYENTYVMILRLIYGIQVDSAFEDYLRFYGNK



AYKIYTTIDKLVWSAAKQVHHIVSDGKYKFVVTSLVEQNSSASPKKNYDDFLYRLEIEKLLN  
PDEILFRFCWINKFKSFGIKIMKRANLIVDQSLDTQRRVWKKYVQNYRIQKLTEEISYKN  
YRCPFLCRNIEKERTVEQLVSRLOTKLLRSAELVSGLQAKLCLDSFKLLYLPRTEDSYID  
ASYLRLRDTDFLDCQNKRKQRWRNRWESLLKSVRGTSDNTAEVNFADINALFIP

>A3PA50

MINQENNDLYDLNEALQVENLTLNDYEEICKRLKKKPNRTELGMFGVMWSEHCCYRNSKP  
LLSKFPTKGNVVLVGPGENAGVIDVGNNQKLVFKIESHNHPSAIEPFQGAATGVGGILRD  
IFTMGARPIAVLNSLRFGNLTKSSNVDLLRGVVSGLIAHYGNCVGVPTVGGEDFDDSYSG  
NPLVNVMALGALLETEEIVCSGAKNVGSPVLYVGNNTGRDGVGGASFASSELTTTSLDDR  
AVQVGDPPFVEKSLIEACLDAFKTGDVIAAQDMGAAGLTCSSAEMAANGNLGISIDLDP  
SREDDMSSYQYLLSESQERMLFVVKEEKINDLIEKFNKWGLYASVIGEVI GTNEVIISHK  
GKIVAQIPTALSDDTPVNFHNVINNPPDDLKLNKWEWKENDLPEIHEQKIFSLKENKKFS  
FQEIILKLLSNPSIASKRWIYKQYDSQVQANTVFKPGKSDAAVRLREQYKKNKSKVFSG  
VAASVDCNSRWALDPFRGSIAAVAESARNVSCVGAEPVAITNNLNFSSPESEIGYWQLS  
SSCNGITEACKALETPVTGGNVSLYNESKNKDNLITP INPTPVIGMVGKIDNIEKAISCE  
WKNIDDQIWLIGSYKSDTTIAASSYLEYFHGEITGRPPKIDLLDEKFCQSFLRNAILNSL  
VVSSHDISDGGLAIALAESILSAKGATIELKKDINREDNLLFAEGGSRIIFSINKIKQN  
EWLNYLKQNQINFPSVYVVKIGHVSSETLKNIQDKNICNIRVEELSEKFNNSISDYF

>Q2IG97

MRVGILTFPGSNCDHDCYHVVKHVMGAEAQYVWHKDRLEQLDAVVVPGGFSYGDYLRG  
ALARFSPVIADLVTFAEKGGPVLGICNGFQILCEAGLLPGVLMRNASLKYICKDVTIRVE  
GQETPVTRGLAGQSLTMP IAHAEGNYFADPETLDRLEGEGRVFRYVGGAPNGSARDIAG  
ISGGPARNVVGLMPPDRASESILGLEEGKRMFAALLG

>O67190

MKFAVCVFPGSNCDYDTYYVIRDILEKDVFEVYVWEEKNLSKYDVVVLPGGFSYGDYLRPG  
ALAARTPLAQAIYDFAQKGYVIGICNGFQILTELGLLPGALLPNLNMRFVCKWVNLRVE  
NERSAFTRKLEKGDVLRIP IAHHDRYVPEEELRKMEENGQILFRYCDEQGEVKEEVNP  
NGSVSNIAGVMNKEGNVFGMMPHERASEDILGSHDGLMLWYSLLSD

>Q9PHZ7

MKVAIIRFPGTNCEFDTTYAFEKLGVKTQIVWHEEKEFDADLVVLPGGFSYGDYLRCAA  
AKLAPAMQGVFNHAKKGGYILGICNGFQILLESGLLKGAMKHNNNLSFISKNQSLRVVSN  
DNAFLKNFKKDEIINLPIAHGEGNYADETTLKELODKDLIILKYEPNPNNGSVFDIAGI  
DENKKIFGLMPPPERACEKVLGNDVGLKMLKGFLLENFINFN

>Q3AS25

MSAITVGVVFPGSNCDHDTAYALASFAGVKPVMLWHNNHDLQGAQAIIVLPGGFSYGDYL  
RAGAIARFSPLMKEVVEFARKGYVVLGICNGFQVLLSGLLEGALSRRNDKKFLCCQTTI  
TPVNCSTRFTEDYHQGEVLRIP IAHGEGNYFAPPEVLESLEHNQIAFYCNAQGEVTV  
ANPNGLLNIAGIVNRAGNVGLMPPPERASDAALGSVDGRLLFESLFRSLTGV

>Q5L3D3

MKFAVVVFPGSNCDVDMYHAIADELGEVEYVWHDEDNLDLRFDAVLLPGGFSYGDYLRSG  
AIARFSKVMMAAVKAAEAGKPVLGVCNGFQILLEAGLLPGAMRRNQGLKFCRPVQLTVE  
NHETMFTSAYEKGEVITIP IAHGEGNYCDEQTLERLVENRQIVFRYHGENPNGLADIA  
GIVNEQGNVGLMMPHERAVDALLGSADGLKLFRSIVNYWRETHVFTA

>Q5FNL1

MKAAIVVFPPTNRERDMVHALKLVITGQAPRLIWHGETSLGDLDDLVLVLPGGFSFGDYLRSG  
AVAAHSPIMRDVKAFAGKGGHVLGVCNGFQILTESHLLPGALLRNAGLRFLSQDCHLKVE  
NASSPYTQGWTRGDVFRAPLAHGDGNYTASPETLKRLEGEGRVAFRYCGADGAVSDDDR  
TNPNGSTRSIAGILSENGRVCGLMPHPENLTDPEIGATDGVPLFKGLVEALVG

>Q7VFQ4

MSVAIVRFPPTNCFDFTQYAFSLFGGVITYIVWHQDKSLPTDCHLVVIPGGFSYGDYLRRCG  
AIAQFSPIMRVIKDFALQGGYVLGICNGFQILCEAGLLPGALKRNINLHFISQMQLRIV  
SKNNAFLRSYAPNQEIRLPPIAHADGNYFIDERELLELRANEQILLETYTDNPNNGSVDSIAG  
ICNEKKNVFLGMPHPERAIEDMLGSCDGKAMLDNLLHIAEMK

>Q28PA2

MKAAVLVFPGSNCDRDLAVGFERSAGFEVEMVWHKETALPAGIDVVGIPGGFSYGDYLRRCG  
AIAAQSPIMRAVADFAGQGGHVLGVCNGFQVLCETRLLPGVLMRNGGIKFCRAEPLVVA  
SATSPFTDGYSIGDRIAVPVAHHDGNYQIDDEGLSALRSEDRIAFTYADNPNNGSRADIAG  
VLSANRRVLGMPHPERAVDVAHGGTDGSVLFFASLAAALVAA

>Q9ZB07

MKFAVIQFPGSNCDFDLLWAIRDVMGAEAEFVWHDEKSLAGFDGVLIPGGFSYGDYLRRCG  
AIA SFANIMPEIKRLAKEGKPVFGTCNGFQILVESGLLPGLIRNEGLKFVSKWQVLKVE  
NNQSNFTTEYAKDALINLPPIAHGEGQYVADEATLAELKENGQIVFTYADENPNNGSVENIA  
GIINKEGNVLGMPHPERAMEELLGGADGRKMFASLLKNFLVTVKN

>Q8TX85

MVRVAVIRFPPTNCDLEMAWAVKLAGGDPEFVWHEDGGLDDF'DAVIIPGGFTYGDYIRAG  
AIAALSPILEEIRECAEDGRPVLGVCNMGQILAEAEELIPGTLTVNVGNRFICDWVYLRVE  
RTDTPFTTKYQEDEVIRVPIAHAEGRYYYENPEEIEDNVVFRFCGPDGDVSEEYNLNGSV  
GGITGVVNDGDNVLGMPHPERAAHRLNLSDDGLRRLFESLVEWCRS

>Q2RGU4

MKFGVIVFPGSNCQDVHYALGSVLGQNVLDYLWHGDTSVSGYDCLILPGGFSYGDYLRAG  
AIARFAPIMPAVIDFARSGLVLGICNGFQILLEAGLLPGAMMRNAQLQFRCQWTKLVD  
NNATPFTNRFREGQVVRIPPIAHGEGNYADAATLAQLEANRQIIFRYCSPDGEVTPAANP  
NGSVGNIAGIINREGNVLGMPHPERCAEGILGGS DGRRELLASIVDWWERGERLGA

>Q2G9J6

MAFTSAVITFPGSNCDRDMAVAIEQVCGGTVHRVWHGDADLPEGLDFIALPGGFSYGDYLR  
RSGAMAARSPVMQAVVRAAERGVTVLGVCNGFQVLT EAGLLPGALMRNAGIRFVCRDVKL  
TVENNQSLFTAGYDAGQQITIPVAHHDGNYFADDATLDRIEGEGRVAFRYAEVNGSARN  
IAGVLNDRGNVLGMPHPERMI EAAHGGSDGRALFESVVRGLVEA

>Q4FLJ5

MHSSVITFPGSNCDRDMDVALKKFGFKNMVWHDDVELPKSDLVLVLPGGFSYGDYLRCS  
MASKSKIMKSVLNFAQGGKVMGVCNGFQILVESGLLPGLLRNKYLEFICKNVFVKANN  
KDNSYFKDDKKNIEYFHIAHNEGNYFCSNDQIKEINDNNQIALFYSDENGNVNEQSNPNG  
SLQNIAGVFNKQKNVLGMPHPERMI DPALSGEDGSIFFQNLINNLK

>Q6A6B0

MVRIGVVTFPGTLDQDAARAVRLAGAEPVSLWYASTDLAGVDAVILPGGFSYGDYLRAG

ALAAASPVMSSIRRAADGGLPVLGICNGFQVLCESHLPGTLMRNEKRRFHCSVQQQLQVA  
SVDTVWTCDFRPSERIHIAAKHGEGNYVADAATVAALEANNRVVFRTANPNGSVHDIAG  
ITNEAGNVVGLMPHPEHSVEELTGAGTDGLGFFRSLMTFFLSAQL

>Q31B97

MDNFTVGVVFPVPGSNCDRDVSWALEGCLDIRTKYLWHESSDLSVDVAIVLPGGFSYGDYL  
RCGAIARFSPILINALDEFVKSGKRVLGICNGFQILTESGFLPGALVANKNLNFI CDDVEL  
DIVSTKGGWFNNGDEKQTIKLP IAHGEGRYHCDSDTLKKLVDNELIALRYKNNPNGSSFD  
IAGITNEKGNVGLMPHPERACDETIGGTDGLFTLKSILK

>Q9UXW5

MPRFAVIVFPGTNCFETVEAIRKAGGEAERVVYKESIREYDGVVLPGGFSYADYLRAGA  
IAARQRIMEEVREFAEEGRPVLGICNGFQVLT EAGLLPGALRPNKIPRFICKWIYLVND  
TNTAFTQLYEEGEIIRMPIAHAEGNYVDDPSRIRIVFQYSDENGNLTEEANPNGSVMNI  
AGVSNEGGNVGLMMPHPERASDAFLGSEDGLKVFRSMVEYAKR

>Q1AXB7

MRVGVVFPVPGSNCDRDALHAVERAGAEPVELWHADADLKGSDAVILPGGFSYGDYLRPGA  
IARFARVMGPLEAFAREGGPVLGVCNGFQVLC EAHLLPGALLQNRGLRFVCRVRVRVER  
ADTPWTAACAPGEELTLPVAHNEGNYFADPATLARLEEEGRVRLRYLENPNGSANDIAGV  
CSEGRNVVGLMPHPERASDPLLGSGEGLGILRSVLAGAKV

>Q2S567

MSARFGVVFPVPGSNCDHDAYHAAHDVFDQEARFIWHEEASLGDVDVIVPGGFSYGDYLR  
SGAVARFSPIMQDVVRF AEDGGLVFGICNGFQVLC EAGLLPGTLMRNE SLRFVCKDTPLR  
VENAGTPTNALTEGQVITIPVSHGEGRYADEVDLARI EANDQVLLRYSTADGAVTDEA  
NPNGSVHGIAGLVNEAGNVCGLMPHPERCVESLLGGDDGRLIFESLLNHVSIVAA

>Q82FW3

MTARIGVVTFFPGLDDRTQRAIKLAGAEPVALWHKDKDLKQVDAVVLPGGFSYGDYLR  
GAISRFSPVMEVIEQAKSGMPVVGICNGFQILTEAHL LPGAMLGNNHLHFICRDQKLRV  
ENADTAWTS DYEAGQEIHIPLKNMDGRYVADERTLDMLEAEGRVAFRYVVGAAADGYGN  
PNGSLRDIAGITNEAGNVVGLMPHPEHAVEPLIGTGR TDGLPFFTSILKKLVNA

>Q9UX21

MIAI IKFPGTTTCETDVYKALIEAGVPTVIVKYKDFDPDRYNGVILPGGFSYGDYLRAGSI  
AASTETMKVKVQMAEDGKIVIGICNGFQILVESGL LKGALLPNLKLRFISKWVYLKVIRA  
DTILTKGLDKKIIRMPIAHAEGRYVDDIDYAKTHMVLQYCDENGNISEDVNPNGSLLNI  
ASIANEEGNVIGMMPHPERASFKLTSIDGTVDGLILLRRLGEWA

>Q67KF7

MRFGILVFPGTNCEMETFYVLRVGVQADYVWHEARDLTPYDAVVI PGGFTYGDVRSRSG  
ALACRAPVMEAVAFAARGGLVLGICNGFQILTEAGLLPGGFRPNAHGRYRCGWSRVRVE  
NAATPFTLACRPGQVLKIPVSHGMGNYQADPDTLRALSENQQVLF RYCTPEGAVTPGANP  
NGSAENIAGIVNRTGNVAGVMPHPERATEQVLSADGRL LFASMQHLTGRVIRV

>Q8DGX5

MSEGLNVGIVVFPVPGSNCDRDVAVVTREILQWPTQLLWHEETDLGDYDLIVLPGGFSYGDY  
LRCGAIARFSPIMAAVKDHAAAGKWLVLGICNGFQILTEAKLLPGALVRNRDLHFICDRVH  
LRLEAKERPWL RAYGDKTVIRLP IAHGEGCYADATTLAELEANRQVLF RYADAQGNVTP

ESNPNGLNNIAGICNAAGNVLGMMPPPERAADPALSHSPSEHTLDGLQLFQSLLLASAF  
A

>Q9X0X2

MKPRACVVVYPGSNCDRDAYHALEINGFEPSSYVGLDDKLDYELIILPGGFSYGDYLRPG  
AVAAREKIAFEIAKAAERGKLMGICNMGFQILIEMLLKGALLQNSSGKFI CKWVDLIVE  
NNDTPFTNAFEKGEKIRIPIAHGFGRYVKIDDVNVVLRVYKDVNGSDER IAGVLNESGNV  
FGLMPPPERAVEELIGGEDGKKVFQSILNYLKR

>Q72IH9

MRWAIVRFPGANCDERFALEKAGIRAEFVWHTERDLRGFDGVFLPGGFSYGDYLRAGA  
LAAKSPVMEAVRRFAEEGRYVVGVCNGFQILTEAGLLPGALLANLNLHFTCKEVGVRVER  
NDLPFTRLYPRGQVLRRLPIAHGEGRYADPETLARLEGEGLVFRYAPLKDEADYNPNGS  
LHDIAGIVSEKGNVLGMMPPPERAVDEVLGNTDGLPFFLGLVREVAR

>Q73MV2

MKPRALVHLHATGTNRDGAARALELAGAEPEIVHINKLKAKEKNWKDYELVIVPGGFSYA  
DALGAGKLFALDLSNYFFDEVEFVAAGKPVIGICNMGFQVLVKSGILPGKEKDGKVI LDK  
DGYKNRQATLTYNKQGRFECRFTTMIPOKSNCIWTKDLKGNIHCP IAHGEGRFLTDSQKT  
LDDLFEKGQIALVYGGKDAEKSI PANGEYFPNPNGLADIAGICNTKGNVLGMLPHPEN  
VVIRERDSEEEKERTKLCLDMWKAGVNYVL

>Q9I194

MGMRTVLTGLAGMLLGSMPVQADMPPRTGLAADIRWTAYGVPHIRAKDERGLGYGIGYA  
YARDNACLLAAEIVTARGERARYFGSEGKSSAELDNLPSDIFYAWLNQPEALQAFWQAQT  
PAVRQLLEGYAAGFNRLREADGKTTSCLGQPWLRAIATDDLRLTRRLLEGGVGVGFAD  
ALVAAAPPGAEKVALSGEQAFQVAEQRRQRFRLEGRSNAI AVGSERSADGKGMMLANPHF  
PWNGAMRFYQMLHTIPGRLDVMGASLPGLPVVNI GFSRHLAWTHTVDTSSHFTLYRLALD  
PKDPRRYLVDGRSLPLEEKSVAI EVRGADGKLSRVEHKVYQSIYGPLVVWPGKLDWNRSE  
AYALRDANLENTRVLQQWYSINQASDVADLRRRVEALQGI PWVNTLAADEQGNALYMNQS  
VVPYLKPELIPACAI PQLVAEGLPALQGQDSRCAWSRDPAAAQAGITPAAQLPVLLRRDF  
VQNSNDSAWLTNPASPLQGFSPVLSQEKPIGPRARYALSRLQKQPLEAKTLEEMVTANH  
VFSADQVLPDLLRLCRDNQGEKSLARACAALAQWDRGANLDSGSGFVYFQRFMQRF AELD  
GAWKEPFDAQRPLDTPQGI ALDRPQVATQVRQALADAAA EVEKSGIPD GARWGD LQVSTR  
GQERIAIPGGDGHFGVYNAIQSVRKGDLHLEVVGTSYIQLVTFPEEGPKARGLLAFSQSS  
DPRSPHYRDQTELSRQQWQTLPFSDRQIDADPQLQRLSIRE

>P41909

MSTTLAAPAKLKSLLLLNLHTHCIGLHVNDVTPKVYFKLLIRHLLQISRSNAAHPKLRRRA  
QILLVSLFLSGVTFLSGVTYSTFKIILKCYKFKFPWKRRNRRLIRRTRSQMQLDSGAR  
IMYIPEVELVDRQSPDDNKFMNATDKKKRKRIFIPPKDNDVYEHDKFLFKNVELERAKNS  
QLFYSKFLNQMNVL SKILIPTVFDKNFLLLTAQIFFLVMRTWLSL FVAKLDGQIVKNI IA  
GRGRSFLWDLGCWFLI AVPASYTNSAIKLLQRKLSLNFVNLTRY IHDMYLDKRLTFYKL  
IFDAKASNSVIKNIDNSITNDVAKFCDATCSVFANI AKPVIDLIFFSVYLRDNLGTVGVA  
GIFVNYFITGFI LRKYTPPLGKLAGERSASDGDYNYHLNMINNSEEIAFYQGTAVERTK  
VKELYDVLMEKMLLVDKVKFGYNMLEDYVLKYTW SGLGYVFASIPIVMSTLATGINSEEK  
NMKEFIVNKRLMLSADAGSRLMHSIKDISQLTG YTNRIFTLLSVLHRVHSLNFN YGAVP  
SILSIRTEDASRNSNLLPTT DNSQDAIRGTIQRFNNGIRLENIDVI IPSVRASEGIK LIN  
KLTFQIPLHIDPITSKSN SIQDL SKANDIKLPFLQSGSLLILGPNCGKSSIQRI IAE  
IWPVYNKNGLLSIPSENNIFFIPQKPYFSRGGTLRDQII YPMSSDEFFDRGFRDKELVQI

LVEVKLDYLLKRGVGLTYLDAIADWKDLLSGGEKQRVNFARIMFHKPLYVVLDEATNAIS  
VDMEDYLFNLLKRYRFNFISISQRPTLIKYHEMLLEIGENRDGKWQLQAVGTDEAITSID  
NEIEELERKLERVKGWEDERTKLRKLEII

>P34230

MISTASAFYQKHRVNLLRSSYIILLLATLYNSNSSSSNNKTDKKDSESTVLENKKIEEGK  
ETAVDREEDESSKEELTIVSKHSTDSGDGAIIDKESKTNHKGGERKGVDFLFKLLLD  
KKCLILFITQAILLNIRTLNIRVATLDGQLVSTLVRAQYANFTKILLGKWMILGIPASF  
INSLISYTTKLCAVTINRKVSDFLLSKYLSNHHTFYSVASAESVSEIQDNLTKDIYTFSM  
NSSLLLNQLLKPMPLDLILCSFKLLTSNTSVMGEGTLALGLIVYASNSLLKLIQPNFTRLT  
MASASLESWFRSLHNSLHSSNEEIALLRGQKRELENDVYSFYRLVLFNLREIKARAIYDV  
ATAFVIKYTWGAAGLVLCISPIFFKNKPS EDTLQLKEPGNDMTADFITNRRLVLTASSI  
GRFVELKRNIQQLRGIRLRLNKNFNDLLDANKGDDEKEPRDERCIVEYDDSRKIFENIPLI  
TPANQVLVPELSFDLKHGNHLLIIGPNGCGKSSSLFRILGGLWP IRATPNKNHQSKLIMPR  
RTVDRDCAIFYLPQRPYMGNRSTFREQI IYPDSIEQFKERYHNDYDLGDADLIKILQLLD  
LEDLVTENMSLLLAQRTSKNDSQQLSTEDNQSPCAIKVRDAFSIVRNWSEELTIGVQQRL  
AMARMYYHKPKFAVLDECTSAVAPEMEQRMYENAQNFGISLISVCHRSLWHFHNYYLLKF  
DGKGGYQFGFPNPKERLCNEEKLELNAILDQQVPLWERKLDLTIKESNIIRKSETNL  
NLFEKIEDPKTSKSNALFNANKQRITSPTGQETSKRLPLFSQPSSASSNLLRNNKSLN  
KKVKTKKEEGKER

>Q58626

MFNKVLIANRGEIAIRIIRACWELGIKTAVVYSEADKRS LHATLADEAYCIGPAPAAKSY  
LNIDAILNVAEKAKVD AIHPGYGFLAENAEFARAVKKAGFEFIGPNPDAIEAMGSKINAK  
KIMKKAGVPLIPGSEGAIEDIDEAIEIAEAIGFPVVVKASAGGGMGMSVAYSKEELKEV  
IESARNIAKSAFGDPTVFI EKYLENPRHIEIQLLGDKHGNI IHLGDRECSIQRHQLKIE  
EAPSPIMTEELRERMGEAAIKAGKAINYDSAGTVEFLYENGNFYFLEMNTRI QVEHTVTE  
QVTGIDLVKAMIKIAAGEELTLKQEDVKIRGHAI ECRINAEDPLNDFVPCPGKIKLYRSP  
GGPGVRIDSGVYGGAEIPPPYDSMIAKLITYGNSREEAIARMKRALREYVIIGVKTNI PF  
HRAVLEENFLKGNISTHYVEQNMHKLREKMKVYALESRDLYSVVSEKVF EKNKKIAAAV  
GGLTMYISQIMKENEVNNKEW

>O27179

MKGIKVVETAFRDAHQSLLATRLRTRDMTPIAEEMDRVGGFFSLEAWGGATFDTCIRYLNE  
DPWERLRELKEHVKRTPIQMLLRGQNLVGYKHYPDDIVRKFIEKSYENGVDVFRIFDALN  
DIRNMEYAIKVAREQEAHVQGVICYTTISPYHTLESYVDFARELEALECDSVAIKDMAGLI  
SPHDAYELVRLKEETDLMVNLHCHCTSGMTPMSYYAAACEAGVDILDTAISPLSWGASQP  
PTESIVAALRDTPYDTGLDLEILKNIKKYFEEIRKKYSSILDPIAEQIDTDVLIYQIPGG  
MLSNLVAQLKEQNALDRYEEVLEEMPRVRKDMGYPPPLVTPTSQIVGIQAVMNVLSGERYS  
MVTNEVKDYFRGLYGRPPAPLNEEVARKVIGDEKPIDCRPADILKPQYDECRRKGEEMGI  
IEKEEDILTLALYPAIAPKFLRGEIEEPELEPPAEEMAPTGEVPTVHFHVEVDGDEFVVKV  
VPTGYMTIEEAPEPEVDVEGAVKSTMQGMVVKLVSEGDQVNAGDVVAVVEAMKMENDIQ  
TPHGGVVEKIYTAEGEKVETGDIIMVIK

>P80521

MIDPAYRKKMVVVEGSYAVAHSAKVC RPNVISAYPITPQTHIVEHLSQFMADGEIPNCEY  
VNVEAEFSASISALIGASAVGARTYSATTSQGLLLMHEALFN TSGMRLPVVMTVANRAVSA  
PINIWNHDQDAIAQRDTGWMQLYVEDVQEACDTLPQLYKIAEDNEIMVPGMVCMDGFILS  
HVYEPVVLLEQDLTDNFLPPFPQPEDILDPEPKTFGAFASPDYEEFRYLHEQAMQKALP  
KIEATAKEFEVYGRYHGGLIDGYMLDDAEIVVMAMGSILGTVKDVVDKYRAKGEKIGVL

KVRSFRPFPEQICKAVKNAHAVVVLKDNISIGTNEGALFTETKSCLYNSKVRVPVIGYT  
IGHGGRDIPVESIAKVIEETKKVAKSGITITESQFMDLKEELL

>P80522

MSKTAPKTYITSGHSGCAGCCDAFAAKFTLMGAGPNTIVINPTGCLEVMSTPFPYSSWQV  
PWIHSLFENAGAVASGVEAALKALGKKDDVKVVSIGGDGSTM DIGLGALS GAFERGHDF  
YVCM DNEAYMNTGVQRSSGTPFDASTTTTPAGKVSFGNPRPKKNMPA IMAAHGSPYVATT  
SIGFPRDMIRKVKKATEIVGPTYIHAQAPCPTGWGFDTSKTL EIAKLAVETCLWPMYEME  
NGEITQVRKVKNPRPVEEYLRAQKRFKHLFTMEGGEEEIKKIQA IADWN IKHFELQ

>P80523

MKEIRIHGRGGQGSVTAAEMLSVAAFEDGKFSQAFPAFGVERRGAPVQAFTRINNNP IRL  
RSQVYTPDYVIVQDATTLETVDVASGVKDDGIIIVNTTENPESLKLNTKARVMTVDATKV  
AMDIIIGVPIVNTVLLGAFAGATGEINVESIQHAIRARFSGKVGEKNANA IQKAYKLIRGE  
EA

>P98009

MLGRLSLSAIPLDVPIILVGTFIGVVIVGVAVLGLITYYGKNGYLWKEWFTSVDHKRLAAM  
YIILALVALFRGFADAIMMRTQLALAYAGNPGYLPHPHYDQIFSAHGTIMIFFLAMAFMT  
GLFNFIIVPLQIGARDVAFPFLLNLSFWMTAVAFILVNVSLF IG EFSQCGWLAYPPLSENQ  
FSPGVGVDDYIWA VQISGVG TLLTG VNFVTVIVKMRAPGMTWRKMPVFTWTALCASILIM  
VAFPVLTAVVGLLGM DRYFGMHFFFTNDGGGNQMMYLNLIWAWGHPEVYILVIPA FGVFSE  
VVPAFSGKPLFGYSTMVYATCSIMVLSFLVWVHHFFTMGAGPDVNAFFGIATMI ISIPTG  
IKLFNWLFTMYKGR IQFHACMYWAVGFMITFTTIGGMTGVMLAIPGADFLHNSLFLIAHF  
HNTIIGGVYFGYICGMNFWFPKVMGFKLDETWGKRAFWFVFGFYCAFVPLYIVGFEGMT  
RRLNHYDNPAWHPWLLVAEVGAVLVMLGIACQLTQLYVSIRDRNLPQNRDVTGDPWNGRT  
LEWSTSSPPP VYNFAIVPHVHELDTFMLDKENGIDTRQAGA QYEA IHMPKNTSFGSGLCK  
CSALIFGFAAVWYIWWLAAVGLVGVIGTVIARSADKIDIDYI PAEEVAR IENEHTRKLMA  
QAAE

>P50653

MKNKLLARVARLGGLSSALLLAGCELDVLDPKGPVGEVKT LIATSTVAMLI VVIPTILE  
TLLFAWQYRQSNTSAEYLPKWCHSNKIEVTIWGVPSLIILFLAVITYQTCHSLDPYKPLE  
AEANTKPLHVEVVALDWKWLFIYPEQGIATVNQLAIPVNTPIDFNITSD SVMNSFFIPRL  
GSMIYAMAGMQTQLHLLASEPGDYLGESANYSGRGFSDMKFHTLAVSGDEFNAWVEKVK  
SSEQLDSQTYPKLAAPSENPEYFAHVEPGMFNTIVAKYNNGMVMDKSTGKMIQVQQSAM  
SDMMNKE

>P63011

MASATDSRYGQKESDQNFYDFKILII GNSSVGKTSFLFRYADDSFTPAFVSTV GIDFK  
VKTIYRNDKRIKLQIWDTAGQERYRTITTA YYRGAMGFILMYDITNEESFNAVQDWSTQI  
KTYSWDNAQVLLVGNKCDMEDERVVSSERGRQLADHLGFEFFFEASAKDNINVKQTFERLV  
DVICEKMSESLDTADPAVTGAKQGPQLTDQQAPPHQDCAC

>Q15276

MAQPGPASQPDVSLQORVAELEKINA EFLRAQQQLEQEFNQKRAKFKELYLAKEEDLKRQ  
NAVLQAAQDDLGHLRTQLWEAQAEMENIKAIATVSENTKQEAIDEVKRQWREEVASLQAV  
MKETVRDYEHQFHLRL EQERTQWAQYRESAEREIADLRRRLSEGQEEENLENEMKKAQED  
AEKLR SVVMPMEKEIAALKDKL TEAEDKIKELEASKVKELNHYLEAEKSCR TDLEMYVAV  
LNTQKSVLQEDA EKLRLKELHEVCHLLEQERQQHNQLKHTWQKANDQFLESQRLLMRDMQR

MEIVLTSEQLRQVEELKKKQDEDEQQRLNKRKDHKKADVEEEEIKIPVVCALTQEESSAQ  
LSNEEEHL DSTRGSVHSLDAGLLLLPSGDPF SKSDNMFKDGLRRAQSTDSLGTSGSLQSK  
ALGYNYKAKSAGNLDESDFGPLVGADSVSENFDTASLGSLQMPSGFMLTKDQERAIKAMT  
PEQEETASLLSSVTQGMESAYVSPSGYRLVSETEWNLLQKEVHNAGNKLGRRCMCSNYE  
KQLQGIQIQEAETRDQVKKLQLMLRQANDQLEKTMKDKQELEDFIKQSEEDSSHQISALV  
LRAQASEILLEELQOGLSQAQRDVQEQMAVLMQSREQVSEELVRLQKDNDLSLQGHSLHV  
SLQQAEDFILPDTTEALRELVLKYREDI INVRTAADHVEEKLKAELFLKEQIQAEQCLK  
ENLEETLQLEIENCKEEIASISSLKAELERIKVEKGQLESTLREKSQQLESLEIKISLE  
EQLKKETAATVEQLMFEEKNAQRLOTELDVSEQVQRDFVKLSQTLQVQLERIRQADS  
LERIRAILNDTKLTDINQLPET

>Q9H5N1

MAAAPVAADDDERRRRPGAALDSRSQEGANGEAESGELSRLRAELAGALAEMETMKAV  
AEVSESTKAEAVAAVQRQCQEEVASLQAILKDISISSYEAQITALKQERQQQQDCEEKER  
ELGRLKQLLSRAYPLDSLEKQMEKAHEDSEKLREIVLPMEKEIEELKAKLLRAEELIQEI  
QRRPRHAPSLHGSTELLPLSRDPSPLEPLEELSGDGGPAAEAFAHNCDDASISSFSLG  
GGVGSSSSLPQSRQGLSPEQEETASLVSTGTLVPEGIYLPFPGYQLVPDTQWEQLQTEGR  
QLQKDLESVSRERDELQEGLRSSNEDCAKQMQVLLAQVQNSEQLLRTLQGTVSQAQERVQ  
LQMAELVTTHKCLHHEVKRLNEENQGLRAEQLPSSAPQGSQQEQGEEESLPSSVPELQQL  
LCCTRQEARARLQAQEHGAERLRIEIVTLREALLEETVARASLEGQLRVQREETEVLAS  
LCSLRTEMERVQQEQSKAQLPDLLEQRAKVLRLQAELETSEQVQRDFVRLSQALQVRLE  
RIRQAETLEQVRSIMDEAPLTDVVDIKDT

>Q9UJ41

MVVVTGREPDSRRQDGAMSSDAEDDFLEPATPTATQAGHALPLLPQERCAEFPALRGPP  
TQACSSCVQRGPVLCRAPPAGEHAATEGREGAPSVSGTHALLQRPLGADCGDRPAA  
CGPAEGPLCQAQVVSRRKMSLKSERRGIHVDQSDLLCCKKCGYYGNPAWQGFCSKCWREE  
YHKARQKQIQEDWELAERVLLCCPGWSAMVQFQLTATSASWAQVILLQLPPKWLGLQKLQ  
REEEEFASSQSSQGAQSLTFKFEKKTKNEKTRKVTTVKKFFSASSRVGSKKEIQEAKA  
PSPSINRQTSIETDRVSKEFIEFLKTFHKTGQEIYKQTKLFLEGMHYKRDLSEEQSECA  
QDFYHNVAERMQTRGKERRFHHVQAGLELLTSGDPPASASQSAGNTGVEPPHPAVPPER  
VEKIMDQIEKYIMTRLYKYVFCPETTDDEKKDLAIQKRIRALRWVTPQMLCVPVNEDIPE  
VSDMVVKAITDIIEMDSKRVPRDKLACITKCSKHIFNAIKITKNEPASADDFLPTLIYIV  
LKGNPRLQSNIQYITRFCNPSRLMTGEDGYYFTNLCCAFAFIEKLDASLNLSDQEDFDR  
YMSGQTSRQKQEAESWSPDACLGKQMYKNLDDLSQLNERQERIMNEAKKLEKDLIDWTD  
GIAREVQDIVEKYPLEIKPPNQPLAAIDSENVENDKLPPPLQPQVYAG

>P36617

METKVHPLAYQQQVFNELIEEDGLCVIAPGLSLLQIAANVLSYFAVPGSLLLLVGANVD  
DIELIQHEMESHLEKKLITVNTETMSVDKREKSYLEGGIFAITSRILVMDLLTKIIPTEK  
ITGIVLLHADRVVSTGTVAFIMRLYRETNKTGF IKAFSDDPEQFLMGINALSHCLRCLFL  
RHVFIYPRFHVVVAESLEKSPANVVELNVNLSDSQKTIQSCLLTCIESTMRELRLNSAY  
LDMEDWNIESALHRSFDVIVRRQLDSVWHRVSPKTKQLVGDLSLTKFLLSALVCYDCVSE  
LKLLDTLVLSVNVSYPSSNAQPSWMLMLDAANKMIRVARDRVYKESEGNMDAIPILEEQ  
PKWSVLQDVLNEVCHETMLADTDAETSNNSIMIMCADERTCLQLRDYLSVTYDNKDSLK  
NMNSKLVDFQWREQYRKMSKSIKKPEPSKEREASNTTSRKGVPPSKRRRVRGGNNATSR  
TSDNTDANDSFSRDLRLEKILLSHLSKRYEPEVGNDAFEVIDDNFNSIYIYSYNGERDEL  
VLNNLRPRYVIMFSDPNFIRREVEVKATYPKRSLRVYFMYGGSEIEEQKYLFSVRREKD  
SFSRLIKERSNMAIVLTADSERFESQESKFLRNVNTRIAGGGQLSITNEKPRVRSLYLMF  
ICIKTLKVIIVDLREFRSSLPSILHGNNFSVIPCQLLVGDYILSPKICVERKSIRDLIQSL

SNGRLYSQCEAMTEYYEIPVLLIEFEQHQSFSTSPFFSDLSSEIGKNDVQSKLVLLTSLFP  
NLRIVWSSSAYVTSIIFQDLKAMEQEPDPASAASIGLEAGQDSTNTYNQAPLDLLMGLPY  
ITMKNYRNVFYGGVKDIQEASETSEKRWSELIGPEAGRRLYSFFRKQLKDYE

>O60216

MFYAHFVLSKRGPLAKIWLAAHWKDKLTKAHVFECNLESSVESIISPVKMALRTSGHLL  
LGVVRIYHRKAKYLLADCNEAFIKIKMAFRPGVVDLPEENREAAYNAILPEEFHDFDQP  
LPDLDDIDVAQQFSLNQSRVEEITMREEVGNISILQENDFGDFGMDDREIMREGSAFEDD  
DMLVSTTTSNLLLESEQSTSNLNEKINHLEYEDQYKDDNFGEENDGGI LDDKLI SNNDGG  
IFDDPPALSEAGVMLPEQPAHDDMEDDNDVSMGGPDSVDPVEPMPMTDQTTLVPNE  
EEAFALEPIDITVKETKAKRKRKLIIVDSVKELDSKTIRAQLSDYSDIVTTLDLAPPTKKL  
MMWKETGGVEKLFSLPAQPLWNNRLLKLFTRCLTPLVPEDLRKRKRGGEADNLDEFLEKEF  
ENPEVPREDQQQHQQRDVIDEPIIEEPSRLQESVMEASRTNIDESAMPPPPQGVKRKA  
GQIDPEPVMPQQVEQMEIPPVELPPEEPPNICQLIPELELLPEKEKEKEKEKEDDEEEE  
DEDASGGDQDQEERRWNKRTQQMLHGLQRALAKTGAESISLLELCRNTNRKQAAAFYSF  
LVLKKQQAIELTQEEPYSDI IATPGPRFHI I

>P30776

MFYSEAILSCKKGPLAKVWLAHWKELSKVQTLHTSIEQSVHAIIVTEETAPMALRLSGQL  
MLGVVRIYSRKARYLLEDCTEALMRLKMSFQPGQVDMIEPATALQSLKKGDAVTQSANLT  
LPETITEFDLLVPDSTFDQWSQLLRTPSRSSNTLELHSLPISSSPSPSSQLSIEAGRN  
AQVESGFSLGEFAHVGNMQFHLPI SNSGAATPRSVHSDNQSQISIEVGRDAPAAAATD  
LSGIIGPQMTKSPASSVTHFSTPSMLPIGGTSLDDELLAPVDDLNLDDLGLDDLLGDEQGA  
NAPAIEADEQAETSSIHLPDIMEDDSSRPAAAGVEEGQVVESATAPQQEKINPQKTVRR  
QRAIIDPVTELSKQMKKQLADTSSITSPLCLNTSSIVFNATVNFTRNGKFNTSIFSSNL  
NPKVNELQLADFKQAILRKRKNESPEEVEPAKHQRTDTSTENQETAEVLDPEEIAAAELA  
NITEAAIATLPQETVVQPEGEAPELGSPMGFPVTALESADDSLFDAPPVMLDEADLLGSE  
RLDSSVSEALPSSQTAKDSLNRKNDWPYTEGEKVSFQTL SAGCNREEAVQLFFDVLVLATK  
DVISVKQDVAIQNEITLTAKRGMLLSSL

>P58301

MKLERVTVKNFRSHSDTVVEFKEGINLIIGQNGSGKSSLLDAILVGLYWPLRIKDIKKDE  
FTKVGARDTYIDLIFEKDGTKYRITRRFLKGYSSGEIHAMKRLVGNKHWVTEPSSKAIS  
AFMEKLIPYNIFLNAIYIRQGQIDAILESDEAREKVVREVLNLDKFE'TAYKKLSELKKT I  
NNRIKEYRDILARTENIEELIKENEQELIQVLQEISKIEEVLPSKRKSKVMDLRKEVLRLE  
ETKVEIENSERLLEKRRGDKRTLEERIKNTEEYLEKLEKEKEKELEEQVKEITSIKKDVA  
YLALKEFKNEYLDKYYKIEKELTRVEELINEIQKRIEELNEKESEKEKLENEKKEILNKL  
AILEKDHQLYEEIKAKKENLRQLKEKLGDKSPEDIKKLLEELETKKT'TIEERNEITQRI  
GELKNKIGDLKTAIEELKKAKGKCPVCGRELTDHREELLSKYHLDLNNKNTLAKLIDR  
KSELERELRRIDMEIKRLTPLLTVAEQIRSIIEEELNVVNLEKIEKNATEYEKLLLEELRTL  
EGRIRGLAEDLKKLAPLEKKLAALIHKKQELEKELKELNTKLESFGFKSVEDLDSKLREL  
EEIYKRYLTLLNSKKELEITQREIAKAKETLEMSFEELAEVEADIERIEKKLSQLKQKYN  
EEEYKKKREEKEELEKELARLEAQKKELEKRRDTIKSTLEKLEKAEKENRERVKKEIKDLE  
KAKDFTEELIEKVKKYKALAREAALSKIGELASEIFAEFTEGKYSEVVVRAEENKVRLFV  
VWEGKERPLTFLSGGERIALGLAFRLAMSLYLAGEISLLILDEPTPYLDEERRRKLITIM  
ERYLKKIPQVILVSHDEELKDAADHVIRISLENGSSKVEVVS

>Q9Y765

MTDSKYDYSDITPVDINTEEPQICQILYDEDYKQIMGLLLALMKAEYSERALHITELGI  
NELASHYTIWIYRFNILKNLPNRNLYDELWDCEEIALDNEKNYQIWNRYQLIIGQIMELN



NNDFDPYREFP ILEAMLSSDPKNHHVWSYRKWLVDTFDLHNDAKELSFVDKVIDTDLKNN  
SAWSHRFFLLFSKKHLATDNTIDEELNYVKDKIVKCPQNPSTWNYLLGIHERFDRSITQL  
EEFSLQFVDLEKQVTSFALETLAKIYTQQKKYNESRTVYDLLKSKYDPIRSNFWDYQI  
SKLTSV

>P29703

MEEYDYSVVKPLPIETDLQDELCRIMYTEDYKRLMGLARALISLNELSPRALQLTAEIID  
VAPAFYTIWNYRFNIVRHMMSESEDTVLYLNKELDWLDEVTLNPNKQIWSYRQSLLKL  
HPSPSFKRELPIILKLMIDDDSKNYHVWSYRKWCCLFFSDFQHELAYASDLIETDIYNNSA  
WTHRMFYWVNAKDVISKVELADELQFIMDKIQLVQNI SPWTYLRGFQELFHDRLQWDSK  
VVDFATTFIGDVLSLPIGSPEDLPEIESSYALEFLAYHWGADPCTRDNAVKAYSLLAIKY  
DPIRKNLWHHKINNLN

>Q9WTJ5

MAPGLRGLPRCGLWLLLAHHLFVMTACRDPDYGTLIQELCLSRFKENMETIGKTLWCWGW  
KTIQSYGELTYCTKHVAHTIGCFWPNPEVDRFFIAVHHRYFSKCPISGRALRDPNSILC  
PFIALPITVTLTALVVWRSKRTEGIV

>Q9WUP0

MAPLVERAPGGSRLGVTRAQRPTALCLPPLLLLLLLLLLGGAVSASPESLNQSLPESQNS  
HPTEDSLVSKGMEDYETHVLPWYKSCMDSVKDCNWTLSRHYSDLQNCLEYNADK  
FGLGFPNPLAENIILEAHLIHFANCSLVQPTFSPPEDVLLAMI IAPICLIPFLVTLVWV  
RSKSDAQA

>Q9WUP1

MKTPAQRLLHLLPLLLLLCGECAQVCGCNETGMLERLPRCGKAFADMMQKVAVWKWCNLSE  
FIVVYESFTNCTEMETNIMGCYWPNPLAQSFITGIHRQFFSNCTVDRTHWEDPPDEVLI  
LIAVPVVLTVAMAGLVVWRSKHTDRLL

>Q9NS23

MSGEPELIELRELAPAGRAGKGRTRLERANALRIARGTACNPTRQLVPGRGHRFQPAGPA  
THTWCDLDCGDFIWGVVRKGLQCARLSADCKFTCHYRCRALVCLDCCGPRDLGWEPVERD  
TNVDEPVEWETPDLSQAEIEQKIKEYNAQINSNLFMSLNKDGSYTGFIKVQLKLVRPVSV  
PSSKKPPSLQDARRGPRGTSVRRRTSFYLPKDAVKHLHVLRSRTRAREVIEALLRKFLVV  
DDPRKFALFERAERHGQVYLRKLLDDEQPLRLRLLAGPSDKALSFLKENDSGEVNWDFA  
SMPELHNFLRILQREEEHLRQILQKYSYCRQKIQEALHACPLG

>P0C0Y7

MVGVTAFGNFDLALAIYSFWIFLAGLIYYLQ TENMREGYPLENEDGTPAANQGPFLPK  
PKTFILPHGRGTLVTPGPESEDRPIALARTAVSEGFPHAPTGDPMKDGVPASWVARRDL  
PELDGHGHNKIKPMKAAAGFHVSAKGNP IGLPVRGCDLEIAGKVVDIWDIPEQMARFLE  
VELKDGSTRLLPMQMVKVQSNRVHVNALSSDLFAGIPTIKSPTEVTLLLEEDKICGYVAGG  
LMYAAPKRKSVVAAMLAEYA

>P06008

MYHGALAQHLDIAQLVWYAQWLVIWTVVLLYLRRREDRREGYPLVEPLGLVKLAPEDGQVY  
ELPYPKTFVLPHGTVTVPRRRPETRELKLAQTDGFEGAPLQPTGNPLVDAVGPASYAER  
AEVVDATVDGKAKIVPLRVATDFSI AEGDVPRLPVVAADGVEAGTVTDLWVDRSEHYF  
RYLELSVAGSARTALIPLGFCVKKDKIVVTSILSEQFANVPRLQSRDQITLREEDKVS  
YYAGGLLYATPERAESLL

>P04808

MPRLFLFHLLEFCLLLNQFSRAVAAKWKDDVIKLCGRELVRAQIAICGMSTWSKRSLSQE  
DAPQTPRPVAEIVPSFINKDTETIIIMLEFIANLPPPELKAALSERQPSLPELQQYVPALK  
DSNLSFEFEFKKLI RN RQSEAADSNPSELKYLGLDTHSQKRRRPYVALFEKCCCLIGCTKRS  
LAKYC

>P01347

MSSRLLLQLLGFWLFSLQPCRARVSEEWMDQVIQVCGRGYARAWIEVCGASVGRLLALSQE  
EPAPLARQATAEIVVPSFINKDAEPFDMTLKCLPNLSEERKAALSEGRAPFPPELQQHAPAL  
SDSVVSLLEGFKKTFHNQLGEAEDGGPPELKYLGSDAQSRKKRQSGALLSEQCCHIGCTRR  
SIAKLC

>Q8WXF3

MARYMLLLLLLAVVWLTGELWPGAEARAAPYGVRLCGREFIRAVIFTCGGSRWRRSDILAH  
EAMGDTFPDADADEDSLAGELEAMGSSEWLALTKSPQAFYRGRPSWQGTGVLGRSRDV  
LAGLSSSCCKWGCSKSEISSL C

>P11184

QSTNDLIKACGRELVRLWVEICGSVRWQGSALRMTLSEKCCQVGCIRKDIARLC

>Q9TRM8

MLRWFLSHLLGVWLLLSQLPREIPATDDKLLKACGRDYVRLQIEVCGSIWWGRKAGQLRE  
RRQISEPLAEVVPSSIINDPEILSLMLQSI PGMPQELRIATRSGKEKLLRELHFLVLEDSN  
LNLEEMKKTFLNTQFEAEDKSLSKLDKHPKRRDNYIKMSDKCCNVGCTRRRELASRC

>P51453

GFLDKVIKVCGRDLVRIKIDICGKILLGDMTTGQEKQRILGSGQSAEIMPSSINKEVDSL  
NMLESIANLPEELRAMLPEKQPSSPQLQQYVPALKNSNVAVKELNKIIRGRQEEAEDNSH  
SLLKDFNLNIYSPKKRQLDMTVSEKCCQVGCCTRRFIANS C

>P81191

WPRGPDYTERRVMCGLQYVRAAISICGPNMQTMRPRNGSGPIVPPPDFLAMYGMARYKPP  
LSKKCCSTGCNREDFRGYCYL

>P22969

MRRLFLSHVLGAWLLLSQLPRELSGQKPDDVIKACGRELARLRIEICGSLSWKKTVLRLE  
EPGLEAGQPVEIVSSSISKDAEALNTKLG LNSNLPKEQKATLSERQPSWRELLQQPALKD  
SNLNLEEFEEETILKTQSEVEDDSLSELKNLGLDKHSRKKRMIQLSHKCCYWGCTRKELAR  
QC

>Q64171

MSCKFVLQLLGFWLLLSQPCRARVTKEWLDEVIHVCGREYVRAILDICAATVGLEAPPLR  
RRRMTEEAVSSFIKEDAEPFDTMPNLSEKPKTALPEGHPSLPEQQYVPVSSDSVGLDD  
FKKSFHATQGEAEDSSLPELKS LYLDTL SRKKRYT SIYMSHQCCFRGCSRRSLTAAC

>P11952

RPNWEERSRLCGRDLIRAFIYLCGGTRWTRLPNFGNYPI ME EKMGFAKKCCAIGCSTEDF  
RMVC

>P11953

QSFKNAEPGIKLCGREFIRAVIYTCGGSRWEGSPGMSSKCCTYGCTRKDISILC

>Q23696

MHQPGSHQIQPIDSLTPFLGGKWWIRARVADKSDIRTWNKPTSQGKLFSTFLIDESAAIR  
ATVFNDAVDTFEPLVVNGQVYFSGGQVKNANRRFSNVNNDYELTFDRASEVILARQDSS  
AAALPMQRYNFVPIELLLKQREVGLVDVVLGVVLKVDIESSITQKSTGRELIKRNVKIGDM  
SAAVEVTFWNDEAKAWNYPVGTVVVALRQLKVGVSFDGVTLSSTYQTKIDVNPADLPDVKKL  
ATWYVSTGGANVVSLSQGLGAGGGGGEGNRGRKYLDEIQSEGIGRGAKPEYVDVRCVP  
IYFKQDAQWYDACPTCNKKVTEEGAQGDRFRCEKCDATVVPTQRYLVS IQVTDNVSQVWL  
TLFNEAGVEFFGMEASELKRRAQEDPLYIAKLAQARMNRPVVMRLRVKEETNANAMTGEE  
SDRLRMSVVRISFMPVAGTTEETRRRLAQNLRSECDDILRCIEAYV

>Q24492

MVLASLSTGVIARIMHGEVVDAPVLQILAIKKINSAADSERYRILISDGKYFN SYAMLAS  
QLNVMQHNGELEEFITVQLDKYVTSLVGKDGAGKRVLI ISELTVVNPGAEVKSKIGEPVT  
YENAAKQDLAPKPAVTSNSKPIAKKEPSHNNNNNIVMNSS INSGMTHP ISSLSPYQNKWV  
IKARVTSKSGIRTWSNARGEGKLF SMDLMDESGEIRATAFKEQCDKFYDLIQVDSVYYIS  
KCQLKPANKQYSSLNAYEMTFSGETVVQLCEDTDDDP IPEIKYNLVPISDVSGMENKAA  
VDTIGICKEVGELQSFVARTTNKEFKKRDIITLVDMSNSAISLTLWGDDAVNFDGHVQPVI  
LVKGTRINEFNGGKSLSLGGGSIMKINPDIPEAHKLRGWF DNGGGDSVANMVSARTGGGS  
FSTEWMTLKDARARNLGS GDKPDYFQCKAVVHIVKQENAFYRAC PQSDCNKKVDEGNDQ  
FRCEKCNALFPNFKYRLLINMSIGDWT SNRWVSSFNEVGEQLLGHTSQEVGEALENDPAK  
AEQIF SALNFTSHIFKLRCKNEVYGD MTRNKLT VQSVAPINHKEYNKHLLKELQELTGIG  
SSN

>P27694

MVGQLSEGAIAAIMQKGD TNIKPILQVINIRPIT TGNSPPRYRLMSDGLNTLSSFMLAT  
QLNPLVEEEQLSSNCVCQIHRFIVNTLKDGR RVVILMELEVLKSAEAVGVKIGNPVPYNE  
GLGQPQVAPPAPAASPAASSRPQPQNGSSGMGSTVSKAYGASKTFGKAAGPSLSHTSGGT  
QSKVVP IASLTPYQSKWTICARVTNKSQ IRTWSNSRGEKLF SLELVDESGEIRATAFNE  
QVDKFFPLIEVNKVVYF SKGTLKIANKQFTAVKNDYEMTFNNETSVMPCEDDHHLP TVQF  
DFTGIDDLENKSKDSLVDIIGICKSYEDATKI TVRSNNREVAKRNIYLMDTSGKVVTATL  
WGEDADKFDGSRQPVLAIK GARVSDFGGRSLSVLSSTI IANPDIPEAYKLRGWFDAEQ  
ALDGVSISDLKSGGVGGSNTNWKTLYEYKSEN LGQGDKPDYFSSVATVVYLRKENCMYQA  
CPTQDCNKKVIDQONGLYRCEKCDTEFPNF KYRMILSVNIADFQENQWVTCFQESAEAIL  
GQNAAYLGELKDKNEQAFEEVFQANANFRSFI FRVRVKVETYNDESRIKATVMDVKPVDYR  
EYGRRLVMSIRRSALM

>Q92372

MAERLSVGALRIINTSDASSFPNP I LQVLTVKELNSNPTSGAPKRYRVVLSDSINYAQS  
MLSTQLNHLVAENKLQKGAFVQLTQFTVNV MKERKILIVLGLNVLTELGVMDKIGNPAGL  
ETVDALRQQONEQNNASAPRTGISTSTNSFYGNNA AATAPAPPPMMKKPAAPNSLSTIIY  
PIEGLSPYQNKWTIRARVTNKSEVKHWHNQRGEGKLF SVNLLDESGEIRATGFNDQVDAF  
YDILQEGSVYYISRCRVNIAKKQYTNVQNE YELMFERDTEIRKAEDQTAVPVAKFSFVSL  
QEVGDVAKDAVIDVIGVLQNVGPVQQITSRATSRGFDKRDITIVDQTGYEMRVT LWGKTA  
IEFSVSEESILAFKGVKVNDFQGRSLSMLTSSTMSVDPDIQESHLLKGWYDGGQGRGQEF  
KHSVISSTLSTTGRSAERKNIAEVQAEHLGMSETPDYFSLKGTIVYIRKKNVSY PACPAA  
DCNKKVFDQGGSWRCEKCNKEYDAPQYRIITIAVGDHTGQLWLVNVDVGVKLI MHKTAD  
ELNDLQENDENAFMNCMAEACYPYIFQCRAKQDNFKGEMRVRYTVMSINQMDWKEESKR

LINFIESAQ

>P22336

MSSVQLSRGDFHSIFTNKQRYDNPTGGVYQVYNTRKSDGANSNRKNLIMISDGIYHMKAL  
LRNQAAASKFQSMELQRGDIIRVILIAEPAIVRERKKYVLLVDDFELVQSRADMVNQTSTFL  
DNYFSEHPNETLKDEDITDSGNVANQTNASNAGVDPMLHSNSNLNANERKFANENPNSQK  
TRPIFAIEQLSPYQNVWTIKARVSYKGEIKTWHNQRGDGKLFNVNFLDTSGEIRATAFND  
FATKFNEILQEGKVVYVSKAKLQPAKPQFTNLTHPYELNLDRTVIEECFDESINVPKTHF  
NFIKLDAIQIQNEVNSNVDVLGIIQTINPHFELTSRAGKKFDRRDITIVDDSGFSISVGLW  
NQQALDFNLPEGSVAAIKGVRVTDFFGGKSLSMGFSSTLIPNPEIPEAYALKGWYDSKGRN  
ANFITLQEPGMGGQSAASLTKFIAQRITITARAQAENLGRSEKGDFFSVKAAISFLKVDN  
FAYPACSNENCNKKVLEQPDGTWRCEKCDTNNARPNWRYILTISIIDEFTNQLWLTFLFDDQ  
AKQLLGVDANTLMSLKEEDPNEFTKITQSIQMNEYDFRIRAREDTYNDQSRIRYTVANLH  
SLNYRAEADYLADELSKALLA

>Q23697

MLASQAGSNFSAAAASSNGGQQQQRRQHP IRPLTIKQMLEAQSVGGVMVVDGREVTQAT  
VVGRRVVGYENANMASGGGAI TAKHFGYRITDNTGMI VVRQWIDADRAQEP IPLNTHVRAS  
GTVNVWQQSPIVGTGVSMADSNEMNYHMLDAILLTHLRLTQGNKRAAGNIGSGASVQNSA  
AAVGVQNMPLPGDNKVLTLTDLVSVFIKQNGHGDAGMSMDEL TMAAQRYSF TPGDVRTAMR  
TLAAEGKVYQTHDNRFNI

>P15927

MWNSGFESYSSSYGGAGGYTQSPGGFGSPAPSQAEEKSRARAQHIVPCTISQLLSATLV  
DEVFRIGNVEISQVTIVGIIIRHAEKAPTNI VYKIDDMTAAAPMDVRQWVDTDDTSSSENTVV  
PPETYVKVAGHLRSFQNKKSLVAFKIMPLEDMNEFTTHILEVINAHMVLSKANSQPSAGR  
API SNPGMSEAGNFGGNSFMPANGLTVAQNQVLNLIKACPRPEGLNFQDLKNQLKHMSVS  
SIKQAVDFLSNEGHIYSTVDDDHFKSTDAE

>Q92373

MAYDAFGKPGYGPDFNSAFSPGMGGAGFNEYDQSSQPSVDRQQGAGNKL RPVTIKQILN  
ASQVHADAEFKIDGVEVGQVTFVGVLRNIHAQTNTTYQIEDGTGMIEVRHWEHIDALSE  
LATDTYVRVYGNIKIFSGKIYIASQYIRTIKDHNEVHFHFLEAIAVHHLHFTQKANAVNGA  
NAPGYGTSNALGYNNISSNGAANSLEQKLAEYSLTPAQMTVMQAIHSAPETNEG VHVRL  
AQSVP GPIDLTAVTDFLQQEGIIYTTIDENHFKSVLQDQ

>P26754

MATYQPYNEYSSVTGGGFENSESRPGSGESETNTRVNTLTPVTIKQI LESKQDIQDGPFFV  
SHNQELHHVCFVGVVRNITDHTANIFLTI EDGTGQIEVRKWESEDANDLAAGNDDSSGKGY  
GSQVAQQFEIGGYVKVFGALKEFGGKNIQYAVIKPIDSFNEVLTHHLEVIKCHSIASGM  
MKQPLESASNNGQSLFVKDDNDTSSGSSPLQRILEFCCKQCEGKDANSFAVPIPLISQS  
LNLDETTVRNCCTTLTDQGFYPTFFDDNNFFAL

>P35244

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLD  
EEISGIVEVVGRVTAKATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQH  
D

>Q92374

MERPTPRVTKDMLPECSGKTVRIVGKANQVEGETAKVDSNGSFDMHLTVDNLTLEPNHFYE

FVVSVKPDSSVQLLTCVDFGTDIDMEVYQKLVLF SHKYNSLFFE

>P26755

MASETPRVDPTEISNVNAPVFR IIAQIKSQPTESQLILQSPTISSKNGSEVEMITLNNIR  
VSMNKTFEIDSWYEFVCRNNDGELGFLILDVAVLCKFKENEDLSLNGVVALQRLCKKYPE  
IY

>Q13156

MSKSGFGSYGSI SAADGASGGSDQLCERDATPAIKTQRPKVRIQDVVPCNVNQLLSSTVF  
DPVFKVIRGIIVSQVSVIRGAEKASNHCYKIDDMTAKPIEARQWFGREKVKQVTPLS  
VGVYVVKVFGILKCPGTGKSLEVLKIHVLEDMNEFTVHILETVNAHMLDKARRDTTVE SV  
PVSPSEVNDAGDNDESHRNFIQDEVLR LIHECPHQEGKSIHELRAQLCDLSVKAIKEAID  
YLTVEGHIYPTVDREHFKSAD

>P35251

MDIRKFFGVI PS GKLVSETVKKNEKTKSDEETLKAKKGIKEIKVNSSRKEDDFKQKQPS  
KKKR I IYDSSESEETLQVKNAKKPEKLPVSSKPGKISRQDPVTYISETDEEDDFMCKK  
AASKSKENGRSTNSHLGTSNMKKNEENTKTKNKLPSPIKLTPTSVDYFGTGSVQRSNKK  
MVASKRKELSQNTDESGLNDEAIAKQLQLDEDAELERQLHEDEEFARTLAMLDEEPKTKK  
ARKDTEAGETFSSVQANLSKAEKHKYPHKVTAQVSDERKSYSPRKQSKYESSKESQQHS  
KSSADKIGEVSSPKASSKLAIMKRKEESSYKEIEPVASKRKENA I K L KGETKTPKTKSS  
PAKKE SVSPEDSEKKRTNYQAYRSYLNREGPKALGSKEIPKGAENCLEGLIFVITGVLES  
IERDEAKSLIERYGGKVTGNVSKTNYLVMGRDSGQSKSDKAAALGTKI IDEDGLLNLIR  
TMPGKSKSYEIAVETEMKKE SKLERTPQKNVQGRKISPSKKESESKKS RPTSKRDSLAK  
TIKKETDVFWKSLDFKEQVAEETS GDSKARNLADDSS ENKVENLLWVDKYKPTS LKTIIG  
QQGDQSCANKLLRWLRNWQKSSSEDKKHAAKFGKFSGKDDGSSFKAALLSGPPGVGKTTT  
ASLVCQELGYSYVELNASDTRSKSSLKAIVAESLNNTS I KGFYSNGAASSVSTKHALIMD  
EVDGMAGNEDRGGIQELIGLIKHTKIP I ICMCNDRNHPKIRSLVHYCFDLRFQRPRVEQI  
KGAMMSIAFKEGLKIPPPAMNEI I LGANQDIRQVLHNL SMWCARSKALTYDQAKADSHRA  
KKDIKMGPFVDVARKVFAAGEETAHMSLVDKSDLFFHDYSIAPL FVQENYIHVKPVAAGGD  
MKKHLMLLSRAADSICDGLVDSQIRSKQNW SLLPAQAIYASVLPGELMRGYMTQFP TFP  
SWLGKHSSTGKHDRIVQDLALHMSLR TYSSKRTVNMDYLSLLRDALVQPLTSQGV DGVQD  
VVALMDTYYLKEDFENIMEISSWGGKPSPF SKLDPKVKA AFTRAYNKEAHLTPYSLQAI  
KASRHSTSPSLDSEYNEELNEDDSQSDEKDQDAIETDAMI KKKTKSSKPSKPEKDKEPRK  
GKGKSSKK

>O60182

MSNSDIRSFFGGGNAQKKPKVSPTPTSPKPKRSLK KKRIVLS DDEDGTIENSKVPASKSK  
VQKRNESEDI SHSLPSIVHEDDKLVGSDGVSTTPDEYFEQQSTRSRSKPRIISNKETTTS  
KDVVHPVKTENFANDLDTTSDSKPVVHQTRATR KPAQPKAEKSTTSKSKSHTTTATHTS  
RSSKSKGLPRFSDEVSQALKNVPLIDVDSMGVMAPGTFYERAATTQTPGSKPVPEGNSDC  
LSGISFVITGILETLTRQEATDLIKQYGGKVTGAPSVRTDFILLGENAGPRK VETIKQHK  
IPAINEDGLFYLI THLPASGGTGAAAQAAQKKEQEKKI LETVARMDDS NKKESQPSQI  
WTSKYAPTSLKDI CGNKGVVQKLQKWLQDYHKNRKS NFNKP GPDGLGLYKAVLLSGPPGI  
GKT TAAHLVAKLEGYDVLELNASDTRSKRLLEQ LFGVTDSQSLAGYFGTKANPVDMAKS  
RLV LIMDEIDGMSSGDRGGVQQLNMI I KKS MIP I I C I CNDRAHPKLRPLDR TTFDLRFRR  
PDANSRMRSRIMS IAYREGLKLS PQAVDQLVQGTQSDMRQI INLLSTYKLSCEMTPQNSQ  
AVIKNSEKHIVMKPWDICSRYLHGGMFHPSSKSTINDKLELYFNDHEFSYLMVQENY LNT  
TPDRIRQEPKMSHLKHELEISSAANSFSDSDLVDSMIHGFPQQHWSLMP THALMSCVRPA  
SFVAGSGSRQIRFTNWLGNNSKTNKLYRMLREIQVHMRLKVSANKL DL RQHYIPILYESL

PVKLSTGHSDVVPEIIELMDEYYLNREDFDSITELVLPADAGEKLMKTIPTAAKSAFTRK  
YNSSSHPIAFFGSSDVLPMKGSAQREVPDVEDAIEAEDEMLEEASDSEAAANEEDIDLKSD  
KFISVPPKPKKRTKAKAEASSSSSTSRRSRKKTA

>P38630

MVNI S D F F G K N K S V R S S T S R P T R Q V G S S K P E V I D L D T E S D Q E S T N K T P K K M P V S N V I D V  
S E T P E G E K K L P L P A K R K A S S P T V K P A S S K K T K P S S K S S D S A S N I T A Q D V L D K I P S L D L S N  
V H V K E N A K F D F K S A N S N A D P D E I V S E I G S F P E G K P N C L L G L T I V F T G V L P T L E R G A S E A L  
A K R Y G A R V T K S I S S K T S V V V L G D E A G P K K L E K I K Q L K I K A I D E E G F K Q L I A G M P A E G G D G  
E A A E K A R R K L E E Q H N I A T K E A E L L V K K E E E R S K K L A A T R V S G G H L E R D N V V R E E D K L W T V  
K Y A P T N L Q Q V C G N K G S V M K L K N W L A N W E N S K K N S F K H A G K D G S G V F R A A M L Y G P P G I G K T  
T A A H L V A Q E L G Y D I L E Q N A S D V R S K T L L N A G V K N A L D N M S V V G Y F K H N E E A Q N L N G K H F V  
I I M D E V D G M S G G D R G G V G Q L A Q F C R K T S T P L I L I C N E R N L P K M R P F D R V C L D I Q F R R P D A  
N S I K S R L M T I A I R E K F K L D P N V I D R L I Q T T R G D I R Q V I N L L S T I S T T T K T I N H E N I N E I S  
K A W E K N I A L K P F D I A H K M L D G Q I Y S D I G S R N F T L N D K I A L Y F D D F D F T P L M I Q E N Y L S T R  
P S V L K P G Q S H L E A V A E A A N C I S L G D I V E K K I R S S E Q L W S L L P L H A V L S S V P A S K V A G H M  
A G R I N F T A W L G Q N S K S A K Y Y R L L Q E I H Y H T R L G T S T D K I G L R L D Y L P T F R K R L L D P F L K Q  
G A D A I S S V I E V M D D Y Y L T K E D W D S I M E F F V G P D V T T A I I K K I P A T V K S G F T R K Y N S M T H P  
V A I Y R T G S T I G G G V G T S T S T P D F E D V V D A D D N P V P A D D E E T Q D S S T D L K K D K L I K Q K A K  
P T K R K T A T S K P G G S K K R K T K A

>P35250

M E V E A V C G G A G E V E A Q D S D P A P A F S K A P G S A G H Y E L P W V E K Y R P V K L N E I V G N E D T V S R L  
E V F A R E G N V P N I I I A G P P G T G K T T S I L C L A R A L L G P A L K D A M L E L N A S N D R G I D V V R N K I  
K M F A Q Q K V T L P K G R H K I I I L D E A D S M T D G A Q Q A L R R T M E I Y S K T T R F A L A C N A S D K I I E P  
I Q S R C A V L R Y T K L T D A Q I L T R L M N V I E K E R V P Y T D D G L E A I I F T A Q G D M R Q A L N N L Q S T F  
S G F G F I N S E N V F K V C D E P H P L L V K E M I Q H C V N A N I D E A Y K I L A H L W H L G Y S P E D I I G N I F  
R V C K T F Q M A E Y L K L E F I K E I G Y T H M K I A E G V N S L L Q M A G L L A R L C Q K T M A P V A S

>Q09843

M S F F A P R N K K T E Q E A K K S I P W V E L Y R P K T L D Q V S S Q E S T V Q V L K K T L L S N N L P H M L F Y G S  
P G T G K T S T I L A L S R E L F G P Q L M K S R V L E L N A S D E R G I S I I R E K V K S F A K T T V T N K V D G Y P  
C P P F K I I I L D E A D S M T Q D A Q A A L R R T M E S Y A R I T R F C L I C N Y M T R I I D P L S S R C S K Y R F K  
P L D N E N M V K R L E F I A A D Q A V S M E P G V V N A L V E C S G G D M R K A I T F L Q S A A N L H Q G T P I T I S  
S V E E L A G A V P Y N I I R S L L D T A Y T K N V S N I E T L S R D V A A E G Y S T G I I L S Q L H D V L L K E E T L  
S S P V K Y K I F M K L S E V D K R L N D G A D E T L Q L L D L L S S I S V V C

>P40348

M F E G F G P N K K R K I S K L A A E Q S L A Q Q P W V E K Y R P K N L D E V T A Q D H A V T V L K K T L K S A N L P H  
M L F Y G P P G T G K T S T I L A L T K E L Y G P D L M K S R I L E L N A S D E R G I S I V R E K V K N F A R L T V S K  
P S K H D L E N Y P C P P Y K I I I L D E A D S M T A D A Q S A L R R T M E T Y S G V T R F C L I C N Y V T R I I D P L  
A S R C S K F R F K A L D A S N A I D R L R F I S E Q E N V K C D D G V L E R I L D I S A G D L R R G I T L L Q S A S K  
G A Q Y L G D G K N I T S T Q V E E L A G V V P H D I L I E I V E K V K S G D F D E I K K Y V N T F M K S G W S A A S V  
V N Q L H E Y Y I T N D N F D T N F K N Q I S W L L F T T D S R L N N G T N E H I Q L L N L L V K I S Q L

>O14003

M S I E K G K G R A M D I D L P L G S E S T L P W V E K Y R P A N L E D V V S H K D I I S T L E K F I S S N R V P H M L  
F Y G P P G T G K T S T I L A C A R K I Y G P N Y R N Q L M E L N A S D D R G I D A V R E Q I K N F A S T R Q I F A S T  
F K M I I L D E A D A M T L A A Q N A L R R V I E K Y T K N V R F C I I C N Y I N K I S P A I Q S R C T R F R F Q P L P  
P K E I E K T V D H V I Q S E H C N I D P A K M A V L R L S K G D M R K A L N I L Q A C H A A Y D H I D V S A I Y N C

VGHPHPSDIDYFLKSIMNDEFVIAFNNTISSIKQQKGLALQDILTCIFEALDELEIKPNAK  
IFILDQLATIEHRMSFGCSEKIQLSAMIASIKTGVDLAAKVN

>P38629

MSTSTEKRSKENLPWVEKYRPETLDEVYQNEVITTVRKVFVDEGKLPHELLFYGPPGTGKT  
STIVALAREIYGKNYSNMVLELNASDDRGIDVVRNQIKDFASTRQIFSKGFKLIILDEAD  
AMTNAAQNALRRVIERYTKNTRFCVLANYAHKLTTPALLSRCTRFRFQPLPQEAIERRIAN  
VLVHEKLLKSPNAEKALIELSNGDMRRVLNVLQSCKATLDNPDEDEISDDVIYECCGAPR  
PSDLKAVLKSILEDDWGTAHYTLNKVRSKGLALIDLIEGIVKILEDYELQNEETRVLHL  
TKLADIEYSISKGGNDQIQGSAVIGAIAKASFENETVKANV

>P35249

MQAFKLGTSISTKPPLTKDRGVAASAGSSGENKKAKPVPWVEKYRPKCVDEVAFQEEVVA  
VLKKSLEGADLPNLLFYGPPGTGKTSTILAAARELFGPELFRRLRVLELNASDERGIQVVR  
EKVKNFQALTVSGRSRSDGKPCPPFKIVILDEADSMTSAAQAALRRRTMEKESKTTRFCLIC  
NYVSRIIEPLTSRCSKFRFKPLSDKIQQRLLDIAKKENVKISDEGIAYLVKVSEGLDRK  
AITFLQSATRLTGGKEITEKVIITDIAGVIPAEEKIDGVFAACQSGSFDKLEAVVKDLIDEG  
HAATQLVNLQHDVVVENNLSDKQKSIITEKLAEVDKCLADGADEHLQLISLCATVMQQLS  
QNC

>P40339

MSKTLSSLQLPWVEKYRPQVLSDIVGNKETIDRLQQIAKDGNNPHMIISGMPGIGKTTSVH  
CLAHELLGRSYADGVLELNASDDRGIDVVRNQIKHFAQKKLHLPPGKHKIVILDEADSM  
AGAQQALRRRTMELYSNSTRFAFACNQSNKIIIEPLQSRCAILRYSKLSDEDVLRLLQIIK  
LEDVKYTNDSLEAIIFTAEGDMRQAINNLSQSTVAGHGLVNADNVFKIVDSPHPLIVKML  
LASNLEDSIQILRTDLWKKGYSSIDIVTTSFRVTKNLAQVKESVRLEMIKEIGLTHMRIL  
EGVGTYLQLASMLAKIHKLNNKA

>P40937

METSALKQQEQPAATKIRNLPWVEKYRPQTLNDLISHQDILSTIQKFINEDRLPHLLLYG  
PPGTGKTSTILACAKQLYKDFEFGSMVLELNASDDRGIDIRGPILSFASTRTIFKKGFK  
LVILDEADAMTQDAQNALRRVIEKFTENTRFCLICNYLSKIIIPALQSRCTRFRFGPLTPE  
LMVPRLEHVVEEEKVDISEDGMKALVTLSSGDMRRALNILQSTNMAFGKVTEETVYTCTG  
HPLKSDIANILDWMLNQDFTTAYRNITELKTLKGLALHDILTEIHLFVHRVDFPSSVRIH  
LLTKMADIEYRLSVGTNEKIQLSLIIAAQVTRDLIVAEA

>O28219

MENFEIWVEKYRPRTLDEVVQDEVIQRLKGYVERKNIPHELLFSGPPGTGKTATAIALAR  
DLFGENWRDNFIEMNASDERGIDVVRHKIKEFARTAPIGGAPFKIIFLDEADALTADAQA  
ALRRTMEMYSKSCRFILSCNYVSRIIEPIQSRCAVFRFKPVPKEAMKKRLLICEKEGVK  
ITEDGLEALIYISGGDFRKAINALQGAAAI GEVVADTIYQITATARPEEMTELIQTALK  
GNFMARELLDRLMVEYGMGSEDIVAQLFREIISMPIKDSLKVQLIDKLGVEVDFRLTEGA  
NERIQLDAYLAYLSTLAKK

>O26343

MIIMNPGWVEKYRPQKLLDIVGQEHIIIRLKRYVEEKSMPNLMFTGPAGVGKTTAALALA  
REILGEYWRQNFLLELNASDARGIDTVRTSIKNFCRLKPVGAPFRIIFLDEVNMTKDAQH  
ALRREMEMYTKTSSFILSCNYSSKIIDPIQSRCAIFRFLPLKGHQIIKRLEYIAEKENLE  
YEAHALETIVYFAEGDLRKAINLLQSAASLGEKITESSYDVVSRARPKDVRKMIKTILD  
GKFMARDMLREIMVLQGISGEDMVTQIYQELSRSLAMEGEVDGDRYVGLIDAIGEYDFRI

REGANPRIQLEALLARFLEHA

>Q9UXF5

MSTKVEEILWAEKYRPKTLDDIVNQREIIDRLKKFVKEKNMPHLLFAGPPGTGKTTAALA  
LVHDLYGDNYTEYFLELNASDERGIDVIRNKVKEFARTVIPGDI PFKVVLLEADNMTAD  
AQQALRRTMELYTENTRFILACNYLSKIEPIQSRTALFRFYPLKKEDVVRNLIYIAKNE  
KAEYDQKALETIYDITMGDMRKSINILQAASAYGKISVEAVFKVLGLAQPKVREMINLA  
LQGKFTQARDKLRLLITYGLSGEDIVKQIHREITSSEIQISEELRVLLLLDYIGETEFRI  
IEGADDEIQLSALLAKMAIYGKNKYIGSENR

>P26685

MENFFIVKKLASATYGGKALNVDLNLKLLQALNHHSLOGLISYCSALTILHYDYSTLAARLS  
VYLLHQSTASSFSKAVSLQAAQSCSRLSSHFDVVDVYKYKAIFDSYIDYSRDYKLSLLGIE  
TMKNSYLLKNKDGVIMERPQDAYMRVAIMIHGMRVVMKMLLLTYDLLSRHVITHASPT  
MFNAGTKKPKQLSSCFLNVDNLENLYDMVKTAGIISGGGGIGLCLSGIRAKNSFISGS  
GLRSNGIQNYIVLQNASQCYANQGGLRPGAYAVYLELWHQDIFTFLQMPRLKGQMAEQRL  
NAPNLKYGLWVPDLFMEILEDQIHNRGDGTWYLFSPDQAPNLHKVFDLERSQHENAhref  
KKLYYQYVAEKRYTGVTTAKEIIKEWFKTVVQVGNPYIGFKDAINRKSNNLSHVGTITNSN  
LCIEITIPCWEGNEAEQVCNLAAVNLAAFIRESSYDYRGLIEAAGNVTENLDNIIDNGY  
YPTAATRRSNMRHRPIGIGVFLADVFAFLKMKFGSPEAIAIDEAIIHAALYYGAMRRSIE  
LAKEKGSHPSPFGSAASKGLLQPDWVRCGDLIPSWENRVAQTTQGVLT PPKWWQLRLAA  
IQGVRNGYLTALMPTATSSNSTGKNECFEPFTSNLYTRRTLSGEFIILNKYLMDDLEEIN  
LWSEDIQQQLLNAGGSIQHILDIPAEIRERYKTSREMNOKILTKHAAARNPFVVSQMSLN  
YYFYEPELSQVLTVLVLGWKKGLTTGSYYCHFSPGAGTQKKIIRNSEKACNADCEACLL

>P03190

MATTSHVEHELLSKLIDELKVKANSDPEADVLAGRLLHRLKAESVTHTVAEYLEVFSDFK  
YDEEFFQMHRDELETRVSAFAQSPAYERIVSSGYLSALRYDYTYLYVGRSGKQESVQHFY  
MRLAGFCASTTCLYAGLRAALQARPEIESDMEVFDYFFEHLTSQTVCCSTPFMRFAGVE  
NSTLASCILTTPLDLSSEWVDTQALYRHLGRYLFQRAGVGVGTGAGQDGKHSLLMRMIN  
SHVEYHNYGCKRPVSVAAYMEPWHSQIFKFLETKL PENHERCPGIFTGLFVPELFFKLF  
DTPWSDWYLFDPKDAGDLERLYGEEFEREYRRLVTAGKFCGRVSIKSLMFSIVNCAVKAG  
SPFILLKEACNAHFWRDLQGEAMNAANLCAEVLQPSRKSVA TCNLANICLPRCLVNAPLA  
VRAQRADTQGDLELLALPRLSVTLPGEGAVGDGFSLARLRDATQCATFVVACSILQGSPT  
YDSRDMASMLGVQGLADVADLWQYTDPPSRSLNKEIFEHMYFTALCTSSLIGLHTRK  
IFPGFKQSKYAGGFHWHWDAGTDL SIPREIWSRLSERIVRDGLFNSQFIALMPTSGCAQ  
VTGCSDAFYPPYANASTKVTNKEEALRPNRSFWRHVRLDDREALNLVGGRVSCLEALRQ  
RYLRFQTAFDYNQEDLIQMSRDRAPFVDQSQSHSLFLREEDAARASTLANLLVRSYELGL  
KTIMYYCRIEKAADLGVMCKASAALSVPREEQNERSPA EQMPPRPMPEAQVAGPVDIMS  
KGPGEPPGGWCVPGGLEVCYKYRQLFSEDDLLETGDFTERACESCQ

>P16782

MNPADADEEQRVSSVPAHRCRPGRI PSRSAETETEESAEVAADTIGGDDSELEEGPLPG  
GDKEASAGNTNVSSGVACVAGFTSGGGVSWRPESPSPDGTPSVLSLTRDSGPAVPSRGG  
RVSSGLSTFNAGATRMELDSVEEEDDFGASLCKVSPPIQATRMLMGKKCHCHGYWGKFR  
FCGVQEPARELPSDRNALWREMDTVSRHSAGLGSFRLFQLIMRHGPC LIRHSPRCDLLL  
RFYFKANWARESRTPLCYASELCDESVRRFVLRHMEDLPKLAEEETARFVELAGCWGLYAA  
ILCLDKVCRQLHGQDESPGGVFLRIAVALTAAIENSRSRIYRFHLDARFEGEVLESVLK  
RCRDGQLSLSTFTMSTVGFDVRPQYDFLISADPF SRDASWAAMCKWMSTLSCGVSVSVNV  
TRLNADVNSVIRCLGGYCDLIREKEVHRPVVRVFDMDVAAIRVINFILKESTSELTGV



CYAFNVPSVLMKRYRAREQRYSLFGRPVSRRLSDLGQESAFEKEYSRCEQSCPKVVVNTD  
DFLKKMLLCCALKGRASVVFVHHVVKYSIMADSVCLPPCLSPDMASCHFGECDMPVQRLTV  
NVARCVFARSDEQKLHLPDVVLGNTRRYFDLSVLRRELVTEAVVWGNARLDALMSASEWWV  
ESALEKLRPLHIGVAGLHTALMRLGFTTYFASWDLIERIFEHMYFAAVRASVDLCKSGLPR  
CEWFERTIYQEGKFI FELYRLPRLS IASARWEALRADMLEFGLRNCQFLAVGPDDEVAHL  
WGVTPSVWASRGTVFEEETVWSLCPNRECYFPPTVVRRLRVPVNYAWLEQHQQEKGAT  
QCLFQAAPAIQNDVEMAAVNLSVFDVQCVLVFYDSSGMTDPDVLRLARMLKWHYHWRFKVGV  
YKYCAS

>P09853

MANRPAASALAGARSPSERQEPREPEVAPPGGDHVFCRKVSGVMVLSSDPPGPAAYRISD  
SSFVQCGSNCSMIIDGDVARGHLRDLEGATSTGAFVAISNVAAGGDGRTAVALGGTSGP  
SATTSVGTQTSGEFLHGNPRTPEPQGPQAVPPPPPPPPFPWGHECCARRDARGGAEKDVGA  
AESWSDGPPSSDSETEDSDSSEDEDTGSGSETLSRSSSIWAAGATDDDDSDSDSRSDSVQP  
DVVVRRRWSGDGPAPVAFPKPRRPGDSPGNPGLGAGTGPGSATDPRASADSDSAAHAAAPQ  
ADVAPVLD SQPTVGTDPGYVPVLELTPENAEAVARFLGDAVDREPALMLEYFCRCAREES  
KRVPPRTFGSAPRLTEDDFGLLNYALAEMRRLCLDLPPVPPNAYTPYHLREYATRLVNGF  
KPLVRRSARLYRILGILVHLRIRTREASFEEMRSKEVDLDFGLTERLREHEAQLMILAQ  
ALNPYDCLIHSTPNTLVERGLQSALKYEEFYLRKRFGGHYMESVFMYTR IAGFLACRATR  
GMRHIALGRQGSWEMFKFFFHRLYDHQIVPSTPAMLNLGTRNYTSSCYLVNPQATTNQ  
ATLRAITGNVSAI LARNGGIGLCMQAFNDASPGTASIMPALKVLDLSLVAAHNKQSTRPTG  
ACVYLEPWHSDVRAVLRMKGVLAGEEAQRCDNIF SALWMPDLFFKRLIRHLDGEKNVTWS  
LFDRDTSMSLADFHGEEFEKLYEHLEAMGFGETIPIQDLAYAI VRSAAATTGSPFIMFKDA  
VNRHYIYDTQGAAIAGSNLCTEIVHPSSKRSSGVCNLSVNLARCVSRRTFDGMLRDAV  
QACVLMVNIMIDSTLQPTPQCARGHDNLRSMGIGMQGLHTACLKMGDLDESAEFRDLNTH  
IAEVMLLAAMKTSNALCVRGARPFSHFKRSMYRAGRFWERFSNASPRYEGEWEMLRQSM  
MKHGLRNSQFIALMPTAASAQISDVSEGFAPLFTNLF SKVTRDGETLRPNTLLLKELERT  
FGGKRLLDAMDGLEAKQWSVAQALPCLDPAHPLRRFKTAFDYDQELLIDL CADRAPYVDH  
SQSMTLYVTEKADGTL PASTLVRLLVHAYKRGLKTGMYYCKVRKATNSGVFAGDDNIVCT  
SCAL

>P52343

MKRKERRINKDYGYNRKCVCHYEASQKRFQYSCASVLYERVRDIAKI IDRLDSGLDA  
WCLRDAIISVLRATHCVPRVDRMLGRWYLKTSVFYDFCPDDLILSCP NVIMPVNLNFVKK  
YRDFIRSVLYKVSWSWKNQYMPGVLAASRFLEEISNSLNGVEESIPCIYLRMCATL TEIV  
LRIGYLREIYQENPYVMFEELAFSLFTQKWVLPFSCMTNLGLVEKANSTVFDVAIYNTCL  
YSLVDFTIVNGEHLFPALLNGSNI SMNLTRYQQEAKNIFE ILLSQIRVVERD TDKTVQLT  
VYVEVWHVSALMWLDLYEALPQTSRVTFCLIPGIFMDRYELKRAQWSLFHKNIAFELGK  
CDEITFSTKYLEFERTTDHAKITMSSFIEKICLCLKGGRMGLIFRKNVYQYSMIPHVPLY  
CGGDFLDVLPVRDGINTCMRMLLN VVHFLGDEVSEDELTEEIDFVRLQCKFFMFNELRRVV  
RKMVLVANAVIDYAVENKDFLCEGIEDGRSLGICVTGLHSVFM TVGLSYAHPDARRLYRM  
ICEHIYYTCVRTSVDCMKGAEPCNLFDRSKYALGMLYFDHFDNVECTLPEELWTTLRKD  
VLMHGVRNIHFTAGTAMQKEFDI INSSSEFWPMEDNKILRRSNIKVVIGKDGLNDVTSVY  
SSELKSLYIPVYNNLLLNRNFNKHQQYLYKTVGYRVLNVD TNLFTDKELDDLAVFKDGF SYH  
LNDLIEMYKSGLPFLDQOQANVYFNDTVSLRLLLPLLYKAGFKVAMYKVL CNSEMYKHL  
DLSNPLPLIGKCSDGVMHVKNIL

>P50641

MDPNNKVSIKNMGLLRKCLCHDEYNKKRFQYSRFHHTLLYKQLYEISKILRRLNSGLD  
MWCLRDAIISALGAMHDAPHVDRLLGQFYLYKTNASASEFDSISLILESENILQKELIEFVR

DSKVELEKILQAAIHVWRAKFS PGVLAASRFLDEISNSFN GIEENIPTIFLRISVTLASQ  
IKKIEY LQKSFVSHK CPLVEEILILLYKRVCM LPPFCMSNLGLVSEKKS VFDTVFHNVS N  
FSLEDFLDINSGFFLPAM LNGSYVSVNLTRYHYEAESLMELLLSQLQIVEKDTNKTTGLT  
IYLEIWHLSLLM WLD FCEILPTTVQVKFCLILPEIFMERLKTENSYWSV FHKALAINLGL  
YDESDFTSKYLECERTA EHARIKTETLLDNICRCLRRGQMGFI FRKNIHKYSMLPQIASY  
CLGNSMDVIPFEYGLNTAFRIALNLSYFVENVSEEQKSHTNIDMFHYRDKIFNLKMKRKT  
VTELVLIGNAVIDYALENRDFLMDGIVNARSLAICVTGLHSALMSMNL PFNSQLGCQLYR  
IVCENIYYSSVRTSMNCKKGAEP CSFFQRSKYAQGILHCDLYDNVEYTLPNVLWTLNLS  
DIKKYGLRNLTFVSGSAMSKEFDLLNCSQSFCPIEGNKILKRSSIKVLHPNPVFHSDLSV  
YSTELQTLYIPVYNGLFLNRFKNHLEYLSSVNYDVSKVNKNL FSEEEMQEMTIFLNAFDY  
SVNEMLNMYVGALPFTDHGQANVFFINKTENMRDILVCLYQNGFKTG IYQAVYKNQKCDG  
VNPSKKFDLLSGFSDGVVMSTMHV FQ

>P50643

MPPRAPRPAGAVSPPFPPLAGPPLKARAPRARDSPLTSPCRAHAAMASVVAPAASSSAAA  
PGADAFLDAACPEDVARALAAELEALRALGH DVGAPAPGASRREAA LFITRAVDGLKAFS  
RVDERVYVACGKLVHLRVR SREADLDAWLASPELALIPAVAAA VRRHRARVEAALRFWR  
EAYPALYARGLQSALKYEEMYLARLEHGRCEAMDQFFVRLAAAAA TATRRPMALVLCGSD  
AWPEVFDAYFRALATQAI V PATPLMLFAGRARGSLASCYLLNPLPRTTEEAVRAITDEVA  
PILLRRGGVGLSLQSFNRTPSGDCTRGIMAVLKALDSMTAA INSDSERPTGVCVYVEPWH  
ADVRAVLNMRGMLAADESLRCDNIF SCLWTPDLFFQRYQRHL DGERAVKWTLFDDRASHL  
ASLHGPDFAREYERLERLGLGVE SLPIQDMAFLIVRSAVMTGSPFLMMKDACNRHFHTDT  
RGAALATS NLCTEIVQRATPGENGVCNLASVNLPA CLAGGAFDFAALRRAARVA AVFVNA  
MMRIGNYPTGASVEGVRRSRSLGIGLQGLHTTVLALDMDMADPAARRLNAAIAEELLYGV  
MDASVELCERGLRPFDFGEHSRYARGVMPFDAYERVSLREPMRWDALRVR IAEHGVYNAQ  
FVALMPTVSSSQVTE SSEGFSPTFTNMFSKVTISGELLRPNLPLMETLRRLFPRE CARRD  
AVARLERAQWSVAAAFGELPAGHPLAKFKTAFEYDQELLIDMCADRAPFVDHSQSMSLFL  
TEPADGKLHASRVMGLLMRAYNLGLKTGMY YCKIRKATNNGVFTGGDLVCTSCHL

>Q01037

MSQETIISNLIDMLKVSAGWDREANEISGR L FHKLMDSSTETISQYMSLFGP LLEPHIL  
EFIQNYEQEIDEVCL EYRASYDFMCLRNCGILPAKR FYDYTVLPPRTEMNGKYESIPHF F  
ARIAAYCAWNCIMCEPLKDTLVVYVQKR DWNVEIKTDMQIFKYFYKVISSQLVCCATPVMR  
SAGVAGENLSSCFIIAPTLDTEKSTISSIFGELAPLLASRSGVGV DVTKFSFGGKNIHSC  
LKLINAQVEFFNDKSVRPVSATYIEVWHCQIHEFLSAKL PENPDR CNSIFQGVCPVSLF  
FKMYESDPNGLWYLFDPQDAPNLTRLYGLEFE EEEYLRLVSEK KYKQSVTLKSLMFSLINT  
IIKTGSPYVISKEAMNKHHWYETQGEA INCSNLCAEIVQQPKQFTSTCNLANVCLPKCLN  
SSNFPTYCSNTAQDFDSKLEYAVQAAVFIINACILSPSPTSSATV GQRERSMGIGCHGLA  
DVFSEMGGYGLDLESECLDRDIFETMYTAVKTSSEICSVGKGQPFAGFRKSKLAHG VFH  
WATWDAMPQRVPMKQWIHLQDN IKKFGVFN SQFIALMPTAGTSQLTGYTDSFYYPYFANMS  
SKVSNKEEIMKPNITFLKNVKPQDLCTVRFYGGDVSMMPEDVSTRYKHF LTAFDYCPEAQ  
MRRASIRAPYVDQSQSLTLFLTEENVQSAKY LKDLLLGLGFR LGLKTIMYYCRVKKTTKLL  
QLECLKLDEHTTKDAQIVLADLARELPD SHKTEDACPLDQSECIACQ

>P09248

MEFKRIFNTVHDIINRLCQHGYKEYIIPPESTTPVELMEYISTIVSKLKAVTRQDERVYR  
CCGELIHCRINLRSVSMETWLTSPILCLTPRVRQAI EGRRDEIRRAILEPFLKDQYPALA  
TLGLQSALKYEDFYLTKLEEGKLES LCQFFLRLAATVTTEIVNLPKIATLIPGINDGYTW  
TDVCRVFF TALACQKIVPATPVMMFLGRETGATASCYLM DPESITVGRAVRAITGDVGTV  
LQSRGGVGISLQSLNLIPTENQTKGLLAVLKL LDCMVMAINSDCERPTGVCVYIEPWHVD

LQTVLATRGMLVRDEIFRCDNIFCCLWTPDLFFERYLSYLKGASNVQWTLFDNRADILRT  
LHGEAFTSTYLRLEREGLVSSVPIQDIAFTIIRSAAVTGSFPLMFKDACNRNYHMNTQG  
NAITGSNLCTEIVQKADAHQHGVNCLASINLTTCLSKGPVSFNLNDLQLTARTTVIFLNG  
VLAAGNFPCKKCKGVKNRSLGIGIQGLHTTCLRLGFDLTSQPARRLNVQIAELMLYET  
MKTSMEMCKIGGLAPFKGFTESKYAKGWLHQDGFSTISYLDLPWCTLRDDICAYGLYNSQ  
FLALMPTVSSAQVTECSEGFSP IYNNMFSKVTTSGELLRPNLDLMDLRLDYMYSCEEKRL  
VINILEKNQWSVIRSFGLSNSHPLLKYKTAFFEYEQEDLVDMCAERAPFIDQSQSMTLFI  
EERPDTIPASKIMNLLIRAYKAGLKTGMYECKIRKATNSGLFAGGELTCTSCAL

>P42170

MTLTEIQNVEKENAGASVPKHSSNKLKLEKELEKLEIVDQTKAASAEETNNESEVNELDA  
DEPMLQDLNRFVIFPLKHHDIWNFYKKAVASFWTVVEVDLKGDMNDWEKMNGDEQYFIS  
RILAFFAASDGI VNNLCERFSNEVQVSEARFFYGFQIAIENIHSEMYSKLIETYIRDET  
ERNTLFNAVDEFEFIKKKADWALRWISDKKASFAERLIAFAAVEGIFFSGSFASIFWLKK  
RGLMPGLTHSNELISRDEGLHRDFACLLYSKLLQKLTQQRIYDIKDAVAIEQEFLTEAL  
PVDMIGMNCRLMSQYIEFVADHLLVELGCDKLYKSKNPFDFMENISIDGKTNFFEKRVSE  
YQRPVVMVNEAERQFDLEADF

>P05318

MSTESALSAYAALILADSEIEISSEKLLTLTNAANVPDENIWADIFAKALDGQNLKDLLVN  
FSAGAAAPAGVAGGVAGGEAGEAEAEKEEEEEAKEESDDDMGFGLFD

>P10622

MSDSIIISFAAFILADAGLEITSDNLLTITKAAGANVDNVWADVAKALEGKDLKEILSGF  
HNAGPVAGAGAASGAAAAGGDAAAEEEEEEEEAKEESDDDMGFGLFD

>P02400

MKYLAAYLLLQGGNAAPSAADIKAVVESVGAEVDEARINELLSSLEGKGSLEEIIAEGQ  
KKFATVPTGGASSAAAGAAGAAAGGDAAAEEEEEEEEAKEESDDDMGFGLFD

>Q5TBB1

MAAGVDCGDGVGARQHVFLVSEYLDASKMKMKNGLMFVKLVNPCSGEGAIYLFNMCLQQL  
FEVKVFKEKHHSWFINQSVQSGLLHFATPVDPLFLLLHYLIKADKEGKFQPLDQVVVDN  
VFPNCILLKLPGLEKLLHHVTEEKGNPEIDNKKYKYKSKKTLKWLEKKVNQTVAALKT  
NNVNVSSRVQSTAFFSGDQASTDKEEDYIRYAHGLISDYIPKELSDDL SKYLKLPESAS  
LPNPPSKKIKLSDEPVEAKEDYTKFNTKDLKTEKKNKMTAAQKALAKVDKSGMKSIDTF  
FGVKNKKKIGKV

>Q05635

MTVSNIGGEERLIILPDDYETSKTINTFTLPPPSNITSKPRIELFENINGKLYEIRSFQF  
GKGPSYSHEEDLANDKYHYTKENHP IKSTFIVNTSDPTDGYVFNSSKIHFCSLYDIAFSL  
IGFYRNSVSADQDYNSSDTGENQKSNSKTNEKFLTVRDYHDFLTDNHDKNWNISLS  
RLKSGLAKVSETIEEAGDVVYKITSAMITQFLLGKVSIVENFPPIPTLKNAPTEIKQC  
YKVVMTNLLVSLIPRAAYHLLTFSPMTDSGCLNPDIKASFIELENYETTNELQNAERE  
LLMKSAMNVGLNSNGRVSLPVKKVTKKIVQNKPKVAIGKGAIDGFFKRR

>Q8TDP1

MESGDEAAIERHRVHLRSATLRDAVPATLHLLPCEVAVDGPAPVGRFFTPAIRQGPPEGLE  
VSFRGRCLRGEVAVPPGLVGYVMVTEEEKKVS MGKPDPLRDSGTDDQEEEPLEDFDRFI  
GATANFSRFTLWGLE TIPGPD AKVRGALTWPSLAAAAIHAQVPED

>Q12338

MTKDAVNLDAYTVSFMFPFYTEYQGPTEEFKDYKFEDTIYFRGKELKREKSATPSSSDNTT  
SNTFSNGAILSGNTITGKIVSVNMYEREGTDRNELARLQELISLIDVINQ

>Q04912

MELLPLPQSFLLLLLLPAKPAAGEDWQCPRTPYAASRDFDVKYVVPFSFAGGLVQAMVT  
YEGDRNESAVFVAIRNRLHVLGPDLSVQSLATGPGADPGCQCAACGPGPHGPPGDTDT  
KVLVLDPALPALVSCGSSSQGRCLHDLQGTAVHLAAPACLFSAHHRPDDCPDCVAS  
PLGTRVTVVEQQAASYFYVASSLDAAVAGSFSRSPRSVSIRRLKADASGFAPGFVALSVLPK  
HLVSYISIEYVHSFHTGAFVYFLTVQPASVTDDPSALHTRLARLSATEPELGDYRELVLDC  
RFAPKRRRRGAPEGGQPYVVLQVAHSAPVGAQLATELSIAEGQEVLFVGFVTGKDGPGV  
GPNVVCAFPIDLLDIDLIDEGVERCCESPVHPGLRRGLDFFQSPSFCPNPPGLEALSPNT  
SCRHFPLLVSFFSRVDLFNGLLGPVQVTALYVTRLDNVTVAHMGTMMDGRILQVELVRS  
NYLLVYSNFSLGDGQPVQRDVSRLGDHLLFASGDQVFQVPIRGPGCRHFLTCGRCLRAW  
HFMGCGWCGNMCGQKCEKPGSWQDHCPPKLTTEFHPHSGPLRGSTRITLTCGSNFYLHPSG  
LVPEGTHQVTVGQSPCRPLPKDSSKLRPVPRKDFVEEFCELEPLGTQAVGPTNVSLTVT  
NMPGPKHFRVDGTSVLRGFSFMPEVLIQVPLFGPRAGGTCLTLEGQSLSVGTSRAVLVN  
GTECLLARVSEGQLLCATPPGATVASVPLSLQVGAQVPGSWTFQYREDPVVLSISPNCG  
YINSHITICGQHLTSAWHLVLSFHDGLRAVESRCERQLPEQQLCRLPEYVVRDPQGWVAG  
NLSARGDGAAGFTLPGFRFLPPHPPSANLVPLKPEEHAIKFEYIGLGAVADCVGINVTV  
GGESCQHEFRGMVVCPLPPSLQLGQDQAPLQVCVDGEGHILGRVVRPGPDGVPQSTLLG  
ILLPLLLLVAALATALVFSYWRRKQLVLPNLDLALDQTAGATPLPILYSGSDYRSG  
LALPAIDGLDSTTCVHGASFSDESEDESCVPLLRKESIQLRDLDSALLAEVKDVLIPH  
VTHSDRVIKGGHFGVYHGEYIDQAQNRIQCAIKSLSRITEMQQVEAFLEGLLMRGLNH  
PNVLALIGIMLPPEGLPHVLLPYMCHGDLLQFIRSPQRNPTVKDLISFGLQVARGMEYLA  
EQKFVHRDLAARNCMLEDSFTVKVADFGGLARDILDREYYSVQQHRHARLPVKWMALES  
TYRFTTKSDVWSFGVLLWELLTRGAPPYRHIDPFDLTHFLAQGRRLPQPEYCPD  
SLYQVMQOCWEADPAVRPTFRVLVGEVEQIVSALLGDHYVQLPATYMNLPST  
SHEMNVRPEQPQFSPMPGNVRRRPRPLSEPPRPT

>Q04712

MFEVPIITLNRKFAQRRLKYQYINYISRRFDRISKKSTTTDSLPTPENSAAENND  
EEEGQNSEAGTYRRSVLQOKKRRRERHWSVVGGEIYSTTESETDSQEEETE  
EGGEHDTGIDKEDSDEERKFWKKYEKPEKSFEIWRVTVSSQNKQPINKQKMTY  
HNFKKIEKIPLRKMEIPLLHCTKENKLYFQSI SRGLEPLKTSTSEVRNYR  
TRHIVTLDLHLMVSRHNWSLAYKIFATLIRIPGVQIKSLWGIGVEILDNL  
SNSSSGLDFLQWMCQIYSSKSRFVQNIYRSIVPPFQTGSRHTAKFAIT  
YLWSSLINCQKSMEPSSNIDKPFDTENDLLQELIDKISEWVLT  
PPFME DAEVWF IYASCHLLKADTL SRQFVNDNKNNDLIGLDRD  
IKINQVIKHIHYVRTFLKICLDKGGFAVPSRLIENQLKSFESR  
LYGEAQDIQERDVANVYDSIDNSSVENSFGDVYETNAEF  
LDTQLMDLSPEDNGLDEMHSDEDSSE

>P0A7S9

MARIAGINIPDHKHAVIALTSIYGVGKTRSKAILAAAGIAEDVKISELSE  
GQIDTLRDEVAKFVVEGDLRREISMSIKRLMDLGCYRGLRHRRLPVRGQ  
RTRTNARTRKGPRKPIKK

>P80377

MARIAGVEIPRNKRVDVALTYIYGIGKARAKEALEKTGINPATRVKDLTE  
AEVVRLEYYENTWKLEGELEVAANIKRLMDIGCYRGLRHRRLPVRGQ  
RTRTNARTRKGPRKTVAGK KAPRK

>P0A7T7

MARYFRRRKFCRFTAEGVQEIDYKDIATLKNYITESGKIVPSRITGTRAKYQRLARAIK  
RARYLSLLPYTDRHQ

>Q5SLQ0

MSTKNAKPKKEAQRRPSRKAKVKATLGEFDLRDYRNVEVLKRFLSETGKILPRRRTGLSA  
KEQRILAKTIKRARILGLLPFTEKLVK

>Q9SHE7

TMIKVKTLTGKEIEIDIEPTDTIDRIKERVEEKEGIPPVQQRLLIYAGKQLADDKTAKDYN  
IEGGSVLHLVLAALRGGFGLL

>P27003

MPSQMEHAMETLMFTTFHKYAGDKNYLSKEDLRALMEKEFPGFLENQRDPMALDKIMKDL  
QCRDGKVGQSFSLVAGLTIACNDYFVVHMKQKGRK

>P46674

MNTSFGSVVPSTNFFFKGHGNDNTSANSTVNNSNFFLNSNETKPSKNVFMVHSTSQKK  
SQOPLQNLSPSYTENKPKKKKYMINDAKTIQLVGPLISSPDNLGFQKRSHKARELPR  
FLINQEPQLEKRAFVQDPWDKANQEKMISLEESIDDLNELYETLKKMRNTERSIMEEGL  
VDKADSADLYDAIVFQGTCLDMCPTFERSRRNVEYTVYSYEKNQPNDDKASRTKALKVF  
ARPAAAAAPPLPSDVRPPHILVKTLDYIVDNLTTLPESEGFWDWRMSIRQDFTYQNY  
GPEAVDCNERIVRIHLLILHIMVKSNEVFSLQQEELQLHKSLLITLSEIYDDVRSSGGTCP  
NEAEFRAYALLSKIRDPQYDENIQRLPKHIFQDKLVQMALCFRRVISNSAYTERGFVKTE  
NCLNFYARFFQLMQSPSLPLLMGFFLQMHLDIRFYALRALSHTLNKKHKPIPFYILENM  
LLFNRRQEIIEFCNYYSIEIINGDAADLKTQHYSKHLSETQPLKKTLYLTCLERRLQKTT  
YKGLINGGEDNLASSVYVKDPKDRIPSIADQSFLMENFQNNYNEKLNQNSSVKPQINTS  
PKRVATRPNHFFFSQESKQLPQISQSHTLSTNPLLTPOVHGDLEQKQQQIKTVTDGGSP  
FVFDQSAQNSTVEASKAHMISTTSNGAYDEKLSSEQEEMRKKEEQRIEEKTQLKKKQEN  
ADKQVITEQIANDLVKEVVNSSVISIVKREFSEANYRKDFIDTMTRELYDAFLHERLYLI  
YMDSRAELKRNSTLKKKFFEKWQASYSQAKKNRILEEKKREEIKLVSHQLGVPGFKKSTC  
LFRTPYKGNVNSFMLSDDKNLIFSPVNDNFNFATHLTKISKLWRPLEMQSIYYDNL  
KKFSPNSLTPANLFIYAKDWTSLSNRWILSKFNLQTAQDSKKFSNNIISSRIICIDDEYE  
PSDFSDLQLLIFNTGVTNPDIFDLEMKLKDDGEELIKLITGISLNTNICFSLLIYWESA  
ENTLSESTIKHLLKLNRIKSNYSSVIERIDLMNLTTEESPHKCLEDKLEISHSYVYKLTE  
RGKYDKTLRQKRSLAGIHSRSTQLQTTKDIDQKMKKMLEKEKNKYQQQIGERNYAHLES  
HIDASPRSKKRKLPILLSTSHSSQFKTPLASRLNTSGSSTSPPLPSHLAMKFRKNSRVTS  
LHTVLPVSTPSSNNIIPAASFSGNNTTDIQSQQLIENQKSTSVYLNNSERILGNQEICQ  
TPINPVTPVLDGADQKEDIPDSILELKIILIDSVKKKVNND

>Q9NAN1

MPSWREKHEKIVQSKILVIGAGGIGCELLKNLAVTGFRKVHVIDLDTIDISNLNRQFLFR  
KEHVSSSKAATATQVVKQFCPQIELTFDHDSEIFEKKYNMEFFQAYDIVLNALDNRAARNY  
VNRMCHAANRPLIDSGSGGYFGQVSVIMRGKTECYECVDPVQQTTYPGCTIRNTPSEHI  
HCTVWAKHVFNFQLFGEVDIDDDVSPDMDAVIDPDNTEAVTTEKEKEAMKEEPAPVGTRQWA  
ESVDYDAAKVFDKFLHLDIEYLCKMEHLWKQRKRPSPLEFHTASSTGGEPQSLCDAQRDD  
TSIWTLSTCAKVSTCIQELLEQIRAEPDVKLAFDKDHAIIMS FVAACANIRAKIFGIPM  
KSQFDIKAMAGNIIPAIASNAIVAGIIVTEAVRVIEGSTVICNSSIATQSNPRGRIFG  
GDATNPPNPRCFVCSEKREVFIVVNPDTMTVGGGLCEKVLKQKLNMLAPDVMSATSRIIV

SSDGD TDDLLPKKLA E V S I E D G A I L S C D D F Q Q E M E I K L F I K K G D R L A G D D F E V A R S E K E P  
E P D D R K R K A D G S E E P E A K R Q K V E E K D D K N G N E A V A E I T E T M A

>Q9UBT2

M A L S R G L P R E L A E A V A G G R V L V V G A G G I G C E L L K N L V L T G F S H I D L I D L D T I D V S N L N R Q  
F L F Q K K H V G R S K A Q V A K E S V L Q F Y P K A N I V A Y H D S I M N P D Y N V E F F R Q F I L V M N A L D N R A  
A R N H V N R M C L A A D V P L I E S G T A G Y L G Q V T T I K K G V T E C Y E C H P K P T Q R T F P G C T I R N T P S  
E P I H C I V W A K Y L F N Q L F G E E D A D Q E V S P D R A D P E A A W E P T E A E A R A R A S N E D G D I K R I S T  
K E W A K S T G Y D P V K L F T K L F K D D I R Y L L T M D K L W R K R K P P V P L D W A E V Q S Q G E E T N A S D Q Q  
N E P Q L G L K D Q Q V L D V K S Y A R L F S K S I E T L R V H L A E K G D G A E L I W D K D D P S A M D F V T S A A N  
L R M H I F S M N M K S R F D I K S M A G N I I P A I A T T N A V I A G L I V L E G L K I L S G K I D Q C R T I F L N K  
Q P N P R K L L V P C A L D P P N P N C Y V C A S K P E V T V R L N V H K V T V L T L Q D K I V K E K F A M V A P D V  
Q I E D G K G T I L I S S E E G E T E A N N H K K L S E F G I R N G S R L Q A D D F L Q D Y T L L I N I L H S E D L G K  
D V E F E V V G D A P E K V G P K Q A E D A A K S I T N G S D D G A Q P S T S T A Q E Q D D V L I V D S D E E D S S N N  
A D V S E E E R S R K R K L D E K E N L S A K R S R I E Q K E E L D D V I A L D

>P13458

M K I L S L R L K N L N S L K G E W K I D F T R E P F A S N G L F A I T G P T G A G K T T L L D A I C L A L Y H E T P R  
L S N V S Q S Q N D L M T R D T A E C L A E V E F E V K G E A Y R A F W S Q N R A R N Q P D G N L Q V P R V E L A R C A  
D G K I L A D K V K D K L E L T A T L T G L D Y G R F T R S M L L S Q G Q F A A F L N A K P K E R A E L L E E L T G T E  
I Y G Q I S A M V F E Q H K S A R T E L E K L Q A Q A S G V T L L T P E Q V Q S L T A S L Q V L T D E E K Q L I T A Q Q  
Q E Q Q S L N W L T R Q D E L Q Q E A S R R Q Q A L Q Q A L A E E E K A Q P Q L A A L S L A Q P A R N L R P H W E R I A  
E H S A A L A H I R Q Q I E E V N T R L Q S T M A L R A S I R H H A A K Q S A E L Q Q Q Q S L N T W L Q E H D R F R Q  
W N N E P A G W R A Q F S Q Q T S D R E H L R Q W Q Q L T H A E Q K L N A L A A I T L T L T A D E V A T A L A Q H A E  
Q R P L R Q H L V A L H G Q I V P Q Q K R L A Q L Q V A I Q N V T Q E Q T Q R N A A L N E M R Q R Y K E K T Q Q L A D V  
K T I C E Q E A R I K T L E A Q R A Q L Q A G Q P C P L C G S T S H P A V E A Y Q A L E P G V N Q S R L L A L E N E V K  
K L G E E G A T L R G Q L D A I T K Q L Q R D E N E A Q S L R Q D E Q A L T Q Q W Q A V T A S L N I T L Q P L D D I Q P  
W L D A Q D E H E R Q L R L L S Q R H E L Q G Q I A A H N Q Q I I Q Y Q Q Q I E Q R Q Q L L L T T L T G Y A L T L P Q E  
D E E E S W L A T R Q Q E A Q S W Q R Q N E L T A L Q N R I Q Q L T P I L E T L P Q S D E L P H C E E T V V L E N W R  
Q V H E Q C L A L H S Q Q Q T L Q Q Q D V L A A Q S L Q K A Q A Q F D T A L Q A S V F D D Q Q A F L A A L M D E Q T L T  
Q L E Q L K Q N L E N Q R R Q A Q T L V T Q T A E T L A Q H Q Q H R P D D G L A L T V T V E Q I Q Q E L A Q T H Q K L R  
E N T T S Q G E I R Q Q L K Q D A D N R Q Q Q Q T L M Q Q I A Q M T Q Q V E D W G Y L N S L I G S K E G D K F R K F A Q  
G L T L D N L V H L A N Q Q L T R L H G R Y L L Q R K A S E A L E V E V V D T W Q A D A V R D T R T L S G G E S F L V S  
L A L A L A L S D L V S H K T R I D S L F L D E G F G T L D S E T L D T A L D A L D A L N A S G K T I G V I S H V E A M  
K E R I P V Q I K V K K I N G L G Y S K L E S T F A V K

>Q12158

M V T E N P Q R L T V L R L A T N K G P L A Q I W L A S N M S N I P R G S V I Q T H I A E S A K E I A K A S G C D D E S  
G D N E Y I T L R T S G E L L Q G I V R V Y S K Q A T F L L T D I K D T L T K I S M L F K T S Q K M T S T V N R L N T V  
T R V H Q L M L E D A V T E R E V L V T P G L E F L D D T T I P V G L M A Q E N S M E R K V Q G A A P W D T S L E V G R  
R F S P D E D F E H N N L S S M N L D F D I E E G P I T S K S W E E G T R Q S S R N F D T H E N Y I Q D D D F P L D D A  
G T I G W D L G I T E K N D Q N N D D D D N S V E Q G R R L G E S I M S E E P T D F G F D L D I E K E A P A G N I D T I  
T D A M T E S Q P K Q T G T R R N S K L L N T K S I Q I D E E T E N S E S I A S S N T Y K E E R S N N L L T P Q P T N F  
T T K R L W S E I T E S M S Y L P D P I L K N F L S Y E S L K K R K I H N G R E G S I E E P E L N V S L N L T D D V I S  
N A G T N D N S F N E L T D N M S D F V P I D A G L N E A P F P E E N I I D A K T R N E Q T T I Q T E K V R P T P G E V  
A S K A I V Q M A K I L R K E L S E E K E V I F T D V L K S Q A N T E P E N I T K R E A S R G F F D I L S L A T E G C I  
G L S Q T E A F G N I K I D A K P A L F E R F I N A

>Q04002

M S Y P G K D K N I P G R I I E A E L D L P L S Y L V P K D G L A A L V N A P M R V S L P F D K T I F T S A D D G R D V

NINVLGTANSTTSSIKNEAEKERLVFKRPSNFTSSANSVDYVPTNFLEGLSPLAQSVLST  
HKGLNDSINIEKKSEIVSRPEAKHKLESVTSNAGNLSFNDNSSNKKTKTSTGVTMTQANL  
AEQYLNDLKNILDIVGFDQNSAEIGNIEYWLQLPNKKFVLTNCLTKLQMTIKNITDNPQ  
LSNSIEITWLLRLLDVMVCNIKFSKSSSLKMGDDSMRLRYIALLLSTIVLFNIFLLGKNDSN  
LHRESYIMEPVNFLSDLIESLKILTIEYGSFKIEFDTFQEALLLPKYIRNGPFLDDNVT  
AKLVYIFSDLLMNDIEATTNIQFQSFWDNVKRISDILVSLFSGFDQQRGFIEEELLSH  
IEKLPTRKRIQKKLRKVGQNIIYITDFTFTLMSMLENINCYSFCNQMKDIAPENIDLLKNE  
YKKQEEFLFNIVEHINDTILERFFKNPSALRYVIDNFVQDLLLLISSPQWPVTEKILSSL  
LKRLLSVYSPSMQVSANIEITICLQLIGNIGSTIFDIKCSTRDHEDNLIKMINYPETLPH  
FFKSFEECIAYNETIKCRRSATRFLWNLRGLTILILEEYTKDAKEQIITVDNELKKILEQ  
IKDGGLGPELENREADFSTIKLDYFSSILHAFELLNLYDPYKLLILSLLAKDKIKLRSTAI  
KCLSMLASKDKVILSNPMVKETIHRRLNDSSASVKDAILDVLSINSSYFIFYQQINNNYN  
DDSIMVRKHVLRINEKMYDETNDIVTKVYVIARILMKIEDEEDNIDMARLILLNRWILK  
VHEVLDQPEKLKEISSSVLLVMSRVAIMNEKCSQLFDLFLNFYLLNKEAHSKEAYDKITH  
VLTILTDFLVQKIVELNSDDTNEKNSIVDKQNFNLNLLAKFADSTVSFLTGDHITALYPYM  
VSDEKSDFHYYILQVFRCTFEKLANFKQKFLYDLETTLLSRLPKMNVREIDEAMPLISV  
ATHRHDTARVAKACSSCLSHLHPYINKANNEEAAIVVDGKLQRLIYLSSTGFARFCFPKPS  
NDKIAFLQEGETLYEHITKCLLVLSKDKITHVIRRVAVKNLTKLCGNHPKLFNSRHVHLH  
LDKEFQSDQLDIKLVILESLYDLFLLERKSVRNTGVNSTLSSNSILKKKLLKTNRVEFA  
NDGVCSALATRFLDNILQLCLLRDLKNSLVAIRLLKLLKFGYTNPSHSIPTVIALFAST  
SQYIRHVAYELLEDFEKYETLVFSSLSRGVTKAIHYSIHTDEKYYYKHDHFLSLEKLC  
GTGKKNPKFFKVLKRIMQSYLDDITDLTSTNSSVQKSIFVLCTNISNITFVSQYDLVSL  
LKTIDLTTDRLEKIVIMDEIGDNVSSLSVSEEKLSGIIILQLSLQDLGTYLLHLYGLRDDV  
LLLDIVEESELKNKQLPAKKPDISKFSQAQLENI EQYSSNGKLLTYFRKHVKDT

>P40541

MTAVRRSTRIRTKSQVIEEDYDDEQNTSAQHVESDKITAKTQHEEEEEQDTGESEESSSE  
DDYEDQDDDDYVDTATAKRKSRKRKPKSASNTSSKRQKKKPTSAQKSAVSHAPAYHRSKK  
DQDQYLEIAKDFQPTLFDLILSTSEDVSI EELLREWLETYSENDRDKFLQEFINLLLNC  
SVARVEDHDVHSNESSNETIGEIQLLFQRQKLHEFYLLISKENKKRKNFKMGPLYQNFAE  
FMTKLLLEVANDLQLLYVESDEDDTQIVTGNLVLDLLTWLSSFSVCKIRCFRYISTLTLYL  
FQDYLTQQAVNLEKNYLAKLSKQLSLEEKKKRPNKTKLEKLESTIAETQGSVVIDSIID  
NIVKLCFVHRYKDVSDLIRSESMLHLSIWIKNYPEYFLKVTFFLKYFGWLLSDNSVSVRLQ  
VTKILPHLIIQNHNSKSTDNSAIRQVFERFKTKILEVAIRDVNLVDVRIHSIQVLTEASSL  
GYLDDSEILIISSLMFDEEFDPFKTSFNKRKSKFLSTVAKFLARVIKEKFDEFIKTHEDL  
PKEVDGLEVPVQVGIFIKILNDSLIIYHLKDCAEVDSRTKIRMLTQAAEFLSPYISTHL  
KTICNLLISDTESNELIQKLQNSANNNSDDEDVDDEELDITPLFPIDRNSTILYLNVFHG  
LCAGANNPKIQTKDSVKEIVLPLFYDLLNAASIESADILCPLESFITFSLDDWISIGYE  
TELKKITDKTIKAFMDSTIGNSKVDKMYDIFAKFIHHIHHFEKKELQEKFLNQIATLKI  
LKKFLQEKMPNNSRDYKDLTCSLYELYINKLITILGRDYP I EVDEELLQLFLNNFVSR  
PIMFQDFDDSTAQEIFKMLVLLATWNLEKWREIEKVRDYENSISKDLRSVWKP IAAII  
GRLNTLVI SLAATNETFENINSLFYLKWSACTSLMDIIVAIFELKLPADATTWRYSMS  
EQFPFYLDHNSKVLKIFLYLESFAKQVDVQLERVADEDANLNDLPETGFFENIETEF  
LLFTVKLKGMLKNILDERFASRVALNKEKLGPLFKKIVDDTIMENPEPNKKNIQKAKSN  
QTQREKAPLQPNSERETDHANTENNDPDPMTIDLEPIEESSQNNSLAPIEEHPTVVDA  
IDNSDEITQD

>Q9ZZX1

MVQRWLYSTNAKDIAVLYFMLAIFSGMAGTAMSLIIRLELAAPGSQYLHGNSQLFNVLVV  
GHAVLMIFFLVMPALIGGFGNYLLPLMIGATDTAFPRINNI AFWVLPMLGLVCLVTSTLVE

SGAGTGWTVYPPSSIQAHSGPSVDLAI FALHLTSISSLLGAINFIVTTLNMR TNGMTMH  
KLPLFVWSIFITAFLLLLSLPVL SAGITMLLLDRNFNTSFFEVS GGGDPILYEHLFWFFG  
HPEVYIL IIPGFGIISHVVSTYSKKPVFGEISMVYAMASIGLLGFLVW SHHMYIVGLDAD  
TRAYFTSATMIIA IPTGIKIFSWLMNPF SKDKNKNKNK KLIRNYQKMNNNNMMKTYLNNN  
NMIMNMYKGNLYDIYPR SNRNYIQPNINKELVVYGYNLESCVGMPT YTNIVKHMVGIP  
NNILYIMTGILLTDGWIDYTSKKDL DKKTIMEINCRFRLKQSMIHSEYLMYVFM LLSHYC  
MSYPKMKIAKVKGKSYNQLEFYTRSLPCFTILRYMFYNGRVKIVPNNLYD LLLNYESLAHM  
IMCDGSFVKGGGLYLNLSQSF TTKELIFIMNILKIKFNLNCTLHKSRNKYTIYMRVESVKR  
LFPMIYKYILPSMR YKFDIMLWQKKYMIN

>Q61180

MLDHTRAPELNLDL DLVSNSPKGS MKGNFKEQDLCPPLPMQGLGKGDKREEQALGPEP  
SEPRQPTEEEEALIEFHRSYREL FQFFCNNTTIHGAIRLVCSKHNRMTAFWAVLWLC TF  
GMMYQWFALLFEEYFSYPVSLNINLNSDKLVFPAVTVCTLN P YRYTEIKEDLEELDRITE  
QTLFDLYKYNSSYTRQAGRRRSTRDLRGALPHPLQRLRTPPPNPARSARSASSSVRDN  
NPQVDRKDWKIGFQLCNQNKSDCFYQTYSSGVD AVREWYRFHYINILSRLPDTSPA LEEE  
ALGSFIFTCRFNQAPCNQANYSQFHHPMYGNCYTFNKNNSNLWMS S MPGVNNGLSLTLR  
TEQNDFIPLLSTVTGARVMVHGQDEPAFMDDGGFNVRPGVETSISMRKEALDSLGGNYGD  
CTENGSDVPVKNLYPSKYTQQVCIHSCFQENMIKKCGCAYIFYPKPKGVEFCDY LKQSSW  
GYCYKQLQAAFSLDSLGCFSKCRKPCSVTNYKLSAGYSRWPSVKSQDWIFEMLSLQNNYT  
INNKRNQVAKLNIFFKELNYKTNSESPSVTMVSLLSNLGSQWSLWFGSSVLSV VEMAELI  
FDLLVITLIMLLHRFRSRYWSPGRGARGAREVASTPASSFP SRFCPHPTSPPPSLPQQGT  
TPPLALTAPPPAYATLGPSASPLDSAVPGSSACAPAMAL

>P51168

MHVKKYLLKGLHRLQKGPYTYKELLVWYCDNTNTHGPKRIICEGPKKKAMWFL LTL LFA  
ALVCWQWGIFIRTYLSWEVSVSL SVGFKTMDFPVAVTICNASPFKYSKIKHLLKDLDELME  
AVLERILAPELSHANATRNLNFSIWNHTPLVLIDERNPHHPMVLDFGDNHNGLTSSSAS  
EKICNAHGCKMAMRLCSLNR TQCTFRNFTSATQALTEWYILQATNIFAQVPQQELVEMSY  
PGEQMILACLFGAEP CNYRNFTSIFYPHYGNCYIFNWGMTEKALPSANPGTEFG LKLI LD  
IGQEDYVPFLASTAGVRLMLHEQRSYPFIRDEGIYAMSGTETSIGVLVDKLQRMGEPYSP  
CTVNGSEVPVQNFYSDYNTTYSIQACLRSCFQDHMIRNCNCGHYLYPLPRGEKYC NNRDF  
PDWAHCYSDLQMSVAQRETCIGMCKESCNDTQYKMTISMADWPSEASEDWIFHVLSQERD  
QSTNITLSRKGIVKLNIFYQEFNYRTIEESAANNIVWLLSNLGGQFGFWMGGSVLC LIEF  
GEI I IDVWITIIKLVALAKSLRQRRQAQASYAGPPPTVAELVEAHTNFGFQPD TAPRSPN  
TGPYPSEQALPIPGT PPPNYDSLRLQPLDVIESDSEGDAI

>P51172

MAEHRSM DGRMEAATRGGSHLQAAAQTPPRPGPPSAPPPPKEGHQEGLVELPASFRELL  
TFFCTNATI HGAIRLVCSRGNRLKTT SWGLLSL GALVALCWQLG L LFERHWHRPVLM AVS  
VHSERKLLPLVTLCDGNPRRPSVLRHLELLDEFARENIDSLYNVNLSKGRAALSATVPR  
HEPPFHL DREIRLQRLSHSGSRVRVGFRLCNSTGGDCFYRGYTSGVAAVQDWYHFHYVDI  
LALLPAAWEDSHGSQDGHFVLS CSYDGLDCQARQFRTFHHPTYGSCYTV DGVWTAQRPGI  
THGVGLVLRVEQQPHLPLLSTLAGIRVMVHGRNHTPFLGHHSFSVRPGTEATISIREDEV  
HRLGSPYGHCTAGGEGVEVELLHNTSYTRQACL VSCFQQLMVETCS CGYYLHPLPAGAEY  
CSSARHPAWGHCFYRLYQDLETHRLPCTSRCPRPCRESAFKLSTGTSRWPSAKSAGWTLA  
TLGEQGLPHQSHRQRSSLAKINIVYQELNYRSVEEAPVYSVPQLLSAMGSLC SLWFGASV  
LSLLELELELLLDASALTVLGGRRLRRAWFSWPRASPASGASSIKPEASQMP PPAGGTSD  
DPEPSGPHLPRVMLPGVLAGVSAEESWAGPQPLETLDT



>Q9WU39

MAPGEKIKAKIKKNLPVGRGPQAPT IKDLMHWYCLNTNTHGCRRIVVSRGRLRRLWIAFT  
LTAVALI IWQCALLVFSFYTVSVS IKVHFQKLDFFPAVTICNINPYKYSAVSDLLTDL DSE  
TKQALLS LYGVDVLDSTPRKRREAGSMRSTWEGTPPRFLNLIPLLVFNENEKGKARDF  
TGRKRKISGKI IHKASNMVHVHESKKL VGFQLCSNDTSDCATYTFSSGINAIQE WYK LHY  
MNIMAQVPLEKKINMSYSAEELLVTCFFDGMSCDARNFTLFHHPMYGNCYTFNNRENATI  
LSTSMGGSEYGLQVILYINEDEYNPFLVSSSTGAKVLVHQNEYPFIEDVGTETETAMSTS  
IGMHLTESFKLSEPY SQCTEDGSDVPVTNIYNAAYSLQICLYSCFQTKMVEKCGCAQYSQ  
PLPPAANYCNYQQHPNWMYCYQLYQAFVREELGCQSVCKQSCSFKEWTLTTS LAQWPSE  
ASEKWLLNVL TWDQSQQINKKLNKTDLAKLLIFYKDLNQRSIMESPANSIEMLLSNFGGQ  
LGLWMSCSVVCVIEIEIEVFFIDFFSIIARRQWQAKADWARRRTPPSTETPSSQQGQDNP  
ALDTDDDLPTFTSAMRLPPAPEAPVPGTPPPRYNTRLRLDSAFSSQLTDTQLTNEF

>O13263

MSNSGKLTQKLLKNLPVTGTPQAPTLYELMQWYCLNTNTHGCRRIVVSKGRLRRWIWIVL  
TLIAVALIFWQCALLLMTYYSVSASITVTFQKLVYPAVTICNLNPSYSKIKDRLATLEK  
TTNQTLLKKIYGFTEPLIRSKRDLVDNDENSTEDIFLKQIPLFRLESIKGNQLVVS DLKTK  
KRTQISGKVIQRDAGSVQDSNMVGFKLCDANSSDCTIFTFGSGVNAIQEWYRLHYNNI  
LAKISMEDKIAMGYKADELIVTCLFDGLSCDARNFTLFHHPYLYGNCYTFNSAERGNLLVS  
SMGGAEYGLKVVLVYIDEDEYNPYLSTAAGAKILVHDQDEYPFIEDLGTETELETG TETSIGM  
QLTESTKLSDPYSDCTIDGSDISVENLYNKKYTLQICLN SCFQREMVRSCGCAHYDQPLP  
NGAKYCNYYEYPNWIYCYVKLYKQFVQEELGCQSTCRESCSFKEWTLTRSLAKWPSLNSE  
EWMLRVLSWELGEKLNKLNLTKNLNLNIFYQDLNSRSISESPTYNIVTLLSNFGGQLGL  
WMSCSMVCGLEIVEVFFIDSFVWILRQKWHKLCNWWKNRKENEEIEIPDITVPAMAGHNN  
PLCVDHPICLGEDDPPTFHSALQLPQAQDCRVPRTPPPKYNTLRISAFHLETIDSDEDV  
ERF

>P33074

MTDYSAFEVMGPI MVGPSSSHTAGACKIANVATSIVSNNYNQVEFQLHGSFAHTFKGHGT  
DRALVGGILGFEPDDRIKTSFELAKQAGLNYIFTTTLNLDNYHPNSVKIVFSYPNGEEE  
YVIGSSIGGGAMKIVNINGIAIEFRGEYSTILLEYPEQRGVISYVSSLLTGSEYNIESLN  
TKKNKLTNIVTLTVEIDKPLTESLKSAILGVERFTTAKYVEV

>Q60175

MKKLIPILEKIPEVELPVKEITFKEKLLKWTGIVLVLYFIMGCIDVYTAGAQIPAI FEFWQ  
TITASRIGTLITLGIGPIV TAGIIMQLLVGSGIIQMDLSIPENRALFQGCQKLLSIIMCF  
VEAVL FVGAGAFGILTPLLAFLV I IQIAFGSII LIYLDEIVSKYIGSGIGL FIAAGVSQ  
TIFV GALGPEGYLWKFLNLSLIQGVPNIEYIAPIIGTIIVFLMVVYAE CMRVEIPLAHGRI  
KGAVGKYP IKFVYVSNIPVILAAALFANIQLWGLALYRMGIPILGHYEGGRAVDGIAYYL  
STPYGLSSVISDPIHAIVYMIAMIITCVMF GIFWVETTGLDPKSMAKRIGSLGMAIKGFR  
KSEKAI EHR LKRYIPPLTMSSAFVGF LATI ANFIGALGGGTGVLLTVSIVYRMYEQLLR  
EKVSELHPAIAKLLNK

>P35187

MVTKPSHNLRRHEKWLKETATLQEDKDFVFQAIQKHIANKRPKTNSPPTTPSKDECGPGT  
TNFITSIPASGPTNTATKQHEVMQTL SNDTEWLSYTATSNQYADVPMVDIPASTSVVSNP  
RTPNGSKTHNFNTFRPHMASSLVENDSSRNLGSRNNKSVIDNSSIGKQLENDIKLEVIR  
LQGLSIMALKEQSKLLLQKCSIIESTSLSEDAKRLQLSRDIRPQLSNMSIRIDSLEKEII  
KAKKDGMSKDQSKGRSQVSSQDDNIISSILPSPLEYNTSSRNSNLTSTTATTVTKALAIT  
GAKQNITNNTGKNSNNDSDNDDLIQVLDDEDDIDCDPPVILKEGAPHSPAFPHLHMTSEE

QDELTRRRNMRSREPVNYRIPDRDDPFDYVMGKSLRDDYPDVEREEDELMEAEEDDAHSS  
YMTTRDEEKEENELLNQSDDFVFNDDLDPTQDQDYHDNMDVSANIQESSQEGDTRSTIT  
LSQNKVQVILSSPTAQSVPSNGQNQIGVEHIDLLEDDLEKDAILLDDSMSFSFGRQHMPM  
SHSDLELIDSEKENEDFEEDNNMNGIEYLSDSDLERFDEERENRTQVADIQELDNDLKI I  
TERKLTGDNEHPPPSWSPKIKREKSSVSQKDEEDDFDDDFSLSDIVSKSNLSSKTNGPTY  
PWSDEVLYRLHEVFKLPGFRPNQLEAVNATLQKGDVFLMPTGGGKSLCYQLPAVVKSGK  
THGTTIVISPLISLMQDQVEHLLNKNIKASMFSSRGTAEQRRQTFNLFINGLLDLVYISP  
EMISASEQCKRAISRLYADGKLARIVVDEAHCVSNWGHDFRPDYKELKFFKREYPDIPMI  
ALTATASEQVRMDI IHNLELKEPVFLKQSFNRNLYEYVNNKTKNTIFEICDAVKSRFKN  
QTGIIYCHSKKSCEQTS AQMQRNGIKCAYYHAGMEPDERLSVQKAWQADEIQVICATVAF  
GMGIDKPDVRFVYHFTVPRTLEGYQETGRAGRDGNYSYCITYFSFRDIRTMQTMIQDK  
NLDRENKEKHLNKLQQVMAYCDNVTDCCRKLVL SYFNEDFDSKLCCHKNCNCRNSANVIN  
EERDVTEPAKKIVKLVESIQNERVTI IYQDVFKGSRSSKIVQANHDTLEEHGIGKSMQK  
SEIERIFFHLITIRVLQEYSIMNNSGFASSYVKVGPNAKLLTGKMEIKMQFTISAPNSR  
PSTSSSFQANEDNIPVIAQKSTTIGGNVAANPPRFISAKEHLRSYTYGGSTMGSSHPITL  
KNTSDLRSTQELNNLRMTYERLRELSLNLGNRMVPPVGNFMPDSILKKMAAILPMNSAF  
ATLGTVEDKYRRRFKYFKATIADLSKKRSSEDHEKYDTILNDEFVNRAAASSNGIAQSTG  
TKSKFFGANLNEAKENEQIINQIRQS QLPKNTTSSKSGTRSISKSSKKSANGRRGFRNYR  
GHYRGRK

>P81133

MKEKSKNAARTREKENSEFYELAKLLPLPSAITSQLDKASIRLTTSYLKMRVVFPEGL  
GEAWGHSSRTSPLDNVGRELGSHLLQTL DGFIFVVAPDGKIMYISETASVHLGLSQVELT  
GNSIYEYIHPADHDEMTAVLTAHQPYHSHFVQEYIEIERSFFLRMKCVLAKRNAGLTCGGY  
KVIHCSGYLKIRQYSLDMSFPDGCYQNVGLVAVGHS LPPSAVTEIKLHSNMFMFRASLDM  
KLIFLDSRVAELTGYPQDLIEKTLYHHVHGCDTFHLRCAHLLLVKGQVTTKYRFLAK  
HGGWVWVQSYATIVHNSRSSRPHCIVSVNYVLTDT EYKGLQLSLDQISASKPAFSYTSSS  
TPTMTDNRKGAKSRLSSSKSRTSPYPQYSGFHTERSESDHDSQWGGSP LDTASPQLL  
DPADRPQS QHDASCAYRQFSDRSSL CYGFALDHSRLVEERHFHTQACEGGRCEAGRYFLG  
TPQAGREPWWGSRAALPLTKASPESREAYENSMPHIASVHR IHGRGHWDEDSVSSPDPG  
SASESGDRYRTEQYQSSPHEPSKIETLIRATQQMIKEEENRLQLRKAPSDQLASINGAGK  
KHSLCFANYQQPPPTGEVCHGSALANTSPCDHIQQREGKMLSPHENDYDNSPTALSRISS  
PNSDRISKSSLILAKDYLDHSDISPHQTAGDHPTVSPNCFGSHRQYFDKHAYTLTG YALEH  
LYDSETIRNYSLGCNGSHFDVTSHLRMQPDPAQGHKGTSVIITNGS

>Q14190

MKEKSKNAAKTRREKENGEFYELAKLLPLPSAITSQLDKASIRLTTSYLKMRVVFPEGL  
GDAWQPSRAGPLDGVAKELGSHLLQTL DGFVFFVVASDGKIMYISETASVHLGLSQVELT  
GNSIYEYIHPSDHDEMTAVLTAHQPLHHLLQ EYIEIERSFFLRMKCVLAKRNAGLTCSGY  
KVIHCSGYLKIRQYMLDMSLYDSCYQIVGLVAVGQSLPPSAITEIKLYSNMFMFRASLDL  
KLIFLDSRVTEVTGYEPQDLIEKTLYHHVHGCDV FHLRYAHLLLVKGQVTTKYRLLSK  
RGGWVWVQSYATVVHNSRSSRPHCIVSVNYVLT EIEYKELQLSLEQVSTAKSQDSWR TAL  
STSQETRKLKVPKNTKMKTKLRNTPYPPQYSSFQMDKLECGQLGNWRASPPASAAAPPE  
LQPHSESSDLLYTPSYSLPFSYHYGHFPLD SHVFSKPKMLPAKFGQPQGSPEVARFFL  
STLPASGECQWHYANPLVPSSSSPAKNPPEPPANTARHSLVPSYEAPAAA VRRFGEDTAP  
PSFPSCGHYREEPALGPAKAAARQAARDGARLALARA APECCAPPTPEAPGAPQLPFVLL  
NYHRVLARRGPLGGAAPAASGLACAPGGPEAATGALRLRHPSPAATSPPGAPLPHYL GAS  
VIITNGR

>Q07837

MAEDKSKRDSIEMSMKGCQTNNGFVHNEDILEQTPDPGSSTDNLKHSTRGILGSQEPDFK  
GVQPYAGMPKEVLFQFSGQARYRIPREILFWLTVASVVLVIAATIAI IALSPKCLDWWQE  
GPMYQIYPRSFKDSNKDNGDLKGIQDKLDYITALNIKTWITSFYKSSLKDFRYGVEDE  
REVDPIFGTMEDFENLVAAIHDKGLKLIIDFIPNHTSDKHIWFQLSRTRTGKYTDYYIWH  
DCTHENGKTIPPNNWLSVYGNSSWHFDEVRNQCYFHQFMKEQPDNFRNPDVQEEIKEIL  
RFWLTKGVDGFSLDAVKFLLEAKHLRDEIQVNKTQIPDVTQYSELYHDFTTTQVGMHDI  
VRSFRQTMDOYSTEPGRYRFMGTEAYAESIDRTVMYYGLPFIQEADFPFNNYLSMLDVS  
GNSVYEVITSWMENMPEGKWPNNMIGGPDSSRLTSRLGNQYVNVMMMLLFTLPGTPITYY  
GEEIGMGNIVAANLNESYDINTLRSKSPMQWDNSSNAGFSEASNTWLPNTSDYHTVNVVDV  
QKTQPRSALKLYQDLSLLHANELLNLRGWFCFLRNDSHYVVYTRELDGRIDRIFIVVLNFG  
ESTLLNLHNMISGLPAKMRIRLSTNSADKGSKVDTSGIFLTKGEGLI FEHNTKNLLHRQT  
AFRDRCFVSNRACYSSVLNILYTSC

>Q9BRT9

MTEEVDFLGQDSDGGSEEVVLTPAELIERLEQAWMNEKFAPELLESKPEIVECVMEQLEH  
MEENLRRAKREDLKVS IHQMEMERIRYVLSYLRCLMKIEKFFPHVLEKEKTRPEGEPS  
SLSPEELAFAREFMANTESYLNVALKHMPNQLKVDLFRVAVPKPDLDSYVFLRVRERQE  
NILVEPDTDEQRDYVIDLEKGSQHLIRYKTIAPLVASGAVQLI

>Q9P7C8

MEWDADDLLIEPTTEVENDYEDLCTQWVNERMAPDLLPFAEEIVSRVLDRIEAQRETLQL  
AIGTSSATSYRSVLMQTELERVKFVLRSYMTRINKIDKYAQYIQSHPNLLLYLSSPERQ  
YLLRHQQIVHRHYMDSFLREVPKMNKLDKVGNLMSVSPDMDTAVFCVVNESVEENFR  
VSENEYITLTKGDVLIILRYSVISDYLRRLGVVSLI

>Q03406

MDINIDDILAELDKETTAVDSTKITQGSSTTHRDANTIVGSSLDLNDKTQIYVSPQQDF  
SDLMKSWKNERCPELLPYPHQLMKRLLNRISMQSQLIENISMGFLDMQNASNANPPMPN  
ESKPLLLCMETELERLKFVIRSYIRCRLSKIDKFSLYLRQLNEDENSLISLTDLLSKDEI  
KYHDTSLIWLKLVNDSILKYMPEELQAINDEGSVNMIDEPDWNKFVFIHVNGPPDGKW  
NEDPLLQENEFKPCYTVTIPDLKEEVELTIGSIYVMRYEVIRDLLRDDKVALI

>O94383

MGRLLRLEVENFKSYRGHQIIGPFEDFTSII GPNGAGKSNLMDAISFVLGVKSSHLRSTN  
VKELIYRGKILQRDNTDFTDSSNPTTAYVKLMYELDNGEQREYKRAITPSGATEYKIDEE  
IVTFSEYCGSLQKENILVRARNFLVFQGDVETIASQSPLLSKLVEQISGSLEYKSEYDK  
SKDEQDKAVNLSAHSFNKRGINAELRQYQEQKTEAERYQSQKEKRDSAQLVYLLWKLFLH  
LEKSISSNMAEVTRLKADSIQLIERRDENTKEIEKLKEKEGSIRRNLLAFDRKVRKQEKL  
IASKRPELISIAEKALESKSNLRKIQRKAAEIEKDYSQASTLQVLENQLTSLSAEKEF  
LKDMQEKEQLKGLRLLPEDKEEYEGLRSEADKLNSNLLFKLQTLNRNIKVTSQSKDSLTS  
IVGDLESKIKSLHESVSSLDTERADLLAKINEKIESLELEKHDQQKRLTYSELFHKTQE  
LNEELQSCQLKILEASADRNESKQDAKKREALYALKRIYPEVKGRIIDLCTPTQKKYESA  
IAAALGKNFDAIVVETQAVAKECIDYIKEQRIGIMTFFPMDTIAASPVNQKFRGTHKGAR  
LAIDVLNFESEYERVMI SAVGNTLICDSMTVARDLSYNKRLNAKTVTLEGTVIHKTGLIT  
GGSSNNRSKHWDDHDFDLTQTKDRLMHQIGEIEYQKSSCVITESDVTKLHSLESEISL  
LKDKYTVVSRVEDKKKEIGHYESLIKEKQPHLSELEMELRNFVKSRLDELQIQVEKVEEK  
IFSGFCKRIGISDIHTYDEIHRFTTQSFTQKQLEFTKQKSLENRISFEKQRVSDTRLRL  
ERMHKFIEKDQESIDNYEQNREALESEVATAEAELELLKEDFASENSKTEKILLAASEKK  
LVGKRLVSELTKLSGNITLLESEIDRYVSEWHAILRKCKLEDIDVPLREGSLTSSIPDDV  
SNSGDITMGEEPSEPVINFEKFGVEVDYDELDEELRNDGSESMASVLQEKLRREYSEELDQ

MSPNLRAIERLETVETRLAKLDEEFAAARKAAKNAKERFNAVKQKRLQKFQAAF SHISEQ  
IDPIYKELTKSPAFPLGGTAYLTLDDLDEPYLGGIKFHAMPPMKRFRDMDQLSGGEKTMA  
ALALLFAIHSYQSPFFVLDEIDAALDQTNVTKIANYIRQHASSGFQFVVISLKNQLFSK  
SEALVGIYRDQQENSSRTLSINVRDYFFLILKY

>P32908

MGRLVGLELSNFKSYRQVTKVGFGE SNFTS IIGPNGSGKSNMMDAISFVLGVR SNHLRSN  
ILKDLIYRQVLDNENSDDYDNEGAASSNPQSAYVKAFYQKGNKLVELMRIISRNGDTSYK  
IDGKTVSYKDYSIFLENENILIKAKNFLVFGQDVEQIAAQSPVELSRMFEEVSGSIQYKK  
EYEELKEKIEKLSKATESIKNRRRIHGELKTYKEGINKNEEYRKQLDKKNELQKFQALW  
QLYHLEQQKEELTDKLSALNSEISSLKGINNEMKSLQRSKSSFVKESAVISKQKSKLDY  
IFKDKEKLVSDLRLIKVPPQAAGKRISHIEKRIE SLQKDLQRQKTYVERFETQLKVVTRS  
KEAFEEEEIKQSARNYDKFKLNENDLKTYNCLHEKYLTEGGSILEEKI AVLNNNDKREIQEE  
LERFNKRADISKRRITEELSITGEKLDTQLNDLRVSLNEKNALHTERLHELKKLQSDIES  
ANNQEYDLNFKLRET LVKIDDL SANQRET MKERKLRENIAMLKRFFPGVKGLVHDLCHPK  
KEKYGLAVSTILGKNFDSVIVENLTVAQECIAFLKKQRAGTASFIPLDTIE TELPTLSLP  
DSQDYILSINAIDYEPEYEKAMQYVCGDSIICNTLNIAKDLKWKKGIRGKLV TIEGALIH  
KAGLMTGGISGDANNRWDKEEYQSLMSLKDKLLIQIDELSNQQRSNSIRAREVENS SVLL  
NSDIANLRTQVTQQRSLDENRLEIKYHNDLIEKEIQPKITELKKKLDDLENTKDNLVKE  
KEALQNNIFKEFTSKIGFTIKEYENHSGELMRQQSKELQQLQKQILTVENKQLQFETDRLS  
TTQRRYEKAQKDL ENAQVEMKSLEEQEYAIEMKIGSIESKLEEHKNHLDELQKKFVTKQS  
ELNSEDILEDMNSNLQVLKRERDGIKEDIKFDLERVTALKNCKISNINIPISSETTID  
DLPISSTDNEAITISNSIDINYKGLPKKYKENNTDSARKELEQKIHEVEEILNELQPNAR  
ALERYDEAEGRFEVINNETEQLKAEKKILNQFLKIKKKRKELFEKTFDYVSDHLDAIYR  
ELTKNPNSNVELAGGNASLTIEDEDEPFNAGIKYHATPPLKRFKDMEYLSGGEKTVAALA  
LLFAINSYQSPFFVLDEVDAALDITNVQRIAAAYIRRRHRNPDLQFIVISLKN TMFEKSDA  
LVGVYRQQQENSSKIITL DLSNYAE

>O93308

MGFLKLI EIEENFKSYKGRQIIGPFHRFTAIIGPNGSGKSNLMDAISFVLGEKTSNLRVKT  
LRDLIHGAPVGKPAANRA FVSMVYSEDSGEEKVFSRVIVGGSSEYKINNKV VQLSEYSDS  
LEKLGILIKARNFLVFGAVESIAMKNPKERTALFEEISRSGELAQ EYDKRKKEMVKAEE  
DTQFNYHRKKNIAAERKEAKQEKEEAERYQRLKDEVARAQIQLQLFKLYHNESEIEKLNK  
ELSVKNKGI EKDKKHMDKVEEELKDKKKELGKMMREQQAI EKEIKEKDAELNQLPQYIK  
AKENPSHKIKKFRAAKKSLQNAQKQYKRRKADMDELEKEMLSVEKARQEFEEERMEEESQS  
QGRDLTLEENQVKKYHRLKEEASKRAATLAQELEKFNRDQKADQDRLDLEERKKVETEAK  
IKQKLRELEENQKRIEKLEEYIATSKQSLEE QKNLEETLTEEVE MAKRRIDEINSELNQV  
MEQLGDARIDRQESSRQQRKAEIMESIKRLYPGSVYGR LIDL CQPTQKKYQIAVTKVLGK  
NMDAIIVDSEKTGRDCIQYIKEQRGEPETFLPLDYLEVKPTDERLRELK GAKLVIDVIRY  
EPPHIKKALQYACGNALVCDNVEDARRIAFGGHQRHKTVALDGT LTFQKSGVISGGASDLK  
AKARRWDEKAVDKLKEKKERLTELKEQMKAKRKEAELRQVQSQA HGLQMR LKYSQSDLE  
QTKTRHLAMNQEKSKLESELANFSPRINDIKRIIQSRDREM KDLKEKMNQVEDEVFEEF  
CREIGVRNIREFEEKVKRQNEIAKKRLEFENQKTR LGIQLDY EKNQLKEDQGKVQTWEQ  
SVKKDDNEIEK LKKEEQRHMKIIDETMAQLQDLKNQHLAKKSEVNDKNHLMEDI RKKLGS  
ANKEVTHLQKEVTAIETKLEQKRSDRHNL LQACKMSDIKLP LSKGTMDDISQEEGSSQGE  
ESASSQRSSTVYAKEALIEIDYSDLSEDLKDAVADDDIKQEMSALH QKINEQQSILQRI  
SAPNMKAMEKLESVRDKFQETSDEFEAARKRAKKAKQAFEQT KKERFDRFNACFESVATN  
IDEIYKALSRNSSAQAF LGPENPEEPLYLDGINYNCVAPGKRFRPMDNLSGGEKTVAALAL  
LFAIHSYKSPFFVLDEIDAALDNTNIGKVANYIKEQSMSNFQAI VIVISLKEEFYTKAESL  
IGVYPEQGDCVISKVLTFDLTKYDPANPNPND

>Q920F6

MGHLELLLVENFKSWRGRQVIGPFKRFTCIIGPNGSGKSNVMDALSFVMGEKTTNLRVKN  
IQELIHGAHTGKPVSSASVTIIYIEDSGEEKTFTRIIRGGCSEYHFGDKPVSRSVYVAQ  
LENIGIIVKAQNCLVFQGTVESISMKKPKERTQFFEEISTSGEFIGEYEAKKKKLQKAE  
DAQHFHNVKKNVAAERKHAKIEKEEAHYQNLLEELKINKIQLMLFQLYNEEKINVLNT  
ELEQMDGNLSVVKDTLSHHENIFKAKKKDYGMLTRQLQQTAKELKSVEAILNQKRPQYIK  
AKENTSHHLKLDLSDKLLITDNEKQCSKQEDGIRALVAELADLDRAWKSFEKQMEKILQ  
KGRDIELENSQLDRYKLLKEQVRRKVGIMTQQLEKLQWEQKAEKERLAFEKRRHGDTQGN  
LKQIKEQIEEHKKRIEKLEEYTKTCMDCLEDKKQEEALKKEIENTKSRMSEVNEELSLI  
RNELQNAGIDNHEGKRQKRAEVLEHLKRLYPDSVFGRLDLCHPIHKKYQLAVTKLFR  
YMVAIVVASEKIAKDCIRFLKAERAEPETFLALDYLDIKP INERLREIKGCKMMIDVIKT  
QFPQLKKVIQFVCGNGLVCETVEEARHIAFGGPERRKAVALDGTFLFLKSGVISGGSSDLK  
HKALCWDEKELHNLDRKRSQVLQELKELMKTLRKETDLKQIQTLVQGTNTRLKYSQNELE  
MIKKKHLATFYREQSQLQSELLNIDSQCTMLSEGINKQQQKIEEFQDKIDEVEDDIFQDF  
CEEIGVENIREFENKHVKQQQENDQKRLEFEKQKTRLNIQLEYSRNQLKKLNNIDTLKT  
TIQKGKEDIDNLKKTETEECLKIVEELMVKQEQIKEVLATQSSNIEKIHQIEEERKKVLA  
VDREVGKLQKEVVI IQGSLEQKLLKHNLLLDCKVQDIDISLVLGSLEDI IEMELTETES  
TQATADIYEKEASIQIDYSPLREDLQALQSDKEVEAHLTLLLQQVASQENTLLKTTAPNL  
RAQENLKTVRDKFQESADVFASRKEARICRQEFQVKKRRRYDAFSQCFEHISVSIDQIY  
KKLCRNNSAQAFSPENPEEPYLDGISYNVAPGKRFMPMDNLSGGEKCVAAALALLFAVH  
SFRPAPFFVLDEVDAALDNTNIGKVSSYIKEQSQEQFQMI IISLKEEFYSKADALIGVYP  
EHNECMFHVLTLDLSKYPDTEDQEGSRSHRKPRVPRVSMSPKSPQSR

>Q9C5Y4

MHIKEICLEGFKSYATRTRVVSFGFDPHFNAITGLNGSGKSNILDSICFVLGITNLQQVRAA  
NLQELVYKQGQAGITKATVSVTFDNSERHRSPGLGYEEHPEITVTRQIVVGGRNKYLINGK  
LAQPSQVQNLFHSVQLNVNPNHFLIMQGRITKVLNMKPP EILSMLEEAAGTRMYENKKEA  
ALKTLEKKQTKVDEINKLLDHEILPALEKLRKEKSQYMQWANGNAELDRLRRFCIAFEYV  
QAEKIRDNAVLGVGEMKAKLGKIDAETEKTQEEIQEFQKQIKALTQAKEASMGGEVKTLS  
EKVDSLQEMTRESSKLNKEDTLLGEKENVEKIVHSIEDLKKSVKERAAVKKSEEGAA  
DLKQRFQELSTTLEECEKEHQVLAGKSSGDEEKCLEQDLRDAKIAVGTAGTELKQLKTK  
IEHCEKELKERKSQLMKLEEAIEVENELGARKNDVEHVKKALESIPYNEGQMEALEKDR  
GAELEVVRQLEDKVRGLSAQLANFQFTYSDPVRNFDRSKVKGVVAKLIKVKDRSSMTALE  
VTAGGKLYDVVVDESDTGKQLLQNGALRRRVTI IPLNKIQSYVVQPRVQQATARLVGKDN  
AELALSLVGYSDDELKNAMEYVFGSTFVCKTTDVAKVAFNRDIRTPSVTLEGDIFQPSGL  
LTGGSRKGGGDRRLKLDLAEAESELQGHQKRLADVESQIKELQPLQMKFTDVYAQLELK  
TYDLSLFLKRAEQNEHHKLGEAVKKLEEELEEAQSQIKEKELAYKNCFDVAVSKLENSIKD  
HDKNREGRLKDLKNIKTIKAQMQAASKDLKSHENEKEKLVMEEEAMKQEQSSLESHTS  
LETQISTLTSEVDEQRAKVDALQKIHDESLAELKLIHAKMKECDTQISGFVTDQEKCLQK  
LSDMKLERKKLENEVVRMETDHKDCSVKVDKLVKHTWIASEKQLFGKGGTDYDFESCDP  
YVAREKLEKLQSDQSGLEKRVNKKVMAMFEKAEDYNALISKKNTIENDKSKITKVI EEL  
DEKKKETLKVTVWVKNQDFGSI FSTLLPGTMAKLEPPEDGNFLDGLVVRVAFGKVKVQSL  
SELSGGQRSLALSLILALLLFPAPPLYILDEVDAALDLSHTQNI GRMIRAHFPHSQFIV  
VSLKEGMFNANVLFRTKFDVGVSTVQRTVTKQTK

>P41003

MKIEELIIDGFKSYAVRTVISNWDDQFNAITGLNGSGKSNILDAICFVLGITNMSTVRAQ  
NLQDLIYKRGQAGITRASVTIVFNNDPASSPIGFENHPQVSVTRQIIMGGTSKYLINGH  
RALQQNVQNLFQSVQLNINPNFLIMQGRITKVLNMKATEILSMIEEASGTRMFEEERKEK

AFRTMQRKEAKVEEINTLLREEIEPRLTKLRTEKKTFFLEYQH IYNDLERLSHLCTAYDYY  
KLSLKVVEELTVQASQKHSHIAEMESSLQTSKQEVLLILKEKIKKIEDERMQRMSVSSDRTL  
DSQLQTVNENITRISTSIELKNTALEEEHGDLLQQIRGKAKELETLLRGRKRRLDEVLSVY  
EKRKDEHQSIKDFKSQEELISSLTGGLSTTEGHETGYSRKLHEARDTLNDFKAEEKETNR  
LKLEGLNKQISLTKPKKAEATKRCDQLNREIDILQNHVEKLLKMSLKNNTNSDITGEDVLQQ  
KLKQLAKDRGNLLNELDALSKLAYMEFTYTDPTPNFDRSKVGLVAQLLTLNEENYDKQ  
TALEITAGGRLYNLIVETEKIGAQLLQKGNLKRRTI IPLNKITSFVASAERVGAACKIS  
NNKAQLALELIGYDDELLPAMQYVFGSTLVCDTPESAKKVTFFHPSVKLKSVTLDGDVYDP  
SGTLTGGSVNKSAGPLLQIQKLNLSQLKLVVVTSEYEKLETQLKDLKTQANANFHRLEQEI  
QLKQHELTLLIEQRETSSFRLLSDYQQYKDDVKDLKQRLPELDRLILQSDQAIKKIERD  
MQEWKHNGSKMAELEKEFNQYKHLDEFPTILEKSENDYNGVKLECEQLEGELEQNHQQS  
LVQGESTTSLIKTEIAELELSLVNEEHNRRKLTTELIEIESAKFSGLNKEIDSLSTSMKTF  
ESEINNGELTIQKLNHEFDRLEREKSVAITAINHLEKENDWIDGQKQHFQGTIFDFHS  
QNMQRQCREQLHNLKPRFASMRKAINPKVMDMIDGVEKKEAKLRSMIKTIHRDKKKIQDTV  
KSIDRFKRSALEKTWREVNSSFGEIFDELLEPGNSAELQPPENKEFTDGLEIHVKIGSIWK  
DSLAEELSGGQRSLVALALIMSLKYPAPMYILDEIDAALDLSHTQNIQRLIKTKFKGSQ  
FIIIVSLKEGMFTNANRLFHVRFMDGSSVVQAR

>P50533

MHVKSIIIDGFKSYAQRTEINGFDPLFNAITGLNGSGKSNILDSICFLLGINSNLTQVRAS  
NLQDLVYKNGQAGITKATVSIITFDNYDKKQSPLGFEAHDEITVTRQVVIGGRNKYLINGV  
NANNTRVQDLFCVGLNVNPNHFLIMQGRITKVLNMKPPEILAMIEEAAGTRMYECKKIA  
AQKTIEKKEAKLKEIQTILEEEITPTIHKLKEERSSYLEYQKIMREIEHLSRLYVAYQFV  
CAEETKVRSAEELKEMQDSILKLQDTMAENERKVKELGKEIAELEKMRDQEVGGALRSLE  
EALSEAQRADTKVQSALDLKQNMKAEREKRRKELVKSMEEDAKVLTAKEKEVKKITDGL  
SSLQEASQKDVEAFTSAQQHFNAVSAGLSSNEDGEATLAGQMMACKNETSKAE TEAKQA  
QMKLKHAAQQLKTKQAEVKKMDGGYKKNDAFEAVKKSKEKLEVEMKKLNYEDGREEQLL  
EKRRGLSRDVNRLREAYESLMARFPNLQFEYKDPEKNWSDRVKGLVASLISIKDVSTAT  
ALEVVAGGRLYNVVVDTEVTGKKLLEKGEKRRFTI IPLNKISARCLGKDTVNVAKNLVG  
ADNVNLALSLVGYESELQKAMEYVFGTTLVCDTMDNAKVTFFDKRIMTKTVTLGGDTFDP  
QGTLSGGARSQNASVLVRLQELKDVQDELKAKETELQEVKELMTLKN TVERYRQLKQQW  
EMKSEEAELLQTKLQQSSYHKQQEELDLSLKQTIIEESEETLKN TKEVQKKAEEKFKVLEHK  
MKNAAEAERERELKEAQQLD T AKKADASNKKMKEKQQEV DALVLELEELKREQT TYKQQ  
IETVDEAMKAYQEQADSMASEVSKNKEAVKKAQDELAKQKEIIMGHDKEIKTKSSEAGKL  
RENNNDLQLKIKELEHNI SKHKKDSADAAAKVAKMLNDYEWIASEKHLFGQANTAYDFKT  
NNPKEAGQRLHKLQEKKEKLG RNVNMRAMNMLTQAEERYNDLMKRKRIVENDKSKILT TI  
EELDQKKNEALNIAWQVKNKDFGSI FSTLLPGANAMLAPPEGQSVLDGLEFKVALGNTWK  
ENLTELSSGGQRSLVALSLILAMLLFKPAPIYILDEVDAALDLSHTQNIQMLRTHFRHSQ  
FIVVSLKDGMFNNANVLFKTKFVDGVSTVARFAQNQNGSSAGQQRSDKSKTKERRNRME  
VDK

>P38989

MKVEELIIDGFKSYATRVTITDWDPPQFNAITGLNGSGKSNILDAICFVLG IASMSTVRAS  
SLQDLIYKRGQAGVTKASVTIVFDNTDKSNSPIGFTNSPQISVTRQVVLGGT SKYLINGH  
RAPQQSVLQLFQSVQLNINPNF LIMQGKITKVLNMKPSEILSLIEEAAGTKMFEDRREK  
AERTMSKKETKLOENR TLLTEEIEPKLEKLRNEKRMFLFQSTQTDLEKTERIVVS YEYY  
NIKHKHTSIRETLENGETRMKMLNEFVKKTSEEIDSLNEDVEEIKLQKEKELHKEGTISK  
LENKENGLLNEISRLKTSLSIKVENLNDTTEKSKALESEIASSSAK LIEKKSAYANTEKD  
YKMQEQELSKQRDLYKRKEELVSTLTG I SSTGAADGGYNAQLAKAKTELNEVSLAIKKS  
SMKMELLLKELLTIEPKLKEATKDNELVKHVKQCQETCDKLRARLVEYGFDP SRIKDLK

QREDKLSHYQTCKNSEYLKRRVTNLEFNYPYPNFEASFVHGVVGLFQIDNDNIRY  
ATALQTCAGGRLFNVVVQDSQTATQLLERGRLRKRVTIIPLDKIYTRP ISSQVLDLAKKI  
APGKVELAINLIRFDESITKAMEFIFGNSLICEDPETAKKITFHPKIRARSITLQGDVYD  
PEGTLSSGSRNTSESLLDVIQKYNQIQKQIETIQADLNHVTEELQTOYATSQKTKTIQSD  
LNLSLHKLKDLAKRNLNLDANSSQIIARNEEILRDI GECENEIKTKQMSLKKCQEEVSTIEK  
DMKEYSDKSGSKLNELKELKLLAKELEEQESESERKYDLFQNLLELETEQLSSELDNKT  
LLHNHLKSIESLKLNSDLEGGIRGVEDDLVTVQTELNEEKKRLMDIDDELNELETLIKK  
KQDEKKSSELELQKLVHDLNKYKSNNTNMEKIIEDLRQKHEFLEDFDLVRNIVKQNEGID  
LDTYRERSKQLNEKFQELRKKVNPNIIMMIENVEKKEAALKTMIKTIEKDKMKIQETISK  
LNEYKRETLVKTWEKVTLDFGNIFADLLPNSFAKLVPCGKDVTOGLEVKVKLGNIWKES  
LIELSGGQRSLIALSLIMALLQFRPAPMYILDEVDAALDLSHTQNIGHLIKTRFKGSQFI  
VVSLKEGMFANANRVFRTRFQDGTSSVVSIM

>O42649

MYITKIVIQQFKSYKDYTVIEPLSPHHNVIVGRNGSGKSNFFAAIRFVLSDAYTHLSREE  
RQALLHEGPGATVMSAYVEVTFANADNRFPPTGKSEVVLRRRTIGLKKDEYSLDKKTVSKTE  
VINLLESAGFSRSPNYIYVQGRVTSLTNAKDSELELLKEVAGTQIYENRRAESNKIMD  
ETIQKSEKIDELLQYIEERLRELEEEKNLAVYHKKDNERRCLEYAIYSREHDEINSVLD  
ALEQDRIAALERNDDSGAFIQREERIERIKAEITELNHSLELLRVEKQONDEDYTNIMK  
SKVALELQSSQLSRQIEFSKDESSKLNILSELESKISEKENELSEILPKYNAIVSEADD  
LNKRIMLLKNQKQSLLDKQSRSTSQFTTKKERDEWIRNQLLQINRNINSTKENS DYLKTEY  
DEMENELKAKLSRKKEIEISLESQGD RMSQLLANITSINERKENLTDKRKSLWREEAKLK  
SSIENVKDDLRSSEKALGTTMDRNTSNGIRAVKDAERLKLLEGYYGPLCELFKVDNRFKV  
AVEATAGNSLFHIVVDNDETATQILDVIYKENAGRVTFMPLNKL RPKAVTYPDASDALPL  
IQYLEFDPKFDAAIKQVFSKTIVCPSIETASQYARSHQLNGITLSGDRSDKKGALTAGYR  
DYRNSRLDAIKNVKTYQIKFSDLQESLEKCRSEIESFDQKITACLDDLQKAQLSLKQFER  
DHIPLKDELVTITGETTDLQESMHKSRMLELVVLELHTLEQQANDLKSELSSEMDELDP  
KDVEALKSLSGQIENLSHEFDAI IKERAHIEARKTALEYELNTNLYLRRNPLKAEIGSDN  
RIDESELNSVKRSLKYEKQLQIIKSSSSGLEEQMQRINSEISDKRNELESLEELQHEVA  
TRIEQDAKINERNAAKRSLLLARKKECNEKIKSLGVLPEEAFIKYVSTSSNAIVKKLHKI  
NEALKDYGSVNKKAYEQFNNFTKQRDSSLARREELRRSQESISELTTVLDQRKDEAIERT  
FKQVAKSFSEIFVKLV PAGR GELVMNRRSELSQSIEQDISMIDTSPQKSSIDNYTGISI  
RVSFNSKDDEQLNINQLSGGQKSLCALTLIFAIQRCDPAPFNILDECDANLDAQYRSAIA  
AMVKEMSKTSQFICTTFRPEMVKVADNFYGVFMFNHKVSTVESISKEEAMAFVEG

>O93309

LKKYSHVNKKALDQFVNFSEQKEKLIK RQEELDRGHK SIMELMNVLELRKYEAIQLTFKQ  
VSKNFSEV FQKLVPGGRPLLVMKKGDVEGSQSQDEGE GSAQSSVPSFDQFTGVGIRVSFT  
GKQAEMREMQQLSRGQKSLVALRLIFAIQKCDPAPFYLFDEIDQALDAQHRKAVSDMIME  
LASHAQFITTTFRPELLESADKFYGVKFRNKVSHIDVITAEQAKDFVEDDTTHG

>P47037

MYIKRVI IKGFKTYRNETIIDNFSPHQNVIIGSNGSGKSNFFAAIRFVLSDDYSNLKREE  
RQGLIHQSGGSVMSASVEIVFHDPDHSMILPSGVL SRGDDEV TIRRTVGLKKDDYQLND  
RNVTKGDIVRMLETAGFSMNPNYINVPQGKIVALTNADKERLQLEDDVVGAKSFVVKLK  
ASLKKMEETEQQKIQINKEMGELNSKLSEMEQERKELEKYNELERNRKYQFTLYDRELN  
EVINQMERLDGDYNNNTVYSSEQYIQELDKREDMIDQVSKKLSSIEASLKIKNATDLQQA  
LRESEISQKLTNVNVIKDVQQQIESNEEQRNLD SATLKEIKSIEQRKQKLSKILPRYQ  
ELTKEEAMYKQLASLQKQRDLILKKGEYARFKSKDERDTWIHSEIEELKSSIQNLNEL  
ESQLQMDRTSLRKQYSAIDEEIEELIDSINGPDTKGQLEDFDSEL IHLKQKLSSESLDTRK

ELWRKEQKLQTVLETLSDVNQNRVNETMSRSLANGI INVKEITEKLIKISPEVFGTL  
GELIKVNDKYKTCAEVIGGNSLFHIVVDTEETATLIMNELYRMKGGRVTFIPLNRLSLDS  
DVKFPSNTTQIQFTPLIKKIKYEPRFEKAVKHVFGKTIIVKDLGQGLKLAKKHLNAIT  
LDGDRADKRGVLTGGYLDQHKRTRLESLSKLNLESRSQHKKILEELDFVRNELNDIDTKID  
QVNGNIRKVSNDRESVLTNIEVYRTSLNTKKNEKLILEESLNAILKLEKLNTRNRTFAQE  
KLNTFENDLLQEFDSSEKKEERLESSTKEISAAHNKLNITSDALEGITTTIDSLNAEL  
ESKLIPQENDLESKMSEVGDAFIFGLQDELKELQLEKESVEKQHENAVALGTVQREIES  
LIAEETNNKLLLEKANNQORLLKLDNFQKSVKTMIKKTTLVTRREELQQRIREIGLL  
PEDALVNDFSDITSDQLLQRLNDMNTESISGLKNVKNRAFENFKKFNERRKDLAERASELD  
ESKDSIQDLIVKLLKQKVNVDSTFQKVSSENFVAVFERLVPRGTAKLI IHRKNDNANDHD  
ESIDVMDAESNESQNGKDEIMYTGVSISVSFNSKQNEQLHVEQLSGGQKTVCAIALIL  
AIQMVPDPAFYLFDEIDAALDKQYRTAVATLLKELSKNAQFICTTFRDMLQVADKFFRV  
KYENKISTVIEVNRREEAIGFIRGSNKFAEV

>Q9FJL0

MEEDEPMGGGESEPEQRKSGTPRLYIKELVMRNFKSYAGEQRVGPFHKSFSAVVGPNGSG  
KSNVIDAMLFVFGKRAKQMRNLNKVSELIHNSSTNHQNLDSAGVSVQFEEIIDLINGLYETV  
PGSDFMITRVAFRDNSSKYYINERSSNFTEVTKKLKGKGVLDLNNRFLILQGEVEQISLM  
KPKAQGPHDEGFLEYLEDIIGTNKYVEKIDELNKQLETLNESRSGVVQMVKLAEKERDNL  
EGLKDEAETYMLKELSHLKWQEKATK MAYEDTVAKITEQRDSLQNLNSLKDERVERKMD  
NEELKKFESVHEKHKRQEVLDNELRACKEKFEFERQDVKHREDLKHVKQKIKKLEDKL  
EKDSSKIGDMTKESEDSSNLI PKLQENIPKLQKVLLEDEKKLEEIKAIKAVTEGYRSEL  
TKIRAELEPWEKDLIVHRGKLDVASSESELLSKKHEAALKAFTDAQKQLSDISTRKKEKA  
AATTSWKADIKKKKQEAIEARKVEEESLKEQETLVPQEQAAAREKVAELKSAMNSEKSQNE  
VLKAVLRAKENNQIEGIYGRMGDLGAIDAKYDVAISTACAGLDYIVVETTSSAQACVELL  
RKGNLGFATFMILEKQTDHIHKLKEKVKTPEDVPRFLDLVRVKDERMKLAFYAALGNTVV  
AKDLQDQATRIAYGGNREFRRVVALDGFELKSGTMSGGGGKARGGRMGTSIRATGVSGEA  
VANAENELSKIIVDMLNNIREKVGNAVRQYRAAENEVSGLEMELAKSQREIESLNSEHNYL  
EKQLASLEAASQPKTDEIDRLKELKKIISKEEKEIENLEKGSKQLKDKLQTNIENAGGEK  
LKGQKAKVEKIQTIDIDKNNTIENRCNVQIETNQKLIKLLTKGIEEATREKERLEGEKENL  
HVTFKDITQKAFFIETQYKKTQQLIDEHKDVLTGAKSDYENLKKSVDELKASRVDAEFKV  
QDMKKKYNELEMREKGYKKKLNLDLQIAFTKHMEQIQKDLVDPDKLQATLMDNNLNEACDL  
KRALEMVALLEAQLKELNPNLDSIAEYRSKVELYNGRVDELNSVTQERDDTRKQYDELK  
RRLDEFMAGFNTISLKLKEMYQMITLGGDAEELVDSLDPFSEGVVFSVRPPKSWKNIA  
NLSGGEKTLSSLALVFALHHYKPTPLYVMEIDAALDFKNVSI VGHYVKDRTKDAQFII  
SLRNNMFELADRLVGIYKTDNCTKSITINPGSFAVCQKTPA

>Q20060

MPPKTSAPPQSDSDSDFDDAPVKKPQKKTTPVNRHKEGSKDPEEELQRAVNEKFDGS  
DGEDDDSLFSLQLPSRPDFLTKPNRADRLMIRNVEVDNFKSYFGKASIGPFHKSFTSII  
GPNGSGKSNLIDSLFVFGFRASKIRSAKVSNLIHKSAGRNPDKCTVTIHFQRIVDIPGH  
YEVVKDSEFTISRFAFQNNSSSYAIDGRPATKNEVEARLRRVDIDIEHNRFLILQGEVEQ  
IAMMKPVKTTKSETGMVEYLEDIIGTNRLEPFVKLFQRRVNRLTCDLSQQRIARDHARNS  
KVAMENPVRAAIEFLMKENEATTIHMKLEQRRRQRYLDKIAPKQAE LDKMKEEMKSIAET  
LDTNKNEYKQSEEAQKVMIEERSKLDKNFDSLKELSDLGTEETRRKEALKRHQANISKA  
EAEKEKEVKKRSNLEAAPEKAERKIAKQEEVEQLEIEKTANEADKNLDEFEKRSEAP  
KEEQKKIQETWAQKSNEFNKVRGEARIAEDFEDLKKLANSGETDKLIELKKRLESSEESY  
AKEKDELDKLKEPFDSDWDLKQLSTELPTLRNTARQKNQDLAKTRDRLET LRQQNSSCS  
SSNKVIQALMKEKEAGRIKSFHGRGLDGLVIDPKYEGAICTNFGARLNYLIVGKEEDAKN  
VINFLVANKLPRQTVQPLDKIKCDKRD LAPNPTNPLPAPRLIDLIDCDPVLKPAFYDMVR



SAIVGDSTQEAQRMHRMPACRGVTVCTLEGSMIHPSGSFTGGGKTVKGLILTDKNKMAQ  
VTPEDKAAERDLAEKLGKLRDEADELKGQEHMDGQLIEARRKVAEMSNRLSIVTSSVQS  
AAPAIETLKKTIANQEKEAAKVVDKDTLEDKQKIVEELEKKRDELGEEAAKVKAQAEI  
QSKLDGIFKELVQCHRDEAKESLQKRQKLEKDI AKETANISNSGRNIAKCDENISRHDKD  
IEKMKKKCEELMEKAIDDEEVKSKKETVERFEKQIKKLQTKGEMTKKQSELSSAAETKLE  
GELKKCSEGIKELKESMLADRLKVEDIEKKLAALKVNRIPRFQFLIESSRPEDLEMQIDD  
KMPVV DENQSPEEVERQKKHMACVMSDAAYALEFEMRQKVLENTESYENV DGEDRVPVEL  
LSDEKINEISSRDAEEMQMKLKVC EQQVEALKAKVDISSIKAYVDKVKQYNEQVIKLTIA  
TEVHRKHNLQELQRIKQMRLEEFHSAFEF IGKHLVAVFKMLTDGGDAKLEYIDKDDPFRQ  
ISFMVRPAKKAWKQIQFLSGGEKTLSSLALIFALHMFRTPFYVMDEIDAALDYRNVSII  
AQYVRQKTENAQFIIISLRNNMFELANRLVGIYKVDGCTRNV AIDPLRVCEMAKQITDSL  
GQATCTLPDEVTQRFNETMSRQNKEMIAQEKQYPNFPSSNEISKA EKIVNVEGRVRKELI  
QTTTRDVTSRPQSKATTSGDTERPASRSASRPESRINQMKY PAPRLVERSSSQNVRSPRK  
ARNIEADETTPPSKRSNSASTPKRSPMKPLTPSSKKKEKAI VDDDDDDME

>P41004

MSDKGIFRTSSTPSIVDVTPDRGERPRKLVR SVLES PPSQKDVASIVKIEQTPSRPFFNDF  
LKKRITDSLNERPNLLNKFM SAQDGTSPKSTGFNERSSQLVSEFTTTEDIENCEETTQVL  
PPRLVVYELRLTNFKSYAGTQIVGPFHPSFSSIVGPN GSGKSNVIDALLFVFGFRASKLR  
QSKASALIHKSATHPSLDSCDVEITTFKEVNSDFTYVDGSELTVRRTAYKNNTSKYFVNGV  
ESSFSAVSNLLKEKGIDLNHKRFLILQGEVESIAQMKPRAISEGDDGLLEYLEDIIGTSK  
YKPIIEENMQELSNSDDICA EKESRLKLV LSEKAKLEDSKNSVLSFLK DENELFMKQNQL  
YRTILYETRNNKTLVQNLLNSLEGKLAHLEKFEQTERDISEKN EEVKSLREKAAKVND  
CTSEKKTRQSYEQQTVKIEEQKLFLLNKEKKLKSIEALSFEKSEAENSLSSH DIDSQKL  
NSEIADLSRLRQQEELSLDDIRKSLQGKTEGISNAIEEKQKAMAPALEKINQLTSEKQIL  
QVELDMLLNKENDLINDVESSQSSLDKLRNDAAEENRNILSSKLVLSDLKGEKKDVSKNI  
ERKKETVHNTYRNLMSNRTKLEEMKASLSSSRSGNVLES LQRLHESDNLNGFFGRLGDL  
ATIDEAYDVAI STACPALNHIVVDNIETGQKCVAF LRSNNLGRASF IILKELAQKNLARI  
QTPENVPRFLD LRLRFNDQKFAPAFYNVLQNTLVAKNLEQANRIAYGKTRWRVVTLSGQLI  
DKSGTMTGGGTRVKKGGMSSAITSDVSPASVETCDKQVQLEDTRYRQH LSELESLNQRFT  
EISERIPSAELEISKLQLDVSACDRLVAGEERRILQLKSDLKSIRNNNERKRN LQNKISN  
MDKEVEAININNEGLVTEIKTLQDKIMEIGGIRYRIQKSKVDDLHEQLKFVKDKLNKMSF  
KKKKNEQRSQSFQVELSNLTSEYDTTTESIATLKT ELQSLNKYVDEHKSRLREFENALWD  
INSSIDELVKFIEFESKQMN SVKAERIELENQIQEQRTALSEVGN NENKYLKLSNLK LKH  
NLTEFCDQTTMDSTFP EYSEDELSSVDKSELVSNISVLK KKTEDREVDINVLSEYRRCNK  
EAEKRDSDYQSELQKRTDLKKVVTDLQSQRLDEFMYGFGIISM KLKEMYQIITMGGNAEL  
ELVDSLDPFSEGVLF SVMPPKKS WKNISNL SGGEKTLSSLALVFALHNYKPTPLYVMDEI  
DAALDFKNVSI VANYIKERTKNAQFIVISLRSNMFELSSRLVGIYKTANMTKSVTINNKE  
ILTD

>P50532

MPPKKTSTAVAREATESPMAERSRAPDALQADPPAPTQESNNELVDSRSLEEILSGIP  
PPPPAMTNEAGAPRLMITHIVNQNFKSYAGERILGPFH KRFSICIIGPN GSGKSNVIDSM  
LFVFGYRAQKIRSKKLSVLIHNSDEHKDVQSC TVEVHFQKIIDKEGDDFEVIPNSNFYVS  
RTAYKDNSSVYHISGKKATFKDVGLLLRSHGIDL DHNRFLILQGEVEQIAMMKPKGQTEH  
DEGMLEYLEDIIGSERLKEPIQILCRRV ELLNEQRGEKLN RVKMVEKEKDALEGEKNKAI  
EFLTVENETFKKKNQLCQYYIHDLQKR SRDKEAQKEKIQEDTKDISEKSN TLEETMKEKN  
KALKDVEKQLNKITKPIEENREKFTQLDLQD VDTREK LKH SKSKVKKLQKQLQKDK EKVD  
ELKNVPANSQKIIA EETNKKDLLEKQKEKEEEEK LKNVMDSLKKETQGLQEEKEVKEKELM  
EISKTVNEARSKMDVAQSELDIYLSRHNSALS QLNKAKEALNTASATLKERRAAIKELET

KLPKDEGLKKREKELESVSEEGNIKNQVREL RQKVEEARSSLSANRSRGKVL DALIQQ  
KKS GKI PGIFGRLGDLGAIDEKYDVAISSSSCGALDHIVVDTIDTAQECVNF LKKQNVGVA  
TFI GLDKMKVWEKGLNKIQTPENIPRLFDMVKVKDEQIKPAFYFALRDTIVANNLDQATR  
VAFQKDKRWRVVTLQGGQIIIEQSGTMTGGGGKVMKGRMGSSVMVEISDDQLQK MENK LKTD  
TTRATEIQDRKAHLEEEVAKLRQATREMKNTFEKYTASLQSLSEQEVHLKAQVKELEVNV  
AAAAPDKNQKQMEKNLETLKKEYEKVAEKAGKVEAEVKRLHKLIVDINNHLKKAQQDKL  
DKVTKEIDECASAITKAQVSIKTADRNLK KSEEAVARTEKEIVANDKSI EELTEDLKKLE  
EKATTVMNECKEAECSLPEVQEQHRSLLOEIKAIQEKEHALQKEALNIRLNIEQIDSHIA  
EHQSKIKYWQKEITKISLHKIEDIPEEVLPLGLAQEELEAIKDPDQIINQIALLEAKSHEM  
KPNLGAIAEYK KKEELYLQ RVAELDEITNERDSFRRAYEDLRKQRLNEFMAGFNIITNKL  
KENYQMLTLGGDAEELVDSLDPFSE GIMFSVRPPKKS WKKIFNLSGG EKTLSSSLALVFA  
LHHYKPTPLYFMDIDAALDFKNVSVIVAFYIYEQT KNAQFIIISLRNNMFEIADRLIGIY  
KTHNTTKSVATNPKIIAAKGLAEMQSVGCA

>Q12267

MSDSPLSKRQKRKSAQEP ELSLDQGDAAEEDSQVENRVNLS ENTPEPDLPALEASYSKSYT  
PRKLVLS SGENRYAFSQPTNSTTTSLHVPNLQPPKTS SRGRDHKSYSQSPPRSPGRSPTR  
RLELLQLSPVKNSRVELQKIYDRHQSSSKQQSRLFINELVLENFKSYAGKQVVGPFHTSF  
SAVVGPN GSGKSNVIDSMLFVFGFRANKMRQDRLSDLIHKSEAFPSLQSCSVAVHFQYVI  
DESSGTSRIDEEKPGLIITRKA FKNNSKSKYYINEKES SYTEVTKLLKNEGIDL DHRFLI  
LQGEVENIAQMKPKAEKESDDGLLEYLEDIIGTANYKPLIEERMGQIENLNEVCLEKENR  
FEIVDREKNSLESGETALEFLEKEKQLTL LRSKLFQFKLLQSN SKLASTLEKISSNKD  
LEDEKMKFQESLKKVDEIKAQ RKEIKDRISSCSSKEKTLVLERRELE GTRVSL EERTKNL  
VSKMEKAEKTLKSTKHSISEAENMLEELRGQQTEHETEIKDLTQLLEKERSILDDIKLSL  
KDKTKNISAEIIRHEKELEP WDLQLOEKESQIQ LAESEL SLEETQAKL KKNVETLEEKI  
LAKKTHKQELQDLILD LKKKLNLSLKDERSQGEKNFTSAHLK LKEMQKVLNAHRQRAMEAR  
SSLSKAQNKSKVLTAL SRLQKSGRINGFHGRLGDLGVIDDSFDVAISTACPRLDDVVVDT  
VECAQHCIDYLRKNKLG YARFILLDRLRQFNLP ISTPENVPRLFDLVKPKNP KFSNAFY  
SVLRD TLVAQNLKQANNVAYGKKRFRVVTVDGKLIDISGTM SGGGNHVAKGLMKLGTNQS  
DKVDDYTP EEVDKIERELSERENNF RVASDTVHEMEEELK KLRDHEPDLESQISKAEMEA  
DSLASELTLAEQQVKEAEMAYVKA VSDKAQLNVVMKNLERLRGEYNDLQSE TKTKKEKIK  
GLQDEIMKIGGIKLQMQNSKVESVCQKLDILVAKLKKVKSASKKSGGDVVKFQKLLQNSE  
RDVELSSDELKVIEEQ LKHTKLALAEENDTNMNETLNLKVELKEQSEQLKEQMEDMEESIN  
EFKSIEIEMKNKLEKLN SLLTYIKSEITQQEKGLNELSIRDVTHTLGMLDDNKMDSVKED  
VKNNQELDQ EYRSCETQDESEIKDAETS CDNYHPMNIDETSDEVS RGI PRLSEDELRELD  
VELIESKINELSYVEETNVDIGVLEEYARRLAEFKRRKLDLNNAVQKRDEVKEQLGILK  
KKRFDEFMAGFNIISMTLKEMYQMITMGGNAE LELVDSLDPFSEGVTF SVMPPKKSWRNI  
TNLSGG EKTLSSSLALVFALH KYKPTPLYVMDEIDAALDFRNVSIVANYIKERTKNAQFIV  
ISLRNNMFELAQQLVGVYKRDNRKSTTIKNIDILNRT

>Q8IY18

MATPSKKTSTPSPQPSKRALPRDPSSEVPSKRKNSAPQLPLLQSSGPFVEGSIVRISMEN  
FLT YDICEVSPGPHLNMIVGANGTGKSSIVCAICLGLAGKPAFMGRADKVGFFVKRGCSR  
GMVEIELFRASGNL VITREIDVAKNQSFWFINKKSTTQKIVEEKVAALNIQVGNLCQFLP  
QDKVGEFAKLSKIELLEATEKSIGPPEMHKYHCELKNLREKEKQLETSCKEKTEYLQKMV  
QRNERYKQDVERFYERKRHLDLIEMLEAKRPWVEYENVRQ EYEEVKLV RDRVKEEVRK LK  
EGQIPVTCRIEEMENERHNLEARIKEKATDIKEASQKCKQKQDVI ERKDKHIEELQQALI  
VKQNEELDRQRRIGNTRKMI EDLQNELKTTENCENLQPQIDAITNDLRRIQDEKALCEGE  
IIDKRRERETLEKEKKSVDHIVRFDNLMNQKEDKLRQRFRD TYDAVLWLRNNRDKFKQR  
VCEPIMLTINMKDNKNAKIENHIPSNDLRAFVFESQEDMEVFLKEVRDNKKLRVNAVIA

PKSSYADKAPSRSLNELKQYGFSSYLRELFDA PDPMVMSYLCCQYHIHEVPVGTEKTRERI  
ERVIQETRLKQIYTAEEKYVVKTSFYSNKVISSNTSLKVAQFLTVTVLDLEQRRHLEEQLK  
EIHRKLQAVDSGLIALRETSKHLEHKDNELRQKKKELLERKTKKRQLEQKISSKLGSLKL  
MEQDTCNLEEEERKASTKIKEINVQKAKLVTEL TNLIKICTSLHIQKVDLILQNTTVISE  
KNKLESDYMAASSQLRLTEQHFIELDENRQRLQKCKELMKRARQVCNLGAEQTL PQEYQ  
TQVPTIPNGHNSSLPMVFQDL PNTLDEIDALLTEERSRASCFTGLNPTIVQEYTKREEEI  
EQLTEELKGGKVELDQYRENI SQVKERWLNPLKELVEKINEKFSNFFSSMQCAGEVDLHT  
ENEEDYDKYGIRIRVKFRSSTQLHELTPHHQSGGERSVSTMLYLMALQELNRCPPFRVDE  
INQGMDPINERRVFEMVNTACKENTSQYFFITPKLLQNL PYSEKMTVLFVYNGPHMLEP  
NTWNLKAFQRRRRRITFTQPS

>Q96SB8

MAKRKEENFSSPKNAKRPRQEELEDFDKDGEDECKGTTLTAAEVGIIESIHLKNFMCHS  
MLGPFKFGSNVNFVVGNNSGKSAVLTALIVGLGGRAVATNRGSSSLKGFVKDQNSADIS  
ITLNRNGDDAFKASVYGN SILIQQHSIDGSR SYKLSATGSVVSTRKEELIAILDHFNI  
QVDNPVSVLTQEMSKQFLQSKNEGDKYKFFMKATQLEQMKEDYSYIMETKERTKEQIHQ  
EERLTELKRQCVEKEERFQSIAGLSTMKTNLESLKHEMAWAVVNEIEKQLNAIRDNIKIG  
EDRAARLDRKMEEQQVRLNEAEQKYKDIQDKLEKISEETNARAPECMALKADVVAKKRAY  
NEAEVLYNRSLNEYKALKKDDDEQLCKRIEELKSTDSLEPERLERQKKISWLKERVKAF  
QNQENSVNQEIEQFQQAIEKDKEEHGKIKREELDVKHALSYNQRQLKELKDSKTDR LKRF  
GPNVPALLEAIDDAYRQGHFTYKPVGPLGACIHLRDP ELALAI ESCLKGLLQAYCCHNHA  
DERVLQALMKRFYLPGTSRPP IIVSEFRNEIYDVRHRAAYHPDFPTVLTAL EIDNAVVA  
SLIDMRGIETVLLIKNNSVARAVMQSQKPPKNCREAFTADGDQVFAGRYYSSENTRPKFL  
SRDVDSEISDLENEVENKTAQIILNLQOHL SALEKDIKHNEELLKRCQLHYKELKMKIRKN  
ISEIRELENI EEHQSVDIATLEDEAEQENKSKMKMVEEHMEQQKENMEHLKSLKIEAENKY  
DAIKFKINQLSELADPLKDELNLADSEVDNQRGKRHYEEKQKEHLDTLNKKKRELDMKE  
KELEEKMSQARQICPERIEVEKSASILDKEINRLRQKIQAEHASHGDREEIMRQYQEA  
RETYLDLDSKVRTLKKFIKLLGEIMEHRFKTYQQFRCLTLRCKLYFDNLLSQRAYCGKMN  
FDHKNETLSISVQPGEGNKA AFNDMRALS GGERSFSTVCFILSLWSIAESPFRCLDEFD  
VYMDMVNRRIAMD LILKMADSQRFRQFILLTPQSMSSLPSSKLIRILRMSDPERGQTTL  
PFRPVTQEEDDDQR

>Q46337

MSQNTSYRLPAEQSPAARIDRGEALVLTVDGKQLEAFRGDTVASAMLANGQRACGNSMYL  
DRPRGIFSAGVEEPNALVTVEARHEQDINESMLAATTPVPTANLSATLLRGLGVLDPSTD  
PAYYDHVHVHTDVLVVGAGPAGLAAAREASRSGARVLLLDERAEAGGSLRDAAGEQIDGQ  
DAAAWIDATVAELAAAEEETHLQRTTVLGSYDANYVVAVQRRTVHLDGPGSAGVSRERI  
WHIRANQVVLATGAHERP I VFENDRPGIMLAGAVRSYLN CYGVRAGSQIVVAT TND  
SAYPLVADLAASGGVVAVIDARTTVSAAAAEAVGAGVRVITGSVVVDTEANESGELSA  
VIVAELEGDRELGE PQRF EADVLA VAGGFNPVHLHSRQRGKLVWDTSIHAFVPDAAVA  
NQHLGAL TGLFDTASALSTGAAVGA AAAATAAGFERIAQVPQALPVPAGETRPVWL  
VPSLNGDQATNYTTHFVDLQRDQTVSDVLRATGAGLESVEHIKRYT S I STANDQ  
GKTSGVAAIGVIAAVLGIENPAEIGTTTFRAPYTPVAF AALAGRTRGELLDPARITP  
MHSWHLAQGAKFEDVGQWKR AWYFPQDGEDMDAAVYRECAAVRESVGM LDATTLG  
KIEIRGADAAEF LNR IYTNGYTKLKVGMARYGVMCKADGMVFDGVTLR LAEDR  
FLMHTTTGGAAGVLDWLEEWLQTEWPELDVCTSVTEQLATVAVVGP RSRD  
VVAKLV TGLDVSND AFK FMSFQDVTLD SGIEARISRISFS GELAYEIAIP  
SWHGLRVWEDVYAAGQEFNITPYGTETMHVLR AEKGF IIVGQD TDGT VTP  
QDAGMEWVVS KLKDFV GKRSFSREDNLREDRKH LVS VLPVDTALRLAEGAAL  
VADGAVET EGCTPMEGWVTSSYNSPALGRTFGLALIKNGRSRIGEV LKTPVNG  
QLVDV LVS D L V L F D P EGSRRDG

>P40875

MADLLPEHPEFLWANPEPKKSYDVVIVGGGGHGLATAYYLAKNHGITNVAVLEKGWLAGG  
NMARNTTIIRSNYLWDESAGIYEKSLKLWEQLPEELDYDFLFSQRGVLNLAHTLGDVRES  
VRRVEANKFNQVDAEWLTPEQVKEVCPINIGDDIRYPVMGATYQPRAGIAKHHDHVAWAF  
ARKANEMGVDI IQNCEVTGFLKDGKVTGVKTRGTIHAGKVALAGAGHSSVLAELAGFE  
LPIQSHPLQALVSELFEPVHPTVVMNSNHHVYVSQAHKGELVMGAGIDSYNGYGQRGAFH  
VIEEQMAAAVELFPIFARAHVLRWTGGIVDVTMDASPIISKTPIQNLYVNCGWGTGGFKG  
TPGAGFTLAHTIANDEAHALNAPFSLERFETGHLIDEHGAAVAH

>Q9Y5B9

MAVTLDKDAYYRRVKRLYSNWRKGEDEYANVDAIVVSVGVDEEIVYAKSTALQTWLFGYE  
LTDTIMVFCDDKIIIFMASKKKVEFLKQIANTKGNENANGAPAITLLIREKNESNKSSFDK  
MIEAIKESKNGKKIGVFSKDKFPGEFMKSWNDCLNKEGFDKIDISAVVAYTIAVKEDGEL  
NLMKKAASITSEVFNFKFFKERVMEIVDADEKVRHSHKLAESVEKAIIEKKYLAGADPSTVE  
MCYPPIIQSGGNYNLKFVSDKNMHMFGAITCAMGIRFKSYCSNLVRTLMVDPSQEVQE  
NYNFLLQLQEELLKELRHGVKICDVYNAVMDVVKKQKPELLNKITKNLGFMGIEFREGS  
LVINSKNQYKLLKGMVFSINLGFSDLTNKEGKKPEEKTYALFIGDTVLVDEDGPATVLT  
VKKVKVNGVIFLKNEDEEEEEEKDEAEDLLGRGSRAALLTERTRNEMTAEKRRAHQKE  
LAAQLNEEAQRRLTEQKGEQQIQKARKSNVSYKNPSLMPKEPHIREMKIYIDKKYETVIM  
PVFGIATPFHIATIKNISMSVEGDYTYLRINFYCPGSALGRNEGNIFPNPEATFVKEITY  
RASNIKAPGEQTPALNLQNAFRIIKEVQKRYKTREAEKEKEGIVKQDSLVINLNRSNP  
KLDLYIRPNIAQKRMQGSLEAHVNGFRFTSVRGDKVDILYNNIKHALFQPCDGEMIVL  
HFHLKNAIMFGKKRHTDVQFYTEVGEITTDLGKHQHMHDRDDLYAEQMEREMRHKLKTAF  
KNFIEKVEALTKEELEFEVPPFRDLGFNGAPYRSTCLLQPTSSALVNATEWPPFVTLDEV  
ELIHFERVQFHLKNFDMVIVYKDYSKKVTMINAIPVASLDPKEWLNSCDLKYTEGVQSL  
NWTKIMKTIVDDPEGFFEQGGWSFLEPEGEGSDAEEGDSESEIEDETFNPSEDDYEEEE  
DSDEYSSAEESDYSKESLGSSEESGKDWDELEEEARKADRESRYEEEEEQSRSMRKR  
KASVHSSGRGSNRGRSRHSSAPPKKKRK

>P0A7F6

MKLLKLHGFNNTKSLSFICIYDICYAKTAEERDGYIAYIDELYNANRLTEILSETCSIIG  
ANILNIARQDYEPQGASVTILVSEEPVDPKLIKTEHPGPLPETVVAHLDKSHICVHTYP  
ESHPEGGLCTFRADIEVSTCGVISPLKALNYLIHQLESDIVTIDYRVRGFTRDINGMKHF  
IDHEINSIQNFMSDDMKALYDMVDVNVYQENIFHTKMLLKEFDLKHMFHTKPEDLTDSE  
RQEITAALWKEMREIYYGRNMPAV

>Q57763

MLKYLKGKHLILELWGCDPKALDDIEGIEKMLVDSVKACGATLICVRTHKFSPPQATGVAV  
LAESHIAIHTYPEYGYAALDVFTCGEHTDPYKALEVIREFLKPKSIQIIDLKRGLMENG  
FELK

>P58514

MKCLFLVCLCLVPIVVFSSFTTSQNPINLPSDATPVLDTGKELDSRLSYRIISTFWGAL  
GGDVYLGKSPNSDAPCANGVFRYNSDVGPSGTPVRFIGSSSHFGQGIFENELLNIQFAIS  
TSKLCVSYTIWVGVDYDASLGTMLLETGGTIGQADSSWFKIVKSSQLGYNLLYCPVTSTM  
SCPFSSDDQFCLKVGVVHQNGKRRALVKNPLDISFKQVQ

>O82491

MADSRNGNARAPPSPVPPKAGNTYSIDVKNFISRARALYEHWKKHSADLWGSADALAIAT

PPASDDLRYLKSSALNIWLLGYEFPDTIMVFTKKQIHFLCSRNKASLLEVVKKPAHDELK  
LDVIMHVKPKGDDGTGLMDAIFRAIRDLSRGDGNDSQVVGHIAREAPEGKLLLETWTERLK  
NANFQFVDITGGLSDLFAVKDDTEVMSVKKAAYLAYSVMKNVVPNLESAIDEEKDVTHS  
ALMDLTEKAILLEPTKASVKLKPENVDICYPPIFQSGGKFDLKPSAASNDELLTYDPASII  
ICAVGARYNSYCSNVARTYLIDATSLQSKAYEVLLKAHEAAIDALRSRGRKINTVYQAALS  
VVEKNAPEFVDKLTKSAGTGIGLEFRESGLNINAKNDKVLRPKMAFNVSIGFQNLCESE  
SRSKNKKFSLLLADTVLVTDQKPELLTKCSKSVKDVAYSFKEDDEEEKPRKKARTSGSEN  
YITKTALRSDDHVVSKEELRKHQAELARQKNEETARRLAGDSSGAGDSRSTAKTSADV  
AYKNVNDMPHKELMIQVDRNEAVLLPIYGLSLVPFHVATIRTVSGNQDTNRNCYIRIIFN  
VPGTPFNPHDSNSLKNQGAIIYLKEVSFRTKDSRHSSEVTQQIKTLRRQVMARESERERA  
TLVTQEKLQLAGNKFKPLRLSELWIRPPFSGRKKIPGTLEAHANGFRYSTTRPDERVDVL  
FANIKHAFFQPAEKEMITLLHFHLLHNHIMVGTKKTKDVQFYVEVMDVVQSLGGRRSAYD  
PDEIDEEQRERDRKNKINMDFNHFANRVNDMWQLPQFASLDLEFDQPLRELGFHGVPHKT  
SAFIIPTSSCLVELIEYPFLVVSLSIEIEIVNLERVGFQKNFDMAIIFKDFKDVLRVDS  
VPTSSLEGIKEWLDTTDIKYYESKLNLNWRQILKTIITDDPQSFIDDGWEFLNLDGSDSE  
SGGSEESDKGYEPSDVEVESESEDEASESESLVESDDDEEEDSEQESEEKGTWDELER  
EATNADREHGVEDSSEERKRRKMKAFGKSRPGTSGGGSSSMKNMPPSKRKHR

>Q8IRG6

MSSFVLDKEAFVRRVKRLYTEWRAPSIGHDDALRNLDICMSIVGVEEDVMYSKSMALQLW  
LLGYELTDTISVFCSDAVYFLTSSKKKIEFLKQTQNIITEEGFPEINLLVRDRTDKDQGNFE  
KLIKALQNSKKGKRLGVFAKDAYPGEFSEAWKSLTASKFEHVDISTIIAYLMCPKDESE  
INNIRKASLVSMDFNKYLKDEIMDIIDSDRKVKHNKLSDGCEAAIGEKKYTSGLDPRLL  
DMAYPPIIQSGGAYSLKFSAVADKNPLHFGVIVCSLGARYKSYCSNISRTFLVNPTEAMQ  
ENYTFVLVSVQEEIILKLLVPGTKLCDVYEKTLDFVKKEKPSMVDNLPKSFGFAMGLEFREN  
SIVIGPKCQALLKKNMVFNLHVGISNLTNPEATDKEGKNYALFIGDTVLVGEQSPASVMT  
PSKKKIKNVGIFIKDSDDEEDVDDKKTAKEDQGTEILGRSKRNAVLESKLRNEINTEEKR  
KEHQRELAQQLNERAKDRLARQGNSEVEKVRKNTVSYKSI SQMPREPEVKELKLYVDKK  
YETVIMPVFGIQVPFHISTIKNISQSVEGEYTYLRINFFHPGATMGRNEGGLYPQPEATF  
VKEVTYRSSNVKEHGEVGFAPSANLNNAFRLIKEVQKRFKTREAEEREKEDLVKQDTLILS  
QNKGNPKLDLYIRPNIVTKRMTGSLEAHSNGFRYISVRGDKVDILYNNIKSAFFQPCDG  
EMIILLHFHLYAIFMGKHHVDVQFYTEVGEITTDLGKHQMHDRDDLAAEQAERELRH  
KLKTAFKSFCEKVETMTKSVVEFDTPFRELGFPGAPFRSTVTLQPTSGSLVNLTEWPPFV  
ITLDDVELVHFERVQFHLRNFDMI FVFKEYNKKVAMVNAIPMNMLDHVKEWLNSCDIRYS  
EGVQSLNWQKIMKTIITDDPEGFFEQGGWTFLDPESEGSEGENETAESEDEAYNPDAESD  
EESDEDSEYSEASEDSEESDEDLGSDEESGKDWSDLERAAEEDRNHDYAADDKPRNGKF  
DSKKHGKSSKHSPSKSSKDKYNSRDKHSSSSSSGNKSSSKDKDRKRSRDDSRDNGHKSKK  
SRH

>P32558

MEELNIDFDVFKKRIELLYSKYNEFEGSPNSLLFVLGSSNAENPYQKTTILHNWLLSYEF  
PATLIALVPGKVIITSSAKAKHLQKAIDLFKDPESKITLELWQRNNKEPELNKKLFDV  
IALINSAGKTVGIPEKDSYQGKFMTEWNPVWEAAVKENEFNVIDISLGLSKVWEVKDVNE  
QAFLSVSSKGSDFMDLLSNEMVRVAVDEELKITNAKLSDKIENKIDDKVFLKQLSPDLA  
LCPNPKYKFNFDLLDWTYSPIIQSGKFDLRSARSTNDQLYGNLILASCGIRYNNYCSN  
ITRTFLIDPSEEMANNYDFLLTLQKEIVTNILKPGRTPKEVYESVIEYIEKTKPELVPNF  
TKNIGSLIGLEFRDSNFILNVKNDYRKIQRGDCFNISFGFNKLSQSANNYALQLADTV  
QIPLDETEPPRFLTNYTKAKSQISFYFNNEEEDMNNKKSSPATKVPSPDRNSKILRKL  
RGEARGGAEDAQKEQIRKENQKHLHEKLEKNGLLRFSAADANGPDSEPRQYFKKYESYVR  
DSQLPTNIRDRLIHVDWKSQTIILPIYGRPVFPFHINSYKNGSKNEEGEYTYLRLNFNSPG

SSGGISKKVEELPYEESADNQFVRSITLRSKDGDRMSETFKQIADLKKKEATKREQERKAL  
ADVQQDKLIENKTGRTRKRLDQIFVRPNPDTKRVPSTVFIHENGIRFQSPLRDSTRIDIL  
FSNIKNLIFQSCKGELIVVIHIHLKNPILMGKKKIQDVQFYREASDMSVDETTGGRRGQS  
RFRRYGDEDELEQEQEERRKRAALDKEFKYFADAI AEASNGLLTVENTFRDLGFQGVPNR  
SAVFCMPTTDCLVQLIEPPFLVINLEEVEICILERVQFGLKNFDMVFVYKDFNKPVTHIN  
TVPIESLDFLKQWLTDM DIPYTVSTINLNWATIMKSLQDDPYQFFLDGGWNFLATGSDDE  
ASDESEEEVSEYEASEDDVSDESAFSEDEEGSEVDDDISGDESEDYTGDESEEGEDWDEL  
EKKAARADRGANFRD

>O13950

MDGTSQAFKIIIVATIIIGAIISTLGIFFTRKTIQKKLPAVFLIGPSDSGKTSLFCELIYK  
EKKTTVPSIEPNEAVWKYGAWLVDLPGHPRAKRWITTKFSGNYNVKAVFVLNSATIDRD  
VHEVGLMLFDTILKCRKHHVPHLLIACNKFDLFTAQPAEKIQQLLKAELHNI LEEKNLQL  
ESIVSEDDVDWESVADQIEDTDLKFLPGSVAKMSNIEEWISWMESALQ

>P36057

MLSNTLIIACLIVIGTTIALIAVQKASSKTGIKQKSYQPSII IAGPQNSGKTSLLTLLTT  
DSVRPTVVSQEPLSAADYDGGVTLVDFPGHVKLRKLSLYLKTAKFVKGLIFMVDSTV  
DPKLLTTTAEFLVDILSITESSCENGIDIL IACNKSELTARPPSKIKDALESEIQKVIE  
RRKKSLEVERKINEEDYAENTLDVLQSTDGFKFANLEASVVAFEFSINKRKRISQWREWI  
DEKL

>P06625

MLDFFTIFSKGGLVLWCFQGVSDSCTGPVNALIRSVLLQERGGNNSF'THEALTLKYKLDN  
QFELVVFVGFQKILTLTYVDKLI DDVHRLFRDKYRTEIQQQSALSLLNGTFDFQNDFLRL  
LREREESKIRAPTTMKKFEDSEKAKKPVRSMIETRGEKPKKAKNSKKKGAKKESDGP  
LATGKAVPAEKSGLPAGPENGVLSKEELIRRKREEFIQKHGRGLEKSSKSTKSDAPKEK  
GKKAPRVWALGGCANKEVLDYSAPTTNGAPDAAPPEDINLIRGTGPGGQLQDLDCSSSD  
EETAQNASKPSATKGTGGMFGMLKGLVGSKSL SREDMESVLDKMRDHLIAKNVAADIAV  
QLCESVANKLEKVMGTFSTVTSTVKQALQESLVQILQPQRRVDMRLDIMDAQRHQRPHYV  
VTFCGVNGVGKSTNLAKISFWLLENGFSVLIAACDTFRAGAVEHVRTHTRRLSALHPPEK  
HAGPTMVQLFEKGYGKDAAGIAMEAIAFARNQGFVVLVDTAGRMQDNAPLMTALAKLIT  
VNTPDVLVLFVGEALVGNEAVDQLVKFNALADHSMAQTPRLIDGIVLTKFDTIDDKVGAA  
ISMTYITSKPIVFGVTGQTYCDLRS LNAKAVVAALMKA

>Q9U5L1

MLDFVVI FTGGVVLWHSNASGNSFASCINSLIRGVILEERNTEAKYEEEDHLAVQFKLD  
NELDLVYAAIFQKVIKLNLYLDGFLADMQA AFKEKYGD IRLGDDYDFDREYRRVLSAAEEA  
SAKQVKAPKTMRSYNESQKSKKTVASMIQDDKKPVEKRVNIQEAPPPSKSQSPSPPTGSP  
MDKIIMEKRRKLREKLTPTKKTSPSDSKSSKPEKAGKPRVWDLGNSKDAALLDRSRDS  
PDDVQYQNINSELVGTMQGVIRDL DVESEDEADNEDASSEGEAEQVQSKKGKRGGLLSY  
FKGIVGAKTMSLADLQPALEKMRDHLISKNVASEIAAKL CDSVAASLDGKQMGTFDSIAS  
QVKEALTESLVRILSPKRRIDIIRDALESKRNGRPYTIIFCGVNGVGKSTNLAKICFWLI  
ENDFNVLIAACDTFRAGAVEQLRTHTRHLNALHPAAKH DGRNMVQLYEKGYGKDAAGIAM  
EAIKFAHDTRVDVVLVDTAGRMQDNEPLMRSLSKLIKVNPNDLVLFVGEALVGNEAVDQL  
VKFNQSLADYSSNENPHIIDGIVLTKFDTIDDKVGAAISMTYITGQPIVFGVTGQTYADL  
KAINVNAVNSLMK

>P32916

MFDQLAVFTPQGQVLYQYNCLGKKFSEIQINSFISQLITSPVTRKESVANANTDGFDFNL

LTINSEHKNSPSFNALFYLNKQPELYFVVTFAEQTLLELNQETQQTLALVLKLVNSLHLSSE  
SILKNRQGQNEKNKHNYVDILQGIEDDLKFFEQYFRIKYEESIKQDHNPDNFTKNGSVP  
QSHNKNTKKKLRDRTKGKKQSTGNVGSGRKWGRDGGMLDEMNHEDAACKLDFSSNSHNSQ  
VALDSTINKDSFGDRTEGGDFLIKEIDDLSSHKDEITSGNEAKNSGYVSTAFGFLQKHV  
LGNKTINESDLKSVLEKLTQQILITKNVAPEAADYLTQQVSHDLVGSKTANWTSVENTARE  
SLTKALTQILTPGVSDLLREIQSKRSKKDEEGKCDPYVFSIVGVNGVGKSTNLSKLAFW  
LLQNNFKVLIIVACDTFRSGAVEQLRVHVENLAQLMDDSHVIRGSKNKRKGTGNDYVELFEA  
GYGSDLVTKIAKQAIKYSRDQNFDIVLMDTAGRRHNDPTLMSPLKSFADQAKPDKIMV  
GEALVGTDSVQQAKNFDAFGKGRNLDFFIISKCDTVGEMLGTMVNMVYATGIPILFVGV  
GQTYTDLRRLSVKWAVENTLMS

>P47758

MASANTRRVGDGAGGAFQPYLDSLRQELQQRDPTLLSVAVALLAVLLTLVFWKFIWSRKS  
SQRAVLFVGLCDSGKTLFVRLLTGQYRDTQTSITDSSAIYKVNMRGNSLTLIDLPGHE  
SLRFQLLDRFKSSARAVVVDAAAFQREVKDVAEFLYQVLIDSMALKNSPSELLIACNKQ  
DIAMAKSAKLIQQOLEKELNTRVTRSAAPSTLDSSTAPAQLGKKGKEFEFSQLPLKVE  
FLECSAKGGRGDTGSADIQDLEKWLAKIA

>P43307

MRLLPRLLLLLLLLLVFPATVLFRRGGPRGLLAVAQDLTEDEETVEDSIIIEDEDEAEVEEDE  
PTDLVEDKEEEDVSGEPEASPSADTTILFVKGEDFPANNIVKFLVGFNTKGTEDFIVESL  
DASFRYPQDYQFYIQNFTALPLNTVPPQRQATFEYSFIPAEPMGGRPFGLVINLNYKDL  
NGNVFQDAVFNQTVTVIEREDGLDGETIFMYMFLAGLGLLVIVGLHQLLESRKRKRPIQK  
VEMGTSSQNDVMSWIPQETLNQINKASPRRLPRKRAQKRSVGSDE

>P45433

MFNFGSKILVLFVAFPCGLISFGRVSADSESAEDIFPDSTVDEEEEEEEDEVLVEEDQV  
PGSETEDDIDEDAAGVDVTSHPDADTTIVFVTGEEFPANEIVKFLVGFNTKGSQDFTVHS  
LEASFRYPQDFQFYIQNFTALPLSTVVQPQKQASFEYSFIPAQPMAGRPFGLVILLNYQD  
SEGNFQTAIYNQTVTIVELEEGLDGETIFMYIFLTGLVVLAVFGMYQVLESRTRKRFPV  
KVETGTGGMNGVDISWIPQETLNIMSKASASPKASPRKRRTKRAVGVDQ

>P23438

MRLLASVLLALFAVSHAEEGARLLASKSLLNRYAVEGRDLTLQYNIYNVGSSAALDVELS  
DDSFPPEDFGIVSGMLNVKWDRIPASNVSHTVVLRPLKAGYFNFTSATVTYLAQEDGPV  
VIGFTSAPGGGILAQREFDRRFSPHFLDWAAFGVMTLPSIGIPLLLWYSSKRKYDTPKS  
KKN

>P51571

MAAMASLGALALLLSSLSRCSAEACLEPQITPSYYTTSDAVISTETV FIVEISLTCKNR  
VQNMALYADVGGKQFPVTRGQDVGRYQVSWSLDHKSAHAGTYEVRFFDEESYSLRKAQR  
NNEDISIIPLFTVSDHRTWNGPWVSTEVLA AAAIGLVIYYLAFSAKSHIQA

>Q9UNL2

MAPKSSKQQSEEDLLLQDFSRNLSAKSSALFFGNAFIVSAIPIWLYWR IWHMDLIQSAV  
LYSVMTLVSTYLVAFAYKNVKFVLKHKVAQKREDAVSKVTRKLSEADNRKMSRKEKDER  
ILWKKNEVADYEATTF SIFYNNTLFLVVVIVASFFILKNFNPTVNYILSISASSGLIALL  
STGSK

>Q05344

MTDSLEYNDINA E V R G V L C S G R L K M T E Q N I I F K N T K T G K V E Q I S A E D I D L I N S Q K F V G T W  
GLRVFTKGGVLRHFTGFRDSEHEKLGKFIKAAYSQEMVEKEMCVKGWNWGTARFMGSVLS  
FDKESKTI FEVPLSHVSCVVTGKNEVTLEFHQND DAPVGLLEMRFHIPAVESAEEDPVDK  
FHQNVMSKASVISASGESIAIFREIQILTPRGRYDIKIFSTFFQLHGKTFDYKIPMDSVL  
RLFMLPHKDSRQMFVLSLDPPIKQGQTRYHYLVLLFAPDEETIIELPFSEAE LRDKYEG  
KLEKEISGPVYEVMGKVMKVLIGRKITGPGNFIGHSGTAAVGC SFKAAAAGYLYPLERGF I  
YIHKPPLHIRFEEISSVNFARSGGSTRSFD FEVTLKNGTVHIFSSIEKEEYAKLFDYITQ  
KKLHVSNMGKDKSGYKDVDFGSDNENEPDAYLARLKA EAREKEEDDDDDGDSDEESTDED  
FKPNENESDVAEEYDSNVEDSDDDSDASGGGGSDGAKKKKKEKKSEKKEKKEKKHKEKE  
RTKKPSKKKKDSGKPKRATTA FMLWLNDTRESIKRENPGIKVTEIAKKGEMWKELKDKS  
KWEDAAAKDKQRYHDEMRYKPEAGGSDNEKGGKSSKKRKT E P S P S K K A N T S G S G F K S K  
EYISDD DSTSSDDEKDN E P A K K K S K P P S D G A K K K K A K S E S E P E E S E E D S N A S D E D E D E  
ASD

>Q08945

MAETLEFNDVYQEVKGSMDGRLRLSRQGIIFKNSKTGKVDNIQAGELTEGIWRRVALGH  
GLKLLTKNGHVYKYDGFRESEFEKLSDFFKTHYRLELMEKDL CVKGWNWGTVKFGGQLLS  
FDIGDQPVFEIPLSNVSQCTTGKNEVTLEFHQND DAEVSLMEVRFYVPPTQEDGVDPVEA  
FAQNVLSKADVIQATGDAICIFRELQCLTPRGRYDIRIYPTFLHLHGKTFDYKIPYTTVL  
RLFLLP HKDQRQMFVVISLDPPIKQGQTRYHFLILLFSKDEDISLTLNMNEEEVEKRFEG  
RLTKNMSGSLYEMVSRVMKALVNRKITVPGNFQGHSGAQCITCSYKASSGLLYPLERGF I  
YVHKPPVHIRFDEISFVN FARGTTTTRSFD FEIETKQGTQYTFSSIEREEYGLK LDFVNA  
KKNLNKNRGLKEGMNPSYDEYADSD EDQH DAYLERMKEEGKIREENANDSSDDSGEETDE  
SFNPGE E E E D V A E E F D S N A S A S S S S N E G D S D R D E K K R K Q L K K A K M A K D R K S R K K P V E V K K  
GKDPNAPKRPM SAYMLWLNASREKIKSDHPGISITDL SKKAGEIWKGMSKEKKEEWD RKA  
EDARRDYEKAMKEYEGRGESSKRDKSKKKKKVVKMEKKSTPSRGSSSKSSSRQLSESEF  
KSKEFVSSDESSSGENKSKKKRRRSEDESEEEELASTPPSSEDSASGSDE

>P38788

MSSPVI G I T F G N T S S S I A Y I N P K N D V D I A N P D G E R A I P S A L S Y V G E D E Y H G G Q A L Q Q L I  
RNPKN TI INFRDFIGLPFDKCDVSKCANGAPAVEVDGKVG FVISRGE GKEEKLTVDEVVS  
RHLNRLKLA A E D Y I G S A V K E A V L T V P T N F S E E Q K T A L K A S A A K I G L Q I V Q F I N E P S A A L L  
AHAEQFPFEKDVNVVADFGGIRSDAAVIAVRNGIFTILATAHDLSLGGDNLDTLVEYF  
ASEFQKKYQANPRKNARSLAKLKANS SITKKTLSNATSATISIDSLADGFYHASINRMR  
YELVANKVFAQFSSFVDSVIAKAELDPLDIDAVLLTGGVSFTPKLTTNLEYTLPE SVEIL  
GPQNKNASNPNELAASGAALQARLISDYDADELAEALQPVI VNTPHLKKPIGLIGAKGE  
FHPVLLAETSFPVQK KLT LKQAKGDFLIGVYEGDHHIEEKTLEPIPK EENAEEDDESEWS  
DDEPEVVREKLYTLGTKLMELGIKNANGVEIIFNINKDGALRV TARDLKTGN AVK GEL

>Q9DGN1

MITSELSVLQDSTNESAVMHTDMTAVSADLSTELVEDLEVKGKRKRGRPGRPPSAIKKPR  
KTPGDRSRAEPGSRGRGRANGHPQQNGEGDPVTLFEVVKMGKSAMQAVVDDWIESYKQDR  
DIALLDLINF IQCSGCKGTVRIEMFRNQNAEIRKMTEEFDEDSGDYPLTMPGPHWKK  
FRCNFCEFI SVLIRQCQYSIIYDEYMMDTVISLLTGLSDSQVRAFRHTSTLAAMKLMTAL  
VNVALNLSIHQDNTQRQYETERNKI INKRANERLELLLQKRKELQENQDEIENMMNSIFK  
GIFVHRYRDAIAEIRAICIEEIGVWMKMYSDAFLNDSYLKYVGT LHDRQGEVRLKCLKA  
LQSLYTNRELFPKLELFTNRFKDRIVSMTLDKEYDVAVEAIRLVTLILHGSE EALSNE DC  
ENVYHLVYSAHRPVAVAAGEFLHKKLFSRHDPQAE EALAKRRGRSSPNGNLVKMLVLF FL  
ESELHEHAAYLVDSLWESSQELLKDWECMTELLVEEPMQGE EVM SERQESALVELMVCTI  
RQAAEAHPVGRGTGKRVLTA KERKTQLDDKTKL TEHFIVALPVLLSKYSADA EKVANLL



QIPQYFDLELYSTGRMEKHLDSLLKQIRFVVEKHIESDVLEACSKTYSILCSEETYIQNR  
VEIAHSQLIDELADRFSHAVEELLQEAEEADEDEIYNVMASLKRLTCFHNAHDLTKWDF  
GNCYRLLRAGIEHEGMEQIVVQALQCESHYSILWQLVKITEGNPSKEEMLALRKT VKSFL  
AVCQQCLSSMTTLVKEQAFMLLCDLLMIFSHQLTTGGRENLLLLVFNPDVGLQSELLSFV  
MDHVFIDQDDENQSMEGDEEDEANKIEALHKRRNLLASFCKLIYDIVDMNAAADIFKH  
MKYYNDYGDIIKETLSKTRQMDKIQCAKTLILSLQQLFNELVQEQQPNLDR TSAHVSGIK  
ELARRFALTFGLDQIKTREAVATLHKDGI EFAFKYQNPKGPEYPPPLNLAFLVLELSEFSSK  
LLRQDKKT VHSYLEKFLTDLMMERREDVWLPLISYRNSLVTTGGDEDRLSVNSGGNSKGS  
SVRSKKGRRPPLHKKRVIEEESIDNSWVTRNDTIQTPGALTTPQLTSTVLRENPRQIPEQI  
PEQESEPSSEPDFLHSPQMMSWLGGQKLEDLNRKDR TSMSYMKVRSVGRHVRGLMEDD  
AEP IFEDVMMSSRQLEDMNEEFEDTMVIDLPPSRNRERAE LRPFDFDSAAI IEDDSGF  
GMPMF

>Q92783

MPLFATNPFQDVEKATSEMNTAEDWGLILDICDKVGSRTGPKDCLRSIMRRVNHKDPH  
VAMQALTLGACVSNCGKIFHLEVCSRDFASEVSNVLNKGHPKVCEK LKALMVEWTDEFK  
NDPQLSLISAMIKNLKEQGVTFPAIGSQAAEQAKASPALVAKDPGTVANKKEEEDLAKAI  
ELSLKEQRQQSTTLSTLYPSTSSLLTNHQHEGRKVR AIYDFEAAEDNELTFKAGEIITVL  
DDSDPNWWKGETHQGIGLFP SNFVTADLTAEP EMIKTEKKTVQFSDDVQVETIEPEPEPA  
FIDEDKMDQLLQMLQSTDPDQDLPELLHLEAMCHQMGPLIDEKLEDIDRKHSELSEL  
NVKVMEALSLYTKLMNEDPMYSMYAKLQNPYYMQSSGVSQVYAGPPPSGAYLVAGNA  
QMSHLQSYSLPPEQLSSLSQAVVPPSANPALPSQQTQAAYPNTMVSSVQNTYPSQAPVY  
SPPPAATAAAAATADVTLTYQ NAGPNMPQVPNYNTSSTLPPQPGGSQQPPQPQPYSQKALL

>Q98989

MSSDLVMPALGRPFTLGMLYDARREKLIPGFSLFGDETLQKYQSSNAQRSSEFKIVASDS  
TESKSSAMDIEASLGV SFLGGLVEVGGSAKYLNNTKKYQNSRVTLKYKATTVYKQFTAP  
PGT VTVQETAITEKGLATHVVTSILYGANAFFVSDSDKVEDTNLQDIQ GKMEAAIKKIPT  
ISIEGSASVQLTDEEKSLASNL SCKFHGDFLLES LPTTFEDAVKTYQTLPTLIGEDGANS  
VPMKVWLAPLKSYN SKAQQLIQEINVS KVRRIHTTLEELHKLKRRANEAMDVKLVQRIPL  
IHDKISNFQQIFQDYMLTVQK IAEKLP LVRAGTESEQSLQKIIDDRAQSPFSNEKVSKW  
LDAVEREIAVLKSCAGMVEGTQAKFVSNQTELDREVLVGVKVKHAVCFIFTSVERNDPYLK  
VLSDYWESPPSNNAKDVAPSTEDKWC FSTEVLKMQQRAQTFCDHVNDFEKSRNVGFFIT  
ALENGKFQGASIIYYKEGSLATQDFTFPRMPFVQGYKKRSDLLWYACDLTFDRNTINNWI  
SLSDNDTFAASEHGKRQNYPKHPERFVSFNQVLCNEGLMGKHYWEVEWNGYIDVGIAYIS  
IPRKEIDFASAFGYNTYSWVLSYNPKIGYIERHKKREYNVRAPNPGFKRLGLFLDWRYGS  
ISFYAVSSDEVHHLHTFKTKFTEPVYPAFSIGPAGNHGTLRLL

>Q91453

MPSDILVVAALGRPFTLGMLYDARNDKLIPGFTLWEDEVIEESTLESSQPSSAFEIIASD  
STDDKSSLMDIEASLKASFLGGLVEVGGSAKYLNQKFKFNQSRVTLQYKATTSFKQLMT  
NLGTXHVEYSEL FENIQATHVVI GILYGANAFFVFD SNKVDSTNVQEIQQQMEAVIKKIP  
SVEISGKASVQLTGEETDITNSFSCEFHGDFFLT TNP TTFEDAVKTYQQLPQMMGKDNAV  
PMTVWLVP MVNFYSEAPQLMADSS TPI LRKVRNTLEAIVQVQMRCNDALDDPTVNLFTV  
QKKLSDFQKICDDHMSK LQATI AKKLF AIRSGDEDESALLNLFEENLQSPFNIESLNMWM  
EFEEREINVLRS CMDILTKAKPKVIFNQGVLFKGLYDSKV KHALCYVFTNVTKNDVFLNV  
LNEFLDSPQSRPKLRPSPKDYWYSYDDIPETMREKAYLFRNLAKEMNNRCVHFFVTAIH  
NPKQEGAGIHYYRESIQIIDEFTKPYMPGVESIKDRRELQWYDCELTLDPETAHQVLTLS  
EGNKKAVSGNTKSPTDHL EKFSHFQQVMCTKGLSGRHYWELEWSGYVGAGVTYKIGRKT  
STSDSSLGKNEKSWLFEYSTKSGYQQIHNSKKT RVTVSSTGFKLLGVYLDWPAGTLSFYM

VNKAWVTHLHTFHTKFNEAVYPAFLIGDAQQKVNQIKLL

>Q9P2R7

MAASMFYGRLLVAVATLRNHRPRTAQRAAAQVLGSSGLFNNHGLQVQQQQQRNLSLHEYMS  
MELLQEAGVSVPKGYVAKSPDEAYAI AKKLGSKD VVIKAQVLAGGRGKGT FESGLKGGVK  
IVFSPEEAKAVSSQMIGKKLFTKQTGEKGRICNQVLVCERKYPRREYYFAITMERSFQGP  
VLIGSSHGGVNI EDVAAESPEAI I KEPIDIEEGIKKEQALQLAQKMGFPNIVESAAENM  
VKLYSLFLKYDATMIEINPMVEDSDGAVLCMDAKINFDSNSAYRQKKIFDLQDWTQEDER  
DKDAAKANLNYIGLDGNIGCLVNGAGLAMATMDI IKLHGGTPANFLDVGGGATVHQVTEA  
FKLITSDKKVLAAILVNI FGGIMRCDVIAQGI VMAVKDLEIKIPVVVRLQGTRVDDAKALI  
ADSGLKILACDDLDEAARMVVKLSEIVTLAKQAHVDVKFQLPI

>P53590

IPAAPVAAQARKLLRDLA FRPPLLAARSQVVQLTPRRWLN LQEYQSKKLMSDNGVKVQRF  
FVADTANEALEAAKRLNAKEIVLKAQILAGGRGKGVFSSGLKGGVHLTKDPEVVGQLAKQ  
MIGYNLTKQTPKEGVKNKVMVAEALDISRETYLA ILMDRSCNGPVLVGGSPQGGVDIEE  
VAASNPELIFKEQIDIIEGIKDSQAQRMAENLGFLGPLQNQAADQIKKLYNLFLKIDATQ  
VEVNPFGETPEGQVVC FDAKINFDDNAEFRQKDI FAMD D KSENEPI ENEAAYDLKYIGL  
DGNIACFVNGAGLAMATCDIIFLNGGK PANFLDLGGGVKESQVYQAFKLLTADPKVEAIL  
VNI FGGIVNCAI IANGITKACRELELKVPLVVRLEG TNVHEAQNILTNSGLPITSAVDLE  
DAAKKAVASVTKK

>P0A836

MNLHEYQAKQLFARYGLPAPVGYACTT PREAE EEAASKIGAGPWVVKCQVHAGGRGKAGGV  
KVVNSKEDIRAF AENWL GKRLV TYQTDANGQPVNQILVEAATDI AKELYLGAVVDRSSRR  
VVFMASTEGGVEIEKVAEETPHLIHKVALDPLTGMPYQGRELAFKLGLEGLVQQFTKI  
FMGLATIFLERDLALIEINPLVITKQGD LICLDGKLGADGNALFRQPD LREM RDQS QEDP  
REAQAAQWELNYVALDGNIGCMVNGAGLAMGTMDIVKLHGGE PANFLDVGGGATKERVTE  
AFKII LSDDKVKAVLVNIFGGIVRCDLIADGII GAVAEVGVNVPVVVRLEGNNAELGAKK  
LADSGLNI IAAKGLTDAAQQVVA AVEGK

>P33300

MRKELKYLICFNILLLSIIYYTFDLLTLCIDDTVKDAI LEEDLNPDAPPKPQLIPKIIH  
QTYKTEDIPEHWKEGRQKCLDLHPDYKYILWTD EMAYEFIKEEYPWF LDTFENYKYP IER  
ADAI RYFILSHYGGVYIDLDDGCERKLDPLLAFFAFLRKTSP LGVSN DVMG SVPRHPFFL  
KALKSLKH YDYWFIPYMTIMGSTGPLFLSVIWKQYKRWRIPKNGTVRILQPAYYKMHSY  
SFFSITKGSSWHLD DAKLMKALENHILSCVVTGFI FGFFILYGEFTFYCWLC SKNF SNLT  
KNWKLNAIKVRFVTILNSLGLRLKLSKSTSDTASATLLARQQKRLR KDSNTNIVLLKSSR  
KSDVYDLEKN DSSKYS LGNNSS

>Q06182

MSDIDDEEFEQ LAVSAL EEEV EKKAGFAQQPTPQKVS RVTAHSILVNPRQKGNPLLP HVRN  
VPWEYTDIVPDFVMGTGICSLFSLKYHHLHPEYIYSRISKLGKSYNLRILLILVDVENH  
QASIQELVKTSIVNQYTLILAWSSEEAARYLETYKAYENMSPALIMEKPSTDYLSQVQSF  
LTSIRGINKSDSL SLLSKFGSLERALVASRDELEQLEGWGPTKVNRFLEAVQQPFMSHST  
IKRPEAINLKQT

>P52656

MSYQLYRNTTLGNTLQESLDEL IQYGQITPGLAFKVLLQFDKSINNALNQRVKARVTFKA  
GKLN TYRFCDNVWTLMLNDVEFREVHEIVKVDKVKIVACDGKSGEF

>Q05913

MSSASKSTPSAASGSSTSAAAAAASVASGSASSSANVQEFKIRVPKMPKHHVMRFNAT  
LNVDFAQWRNVKLERENNMKEFRGMEEDQPKFGAGSEYNRDQREEARRKKFGI IARKYRP  
EAQPWILKVGKTKGKFKGIREGGVGENAAFYVFTHAPDGAIEAYPLTEWYNFQPIQRYK  
SLSAEEAEQEFGRKKVMNYFSLMLRKRRLRGDEEEEQDPEEAKLIKAATKKSKEKLTDM  
DEWIDSEDESSEDEEDKKKKEQEDSDDGKAKGKGGKADKKKKRVDDEAFEESDDGD  
EEGREMDYDTSSSEDEPDPEAKVDKDMKGVAEEDALRKLKLLTSDEEEDDEKKSDESDKEDA  
DGEKKKKDKGKDEVSKDKKKKPTKDDKKGKSNKSGSSTDFSSDSTSEDDLNSGPPKK  
KVVVKDKDKEKEKEKESAASSKVIASSSNANKSRSATPTLSTDAKSRKMNSLPSDLTASD  
TSNSPTSTPAKRPKNEISTSLPTSFSGGKVEDYGITEEAVRRYLKRKPLTATELLTKFKN  
KKTTPVSSDRLVETMTKILKKINPVKHTIQGKMYLWIK

>Q04870

MASLGTSGQSVTEYVVRVPRNPSKRYSLMAFNAADKVDFTWNQARMERDLSAKKMYQEE  
EMPESGAGSEYNRKQREESRRKKYGI ILREFKVDDQPWILRVNGKAGRKYKGVKGGVTE  
NASYFIFTQCADGAFAFPVSNWYNFTPVAKHRTLTAEEAEQEWERRNKVLNHF'TIMQQR  
RLKDQVGEDEDEEGGGKLEKGGKGGKSSDKLIHDLEDDLELSSTESSENSDEEGESR  
KKPQKKVPAKGGKKKRSDDALEDSDDGDFEGQEVYMSDESSSDEELPGKIKPAKEE  
EGPKGLDEQSESSESEEEKAEEEEGEEKKAPTQDNKKKKGGSSDESETSESDSIDG  
ASSSLFMQKKKTPPKDKKGGSNSSSRGNSRPGTSPDGTNTSSTLRAAASKLEQSKRGT  
VSNTPAAKRLKMEAGPQNTSGKSTPQPQSGKSTPSSGDIQLTEEAVRRYLTRKPMTTKDL  
LKKFQTKKTGLSSEQTVNVLAQILKRLNPDVKVVDKMHFYLKE

>P41900

MSKEDKEKTQIIDKDLDSL NAGRGVWLKVPKYIAQKWEKAPTNDVVGKLRINKTPGQKA  
QVSLSLTPAVLALDPEEKIPTEHILDVSQVTKQTLGVF SHMAPSDGKENSTTSAAQPDNE  
KLYMEGRIVQKLECRPIADNCYMKLKLESIRKASEPQRRVQP IDKIVQNFKPVKDHANI  
EYRERKKAEGKKARDDKNAVMDMLFHAFEKHQYYNIKDLVKITNQPISYLKEILKDVCDY  
NMKNPHKNMWELKKEYRHYKTEEKKEEEHKSGSSDSE

>Q03123

MSAEGELDLNGAKQNTGMWLKLPKYLAQQWAKATGRGEVVGKLRIVKNQGKTEVSFTLN  
EELASIQDIGGKPASSLVSTPREHPFLLSVGGQTLTVLTESLSGQSEDKSENVIDKLA  
LEGIVVHRAECRPAASDNMQMKRQIEESSKPKRQSQQLEKAVTSNYKPVSNHQYNI EY  
EKKKKDDGKRARVDKHQVLDMLFSAFEKHQYYNIKDLVDITKQPVTYLKEILRDIGIYNM  
KGTHKNTWELKPEYRHYQGEDKSD

>Q04226

MTEPQGPLDTIPKVNYPPILTIANFYFSTKQ MIDQVISEDQDYVTWKLQNLRTGGTSINNQ  
LNKYPKYKYQKTRINQDPDSINKVPENLIFPQDILQQQTQNSNYEDTNTNEDENEKLAQ  
DEQFKLLVTNLDKQDTRNFEVVFHRTSLNKTQVKKLASTVANQTI SENIRVFLQAVGKIYA  
GEI IELAMIVKNKWLTSQMCIEFDKRTKIGYKLLKYLKLLTFSI IENQQYKQDYQSDSVP  
EDEPDFYFDDEEVDKRETTLGNSSLQSKSLQQSDHNSQDLKQLIEQYKNLVLQFNKLDV  
SIEKYNNSPLLPEHIREAWRLYRLQSDTLPNAYWRTQGEQGSMFR

>Q03761

MSSNPENSGVNNANNTGTGNADAITGAQQNMVLQPRQLQEMAAKFRLLLTEARNVGETTP  
RGKELMFQAAKIKQVYDALTLNRRRQQAAYNNTSNSNSNPASIP TENVPNSQQQQQ  
QQQQTRNNSNKF SNMIKQVLTPEENQEYEWLWQNFQVRHTS I KEKETYLKQNI DRLEQEI

NKQTDEGPKQQLQEKKIELLNDWKVLKIEYTKLFNMYQNSKKTFFVECARHNPALHKFLQ  
ESTQQQRVQQQRVQQQQQQQQQQQQQQQQQQQQQQQQQQRQGNQRKISSSNSTEIPSVTGPD  
ALKSQQQQQNTITATNPNRGNVNTSQTEQSKAKVTNVNATASMLNNISSSKSAIFKQTEP  
AIPISENISTKTPAPVAYRSNRPTITGGSAMNASALNTPATTKLPPYEMDTQRVMSKRKL  
RELVKTVGIDEGDGETVIDGDVEELLLDLADDFVTNVTAFAFSCRLAKHRKSDNLEARDIQL  
HLERNWNIRIPGYSADEIRSTRKWNPSQNYNQKLSITSDKVAAAKNNGNNAVSLNTKK

>P50105

MANSPPKPSDGTGVSASDTPKYQHTVPETKPAFNLSPGKASELSHSLPSPSQIKSTAHVS  
STHNDAAGNTDDSVLPKNVSPPTNLRVESNGDTNMFSSPAGLALPKKDDKKNKGTSKA  
DSKD GKASNSSGQNAQQQSDPNKMQDVLFSAGIDVREEEALLNSSINASKSQVQTNNVKI  
PNHL PFLHPEQVSNYMRKVGKEQNFNLTPTKNPEILDMMSSACENYMRDILTNAIVISRH  
RRKAVKINSGRRSEVSAALRAIALIQKKEEERRVKKRIALGLEKEDYENKIDSEETLHRA  
SNVTAGLRAGSKKQYGWLTSSVNKPTSLGAKSSGKVASDITARGESGLKFREAREEPGIV  
MRDLLFALENRRNSVQTIISKGYAKIRD

>Q92750

MPAGLTEPAGAAPPAAVSASGTVTMAPAGALPVRVESTPVALGAVTKAPVSVCEPTASQ  
PLRSPVGLTVTKVAPVSAPPKVSSGPRLPAPQIVAVKAPNTTTIQFPANLQLPPGTVLK  
SNSGPLMLVSPQQTVTRAETTSNITSRPAVPANPQTVKICTVPNSSSQLIKKVAVTPVKK  
LAQIGTTVVTTVPKPSVQSVAVPTSVVTVTPGKPLNTVTTLPSSLGASSTPSNEPNLK  
AENSAAVQINLSPTMLENVKCKCNFLAMLIKLACSGSQSPEMGNVKKLVEQLLDAKIEA  
EEFTRKLYVELKSSPQPHLVPFLKKSVALRQLLPSQSFIQQCVQQTSSDMVIATCTTT  
VTTSPVVTTTVSSSQSEKSIIVSGATAPRTVSVQTLNPLAGPVGAKAGVVTLHSGPTAA  
TGGTTAGTGLLQTSKPLVTSVANTVTTVSLQPEKPVVSGTAVTLSLPAVTFGETSGAAIC  
LPSVKPVVSSAGTTSDDKPVIGTPVQIKLAQPGPVLSPQAGIPQAVQVKQLVVQQPSGGNE  
KQVTTISHSSTLTIQKCGQKTMVNTIIPTSQFPPASILKQITLPGNKILSLQASPTQKN  
RIKENVTSCFRDEDDINDVTSMAGVNLNEENACILATNSELVGTLIQSCKDEPFLFIGAL  
QKRILDIGKKHDITELNSDAVNLI SQATQERLRGLLEKLTAAIAQHRMTTYKASENYILCS  
DTRSOLKFLEKLDQLEKQKRDLEEREMLLKAAKSRSNKEDPEQLRLKQKAKELQQLELAQ  
IQHRDANLTALAAIGPRKKRPLESGIEGLKDNLLASGTSSLTATKQLHRPRITRICALRDL  
IFCMEQEREMKYSRALYLALK

>P49847

MSGKPSKPSSPSSSMLYGSSISAESMKVIAESIGVGSLSDDAAKELAEDVSIKLRIVQD  
AAKFMNHAKRQKLSVRDIDMSLKVNRNVEPQYGFVAKDFIPFRFASGGGRELHFTEDKEID  
LGEITSTNSVKIPLDLTLRSHWFVVEGVQPTVPENPPPLSKDSQLLDSVNPVIKMDQGLN  
KDAAGKPTTGKIHKLNKVNETHVKQLATHELVEQQLYYKEITEACVGSDEPRRGEALQS  
LGS DPGLHEMLPRMCTFIAEGVKVNVVQNNLALLIYLMRMVRALLDNP SLFLEKYLHELI  
PSVMTCIIVSKQLCMRPELDNHAWLRDFASRLMAQICKNFNTLTNNLQTRVTRIFSKALQN  
DKTHLSSLYGSIAGLSELGGEVIKVFII PRLKFI SERIEPHLLGTSISNTDKTAAGHIRA  
MLQKCCPPI LRQMSAPD TAEDYKND FGLG PSLCQAVVKVRNAPASSIVT LSSNTINTA  
PITSAAQTATTIGRVSMPTTQRQGS PGVSSLPQIRAIQANQPAQKFVIVTQNSPQQGQAK  
VVRGSSPHSVVL SAASNAASASNSNSSSSGSL LAAAQRSSDNVCVIAGSEAPAVDGITV  
QSFRAS

>P49848

MAEEKKLKLSNTVLPSESMKVVAESMGIAQIQEETCQLLTDEVSYRIKIEAQDALKFMHM  
GKRQKLTTS DIDYALKLNVEPLYGFHAQEFIPFRFASGGGRELYFYEEKEVDLSDIINT  
PLPRVPLDVCLKAHWLSIEGCQPAIPENPPAPKEQQKAEATEPLKSAKPGQEEDGPLKG

KQGATTADGKGKEKKAPPLLEGAPLRLKPRS IHELSVEQQLYYKEITEACVGSCEAKRA  
EALQSIATDPGLYQMLPRFSTFISEGVRVNVVQNNLALLIYLMRMVKALMDNPTLYLEKY  
VHELIPAVMTCIVSRQLCLRPDNDHWALRDFAAARLVAQICKHFSTTTNNIQSRITKTFT  
KSWVDEKTPWTTTRYGSIAGLAELGHDVIKTLILPRLQQEGERIRSVLDGPPVLSNIDRIGA  
DHVQSLLLKHCAPVLAKLRPPPNDQDAYRAEFGLGPLLCSQVVKARAQAALQAQQVNRT  
TLTITQPRPTLTLSQLPQPGRPTPGLLKVPGSIALPVQTLVSARAAAAPPQSPPPPTKFIV  
MSSSSSAPSTQQVLSLSTAPGSGSTTTTSPVTTTVPVSVQPIVKLVSTATAPPSTAPSGP  
GSVQKYIVVSLPPTGEGKGGPTSHPSVPPPPASSPSPLSGSALCGGKQEAGDSPPPAPGT  
PKANGSQPNSGSPQPAP

>P53040

MSTQQQSYTIWSPQDTVKDVAESLGLLENINDDVLKALAMDVEYRILEIEQAVKFKRHSK  
RDVLTDDVSKALRVLNVEPLYGYDGEVNVKAVSFSKVNTSGGQSVYYLDEEEVDFDRL  
INEPLPQVPRLPFTTTHWLAVEGVQPAIIQNPNLNDIRVSQPPFIRGAIVTALNDNSLQT  
PVTSTTASASVTDGTGASQHLNVKPGQNTVEVKPLVKHVLKELQIYFNKVI STL TAKSQA  
DEAAQHMKQAALTSRRTDGLHQLVPYFIQFIAEQITQNLSDLQLLTTILEMIYSLLSNT  
SIFLDPYIHSMLP SILTLLLAKKLGSGPKDDSPQEIHEFLERTNALRDFAAASLLDYVLKK  
FPQAYKSLKPRVTRTLLKTFDINRVFGTYGCLKGVSVLEGESIRFFLGNLNNWARLVF  
NESGITLDNIEEHLNDDSNPRTTKFTKEETQILVDTVISALLVLKDKLDPDLYEGKGEKVT  
DEDKEKLLERCGVTIGFHILKRDDAKELISAIFFGE

>Q27272

MSAEKSDKAKISAQIKHVPKDAQVIMSILKELNVQEYEPVVNQLEFTFRYVTCILDDA  
KVYANHARKKTIDLDDVRLATEVTLDKSFTGPLERHVLAKVADVRNSMPLPPKPHCGLR  
LPPDRYCLTGVNYKLRATNQPKMTKSAVEGRPLKTVVKPVSSANGPKRPHSVVAKQQVV  
TIPKPVIKFTTTTTTTKTVGSSGGGGGGQEVKSESTGAGGDLKMEVDSDAAVGSIAGA  
SGSGAGSASGGGGGGSSGVGVAVKREEREEEFVFN

>Q16594

MESGKTASPKSMPKDAQMMAQILKDMGITEYEPRVINQMLEFAFRYVTTILDDAKIYSSH  
AKKATVDADDVRLAIQCRADQSFTSPPPRDFLLDIARQRNQTPLPLIKPYSGPRLPPDRY  
CLTAPNYRLKSLQKKASTSAGRITVPRLSVGSVTSRSTPTLGTPTPQTMVSTKVGTMP  
SLTGQRFTVQMPTSQSPAVKASIPATSAVQNVLINPSLIGSKNILITTNMSSQNTANES  
SNALKRKRREDDDDDDDDDDYDNL

>Q05027

MNGGKKNVNLKNSVGSVSEVGPSTQEEPTPRDVRLLHLLLASQSIHQYEDQVPLQLMDF  
HRYTQGVKDALVYNDYAGSGNSAGSGLGVEDIRLAIAARTQYQFKPTAPKELMLQLAAE  
RNKKALPQVMGTWGVRLPPEKYCLTAKEWDLDPKSM

>P78581

MRQHSRMAVAALAAGANAASFTDVCTVSNVKAALPANGTLLGISMLPSAVTANPLYNQSA  
GMGSTTTYDYCNVTVAYTHTGKGDVVIKYAFPSPDYENRFYVAGGGGFSLSSDATGGL  
AYGAVGGATDAGYDAFDNSYDEVVLYGNGTINWDATYMFAYQALGEMTRIGKYITKGFY  
QSSDSKVYTYEYEGSDGREGMSQVQRWGEEDGAI TGAPAFRFAQQQVHHVFSSEVEQT  
LDYPPPCELKIVNATIAACDPLDGRDVGVSRTDLCKLNFNLTSIIGEPYCAAGTST  
SLGFGFSNGKRSNVKRAEGSTTSYQPAQNGTVTARGVAVAQAIYDGLHNSKGERAYLSW  
QIASELSDAETEYNSDTGKWELNIPSTGGEYVTKFIQLLNLNLSLNNVTYDTLVDWMN  
TGMVRYMDSLQTTLPDLTPFQSSGGKLLHYHGSDPSIPAASSVHYWQAVRSVMYGDKTE  
EEALEALEDWYQFYLIPGAACHGTNSLQPGPYPENMEIMIDWVENGKPSRLNATVSSG

TYAGETQMLCQWPKRPLWRGNSSFDCVNDEKSIDSWTYEFPAFKVPVY

>Q03518

MASSRC PAPRGCRCLPGASLAWLGTVLLLLADWVLLRRTALPRIFSLLVPTALPLLRVWAV  
GLSRWAVLWLGACGVL RATVGS KSENAGA QGWLAALKPLAAALGLALPGLALFRELI SWG  
APGSADSTRLLHWGSHPTAFVVS YAAALPAAALWHKLGSLWVPGGQGGSGNPVRRLLGCL  
GSETRRLSFLVLVVLSSLGEMAI PFFTGR L TDWILQDGSADTFTRNL TLMSILT IASAV  
LEFVGDGIYNN TMGHVHSHLQGEVFGAVLRQETEFFQONQTGNIMSRVTEDTSTLSDSLS  
ENLSLFLWYLVRGLCLLGIMLWGSVSLTMVTLITLPLLFLLPKKVGKWKYQLLEVQVRESL  
AKSSQVAIEALSAMPTVRSFANE EGEAQK FREKLQEIKTLN QKEAVAYAVNSWTT S ISGM  
LLKVGILYIGGQLVTS GAVSSGNLVT FVLYQM QFTQAVEVLLS IYPRVQKAVGSSEKIFE  
YLDRTPRCPPSGLL TPLHLEGLVQFQDV SFAYPNRPDVLVLQGLTFTLRPGEVTALVGP N  
GSGKSTVAALLQONLYQPTGGQLLLD GKPLPQYEHRYLHRQVA AVGQEPQVFGRSLQENIA  
YGLTQKPTMEEITAA AVKSGAHSFISGLPQGYDTEVDEAGS QLSGGQRQAVALARALIRK  
PCVLILDDATSALDANSQLQVEQLLYESPERYSRSVLLITQHLSLVEQADHILFLEGGAI  
REGGTHQQLMEKKGCYWAMVQAPADAPE

>P36372

MALSHPRPWASLLLVDLALLGLLQSSLGTL LPPGLPGLWLEGT LRLGLVWGLLKVGGLLR  
LVGTFLPLLCLTNPLFFSLRALV GSTMSTSVVRVASASWG WLLADYGAVALSLAVWAVLS  
PAGA QEKEPGQENNRALMIRLLRLSKPDL PFLIVAFIFLAMAVW WEMFIPHYSGRVIDIL  
GGDFDPDAFASAIFFMCLFSVGS SLSAGCRGGSFLFAESRINLR IREQLFSSLLRQDLAF  
FQETKTGELNSRLSSDTSLMSQWLSLNANILLRSLVKV VGLYYFMLQVSPRLTFLSLLDL  
PLTIAAEKVYNPRHQAVLKEIQDAVAKAGQV VREAVGGLQTVRSFGAE EQEVRRYKEALE  
RCRQLWRRDLEKSLYLVIQRVMALGMQVLI LNNGVQQILAGEVTRGGLLSFLLYQEEVG  
HHVQNLVYMYGDMLSNVGA AEKVS YLDRRPNLPNPGTLAPPRLEGRVEFQDVSFSYPSR  
PEKPV LQGLTFTLHPGKV TALVGPNGSGKSTVAALLQONLYQPTGGQLLLDGEPLVQYDHH  
YLHRQVVLV GQEPVLFSGSVKDNIAYGLRDCEDAQVMAAAQAACADDFIGEMTNGINTEI  
GEKGSQ LAVGQKQRLAIARALVRNPRVLI LDEATSALDAECEQALQ TWR SQEDR TMLVIA  
HRLHTVQNADQVLVLKQGQLVEHDQLRDEQDVY AHLVQQRLEA

>Q99426

MEVTGVSAPT VTVFISSSLNTFRSEKRYSRSLTIAEFKCKLELLV GSPASCMELELYGVD  
DKFYSKLDQEDALLGSYPVDDGCR IHVIDHSGARLGEYEDVSRVEKYTISQEAYDQRQDT  
VRSFLKR SKLGRYNEEERAQQEAEAAQR LAEEKAQASSIPVGS RCEVRAAGQSPRRGTVM  
YVGLTDFKPGYWIGVRYDEPLGKNDG SVNGKRYFECQAKYGAFVKPAVVTVGDFPEEDYG  
LDEI

>Q15813

MSDTLTADVIGRRVEVNGEHATVR FAGVVPVAGPWLGV EWDNPERGKH DGSHEGT VYFK  
CRHPTGGSFIRPNKVNFGTDFLTA IKNRYVLEDGPEEDRKEQIVTIGNKPVETIGFDSIM  
KQQSQLSKLQEVSLRNC AVSCAGEKGGVAEACPNIRKVDLSKNLLSSWDEV IHIADQLRH  
LEVLNVSENK LKFP SGSVLTGTL SVLKVVLVNLQTGITWAEVLR CVAGCPGLEELYLESNN  
IFISERPTDVLQTVKLLDLSSNQLIDENQLYLIAHLPRLEQLILSDTG ISSLHFPDAGIG  
CKTSMFPSLKYLVVNDNQISQW SFFNELEKLP SLRALSCLRNPLTKEDKEAETARLLIIA  
SIGQLKTLNKCEILPEERRRAELDYRKA FGN EWKQAGGHKDPEKNRLSEEF LTAHPRYQF  
LCLKYGAPEDWELKTQ QPLMLKNQLLTLKIKYPHQLDQKVLEKQLPGSMTIQKVKGLLSR  
LLKVPVSDLLLSYESPKKPGREIELENDL KSLQFY SVENGDCLLVRW

>Q90501

MSISQTVSKSYTKSVSRGGQGVSYSQSSSHKVGGGSVRYGTTYSSGGISRVLGFQGGAGG  
AASAGFGGSSVGGSLSRVLGGSMVSGYRSGMGVGGLSLSGTAGLPVSLRGGVAGKALHAI  
TSAFRTRVGGPGTSVGGYGVNYSFLPSTAGPSFGGPFGGPFGGPLGPGYIDPATLP  
SPDVTQHTRIREKQDLQTLNFKFANLVDQVRTLEQHNAILKAQISMITSPSDTPEGPVNT  
AVVASTVTATYNAQIEDLRTTNTALHSEIDHLTTIINDITTKYEEQVEVTRTLETDWNTN  
KDNIDNTYLTIVDLQTKVQGLDEQINTTKQIYNARVREVQAAVTGGPTAAYSIRVDNTHQ  
AIDLTTSLQEMKTHYEVLATKSREEAFTQVQPRIQEMAVTVQAGPQAI IQAKEQIHVFKL  
QIDSVHREIDRLHRKNTDVEREITVIEETNIHTQSDIEWTNNINSLKVDLEVIKKQITQYAR  
DYQDLLATKMSLDVEIAAYKKLLDSEETRI SHGGGITITTNAGTFPGGLSAAAPGGGASYA  
MVPAGVGGVGLAGVGGYGFRSMGGGGVGYGAGGGVGYGVGGGFGGGMGMSMRMSMGA  
AVGGGSYSGSGYSGGFGLSSSRAGYSASRKSYSARSSSRIY

>Q90502

MASHSSVSYRSVRTGGTSAMIGSSGYGGSSSSSRAMGLGMGAAGLSMGGGSFRVGSAGIGG  
MGISSGIGGMGISSRAGGMSAYGGAASGGAGGFVSGGVPMLGYGGGAGGF IGGVSPGIMA  
SPAFTAGRAITSAGMSGVVTGLGPAGGMVPSLVS RDEVKNILGTLNQR LASYVDKVRQLT  
IENETMEEELKNLTGGVPMSPDSTVNLENVETQVTEMLTEVSNLTLERVRLEIDVDHLRA  
TAEIKSKYEFELGVRMQLETDIANMKRDLEAANDMRVDLDSKFNFLEELTFQRKTQME  
ELNLTQQQFGR LGPVQTSVIELDNVKS VNLT DALNMREEYQQVVTKNVQEAET YCKMQI  
DQIQGISTQTTEQISILDKEINTLEKELQPLNVEYQRLLT TYQTLGDRLTDLQNR ESIDL  
VQFQNTYTRYEQEIEGNQVDLQRQLV TYQQLLDVKTALDAE IATYKKLLEGGQELMVRTAM  
ADDFAHATVVRSGTLGGASSSSVGYGASSTTLGAI SGGYSTGGGASYSAGAGGASYSAGA  
GGASYGVGGGYSGGSSAMMEGSSSGHSMYSSSSMKRSSSKSASASAGGYGTSGH DSTII  
LQQ

>P52654

MALCQTSVLKVYHAVIEDVITNVRDAFLDEGVDEQVLQEMKQVWRNKLLASKAVELSPDS  
GDGSHPPP I VANNPKSHKAANAKAKAAAAATAVTS HQHIGGNSSSMSSLVGLKSSAGMAAG  
SGIRNGLVP I KQEVNSQNPPPLHPTSAASMMQKQQQAASSGQGS I PIVATLDPNR IMPVN  
ITLPSPAGSASSESRVLT IQVPASALQENQLTQILTAHLISSIMSLPTTLASSVLQQHVN  
AALSSANHQKTLAAAKQLDGALDSSDEDESEESDDNIDNDDDDLDKDDDEDAEHEDAAE  
EEPLNSEDDVTDEDSAEMFDTDNVI VCQYDK I TRSRNKWK FYLKDGIMNMRGKDYVFQKS  
NGDAEW

>P52655

MANSANTNTVPKLYRSVIEDVINDVRDIFLDDGVDEQVLMELKTLWENKLMQSRAVDGFH  
SEEQQLLLQVQQQHQPQQQHHHHHHHQQAQPQQTVPQQAQ TQQVLI PASQQATAPQVIV  
PDSKLIQHMNASMSAAATAALPAGVTPVQQIL TNSGQLLQV VRAANGAQYIFQPQQ  
SVVLQQQVIPQMPPGGVQAPVIQQVLAPLPGGISPQTGVIIQPQQILFTGNKTQVIPTTV  
AAPTPAQQAQITATGQQQPQAQAQTAQAPLVLQVDGTGDTSSSEDEDEEEDYDDDEEEDKE  
KDGAEDGQVEEPLNSEDDVSDEEGQELFDTENVVVCQYDKIHRSKNKWK FHLKDGIMNL  
NGRDYIFSKAIGDAEW

>Q24318

MAHSTGGTVKTDEVNFFFRNEHQI SKMLKPAQNKSEMEGGKPVAVVYATGSSARNSGSA  
SGIGNVGRMGAFSOMGSQGF IRLQDNGLSIPKTEAGTTYTTVSAQKTS GAGSGHYDLPL  
KGDYVVKFTPNIKMKSKLHAIQSNLSHMSASSSSVQRKRKPKAGKGLRHF SMKVC EK  
VEEKGKTTYNEVADDLVSEEMKNAYDNNDQKNIRRRVYDALNVLM AINVISKDKKEIR  
WIGLPANSTETFLALEEENCQRRERIKQKNEMLRIMQHVAFKGLVERNKRNESQGVVP  
SPNASIQLPFII VNT HKSTKINCSVTNDKSEYIFKFDKTFEMHDDIEVLKRMGFLGLDK

GECTPENIERVKS WVP N LAKYVEAYGTGKTGENMYESDDEDNEFN GYLESANESQGFQAQ  
HSAQH TTDGEFKLEMDDDELDDDDID

>P04155

MATMENKVICALV LVSMLALGTLAE AQ TETCTVAPRERQNCGFPGVTPSQCANKGCCFDD  
TVRGVPWCFYPNTIDVPPEEECEF

>P62072

MDPLRAQQ LAAELEVE MMADMYNRMTSACHRKCVPPHYKEAELSKGESVCLDR CVSKYLD  
IHERMGK KLT ELSMQDEELMKRVQQSSGPA

>Q9C0N3

MFGLGRPQPTSAEKIAAVENELKVVAEMHSRMVKICTLKCIDKSYREGDLSKGESVCLDR  
CAAKFFETHQKISDQLQKETQARGGGGFGM

>P87108

MSFLGFGGGQPQLSSQOKIQAAEAELDLVTDMFNKLVNNCYKKCINTSYSEGELNKNESS  
CLDR CVAKYFETNVQVGENMQMGSFNAAGKF

>P32830

MSFFLN SLRGNQEVSQEKL DVAGVQFDAMCSTFNNILSTCLEKCI PHEGFGE PDLTKGEQ  
CCIDRCVAKMHYSNRLIGGFVQTRGF PENQLRHYSRFVAKEIADDSKK

>Q9Y5L4

MEGGFGSDFGGSGSKLDPGLIMEQVKVQI AVANAQELLQRMTDKCFRKCIGKPGGSLDN  
SEQKCIAMCMDRYMDAWNTVSRAYNSRLQRERANM

>Q7SBR3

MSDSTSETVKKAI IKQVLIESQSANARTLMEKIGENCFTSCV PKPGSSLSNSEKTCVTQC  
TEKYMAAWN VVNTTYLRRIQQEMGNQ

>P53299

MGLSSIFGGGAPSQQKEAATTAKTTPNPIAKELKNQIAQELAVANATELVNKISENCFEK  
CLTSPYATRNDACIDQCLAKYMRSWNVISKAYISR IQNASASGEI

>Q9Y584

MAAAPNAGGSAPETAGSAEAPLQYSLLLQYLVGDKRQPRLLEPGSLGGIPSPAKSEEQK  
MIEKAMESCAFKAAALACVGGFVLGGAFGVFTAGIDTNVGFDPKDPYRTP TAKEVLKDMGQ  
RGMSYAKNF AIVGAMFSCTECLIESYRGTS DWKNSVISGCITGGAIGFRAGLKAGAIGCG  
GFAAFSAAIDYYLR

>Q12328

MVYTGFGLEQISPAQKKPYNELTPEEQGERGAEMIMNFMTSCPGKSVVSGVTGFALGGVL  
GLFMAS MAYDTPLHTPTANTAATATAGNIGVGGISRTVQQISDL PFRQQMKLQFTDMGK  
KSYSSAKNFGYIGMIYAGVECVIESLRAKNDIYNGVTAGFFTGAGLAYKAGPQAALMGGA  
GFAAFSAAIDL YMKSEDGRPPQND FKE

>Q9Y8C0

MDIPQADL DLLNEKDKNELRGFISNETQRQRVQGQTHALTDSCWKKCVTSP IKTNQLDKT  
EAVCMADCVERFLDVNLTIMAHVQKITRGGSK



>P57744

MSSLSTSDLASLDDTSKKEIATFLEGENSKQKQVMSIHQFTNICFKKCVESVNDNLSSQ  
EEQCLSNVCVNRFLDTNIRIVNGLQNTR

>O60220

MDSSSSSSAAGLGAVDPQLQHFIEVETQKQRFQQLVHQMTLCEWEEKCMDKPGPKLDSRAE  
ACFVNCVERFIDTSQFILNRLEQTQKSKPVFSESLSD

>Q9Y5J7

MAAQIPESDQIKQFKEFLGTYNKLTETCFLDVCVDFTTREVKPEETTCSEHCLQKYLKMT  
QRISMRFQYHIQQNEALAAKAGLLGQPR

>Q8J1Z1

MDGLTAAESRELDQRLQKRQVKEFMSVFGNLVDNCFACVDDFTSKALSGRESGCISRCV  
LKSMSQTQLGERFGELNAAMTAEMQRR

>O74700

MDALNSKEQQEFQKVVEQKQMKDFMRLYSNLVERCFDTCVNDFTTSLTNKEQTCIMKCS  
EKFLKHSERVGQRFQEQNAALGQGLGR

>Q9Y5J6

MERQQQQQQQLRNLRDFFLLVYNRMTELCFQRCVPSLHHRALDAEEEEACLHSCAGKLIHSN  
HRLMAAYVQLMPALVQRRADYEAAASAVPGVAAEQPGVSPSGS

>P49021

MSRVRQLHNHIWNNQNFQKVKVSMVDWLLATPQLYSAFSSLGCLEGDYVVPNALAILEE  
INYKLTIEDQTLRTRFRAIGFGQNVRSDLIPLLENAKDDAVLESVIRILVNLTVPVECLF  
SVDVMYRTDVGRHTIFELNKLLYTSKEAFTEARSTKSVVEYMKHILES DPKLSPHKCDQI  
NNCLLLLNRNLIHIPETHAHCVMPMQSMPHGISMQNTILWNLFIQSIDKLLLYLMTCPQR  
AFWGVMTMVQLIALIYKDQHVSTLQKLLSLWFEASLSESSEDNESNTSPPKQSGDSSPML  
TSDPTSDSSDNGSNGRGMGGMREGTAATLQEVSRKGQYQONAMARVPADKPDGSEEASD  
MTGNDSEQPGSPEQSQPAGESMDDGDYEDQRHRQLNEHGEDEDEDEVEEEEEYLQLGPAS  
EPLNLTQQPADKVNNTTNPTSSAPQGCLEGNPFKPPPLPVRASTSAHAQMOKFNESSYA  
SHVSAVKLGQKSPHAGQLQLTKGKCCPQKRECPSSQSELSDCGYGTQVENQESISTSSND  
DDGPQGKPKQKPPCNTKPRNKPRTIMSPMDKELRRKLVKRSKSSLINMKGLVQHTPT  
DDDISNLLKEFTVDFLLKGYSYLVEELHMQLLSNAKVPIDTSHFFWLVTYFLKFAAQLEL  
DMEHIDTILTYDVLSTYEGVSLCEQLELNARQEGSDLKPYLRRMHLVVTAIREFLQAI  
DTYNKVTHLNEDDKAHLRQLQLQISEMSDLRCLFVLLRRFNPSIHSKQYLQDLVVTNHI  
LLLILDSSAKLGGCQTIRLSEHITQFATLEVMHYGILLEDFNNGEFVNDCIFTMHHI  
GGDLGQIGVLFQPIILKTYSRIVEADYELCDDWSDLIEYVIHKFMNTPPKSPLTIPTTSL  
TEMTKEHNQEHTVCSWSQEEMDLYWYVQSKKNNDIVGKIVKLFNNGNKLNKTRISIIQ  
QLLQODIITLLEYDDLKMFEDAEYQRTLLTTPPTSATTESGIEIKECAYGKPSDDVQILLD  
LIIKENKAQHLLWLQRILIECCFVKLTLRSGLKVPEGDHIMEPVAYHCICKQKSIPVVQW  
NNEQSTTMYQPFVLLHKLGIQLPADAGSIFARIPDYWTPETMYGLAKKLGPLDKLNLK  
FDASELEDATASSPSRYHHTGPRNSLSSVSSLDVDLGDTEELALIEVDAAVEKAHAMAS  
TPSPSEIFAVPKTKHCNSIIRYTPDPTPPVFNWLQVLMRSKCNHRTGPGSDPDCVGS  
TTVDDEGFGKSI SAATSQAASTSMSTVNPTTTLNMLNTFMGSHNENSSSSGCGTVSS  
LSMVALMSTGAAGGGGNTSGLMDVDASMKSSFERLEVNGSHFSRANLDQEYSAMVASV  
YEKEKELNSDNVSLASDLTRMYVSEDDRLERTEIRVPHYH

>O60603

MPHTLWMVWVLGVIIISLSKEESSNQASLSCDRNGICKGSSGSLNSIPSGLTEAVKSLDLS  
NNRITYISNSDLQRCVNLQALVLTNSGINTIEEDSFSSLSLEHLDLSSYNYLSNLSSSWF  
KPLSSLTFLNLLGNPYKTLGETSLFSHLTKLQILRVGNMDTFTKIQRKDFAGLTFLEELE  
IDASDLQSYEPKSLKSIQNVSHLILHMKQHILLLEIFVDVTSSVECLELRDIDLDTFHF  
ELSTGETNSLIKKFTFRNVKITDESLFQVMKLLNQISGLLELEFDDCTLNGVGNFRASDN  
DRVIDPGKVETLTIRRLHIPRFYLFYDLSTLYSLTERVKRITVENSKVFLVPCLLSQHLK  
SLEYLDLSENLMVEEYLKNSACEDAWPSLQTLILRQNHLSLEKTGETLLTLKNLTNIDI  
SKNSFHSMPETCQWPEKMKYLNLSSTRIHSVTGCIPKTLIILDVSNNNLNLFSNLNPQLK  
ELYISRNKMLTLPDASLLPMLLVLKISRNAITTFKSKEQLDSFHTLKTLEAGGNFICSC  
FLSFTQEQQALAKVLIDWPANYLCDSPSHVRGQQVQDVRLSVSECHRTALVSGMCCALFL  
LILLTGVLCHRHFGLWYMKMMWAWLQAKRKPRKAPSRNICYDAFVSYSERDAYWVENLMV  
QELFNFPFKLCLHKRDFIPGKWIIDNIIIDSEKSHKTVFVLSENFVKSEWCKYELDFS  
HFRLFDENNDAAAILILLEPIEKKAIPQRFCCLRKIMNTKTYLEWPMDEAQRGFWNLRA  
AIKS

>P32773

MSNAEASRVYEEIIVESVNVNEVREDFENAGIDEQTLQDLKNIWQKLTETKVTTFSWDNQF  
NEGNINGVQNDLNFNLATPGVNSSEFNIKEENTGNEGLILPNINSNNNIPHSGETNINTN  
TVEATNNSGATLNTNTSGNTNADVTSQPKIEVKPEIELTINNANITTVENIDDESEKKDD  
EEKEEDVEKTRKEKEQIEQVKLQAKKEKRSALLDDEVTGSELDSDDDYLISEGEEDGPD  
ENLMLCLYDKVTRTKARWKCSLKDGVVTINRNDYTFQKAQVEAEWV

>P32774

MAVPGYYELYRRSTIGNSLVDALDTLISDGRIEASLAMRVLETFDKVVAE'TLKDNTQSKL  
TVKGNLDTYGFCDDVWTFIVKNCQVTVEDSHRDASQNGSGDSQSVISVDKLRIVACNSKK  
SE

>Q57815

MVKLPAISKKPREIAKQKIIELAKKMYEDLMKGRPKITMPIRSLSNAMFDKEKGSFTLV  
GKEKARTLTVNQAKIFAQTTKMLEFAKQLLETDDFSTLREAYVSKNWGEARFDDQQASN  
NVIEDLEAALGVLREHLGFIPEEDGSSVVGPLKIIETPEGELVVDCTKLG'GTGAYNIPND  
VTKLNLETDAFILAIETSGMFARLNAERFWDKHNCILVSLKGVPARATRRFIKRLHEEH  
DLPVLVFTDGDYGYLNIYRTLKVGSGKAIHLADKLSIPAARLIGVTPQDIIDYDLP'HP  
LKEQDIKRIKDKLNDDFVRSFPEWQKALKQMLDMGVRAEQQSLAKYGLKYV'VNTYLP  
IKDESTWLP

>O05208

MSSEFISKVDKEARRKAANILRDKFLNLVEQLKKGEPLVMEIPMRTLSNAIYDEKRKLLL  
LGEKCLRNFLLDNEAKRFMQTVLMAIIYDALVSDEYPTIRDLYYRGKHSLLLKSIEGN  
KIVSEENTWDEQKESDSVIVDIEVFTSLLREEMLILSKEKGVGNLIRSGNDVIDLSK  
TGHGAYAIEPTPDLIDFIDVDAEFVLVVEKDAV'FQQLHRAGFWKQYKSIILITSAGQP'DRA  
TRRFVRR'LNELKLPVYILTDADPYGWYIFSVFRIGSISLSYESERLATPDAKFLGVSMG  
DIFGNSRKKPYLSEAERKNYIIKAKDADIKRAEIKNYEWF'KTKAWQEEINTFLQRKAKL  
EIEAMASKGLKFLAFQYIPEKITNKDYIA

>O05207

MSAKEKFTSLSPAEFFKRNP'ELAGFPNPARALYQTVRELIENSLDATDVHGILPNIKITI  
DLIDDARQIYKVVVDNGIGIPPQEV'PNAFGRVLYSSKYVNRQTRGMYGLGVKAAVLYSQ

MHQDKPIEIEIETSPVNSKRIYTFKLIKIDINKNEPIIVERGSVENTRGRFHGTSVAISIPGDW  
PKAKSRIYIYIKRTYIITPYAEFIFKDPPEGNVTYYPRLTNKIPKPPQEVKPHYPYGVDR  
IKILINNLKRDTYTIKEFLVNEFQSIGDTTADKILELAGLKPKNKVKNLTEEEITRLVET  
KKDEDFRSPSADSLSVIGEDLIELGLKIFNPDFAASITRKPAYQGHFIVEAGVAFGG  
SIPVGEPIVLRANKIPLIYDEKSDVIWKVVEELDWKRYGIESDQYQMVVMVHLCSTKI  
PYKSAGKESIAEVENIEKEIKNALMEVARKLKQYLSEKRKEQEAKKLLAYLKYIPEVSR  
SLATFLASGNKELVSKYQNEISEGLFKLISKKLDLINIEEYRKVYRVDSE

>Q15628

MAAGQNGHEEWGSAYLFFVESLTKVVLSDAYAHPQQKVAVYRALQAALAESGGSPDVLQ  
MLKIHRSDPQLIVQLRFCGRQPCGRFLRAYREGALRAALQRSLAAALAQHSVPLQLELRA  
GAERLDALLADEERCLSCILAQQPDRLRDEELAELEDALRNLKCGSGARGGDGEVASAPL  
QPPVPSLSEVKPPPPPPPAQTFQFQGPVNRPLSLKDQQTFFARSVGLKWRKVGRLQRC  
CRALRDPALDSLAYEYEREGLYEQAFQLLRRFVQAEGRATLQRLVEALEENELTSLAED  
LLGLTDPNGGLA

>Q24119

MLPYQAAVAMDYAGYQRQPTPGHPGSHMATMGS LGMPAVPFTHSWMVPTQDLCAMPYNK  
MTGHQPPGAGMHAQQPLEPGILELRKEKSRDAARSRRGKENYEFYELAKMLPLPAAIT  
SQLDKASIIRLTISYLKLRDFSGHGDPPWTREASSSSKLSAAIRRSPAVDLFEHQHGT  
ILQSLDGFALAVAADGRFLYISETVSIYGLSQVEMTGSSIFDYIHQADHSEIADQLGLS  
LTSGGGGGGSSSSGGGGGAGGGMASPTSGASDDGSGTHGTNNPDVAASMTQASTSGYK  
GYDRSFCVRMKSTLTRKGCHFKSSGYRASDATSNMNGNASNNAKNVKNPGSNYSVLL  
LCKLRPQYTFSHSRKSQPPLLGVALAIALPPPSVHEIRLECDMFVTRVNFDLRVAHCEP  
RVSDLLDYSPELDVNSLSYLCHAEDANRLRKS HSDLIEKGQVLTGYRMLMNSGGYT  
QTCATVVCSTKNADEQNIICVNYVISNRENENMILDCCQLEPSPDSIKHEEGLGNDKSSG  
SPGGDASGEGNSHL SAGDMKLNPKTDSEGHSHRGRGRSAAASHGSSMNSLTMIKDSPT  
LGVEIDSGVLPPTVATPVPAATPPVQSTKRKRKTASQHAEDQGEQVISEQPLPKLPTM  
EQRDQQPRSLPSIVDEQPSSAADS AVKDLQAMSKHLPSPAAVSVAPPNTDF SADSLL  
KQQQQQQQLDPNEKSSTIQWIGTPYQPPAPMPATALLRQLYANRESVIRATARQTPGT  
GPGVFYGDQQTGPLPTPPGSESSYENQYLQLHSAASGGHPGGQKTSADAFTNLVSTYGGY  
HSSIDYHNAMTPSSVSPRDSNQPGKAAPVLASNGGYDYAPDPLRGQYATSSGDVVPATL  
PLKQPASYTATMHPSGSTTTTEGGVTYSNLDQPQYFAPHSSFHLYHKGSPASGWYSTPS

>Q96FX7

MSFVAYEELIKEGDTAILSLGHGAMVAVRVQRGAQTQTRHGVLRHSVDLIGRPFSGKVT  
GRGGWVYVHLHPTPELWTLNLP HRTQILYSTDIALITMMLLELRPGSVVCESGTGSGVSHA  
IIRTIAPTGH LHTVEFHQQRAEKAREEFQEHVGRWVTVRTQDVCRSFGVSHVADAVFL  
DIPSPWEAVGHAWDALKVEGGRFCFSFPCIEQVQRTCQALAARGFSELSTLEVLPPQVYNV  
RTVSLPPPDLGTGTDPAGSDTSPFRSGTPMKEAVGHTGYLTFATKTPG

>P46959

MSTNCFSGYKDLIKEGDLTLI WVRDNIKPVRMHSEEVFNTRYGSFPHKDIIGKPYGSQI  
AIRTKGSNKFAFVHVLQPTPELWTLSPHRTQIVYTPDSSYIMQRLNCSPHSRVIEAGTG  
SGSFSAFARVGHLSFSEFHHIRYEQALEEFKEHGLIDDNVTITHRDVCQGGFLIKKGD  
TTSYEFGNNETAASLNANVFLDLPAWDAIPHLDSVISVDEKVG LCCFSPCIEQVDKTL  
DVLEKYGWTDVEMVEIQGRQYESRRQMVRSLNDALERLRDIKRHKLQGVERRKRMFNNTI  
DSNDEKVGKRNEDGVPLTEKAKFNPF GKGSRIKEGDSNYKWEVTKMEAEIKSHTSYLTF  
AFKVVNRSRDDEKVNELRSTEK

>Q9UJA5

MEGSGEQPGPQHPGDHRIRDGDFVVLKREDVFKAVQVQRRKKVTFEKQWFYLDNVIGH  
SYGTAFEVTSGGSLQPKKKREEPTAETKEAGTDNRNIVDDGKSQKLTQDDIKALKDKGKIK  
GEEIVQQLIENSTTFRDKTEFAQDKYIKKKKKKYEAIITVVKPSTRILSIMYYAREPGKI  
NHMRDYDTLAQMLTLGNIRAGNKMIVMETCAGLVLGAMMERMGFGSIQLYPGGGPVRAA  
TACFGFPKSFSLGLEYFPLNKVDSLHGTFSAKMLSSEPKDSALVEESNGTLEEKQASEQ  
ENEDSMAEAPESNHPEDQETMETISQDPEHKGPKERGSKKDYIQEKQRRQEEQRKRHLEA  
AALLSERNADGLIVASRFHPTPLLLSLLDFVAPSRPFVVCYQYKEPILLECYTKLRERGGV  
INLRLSETWLRNYQVLPDRSHPKLLMSGGGYLLSGFTVAMDNLKADTSLKSNASTLESH  
ETEEPAAKKRKCPESDS

>P41814

MNALTTIDFNQHVIVRLPISKNYKIVELKPNVSVSLGKFGAFEVNDIIGYPFGLTFEIIYD  
GEEVSSDENRDSKPKNKIPIGKVRLLSQEI KDVNNDKDDGQSEPPLSIKEKSVSLELSSI  
DSSATNQNLVNMGSKAQELTVEEIEKMKQESLSSKEIIDKIIKSHKSFHNKTVYSQEKYV  
NRKKQKFAKYFTVEYLSSSNLLQFLIDKGDIQRVLDMSQESMGMLNLANIQSEGNLYLCM  
DETGGLLVYFLLERMFGGDNESKSKGKVIIVIHENEHANLDDLKFNANYSEKFIKEHVHTIS  
LLDFEFEPPTLQEIQSRFTPLPKEEARALKGGKKNSSYRKLRLWYNTQWQILELTGEFLYDG  
LVMATTLHLPTLVPKLAEKIHGSRPIVCYQGFKETLLELAHTLYSDLRFLAPSILETRCR  
PYQSIRGKHLPLMTMKGGGYLMWCHRVIPAPEPVSENATAADSSEKLAEHGAKKQKI

>Q08127

MRVLLASAVLCLLAGQVLSICSPVDYTLVEKPECDFCVAINTTICMGFCYSLDPNVVG  
PAVKRLVVQRGCTYQAVEYRTAELPGCPPHVDPRFSYPVALHCTCRACDPARDECTHRAS  
ADGDRCSKPLLLHMHAYPGQSNYIQTL

>P01223

MTATFLMSMIFGLACGQAMSFCIPTEYMMHVERKECAYCLTINTTVCAGYCMTRDVNGKL  
FLPKYALSQDVCTYRDFMYKTAEIPGCPRHVTPYFSSYPVAISCKCGKNTDYSDCIHEAI  
KTNCTKPKQSYMVGFSI

>P37240

MELSVAMYGLLCLLFSQAVPMCVPDYTLVEERRECDFCVAINTTICMGFCYSRDSNMKE  
LAGPRFLIQRGCTYDQVEYRTVILPGCPLHANPLFTYPVALSCHCGTCNTDSDECAHKAS  
SGDGARCSKPLRHIYPYPGLNSYIHPN

>P45530

MLHTLHRSPWLTDFAAALLRLLSEGDELLLLQDGVTAAVDGNRYLES LRNAPIKVYALNED  
LIARGLTGQISNDIILIDYTDVRLTVKHPSQMAW

>P52488

MPRETSLVTIIGEDSYKKLRSSRCLLVGAGGIGSELLKDIILMEFGEIHIVDLDTIDLNS  
LNRQFLFRQDKIQPKSTTAVKAVQHFNNKLVVPYQGNVMDISTFPLHWFEQFDIIFNAL  
DNLAARRYVNKISQFLSLPLIESGTAGFDGYMQPIIPGKTECFECTKKETPKTFPVCTIR  
STPSQPIHCIVWAKNFLFNQLFASETSGNEDDNNQDWGTDAAEIKRIKQETNELYELQK  
IIISRDASRIPEILNKLFIQDINKLLAIENLWKTRTKPVPLSDSQINTPTKTAQSASNSV  
GTIQEQISNFINITQKLMDRYPKEQNHI EFDKDDADTLEFVATAANIRSHIFNIPMKS VF  
DIKQIAGNIIPAIATTNAIVAGASSLISLRVLNLLKYAPTTKYTDLNMAFTAKASNLSQN  
RYLSNPKLAPPKNKCPVCSKVCRGVIKLSDDCLNKMKLSDFVVLIREKYSYPQDISLLDA  
SNQRLFLFDYDFEDLNDRTLSEINLNGSIIILFSDEEGDTMIRKAI EFLDLDVDELEPCNTC

SLPDVEVPLIKANNSPSKNEEEKNEKGADVATTNSHGKDGIVILDDDEGEITIDAEP I  
NGSKKRVPVDEISEAPSNKRRTKLVNEPTNSDIVELD

>O65041

MADLDVPPQVPQSKTRDLKLLLRHGNLVDPGFVPGPGLRDDIRDYVRILVIGAGGLGCE  
LLKDLALSQFRNLEVIDMDRIEVTNLRQFLFRIEDVKGPKAEVAAKRVMERVSVEIVP  
HFSRIEDKEIEFYNDFNIIALGLDSIEARKYINGVACGFLEYNEDDTPKRETIKPMVDGG  
TEGFKGHARVILPGVTPCFECTIYLFPPQVKFPLCTLAETPRNAAHCIEYAHLIQWETVH  
RGKTFDPDEPEHMKWVYDEAIRRAELFGIPGVTYSLTQGVVKNIIPAIASTNAIISAACA  
LETCLKIVSACSKTLVNYLTYNGGEGLYTEVTKFERDTECLVCGPILIELDTSVTLKSKI  
EMLEDHPKLLLSKASVKQGENTLYMQAPPVLEEFHRPKLSKPLYDLMGRVQKDTIHVFGQ  
RALKNNEKESCTTKVRVVFVKGADGVADMDTAIGA

>P30530

MGRVPLAWCLALCGWACMAPRGTQAEESPFVGNPGNITGARGLTGTLRCQLVQVQGEPEV  
HWRLDGQILELADSTQTVPLGEDEQDDWIVVSQLRITSLQLSDTGQYQCLVFLGHQTFV  
SQPGYVGLLEGLPYFLEEPEDRTVAANTPFNLSQCAQGPPEPVDLLWLQDAVPLATAPGHG  
PQRSLHVPGLNKTSSFSCEAHNAKGVTTSTRATITVLPQQPRNLHLVSRQPTELEVAWTP  
GLSGIYPLTHCTLQAVLSDDGMGIQAGEPDPPEEPLTSQASVPPHQLRLGSLHPHTPYHI  
RVACTSSQGPSSWTHWLPVETPEGVPLGPPENISATRNGSQAFVHWQEPRAPLQGTLLGY  
RLAYQGQDTPVELMDIGLRQEVTTLELQGDGVSNSLTVCAAYTAAGDGPWSLVPLEAWR  
PGEAQPVHQLVKEPSTPAFSWPWWYVLLGAVVAAACVLILALFLVHRRKKETRYGEVFEP  
TVERGELVVRYRVRKSYSRRTTEATLNSLGISEELKEKLRDVMVDRHKVALGKTLGEGEF  
GAVMEGQLNQDSSILKVAVKTMKIAICTRSELEDFLSEAVCMKEFDHPNVMRLIGVCFQG  
SERESFPAPVVILPFMKHGDLSHFLYSRLGDQPVYLPQMLVKFMADIASGMEYLSKTR  
FIHRDLAARNCLNENMSVCVADFGLSKKIYNGDYRQGRIAKMPVKWIAIESLADRVT  
SKSDVVSFGVTMWEIATRQTPYPGVENSEIYDYLRQGNRLKQPADCLDGLYALMSRCWE  
LNPQDRPSFTELREDLENTLKAALPPAQEPDEILYVMNDEGGGYPEPPGAAGGADPPTQPD  
PKDSCSCLTAAEVHPAGRYVLCPSTTPSPAQPADRGSPAAPGQEDGA

>P41020

MKINRQQYAESYGPTVGDRLADTDLGEVEKDYLLGDEVNFGGGKVLREGMGENTY  
RTENVLDLTLNAILDYTGKADIGVKDGYIVGIGKGNPDIMDGVTPNMIVGTATEV  
IAAEGKIVTAGGIDTHVHFINPDQVDVALANGITTLFGGGTGPAEGSKATTVTPGPWNI  
KMLKSTEGLPINVGILGKGHSSIAPIIMEQIDAGAAGLKIHEDWGATPASIDRSLTVAD  
ADVQVAIHSDTLNEAGFLEDTVRAINGRVIHSFHVVEGAGGGHAPDIMAMAGHPNVLPSS  
NPTRPFTVNTIDEHLDMVMVCHHLKQNIPEVAFADSRIRPETIAAEDILHDLGII SMMS  
TDALAMGRAGEMVLRWTQADKMKKQRGPLAEKNGSDNFRKRYVSKYTINPAIAQGM  
HEVGSIEEGKFADLVLEPKFFGVKADRVIKGGIIAYAQIGDPSASIPTPQVPMGRMYG  
TVGDLIHDTNITFMSKSSIQQGVPAKLGKRRIGTVKNCRNIGKKDMKWNVDVTTDIDINP  
ETYEKVDGEVLTCEPVKELPMAQRYFLF

>P0A660

MARLSRERYAQLYGPTTGDRIRLADTNLLVEVTEDRCGGPGLAGDEAVFGGGKVLRESMG  
QGRASRADGAPDTVITGAVIIDYWGIIKADIGIRDGRIVGIGKAGNPDIMTGVRDLVVG  
PSTEIIISGNRRIVTAGTVDCHVHLICPQIIIVEALAAGTTTTIIGGGTGAEGTKATTVTPG  
EWHLARMLES LDGWPVNFALLGKGNTVNPDALWEQLRGGASGFKLHEDWGSTPAAIDTCL  
AVADVAGVQVALHSDTLNETGFVEDTIGAIAGRSIHAYHTEGAGGGHAPDIITVAAQPNV  
LPSSTNPTRPHTVNTLDEHLDMVMVCHHLNPRIPEDLAFAESRIRPSTIAAEDVLHDMGA  
ISMIGSDSQAMGRVGEVLRWTQTAHV MKARRGALEGDPSGSQAADNNRVRRYIAKYTIC

PAIAHGMDHLIGSVEVGKLDLVLWEPAFFGVRPHVVLKGGAIAWAAMGDANAS IPTPQP  
VLPRPMFGAAAATAAATSVHFVAPQSIDARLADRLAVNRGLAPVADVRAVGKTDLPLNDA  
LPSIEVDPDTFTVRIDGQVWQPQPAAEELPMTQRYFLF

>P14916

MKLTPKELDKMLLHYAGELAKKRKEKGIKLNVEAVALISAHIMEEARAGKKTAAELMQE  
GRTLLKPDVMDGVASMIHEVGIEMFPDGTCLVTVHTPIEANGKLVPGELFLKNEDITI  
NEGKKAHSVVKVNVGDRPVQIGSHFHFVEVNRCLDFDREKTFGKRLDIASGTAVRFEPGE  
EKSVELIDIGGNRRIFGFNALVDRQADNESKKIALHRAKERGFHGAKSDDNYVKTIKE

>P41021

MSNNNYIVPGEYRVAEAGEIEINAGREKTTIRVSNTGDRPIQVGSIIHFVEVNKELLDRA  
EGIGRRLNIPSGTAARFEPGEEEMEVELTELGGNREVFGISDLTNGSVDNKELILQRAKEL  
GYKQVE

>P0A662

MIPGEIFYGSGDIEMNAAALSRMQMRIINAGDRPVQVGSVHLPQANRALSFDRATAHGY  
RLDIPAATAVRFEPGIPQIVGLVPLGGRREVPGLTLNPPGRLDR

>P17087

MIPGEIRVNAALGDIELNAGRETKTIQVANHGDRPVQVGSYHYFYEVNEALRFARKETLG  
FRLNIPAGMAVRFEPGQSRVTDELVAFAGKREIYGFHGKVMGKLESEKK

>P41022

MHLNPAEKEKLQIFLASELLRRKARGLKLNYPEAVAIITSFIMEGARDGKTVAMLMEEG  
KHVLTTRDDVMEGVPEMIDDIQAEATFPDGTCLVTVHNPIS

>P0A8F8

MSKPFKLNSAFKPSGDQPEAIRRLEEGLEDGLAHQ'TLLGVTGSGK'TFTIANVIADLQRPT  
MVLAPNKTLLAAQLYEMKEFFPENAVEYFVSYDYDYQPEAYVPSSTDFIEKDASVNEHIE  
QMRLSATKAMLERRDVVVASVSAIYGLGDPDLYLKMLLHLTVGMIIDQRAILRRLAELQ  
YARNDQAFQRGTRFRVGEVIDIFPAESDDIALRVELFDEEVERLSLFDPLTGQIVSTIPR  
FTIYPKTHYVTPRERIVQAMEEIKEELAARRKVLLLENKLLLEEQLRTQRTQFDLEMMNEL  
GYCSGIENYSRFLSGRGPGEPPPTLFDYLPADGLLVVDESHVTIPQIGMYRGDRARKET  
LVEYGFRLPSALDNRPLKFEFEALAPQTIYVSATPGNYELEKSGGDVVDQVVRPTGLLD  
PIIEVRPVATQVDDLSEIRQAAINERVLVTTLTKRMAEDLTEYLEEHGERVRYLHSDI  
DTVERMEIIRDLRLGEFDVLVGINLLREGLDMPEVSLVAILDADKEGFLRSERSLIQTIG  
RAARNVNGKAILYGDKITPSMAKAIGETERRREKQKYNEEHGITPQGLNKKVVDILALG  
QNIAKTKAKGRGKSRPIVEPDNVPMDSPKALQKIHLEGLMMQHAQNLEFEAAQIRD  
QLHQLRELFIAAS

>P09258

MFLIQCLISAVIFYIQVTNALIFKGDHVSQVNSSLTSILIPMQNDNYTEIKGQLVFIGE  
QLPTGTNYSGTLELLYADTVAFCFRSVQVIRYDGCPRIRTSAFISCRYKHSWHYGNSTDR  
ISTEPDAGVMLKITKPGINDAGVYVLLVRLDHSRSTDGFILGVNVYTAGSHHNIHGVIYT  
SPSLQNGYSTRALFQOARLCDLPATPKGSGTSLFQHMLDLRAGKSLEDNPWLHEDVVTTE  
TKSVVKEGIENHVYPTDMSTLPEKSLNDPPENLLIIPIVASVMILTAMVIVIVISVKRR  
RIKKHPIYRPNTKTRRGIQNATPESDVMLEAAIAQLATIREESPPHSVVPFVK

>P0A3W6

MTRKALFILACLFAAATGAEAEDTPMAGKLDPRMRYLAYNPDQVVRLSTAVGATLVVTFATNETVTSVAVSNSKDLAALPRGNYLFFKASQVLTQPVIIVLTASDSGMRRYVFSISSKTL  
SHLDKEQPDLYYSVQFAYPADDAARRREAQQRAVVDRHLHAEAQYQRKAEDLLDQPVTAL  
GATDSNWHYVAQGDRSLLPLEVFDNGFTTTFHFPGNVRIPSIY TINPDGKEAVANYSVKG  
SDVEISSVSRGWRLRDGHTVLCIWNAAAYDPVGGQRPQTGTVRPDVKKRVLKGAKE

>Q9UYZ1

MVEYKPIKQVSGNYAAAAYVLHARVQVVAAYPITPQTSII EKIAEFIANGEADIQYIPV  
ESEHSAMAACIGASATGARVFTATSAQGLALMHEMLHWAAGARLP IVMVDVNRAMAPPWS  
VWDDQTDLSLQRDTGWMQFYAENNQEVYDGVLMFAFKVAETVNV PAMVVE SAFILSHTYEI  
VNMI PQELVDEFLPPRKPLYSLADFENPIAVGALATPADYEFYKYLARAHEEAKKVIKD  
VGREFGERFGRDYSEMI EKAYIDDADVFVMGMGSLMGTVKEAVELLRKQGYKVG YAKVRW  
FRFPREELLEIAESVKGIAVLDRNFSFGQEGILFTEAKGALYNNGARPI MKNYIVGLGG  
RDFTVSDVKAIAEDMKKVIESGKLDREVEWYHLKR

>O26800

MATQMVKGNTAVIIGAMYAGCDCYFGYPITPASEILHEASRYFPMVGRKFVQAESEEA  
NMVYGAAAAGHRVMTASSGPGISLQEGISFLAGAELPAVIVDVMRAGPGLGNIGPEQGD  
YNQIVKGGGHGNRNMVLAPSSVQEMCDLTMEAFELADKYRNPVVVLTDAVLGQMAEPLR  
FP EEAVEHRPDTSWAVCGNRET MKNLVTSIFLDFDELEEFNFY LQEKYARIEENEVRYEE  
YLVDDAEIVMVAYGISSRVARSAVETARAEGINVGLLRPITLFPFSDR IRELADGGCRF  
ISVEMSSGQMREDIRMASGCRDVELVNRMGGNLIELRDVLEKIREVAGDSSD

>Q51802

MEVPENIKKRV TIPFEEHFYAGHTACQCGASLGLRYVLKAYGKKTILVIPACCSTIIAG  
PWPYSAIDANLFHTAFETTGAVISGIEAALKAMGYKVKGEDGIMVVGWAGDGGTADIGLQ  
ALSGFLERGHDAVYIMYDNEAYMNTGIQRSSSTPYGAWTNTPTGRRHFLEKRHHKKKVID  
IVIAHRIPYAATASIAYPEDFIRKLLKKAQKISGPSFIQLFAPCPTGWRAPTDKSI E IARL  
AVQTAYFP LF EYENGKYKINMPNPKKEPKPIEEFLKLQGRFKYMTKEDIETLQKVVLEEW  
ERLKKLAEVFG

>Q9WTR6

MVRKPVVATISKGGYLQGNMSGRLPSMGDQEPGQEKVVLKKKITLLRGSIIIGTVIGS  
GIFISPKGILQNTG SVGMSLVFWSACGVLSLFGALS YAELGTSIKKSGGHYTYILEVFGP  
LLAFVRVWVVELL V IRPGATAVISLAFGRYILEPFFIQCEIPELAIKLVTAVGITVVMVLN  
STSVSWSARIQIFLTFCKLTAILIIIVPGVIQLIKGQTHHFKDAFSGRDTSLMGLPLAFY  
YGMAYAGWFYLNFI TEEVDNPEKTIPLAICISMAIITVGYVLTNVAYFTTISAEELLQS  
SAVAVTFSERLLGKFSLAVPIFVALSCFGSMNGGVFAVSRLFYVASREGHLPEILSMIHV  
HKHTPLPAVIVLHPLTMVMLFSGDLYSLLNFLSFARWLFMGLAVAGLIYLR YKRPDMHRP  
FKVPLFIPALFSFTCLFMVVL SLYSDPFSTGVGFLITLTGVPAYYLFIVWDKKPKWFRRL  
SDRITRTLQIILEVVPEDSKEL

>P0ABR7

MSNLSPDFVL PENFCANPQEAWTIPARFYTDQNAFEHEKENVFAKSWICVAHSSELANAN  
DYVTREIIGESIVLVRGRDKVLRAFYNVCPHRGHQLLSGEGKAKNVITCPYHAWAFKLDG  
NLAHARNCENVANFSDKAQLVPVRLEEYAGVFVINMDPNATSVEDQLPGLGAKVLEACP  
EVHDLKLAARFTTRTPANWKNIVDNYLECYHCGPAHPGFSDSVQVDRYWHMHNWTLQY  
GFAKPSEQSFKFEEGTDAAFHGFWLWPC TMLNVTP IKGMMTVIYEFVVDSETTLQNYDIY  
FTNEELTDEQKSLIEWYRDVFRPEDLRLVESVQKGLKSRGYRQGRIMADSSSGSISEHG  
IAHFHNL LAQVFKD

>Q9UM01

MVDSTEYEVASQPEVETSPLGDGASPGPEQVKLKKKEISLLNGVCLIVGNMIGSGIFVSPK  
GVLIYSASFGLSLVIWAVGGLFSVFGALCYAELGTTIKKSGASYAYILEAFGGFLAFIRL  
WTSLLIIIEPTSQAI IAITFANYMVQPLFPSCFAPYAASRL LAAACICLLTF INCA YVKWG  
TLVQDIFTYAKVLALIAVIVAGIVRLGQGASTHFENSFEGSSFAVGDIALALYSALFSYS  
GWDTLN YVTEEIKNPERNLPLSIGISMP IVTIIYILTNVAYYTVLDMRDILASDAVAVTF  
ADQIFGIFNWIIPLSVALSCFGGLNASIVAASRLFFVGSREGHL PDAICMIHVERFTPVP  
SLLFNGIMALIYLCVEDIFQLINYYSF SYWFFVGLSIVGQLYLRWKEPDRPRPLKLSVFF  
PIVFCLCTIFLVAVPLYSDTINSLIGIAIALSGLPFYFLIIRVPEHKRPLYLRRIVGSAT  
RYLQVLCMSVAAEMDLEDGGEMP KQRDPKSN

>Q969S3

MATYTCITCRVAFRDADMQRAHYKTDWHRYNLRKVASMAPVTAEGFQERVRAQRAVAEE  
ESKGSATYCTVCSKKFASFNAYENHLKSRRHVELEKKAVQAVNRK VEMMNEKNLEKGLGV  
DSVDKDAMNAAIQQA IKAQPSMSPKKAPPAPAKEARNVAVGTGGRGTHDRDPSEKPPRL  
QWFEQQAKKLAKQQEEDSEEEEEEDLDGDDWEDIDSDEELECEDTEAMDDVVEQDAEEEEEA  
EEGPPLGAIPITDCLFCSHHSSSLMKNVAHMTKDHSFFIPDIEYLS DIKGLIKYLGEKVG  
VGKICLWCNEKGSFYSTEAVQA HMNDKSHCKLFTDGDAALEFADF YDFRSSYPDHKEGE  
DPNKA EELPSEKNLEYDDETMELILPSGARVGHRS LMRYKQRFGLSRAVAVAKNRKAVG  
RVLQQYRALGWTGSTGAALMRERDMQYVQRMKSKWMLKTGMKNNATKQMHFRVQVRF

>P32527

MFSLPTLTSDITVEVNSSATKTPFVRRPVEPVGKFFLQHAQRTL RNHTWSEFERIEAEKN  
VKTVDESNVDPDELLFDTELADEDLLTHDARDWKTADLYAAMGLSKLRF RATESQI IKAH  
RKQVVKYHPDKQSAAGGSLDQDGF KIIQKAFETLTD SNKRAQYDSCDFVADVPPP KGT  
DYDFYEAWGPVFEAEARFSKKTPIPSLGNKDSKKEVEQFYAFWHRFDSWRTFEFLDEDV  
PDDSSNRDHKRYIERKNKAARDKKTADNARLVKLV ERAVSEDPR IKMFKEEEKKEKERR  
KWEREAGARAEAEAKAKAEAEAKAKAESEAKANASAKADKKKAKEAAKAAKKNKRAIRN  
SAKEADYFGDADKATTIDEQVGLIVDSLND EELVSTADKIKANAAGAKEVLKESAKTIVD  
SGKLPSSLLSYFV

>P18485

MGFEIAKTNSILSKLATNEEHGENSPYFDGWKAYDSDPFHPLKNP NGVIQMGLAENQLCL  
DLIEDWIKRNPKGSICSEGIKSFKAIANFQDYHGLPEFRKAI AKFMEKTRGGRVRFDPER  
VVMAGGATGANETIIFCLADPGDAFLVPSYYPAFNRDLRWR TGVLPIHCESSNNFKI  
TSKAVKEAYENAQKSNIKVKGLILTNPSNPLGTTLDKDTLKS VLSFTNQHN IHLVCDEIY  
AATVFDTPQFVSAEILDEQEMTYCNKDLVHIVYSLSKDMGLPGFRVGI IYSFNDDV VNC  
ARKMSSFGLVSTQTQYFLAAML SDEKFVDNFLRESAMRLGKRHKHF'TNGLEVVGIKCLKN  
NAGLFCWMDLRPLLRETFDSEMSLWRVIINDVKLVN SPGSSFECQEPGWFRVCFANMDD  
GTVDIALARIRRFVGV EKS GDKSSSMEKKQWKKNNLRLSFSK RMYDES VLSPLSSPIPP  
SPLVR

>P30233

MAKLIFLFATLALFVLLANASIQTTVIEVDEEEDNQLWRCQRQFLQHQR LRACQRFIHRR  
AQFGGQPDELEDEVEDDND DENQPRR PALRCCNQLRQVDRPCVCPVLRQAAQQVLQRQI  
IQGPQQLRRLFDAARNLPNICNIPNIGACPFRAWP

>P23110

MARFSIVFAAAGVLLLLVAMAPVSEASTTTIITTIIEENPYGRGRTESGCYQQMEEAEMLN



HCGMYLMKNLGERSQVSPRMREEDHKQLCCMQLKNLDEKCMCPA IMMMLNEPMWIRMRDQ  
VMSMAHNLP IECNLMSQPCQM

>P17718

DQASMQRASRLHLHQCDLRPRDCARRSSSERGQGERWRQQLRACDEDSEPRQQCCQNLQRIS  
SQDRCRA

>O43741

MGNTTSDRVSGERHGAKAARSEGAGGHAPGKEHKIMVVGSTDDPSVFSLPDSKLPDKEFV  
SWQQDLEDSVKPTQQARPTVIRWSEGGKEVFISGSFNWSTKIPLIKSHNDFVAIIDLPE  
GEHQYKFFVDGQVWHPSEPVVTSQLGTINNLIHVKKSDFEVFDALKLDSMESSETSCRD  
LSSSPPGPYGQEMYAFRSEERFKSPPILPPLLQVILNKDTNISCDPALLPEPNHVMLNH  
LYALSIKDSVMVLSATHRYKKKYVTTLLYKPI

>P54646

MAEKQKHDGRVKIGHYVLGDTLGVGTFGKVKIGEHQLTGHKVAVKILNRQKIRSLDVVGK  
IKREIQNLKLFRRPHI IKLYQVISTPTDFFMVMEYVSGGELFDYICKHGRVEEMEARRLF  
QQILSAVDYCHRHMVVRDLKPENVLDDAHMNAKIADFGLSNMMSDGEFLRTSCGSPNYA  
APEVISGRLYAGPEVDIWSCGVILYALLCGTLPFDDEHVPTLFFKKIRGGVFYIPEYLNRS  
VATLLMHMLQVDPLKRATIKDIREHEWFQDLPSYLFPEPDSYDANVIDDEAVKEVCEKF  
ECTESEVMNSLYSGDPDQLAVAYHLIIDNRRIMNQASEFY LASSPPSGSFMDDSAMHIP  
PGLKPHPERMPPLIADSPKARCPLDALNTTKPKSLAVKKAKWHLGIRSQSKPYDIMAENVY  
RAMKQLDFEWKVVNAYHLRVRKPNVVTGNYVKMSLQLYLVDNRSYLLDFKSIDDEVVEQR  
SGSSTPQRSCSAAGLHRPRSSFSTTAESHSLSGSLTGSLTGSTLSSVSPRLGSHTMDF  
EMCASLITTLAR

>P0ABD5

MSLNFLDFEQPIAELEAKIDSLTAVSRQDEKLDINIDEEVHRLREKSVELTRKIFADLGA  
WQIAQLARHPQRPYTLDYVRLAFDEFDELADRAYADDKAI VGGIARLDGRPVMIGHQK  
GRETKEKIRRNFMPAPEGYRKALRLMQMAERFKMPIITFIDTPGAYPGVGAEEERGQSEA  
IARNLREMSRLGVPVCTVIGEGGSGGALAI VGVGDKVNMLQYSTYSVISPEGCASILWKS  
ADKAPLAAEAMGIIAPRLKELKLIDSIIPEPLGGAHRNPEAMAASLKAQLLADLADLDVL  
STEDLKNRRYQRLMSYGYA

>P0A9Q5

MSWIERIKSNITPTRKASIEPGVWTKCDSCGQVLYRAEELERNLEVCPCDHHRMTARNR  
LHSLLDDEGSLVELGSELEPKDVLKFRDSKKYKDRLASAQKETGEKDALVVMKGTLYGMPV  
VAAAFEFAMGGSMGSVVGARFVRAVEQALEDNCP LICFSASGGARMQEALMSLMQMAKT  
SAALAKMQERGLPYISVLTDPMTGGVSASFAMLGDLNIAEPKALIGFAGPRVIEQTVREK  
LPPGFQRSEFLIEKGAIDMIVRRPEMRLKLASILAKLMNLPAPNPEAPREGVVVPPVPDQ  
EPEA

>O74935

MNPNTGTIEINGKEYNTFTTEPPVAMAQERAKTSFPVREMTYFLDGGEKNTLKNEQIMEE  
IERDPLFNNDNYDLNKEQIRELTMERVAKLSLFRDQPEDDIKKRFALIGIADMGTYTR  
LGVHYGLFFGAVRGTGTAEQFGHWISKGAGDLRKFYGCFSMTELGHGSNLAGLETTAIYD  
EETDEFIINTPHIAATKWWIGGAAHTATHTVVFARLIVKGDYGVKTFVQVLRNINDHSL  
KVGISIGDIGKKMRDGDINDGWIQFTNVRIPRQNLMLKYTKVDREGNVTQPPLAQLTYGS  
LITGRVSMASDSHQVGKRFITIALRYACIRRQFSTTPGQPETKIIDYPYHQRRLLPLLAY  
VYALKMTADEVGALFSRTMLKMDDLKPPDKAGLNEVVSVDKELFSVSAGLKAFSTWACAD

VIDKTRQACGGHGYSGYNGFGQAYADWVWVQCTWEGDNNILTLSAGRALIQSAVALRKGEF  
VGNAVSYLKRYKDLANAKLNGRSLTDPKVLVEAWEVAAGNI INRATDQYEKLI GEGLNAD  
QAFEVLSQORFQAQVHTRRHLLIAAFFSRIDTEAGEAIKQPLLNLLALFALWSIEEDSGL  
FLREGFLEPKDIDTVTELVNKYCTTVREEVIGYTDAFNLSDYFINAPIGCYDGDAYRHYF  
QKVNEQNPARDP RPPYYASTLKPFLFREEEDDDICELDEE

>P81600

ATAGQVIKCKAAVAWEAGKPLSLEEVEVAPPRAGEVRIKVVATGVCHTDAYTLSGSDPEG  
AFPVILGHEGAGLVESVGEVTKFKAGD TVIPLYVPQCGECKFCCKNPKTNLCQKIRVTQG  
RGLMPDNTSRFTCKGKQLFHFMTSTFSEYTVVADISLANVDPKAPLDKVCLLGCIGISTG  
YGAALNTAKVEPGSTCAVFGGLGAVGLAAIMGCKVAGATRIIGVDINPEKFGKAAEFGATE  
CLNPKDHARPVQEVLEVMTDGGVDYSFECIGNVEIMRSAL EACHKGWGESVIIGVAGAGQ  
EIATRPFQLVTGRVWKATAFGGWKSVESVPKLVEDYMNKLLKVD E FVTHTLPFDSINEGF  
DLMHAGKSIRCVLTF

>O05544

MFRRIVPVLGLALGLGLASQAAMAQEQSPPPPAVQGTGPKDFTGVSPANLAGIMNYCVE  
QQYVSYDEGNPVLYGLSEKYKATEQTVGNFDYALGTAGYFDSNGKRFYLVAYTNEDDRRA  
ACHAAVKAAQPML

>P29386

MGRGRVEMKRIENKINRQVTF SKRRNGLLKKAYELSVLCDAEVALIIFSSRGKLYEFGSV  
GIESTIERYNRCYNCSLSMNKPEETTQSWCQEVTKLKSKEYSLVRTNRLNGEDLGEMGV  
KELQALERQLEAALTATRQKKTQVMMEEMEDLRKKERQLGDINKQLKIKFETEGHAFKTF  
QDLWANSAA SVAGDPNNSEFPVEP SHPNVLD CNTEPFLQIGFQQHYVYVQEGESSVSKSNV  
AGETNFVQGWVL

>P01019

MRKRAPQSEMAPAGVSLRATILCLLAWAGLAAGDRVYIHPFHLVIHNESTCEQLAKANAG  
KPKDPTFI PAPIQAKTSPVDEKALQDQLVLA AKLDTE DKLRAAMVGM LANFLGFR IYGM  
HSELWGVVHGATVLSPTAVFGTLASLYLGALDHTADRLQA I LGVPWKDNCTSR LDAHKV  
LSALQAVQGLLVAQGRADSQAQLLLSTVVGVFTAPGLHLKQPFVQGLALYTPVVLPRSLD  
FTELDVAAEKIDRFMQAVTGWKTGCSLMGASVDSTLAFNTYVHFQGMKGFSLLAEPQEF  
WVDNSTSVSVPMLSGMGT FQHWSDIQDNFSVTQVPFTE SACL LLIQPHYASDL DKVEGLT  
FQQNSL NWMK KLSPTIHLTMPQLVLQGSYDLQDLLAQAE LPAI LHTE LNLQKLSNDRIR  
VGEVLNSIFFE LEADEREPTTESTQQLNKPEVLEVT LNRPF LFAVYDQSATALHFLGRVAN  
PLSTA

>P04272

MSTVHEILCKLSLEGDHSTPPSAYGSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNIL  
TNRSNEQRQDIAFAYQRRTKKELASALKSALSGHLETVILGLLKTPAQYDASELKASMKG  
LGTDEDSLIEIICSRTNQELQEINRVYKEMYKTDLEKDIVSDTSGDFRKL MVALAKGRR  
EDGSVIDYELIDQDARDLYDAGV KRKGTDPK WISIMTERSVCHLQKV FERYKSYSPYDM  
LESIKKEVKGDLEN AFLNLVQCIQNKPLYFADRLYDSMKGKGT RDKVLIRIMVSRSEVDM  
LKIRSEFKKKYKGS LYYYYIQQDTKGDYQKALLYL CGGDD

>P35632

MARGKIQIKRIENQTNRQVTYSKRRNGLFKKAHELTVLCDARVSIIMFSSSNKLHEYISP  
NTTTKEIVDLYQTI SDVDVWATQYERMQETKRKLL ETNRNLR TQIKQRLGECLDELDIQE  
LRRLEDEMENTFKLVREKFKSLGNQIETT KKKNKSQQDIQKNLIHELELRAEDPHYGLV

DNGGDYDSVLGYQIEGSRAYALRFHQNHHPYYPNHGLHAPSASDIITFHLLLE

>P38115

MSSSVASTENIVENMLHPKTTEIYFSLNNGVRI PALGLGTANPHEKLAETKQAVKAAIKA  
GYRHIDTAWAYETEPFVGEAIKELLEDEGSIKREDLFITTKVWPVLWDEVDRSLNESLKAL  
GLEYYDLLLLQHWPLCFEKIKDPKGISGLVKTPVDDSGKTMYAADGDYLETYKQLEKIYLD  
PNDHRVRAIGVSNFSIEYLERLIKECRVKPTVNQVETHPHLPQME LRKFCFMHDILLTAY  
SPLGSHGAPNLKIPLVKKLAEKYNVTGNDLLISYHIRQGTIVIPRSLNPVRISSSIEFAS  
LTKDELQELNDFGEKYPVRFIDEPFAAILPEFTGNGPNLDNLKY

>Q8IVW6

MEPLQQQQQQQQQQKQPHLAPLQMDAREKQGQQMREAQFLYAQKLVTPPTLLSATAGRP  
SGSTPLGPLARVPPTAAVAQVFERGMNMPSEPEEEDGGLLEDEDGDDEVAEVAEKETQAASK  
YFHVQKVARQDPRVAPMSNLLPAPGLPPHGQQAKEDHTKDASKASPSVSTAGQPNWNLDE  
QLKQNGGLAWSDDADGGRGREISRDFAKLYELDGDPERKEFLDDL FVFMQKRGTPI NRIP  
IMAKQILDLYMLYKLVTEKGLVEI INKKIWREITKGLNLPTSITSAFTLR TQYMKYLY  
AYECEKKALSSPAELQAAIDGNRREGRRPSYSSSLFGYSPAAATAAAAAGAPALLSPPKI  
RFPILGLGSSSGTNTSSPRI SPATTLRKG DGAPVTTVPVPNRLAVPVTLASQQAGTRTAA  
LEQLRERLESGEPAEKKASRLSEEEQRLVQQAFQRNFFSMARQLPMKIR INGRAEDRAEA  
SAAALNLTSSIGSINMSVDIDGTTYAGVLFQAQKPVVHLITGSAPQSLGSSASSSSSSSHC  
SPSPTSSRGTPSAEPSTSWSL

>Q8GGJ6

MSKNRDRVALPPVNAQKTNMTCHFCIVGCGYHVYKW DENKEGGRAANQNALGLDFTKQLP  
PFATTLTPAMTNVITAKNGKRSNIMIIPDKECVVNQGLSSTRGGKMAGYMYAADGMTADR  
LKYPRFYAGDQWLDTSWDHAMAIYAGLTKKILDQGNVRDIMFATFDHGGAGGGFENTWGS  
GKLMFSAIQTPTVRIHNRPAYNSECHATREMGI GELNNSYEDAQVADV IWSIGNNPYETQ  
TNYFLNHWL PNLNGSTEEKKQWFAGEPVGPLMIFVDPRRTT SIAIAEQ TAKDRVLHLD  
INPGTDVALFNGLLTYVVQQGWIAKEFIAQHTVGFEDAVKTNQMSLADCSRITGVSEDKL  
RQAAEWSYKPKAAGKMPRTMHAYEKGI IWGNDNYNIQSSLLDLVIATQNVGRRGTGCVRM  
GGHQEGYVRPPHPTGEKIYVDQEI IQGKGRMMTWG C NNFQTSNNAQALREVSLRRSQIV  
KDAMSKARGASAAEMVDI IYDATSKGGLFVTSINLYPTKLSEAAHMLLPAAHPGEMNLTS  
MNGERRMRLSEKFM DAPGDALPDCLIAAKAANTLKAMYEAEGKPEMVKRFSGFDWKTEED  
AFNDGFRSAGQPGAEPIDSQGGSTGVLATYTL LRAAGTNGVQLPIKRVENGMIGTAIHY  
DDNKFDTKDGKAHFKPAPWNL PKPVVEEQAKHKFWLNNGRANEVWQSAYHDQYND FVKS  
RYPLAYI IELNPGDAQSLGVAAGDVVEVFNDY GSTFAMAYPVKDMKPSHTFMLFGYVNGIQ  
GDVTTDWDVDRNIIPYYKGTWGSVRRIGSIEQYKKT VSTKRRAFDNV

>P50553

MESSAKMESGAGQQPQPQPQPFLLPPAACFFATAAAAAAAAAAAAAA QSAQQQQQQQQQQ  
QQAPQLRPAADGQPSGGGHKSAPKQVKRQRSSPELMRCKRRLNFSGFGYSLPQQQPAAV  
ARRNERERNRVLVNLGFATLREHVPNGAANKKMSKVE TLRSAVEYIRALQQLLDEHDAV  
SAAFQAGVLSPTISP NYSNDLNSMAGSPVSSYSSDEGSYDPLSP EEQELLDFTNWF

>P52890

MSPSPVNTSTEPASVAAVSNGNATASSTQVPENNQSDSFAPPSNNSQQNQSSSTIAPNGG  
AGSVANANPADQSDGVTPSFVGLKLDYEPNPF EHSFGSTASVQGPNPSLNRNPSLSNIP  
SGVPPAFARTLLPPVSSIASPDILSGAPGIASPLGYPAWSAFTRGTMHNPLSPA IYDATL  
RPDYLNNSDASAAARFSSGTGFTPGVNEPFRSLLTPTGAGFPAPSPGTANLLGFHTFDS  
QFPDQYRFTPRDGKPPVNGTNGDQSDYFGANA AVHGLCLLSQVPDQQQKLQQPISSEND

QAASTTANNLLKQTQQQTFPDSIRPSFTQNTNPQAVTGTMNPQASRTQQQPMYFMGSQQF  
NGMPSVYGDVTNVPADPSLTLRQTDFSGQNAENGSTNLPQKTSNSDMPTANSMPVKLENG  
TDYSTSQEPSSNANNQSSPTSSINGKASSEANGTSYSKGSRRNSKNETDEEKRSFLE  
RNRQAALKCRQRKKQWLSNLQAKVEFYGNENEILSAQVSALREEIVSLKTLLLIAHKDCPV  
AKSNSAAVATSVIGSGDLAQRINLGY

>P48987

MSSSEIYRYYYKTSEDLQGFKTA AAEPYFNPMAAYNPGVTHYQFNGNTLASSSNYLSANG  
FISFEQASSDGISSPASHRSESPYVDLNTMYNGGCNNMAQNQQYGMIMEQSVVSTAP  
AIPVASPPAVEVMGSSNVGTCKTIPASAGPKPKRSYTKKNQPSTTATSTPTAAAESSASV  
NLYTEEFQNFDFDNSALFDDSVEDDEDLMLFSGGEDFDGNDGSFDLADGENQDAAAGGSG  
KKRRGKQITPVVVKRRRLAANARERRRMQNLNQAFDRLRQYLPCLGNDRQLSKHETLQMA  
QTYISALGDLLR

>Q8WXE1

MAGTSAPGSKRRSEPPAPRPGPPP GTGHPPSKRARGFSAAAAPD PDDPF GAHGDF TADDL  
EELDTLASQALSQCPAAARDVSSDHKVHRLLDGMSKNPSGKNRETVPIKDNFELEVLQAQ  
YKELKEKMKVMEEEVLKNGEIKILRDSLHQTESVLEEQRSSHFLLEQEKTQALSDKEKE  
FSKKLQSLQSELOFKDAEMNELRTKLQTSERANKLAAPSVSHVSPRKNPSVVIKPEACSP  
QFGKTSFPTKESFSANMSLPHPCQTESGYKPLVGREDSKPHSLRGDSIKQEEAQKSFVDS  
WRQRSNTQGSILINLLLKQPLIPGSSLSLCHLLSSSSSESPAGTPLQPPGFSTLAGMSGL  
RTTGSYDGSFSL SALREAQNLAFTGLNLVARNECSRGDPAEGGRRAPLCQLPGAVHFL  
PLVQFFI GLHCQALQDLAAAKRSGAPGDSPTHSSCVSSGVETNPEDSVCILEGFSVTALS  
ILQHLVCHSGAVVSLLLSGVGADSAAGEGNRSLVHRLSDGDMTSALRGVADDQGQHPLLK  
MLLHLLAFSSAATGHLQASVLTQCLKVLVKLAENTSCDFLPRFQCVFQVLPKCLSPETPL  
PSVLLAVELL SLLADHDQLAPQLCSHSEGLLLLLLYMYITSRPDRVALETQWLQLEQEVV  
WLLAKLGVQSPLPPVTGSNCQCNEVV RALTVMLHRQWLTVRRAGGPPRTDQQRRTVRCL  
RDTVLLHGLSQDKL FMMHCVEVLHQFDQVMPGVSMLIRGLPDVTDCEEALDDLCAAE  
TDVEDPEVECG

>Q9RFD4

MSLDLPPPPARGCRSTEV LKERGQREVFCGLTGI IWLHRKMQDAFFLVVGSRTCAHLLQS  
AAGVMIFAEPFGTAVLEEKDLAGLADANAELDREVDRL LARRPDIRQLFLVGCSPSEVI  
KLDLHRAAERLSAHHGPAVRVYNFSGSGIETTFTQGEDACLASIVPTLPATEARELLLVG  
ALPDVVEDQAVSLLTQLGIGPVRCLPAHHAAEAPGVGPNTVFALVQPFLGDTHGALTRRG  
ARHIAAPFPFGEEGTTLWLKAI ADEFVGSADTFEAVTAAPRARARKAVAAAASEGLRGKSV  
FFLPDSQLEPSLARFLTRECGMSAVEVGT PFLHRGILGPDLDLIAEGPVLSEGQDVERQL  
DRVRAARPDLTVCGLGLANPLEAEGFTTKWAI ELVFTPVHFYEQAGDLAGLFSRPVRRRA  
ILRREAAE

>P20133

MSGSLTLLKEKHIRYIESLDTKKHNF EYWLTEHLRLNGIYWGLTALCVLDSPETFVKEEV  
ISFVLSWDDKYGAFAPFPRHDAHLLTTL SAVQILATYDALDVLGKDRKVRLLISFIRGNQ  
LEDGSFQGRFGEVDTRFVYTALSALSILGELTSEVVDPVDFVLKCYNFDGGFGLCPNA  
ESHAAQAF TCLGALAIANKLDMLSDDQLEEIGWWLCERQLPEGG LNRPSKLPDVCYSWW  
VLSSLAIIGRLDWINYEKLTEF ILKCQDEKKGGISDRPENEDVDFHTVFGVAGLSLMGYD  
NLVPIDPIYCMPSVTSKFKKYPYK

>P06864

MNRWENIQLTHENRLAPRAYFFSYDSVAQARTFARETSSSLFLPLSGQWNHFHFDHPLQVP

EAFITSELMADWGHITVPAMWQMEGHGKLYTDEGFPPPIDVFPVPSDNPTGAYQRIFTLSDG  
WQKQTLIKFDGVEYFVYVNGQYVGFSGKSRLTAEFDISAMVKTGDNLLCVRVMQW  
ADSTYVEDQDMWWSAGIFRDVYLVGKHLTHINDFTVRTDFDEAYCDATLSCEVVLENLAA  
SPVVTTLEYTLFDGERVVHSSAIDHLAIEKLTSSASFAFTVEQPQQWSAESPYLYHLMVTL  
KDANGNVLEVVPQRVGFDRDIKVRDGLFWINNRYVMLHGVRNRHDNDHRKGRAVGM  
DRVEKD LQLMKQHNINSVRTAHYPNDPRFYELCDIYGLFVMAETDVESHGFANVGD  
ISRITDDPQW EKVYVERIVRHIHAQKNHPSII IWSLGNESGYGCNIRAMYHAAKALD  
DTRLVHYEEDRDA EVVDIIISTMYTRVPLMNEFGEYPHPKPRIICEYAHAMGNP  
GGGLTEYQNVFYKHDCIQGH YVWEWCDHGIQAQDDHGNVWYKFGGDYGDY  
PNNYNFCLDGLIYSDQTPGPGPLKEYKQVIA PVKIHARDLTRGELKVENK  
LWFTTLLDDYTLHAEVRAEGETLATQQIKLRDVAPNSEAPLQ ITLPQLDARE  
AFLNITVTKDSRTRYSEAGHP IATYQFPLKENTAQPVPFAPNNARPLTLE  
DDRLSCTVRGYNFAITFSKMSGKPTSQWVNGESLLTREPKNINFFKPMIDN  
HKQEYEGWLQ PNHLQIMQEHLRDFAVEQSDGEVLIISRTVIAPPVDFDFGM  
RCTYIWR IAADGQVNVALSGERYGDYPHIIPCIGFTMGINGEYDQVAYYGR  
GPGENYADSQQANIIDIWRSTVDAMFENY PFPQNNGNRQHVRWTAL  
TNRHGNGLLVVPQRPINFSAWHYTQENIHAAQHCNELQRSDDI TLNLDH  
QLLGLGSNSWSEVLDSWRVWFRDFSYGFTLLPVSGGEATAQSLASYEFGAG  
FFSTNLHSENKQ

>007684

MQANIKWLDPEIFRVNQLPAHSDHPFFKRYREWQNNHSSFKQSLNGMWQFKFSKDPQSR  
PVDFYKDFNTSSFTTIPVPSIEELNNFAQNQYINTLYPWEGKIFRRPAYALNKSDAEEG  
SFSEKDNVTGYSYIKHFDLNPFLRDHDIHIVFEAERAMYVWLNHGFIGYAEDSFT  
PSEF DLTKYIKEKDNILAVEVFKHSTASWLEDQDMFRFSGLFRSVELLAFPE  
THLVLDLKLPTV CDNYQDGI FNAELKFTGSLNGHVHLSVEDVNGSAILEQD  
VPLDSEVEFTSSTLENIHLWD NHHPLYQLLIEVHDENGLVLELIPYQF  
GFRRIEINQDKVILLNGKCLILINGVNRHEWNA KTGRSITLNDMEKDI  
DTFKENNINAVRTCHYPNQIPWYYLCDQNGIYMAENNLESHGTW QKMGQ  
VEPSDNVPGSVPEWREAVIDRARNNYETFKNHTSILFWSLGNESYAGSN  
IVAMNE FYKEHDSRLVHYEGVVHRPELKDQISDIESHMYLPPKEVAEYLR  
NNPQKPFMECEYMHD MGNSDGGMGSYIKLIDEYYPQYVGGFIWDFIDQ  
ALLVYDPI SKQNVLR YGGDFDRHSDYE FSGDGLMFADRTPKPAMQEV  
RYYYGLHK

>009029

MERGLHLGAAAASEDDLFLHKSLGASTAKRLEAAFRSTPPGMDLSLAPPRER  
PASSSSS PLGCFEPADPEGAGLLPPP GGGGGAGGGGGGGGGVSVPGLLVGS  
AGVGGDPNLSLPGAALCLKYGESAGRGSVAESSGGEQSPDDSDGRCELVLR  
RAGGADPRASPGAGGGGTKV VEGCSNAHLHGGAGLPPGGSTGSGGGG  
SGGGGGSSSKKSKEQKALRLNINARERRRMH DLNDALDELRAV  
IPYAHSPSVRKLKSIATLLAKNYILMQAQALEEMRRLVAYLNQGGAI  
SAASLPSSAAAAAALHPALGAYEQAAGYPFSAGLPPAASCEPKCALFNSV  
SSSLCKQCTEKP

>Q9QYC3

MKTKNRPPRRRTPMQDTEATPGEQTPDRPQSGSGGSELTKGLRSRTARASG  
GRGEVSRRR QGSGRRENSVQRRLESNERERQRMHKLNNAFQALREVI  
PHVRADKKLSK IETLTLAKNY IKSLTATILTMSSRPLGLEAPGPAPGPK  
LYQHYYHQQQQQQQVAGAMLGVTEDQPQ GHLQRYSTQIHSFREGS

>059793

MSLAKKIDDEKQLVKPVNKEQTYKKPIPLEEDDYIEGLSYIIQQQYFPDLP  
KPKAEVVL ESEEVGSFDAQNESRDEKLYLIAKNSDPLRKRPLSLAIHEIT  
KAQLDGENKPI SVASY QNKFTSEDNASFGELMEDESRLRAEQHKRRFV  
HSSQQPSNSIQTIGYSNSDAIKSI AWKE

KDKSIKTWNYQPKNALMYTPETNHSSSLSQIKKQSTEIQADATGLSQSFLEAANQPSTDP  
IVPPSVNETDASVNGYPLVDVNFQAVGSSSSKSYFNIIPERPRRERLHAMRVRDIRSHSTN  
TTITSVDSASTALNSYSTPNVSRKLTNLTPAARRLVARSYLRSPHGSPPSASRHTALR  
TSIPKFSWTPTRVKSTAPTPKRV

>P12428

MQESGGSSGQGGPSLCELEWKQLNYYVPDQEQSNYSFWNECRKKRELRLILQDASGHMKTGD  
LIAAILGGSGAGKTTLLAAISQRLRGNLTGDVVLNGMAMERHQMTRISSFLPQFEINVKTF  
TAYEHLVFMESHFKMHRRTTKAEKRQVRADLLLAVGLRDAAHTRIQQLSGGERKRLSLAE  
LITDPIFLFCDEPTTGLDSFSAYSVIKTLRHLCTRRRIAKHSLNQVYGEDSFETPSGESS  
ASGSGSKSIEMEVVAESHESLLQTMRELPAALGVLNSPENGTHKAAICSIHQPTSDIFEL  
FTHIILMDGGRIVYQGRTEQAAKFFFDLGYELPLNCNPADFYLKTLADKEGKENAGAVLR  
AKYEHETDGLYSGSWLLARSYSGDYLKHVQNFKKIRWIYQVYLLMVRFMTEDLRNIRSGL  
IAFGFFMITAVTSLMYSGIGGLTQRTVQDVGGIFMLSNEMIFTFSYGVTYIFPAALPI  
IRREVEGEGTYSLSAYYVALVLSFVPVAFKGYVFLSVIYASIIYYTRGFLLYLSMGFLMSL  
SAVAAGYGVFLSSLFESDKMASECAAPFDLIFLIFGGTYMNVDTVPGLKYLSELFYSNE  
ALMYKFWIDIDNIDCPVNEDHPCIKTGVEVLQQGSYRNADYTYWLDLCSLVVVAVIFHIV  
SFGLVRRYIHRSGYY

>Q9VD83

MLRHLLRHENNKVFLVILLYCVLVSILKLCTAQPDSVAATDNDITHLGDDCQVTPVIHV  
LQYPGCVPKPIPSFACVGRCSYIYQVSGSKIWQMERSMCCQESGEREAAVSLFCPKVKP  
GERKFKKVLTKAPLECMCRPCTSIEESGIIPQEIAGYSDEGPLNHFRRIALQ

>P18898

MCQATNGPSRVVTKKHKRFFERHLQLLPSSHQGHVNRMAIIFYSISGLSIFDVNVSAKY  
GDHLGWMRKHYIKTVLDDTENTVISGFVGSVMNIPHATTINLPNTLFFALLSMIMLRDYE  
YFETILDKRSLARFVSKCQRPRDGSFVSCLDYKTNCGSSVDSDDLRFYIAVAILYICGC  
RSKEDFDEYIDTEKLLGYIMSQQCYNGAFGAHNEPHSGYTSALSTLALLSSLEKLSDKF  
KEDTITWLLHRQVSSHGCMKFESELNASYDQSDDGFGQRENKFADTCYAFWCLNSLHLL  
TKDWKMLCQTELVTNYLLDRTQKTLTGGFSKNDEEDADLYHSCLGSAALALIEGKFNGEL  
CIPQEIFNDFSKRCCF

>Q96528

MOPYRVRPSSAHDSPFFTTNSGAPVWNNSSLTVGTRGPILLEDYHLLLEKLANFDRERIP  
ERVVHARGASAKGFFEVTHTDITQLTSADFLRGPVQTPVIVRFSTVIHERGSPETLRDPR  
GFAVKFYTREGNFDLVGNFVFFVVDGMKFPDMVHALKPNPKSHIQENWRILDDFFSHHP  
ESLHMFSFLFDDLGIPODYRHMEGAGVNTYMLINKAGKAHYVKFHWKPTCGIKCLSDEEA  
IRVGGANHSHATKDLYDSIAAGNYPQWNLFVQVMDPAHEDKFD'FDPLDVTKIWPEDILPL  
QPVGRLVNLKNIDNFFNENEQIAFCPALVVPGIHYSDDKLLQTRIFSYADSQRHRLGPNY  
LQLPVNAPKCAHHNNHHDGFMFMHRDEEVNYFPSRLDPVRHAEKYPTTPIVCSGNREKC  
FIGKENNFKQPGERYRSWDSRQERFVKRFVEALSEPRVTHEIRSIWISYWSQADKSLGQ  
KLATRLNVRPNF

>O52762

MEEKTRLTTAAGAPVVDNQNQVQTAGPRGPMLLQDVWFLEKLAHFDREVIPERRMHAKGSA  
AYGTFTVTHDITPYTRAKIFSQVGKKTDMFLRFSTVAGERGAADAERDIRGFSMRFYTEQ  
GNWDLVGNNTPVFYLRDPLKFPDLNHVVKRDPRTNLRNATFKWDFFSHLPESLHQLTIDF  
SDRGLPKSYRHIHGFGSHTFSFINANNERFWVKFHFKTQQGIENLTNAEAAEVIAQDRES  
SQRDLYESIEKGDFFPRWKMYVQIMPEKEAATYRYNPFDLTKVWPHGDYPLIEVGF'FELNR

NPDNYFAEVEQAAFTPANVVPGIGFSPDKMLQGRLFSYGDHRYRLGVNHHQIPVNAARC  
PHQVYHRDGGMRVDGNNAHQRVTYEPNSFNQWQEQPDFSEPPLSLEGAADHWNHRVDDDY  
YSQPAALFHLFTDEQKQRLFANIAEDIRDVPEQIQRRQIGLFLKVDPAYGKGVADALGLK  
LD

>O13849

MLMKQTFLYFLLTCVVSAQFNGYVPPPEQNGGDIVVPKDFYEKFGEDFIREQEESAPLMN  
VPPERDEAEAPHHPKGHHEFNDDFEDDTALEHPGFKDKLDSFLQPARDLHTVSDRLDNI  
FDDDEDEHVREKRPHDSADEDAPRRKHGKCKGKGGKHHKGHAKGKGGKSHPKPEDDSVFF  
DDERPKHHEFDDEDREFPAHHEPGEHMPPPPMHKHPGEHMPPPPMHHEPGEHMPPPPMH  
EPGEHMPPPPMHHEPGEHMPPPPMHHEPGEHMPPPPMHHEPGEHMPPPPMHHEPGEHMPP  
PPMHHEPGEHMPPPPMHHEPGEHMPPPPMHHEPGEHMPPPPFKHHELEEHGEPEHHRGPE  
DKEHHKGPDKKEHHKGPDKKEHHKGPDKKEHHKGPDKKEHHKGPDKKEHHKGPDKKEHHQ  
GPKEKHNERPEQNMQSSHELLLVI EAFADLINSVPVEEIAEEFSRFLDTLGLIEYYGNIPVH  
IQENAPKDDSSIPPLFEFDDDLLELSDLTPEQFAYLEMLKAEGIDPMTAFRDQSHPAKPSNA  
QPADSSRPYAVFSQEENGEHVNLKAFP DHTLRVKDSKPESLGIDTVKQYTG YLDVEDDRH  
LFFWFFESRNDPENDPVVLWLNNGGPGCSSLTGLFMELGPSSINIETLKPEYNPHSWNSNA  
SVIFLDQPINTGFSNGDDSVLDTVTAGKDVYAFNLNFFAKFPQYAHLD FHIAGESYAGHY  
IPQFAKEIMEHNQGANFFVASGYEMEKQYINLKSVLIGNGLTDPLVQYFYFGKMACESPY  
GPIMSQEECDRITGAYDTCAKLITGICYQTGFTPVCIGASLYCNNAMIGPFTKTGLNIYDI  
REECRDQEHLCYPETGAIESYLNQEFVQEALGVEYDYKGCNTEVNIGFLFKGDWMRKTR  
DDVTAILEAGLPVLIYAGDADYICNYMGNEAWTDALEWAGQREFYEALKPWSPNGKEAG  
RGKSFKNFGYLRLYEAGHMVPFNQPEASLEMLNSWIDGSLFA

>P10147

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCFSYTSRQIPQNF IADYFETSSQCSKP  
GVIFLTKRSRQVCADPSEEWVQKYVSDLELSA

>Q6YHK3

MQGPPLLTAAHLLCVCTAALAVAPGRFLVTPAGIIRPGGNVTIGVELLEHCPSQVTVKA  
ELLKTASNLTVSVLEAEGVFEEKSFKTLTLP SLP LNSADEIYELRV TGRTQDEILFSNST  
RLSFETKRISVFIQTDKALYKPKQEVKFRIVTLFSDFKPYKTSLNILIKDPKSNLIQQWL  
SQQSDLGVISKTFQLSSHPILGDWSIQVQVNDQTYYSQSFQVSEYVLPKFEVTLQTPLYCS  
MNSKHLNGTITAKYTYGKPVKGDVTLTFLPLSFWGKKKNITKTFKINGSANFSFNDEEMK  
NVMDSNGLSEYLDLSSPGPVEILTTVTESVTGISRNVSTNVFFKQHDYIIEFFDYTTVL  
KPSLNFTATVKVTRADGNQLTLEERRNVVITVTQRNYTEYWSGSNSGNQKMEAVQKINY  
TVPQSGTFKIEFPILEDSSSELQKAYFLGSKSSMAVHSLFKSPSKTYIQLKTRDENIKVG  
SPFELVVSGNKRLKELSYMVVS RQQLVAVGKQNSTMFSLTPENSWTPKACVIVYYIEDDG  
EIIISDLVKIPVQLVFKNKIKLYWSKVKAEPSEKVSRLISVTQPDSIVGIVAVDKSVNLMN  
ASNDITMENVVHELELYNTGYLLGMFMSFAVFQECGLWVLT DANLTKDYIDGVYDNAEY  
AERFMEENEGHIVDIHDFSLGSSPHVRKHFPETWIWLDTNMGYRIYQEF EFTVPDSITSW  
VATGFVISEDLGLGLTTTPVELQAFQPPFIFLNLPYSVIRGEEFALEITIFNYLKDATEV  
KVIIEKSKDFDILMTSNEINATGHQQTLLVPS SEDGATVLFPIRPTH LG EIPITVTALSPT  
ASDAVTQMILVKAEGIEKSYSQSILLDLTDNRLQSTLKTLSFSFPNTVTG SERVQITAI  
GDVLGPSINGLASLIRMPYGCGEQNMINFAPNIYILDYLT KKKQLTDNLKEKALS FMRQG  
YQRELLYQREDGSFSAFGNYDPSGSTWLSAFVLRCFLEADPYIDIDQNVLHRTYTWLKGH  
QKSNGEFWD PGRVIHSELQGGNKSPVTLTAYIVTSLG YRKYQPNIDVQESIH FLESEFS  
RGISDNYTALITYALSSVSGPKAKEALNMLTWRAEQEGGMQFWVSSESKLSDSWQPRSL  
DIEVAAYALLSHFLQFQTSEGIPIMRWLSRQRNSLGGFASTQD TTVALKALSEFAALMNT  
ERTNIQVTVTGPSSPVPKFLIDTHNRLLLQTAELAVVQPTAVNISANGFGFAICQLNVV

YNVKASGSSRRRRSIQNQEAFDLVDVAVKENKDDLNHVDLNVCTSFSGPGRSGMALMEVNL  
LSGFMVPSEAISSLSETVKKVEYDHGKLNLYLDSVNETQFCVNIIPAVRNFKVSNTQDASVS  
IVDYEPRRQAVRSYNSEVKLSSCDLCSVDVQGCPCEDGASGSHHSSVIFIFCFKLLYF  
MELWL

>P51480

MESAADRLARAAAQGRVHDVRRALLEAGVSPNAPNSFGRTP IQVMMGNVHVAALLLNYGA  
DSNCEDPTTFSRPVHDAAREGLDITLVVLHGSGARLDVRDAWGRLPLDLAQERGHQDIVR  
YLRSAAGSLCSAGWSLCTAGNVAQTDGHSFSSSTPRALELRGQSQEQS

>P04235

MEHSGILASLILIAVLPQGSFPKIQVTEYEDKVFTCNTSVMHLDGTVEGWFAKNKTLNL  
GKGVLDPRGIYLCNGTEQLAKVVSSVQVHYRMCQNCVELDSGTMAGVIFIDLIATLLLLAL  
GVYCFAGHETGRPSGAAEVQALLKNEQLYQPLRDREDTQYSRLGGNWPRNKKS

>O35926

MGTVLSLSPASSAKGRRPGGLPEEKKKAPPAGDEALGGYGAPPAGKGGKGESRLKRPSVL  
ISALTWKRLVAASAKKKKSGSKKVTPKPASTGPDPLVQQRNRENLLRKGRDGPDDGGGTAKP  
LAVPVPTVPTTAATCEPPSGSAAAPPPGSGGGKPPPPPPAPQAAPPAGSSPRRVIVQ  
ASTGELLRCLRDFVCRSCYRLKELSPGELVGVFRGVDRSLLLQGWQDQAFITPANLVFVY  
LLCRESLSGDELASAAELQAAFLTCLYLAYSIMGNEISYPLKPFVLEPKERFWQRCLRL  
IQRLSPQMLRLNADPHFFTQVFQDLKNEGEEAAASTGGPPSGSSASTTSSSSARDSCATGA  
KHWTMNLDR

>P60033

MGVEGCTKCIKYLFLVFNFWLWLAGGVILGVALWLRHDPQTTNLLYLELGDKPAPNTFYV  
GIYILIAVGAVMMFVGFLGICYGAIQESQCLLGTFFFTCLVILFACEVAAGIWGFVNKDQIA  
KDVKQFYDQALQQAVVDDANNAKAVVKTFFHETLDCCGSSTLTALTTSVLKNNLCPSGSN  
IISNLFKEDCHQKIDDLFSGKLYLIGIAAIVVAVIMIFEMILSMVLCCGIRNSSVY

>P31783

MASLLTALILPLALLLLDAAKVLGSLSFRMSPTQKETRLGKVELQCELLQSGMATGCSW  
LRHIPGDDPRPTFLMYLSAQRVKLAEGLDPRHISGAKVSGTKFQLTLSSFLQEDQGYFYF  
SVVSNISILYFSNFVFPVFLPAKPATTPAMRPSAAPTSAPQTRSVSPRSEVCRTSAGSAVD  
TSRLDFACNIYIWAPLVGTGCVLLLSLVITGICYRRNRRRVCKCPRPVVRQGGKPNLSEK  
YV

>P01731

MASPLTRFLSLNLLLLGESIILGSGEAKPQAPELRIFPKKMDAELGQKVDLVCEVLGSVS  
QGCSWLFQNSSSKLPQPTFVVYMASSHNKITWDEKLNSSKLF SAMRDTNNKYVLTNLKFS  
KENEGYYFCSVISNSVMYFSSVVPVLQKVNSTTTKPVLRTPSPVHPTGTSQPQRPEDCRP  
RGSVKGTGLDFACDIYIWAPLAGICVALLLSLIIITLICYHRSRKRKRVCKCPRPLVRQEGKP  
RPSEKIV

>P30433

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCVLLSNPTSGCSWLFQP  
RGAAASPTFLLYLSQNKPKAAEGLDTRFSGKRLGDTFVLTLSDFRRENEGYFCSALSN  
SIMYFSHFVFPVFLPVHTRGLDFACDIYIWAPLAGTGVLLLSLVITLYCNHRNRRRVCKC  
PRPVVKS GGKPSLSERYV



>P79336

MQPGLWLLLATQLAALRGSSVLQQAPGSVMVQTNMGVIMSCEAKTSPTSTRIYWLRRHQ  
PSPDSHYECLAYWDPKIGIVYGQEVPEKLTVPDATTRSILNLTSVKPADSGIYFCMTVG  
SPELTFGKGTRLSVVDVLPNTSQPTKKPTPRKKMCRPPSPVTQKGPSCGLLTLGLLVAGV  
LVLLVSLGVAIHLYRLKRRARLRLKQFYK

>P10300

MQPWLWLVFSMKLAALWSSSALIQTSSLLVQTNHTAKMSCEVKSISKLTSTIYWLRRERQD  
PKDKYFEFLASWSSSKGVLYGESVDKKNRIILESSDSRRPFLSIMNVKPEDSDFYFCATV  
GSPKMFVGTGKLTVVVDVLPPTAPTAKKTTLKMKKKKQCPFFHPETQKGLTCSLTTLSLLV  
VCILLLLAFLGVAVYFYCVRRRARIHFMKQFHK

>P42773

MAEPWGNELASAAARGDLEQLTSLLONNVNVNAQNGFGRALQVMKLGNPEIARRLLLRG  
ANPDLKDRGTGFAVIHDAARAGFLDTLQTLLEFQADVNIEDNEGNLPLHLAAKEGHLRVVE  
FLVKHTASNVGHRNHKGDTACDLARLYGRNEVVSLMQANGAGGATNLQ

>P39058

MLPSAQVARLKPDPFPPSLSPIPHGAVTFAALAPCHNLPFSSRQMLRDSLTYSHTSPTM  
SPQIANRFEASLDAQDIARISLFTLESGVILRDVPVAYKSWGRMNVSRDNCVIVCHTLTS  
SAHVTSWWPTLFGQGRAFDTSRYFIIICLNLYLGSPPFGSAGPCSPDPDAEQRPYGAKFPRT  
TIRDDVRIHRQVLDRLGVRQIAAVVGASMGGMHTLEWAFFGPEYVRKIVPIATSCRQSGW  
CAAWFETQRQCIYDDPKYLDGEYDVEDDQVVRGLETARKIANLTYKSKPAMDERFHMAPGV  
QAGRNISSQDAKKEINGTDSGNSHRAGQPIEAVSSYLRYQAQKFAASFDANCYIAMTLKF  
DTHDISRGRAGSIPEALAMITQPALIIICARSDGLYSFDEHVMGRSIPNSRLCVVDTNEG  
HDFVMEADKVNDAVRGFLDQSLM

>P49454

MSWALEEWKEGLPTRALQKIQEELEGQLDKLKKKQQRQFQLDSLEAALQKQKQKVENEKT  
EGTNLKRNLRLMEICESLEKTKQKISHELQVKESQVNFQEGQLNSGKKQIEKLEQELKR  
CKSELEERSQAAQSADVSLNPCNTPQKIFTTPLTPSQYYSKSKYEDLKEKYNKEVEERKR  
LEAEVKALQAKKASQTLQPATMNRDIARHQASSSVFSWQQEKTTPSHLSSNSQRTPIRRD  
FSASYFSGEQEVTPSRSTLQIGKRDANSSFFDNSSPHLLDQLKAQNQELRNKINELELR  
LQGHEKEMKGQVNFQELQLQLEKAKVELIEKEKVLNKRDELVRTTAQYDQASTKYTAL  
EQKLLKLTEDLSCQRQNAESARCSLEQKIKEKEKEFEELSRQORSFQTLDQECIQMKAR  
LTQELQQAAMHNVLQAECLKLTSVKQOLENNLEEFKQKLCRAEQAFQASQIKENELRRS  
MEEMKKENLLKSHSEQKAREVCHLEAELKNIKQCLNQSQNFAEEMKAKNTSQETMLRDL  
QEKINQQENSLTLEKLLAVADLEKQRDCSQDLLKREHHIEQLNDKLSKTEKESKALLS  
ALELKKKEYEELKEEKTFLSCWKSENEKLLTQMESEKENLQSKINHLETCLKTQQIKSHE  
YNERVRTLEMDRENLSVEIRNLHNVLDKSKSVEVETQKLAYMELQQAEFSDQKHQKEIEN  
MCLKTSQLTGQVEDLEHKLQLLSNEIMDKDRCYQDLHAEYESLRDLLKSKDASLVTNEDH  
QRSLLAFDQQPAMHHSFANIIGEQQSMPSESRSECRLEADQSPKNSAILQNRVDSLEFSLE  
SQKQMNSDLQKQCEELVQIKGIEENLMKAEQMHQSFAETSQRISKLQEDTSAHQNVVA  
ETLSALENKEKELQLLNDKVETEQAIEQELKKSNNHLLLEDKELQLLSETLSLEKKEMSS  
IISLNKREIEELTQENGLTKEINASLNQEKMNLIQKSESFANYIDEREKSISELSDQYKQ  
EKLILLQRCEETGNAYEDLSQKYKAAQEKNSKLECLLNECTSLCENRKNLEQLKEAFK  
EHQEFLLTKLAFAEERNQNLMLELETVQQALRSEMTDNQNSKSEAGGLKQEIIMTLKEEQN  
KMQKEVNDLLQENEQLMKVMKTKHECQNLESEP IRNSVKERESERNQCNFKPQMDLEVKE  
ISLDSYNAQLVQLEAMLRNKELKLQESEKEKECLQHELQTIIRGDLETSNLQDMQSQEISG  
LKDCEIDAEEKYISGPHELSTSQNDNAHLQCSLQTTMKNLNELEKICEILQAEKYELVTE

LNDSRSECITATRKMAEEVKGKLLNEVKILNDDSGLLHGELVEDIPGGEFGEQPNEQHPVS  
LAPLDESNSYEHLLTSLDKEVQMHFALQEKFLSLQSEHKILHDQHCQMSSKMSELQTYVD  
SLKAENLVLSTNLRNFQGDVLKEMQLGLEEGLVPSLSSSCVPDSSSLSSLDSSSFYRALL  
EQTGDMSLLSNLEGAVSANQCSVDEVFCCSSLQTYVDSLKAENLVLSTNLRNFQGDVLKEM  
QLGLEEGLVPSLSSSCVPDSSSLSSLDSSSFYRALLEQTGDMSLLSNLEGVVSANQCSVD  
EVFCSSLQEEENLTRKETPSAPAKGVEELESCEVYRQSLEKLEEKMESQGIMKNKEIQEL  
EQLLSSERQELDCLRKQYLSENEQWQQKLTSTVLEMESKLAAEKKQTEQLSLELEVARLQ  
LQGLDLSSRSLLGIDTEDAIQGRNESCDISKEHTSETTERTPKHDVHQICDKDAQDNLN  
DIEKITETGAVKPTGECSSGQSPDTNYEPPGEDKTQGSSECISELFSGPNALVPMDFLG  
NQEDIHNLQLRVKETSNNENLRLHVIEDRDRKVESLLNEMKELDSKLHLQEVQLMTKIEA  
CIELEKIVGELKKENSDLSEKLEYFSCDHQELLQRVETSEGLNSDLEMHADKSSREDIGD  
NVAKVNDVSWKERFLDVENELSRIRSEKASIEHEALYLEADLEVVQTEKLCLEKDNEKQK  
VIVCLEEELS SVT SERNLQRGELDTMSKKTALDQLSEKMKKKTQELESHQSECLHC IQV  
AEA EVKEKTELLQTLSSDVSELKDKTHLQEKLSLEKDSQALS LTKCELENQIAQLNKE  
KELLVKESESLQARLSESDYKELNVSKALEAALVEKGEFALRLSSTQEEVHQLRRGIEKL  
RVRIEADKQQLHIAEKLKERERENDSLKDKVENLERELQMSEENQELVILDAENSKAEV  
ETLKTQIEEMARSLKVFELDLVTLRSEKENLTKQIQEKQQLSELDKLLSSFKSLLEEKE  
QAEIQIKEESKTAVEMLQNLKELNEAVAALCGDQEI MKATEQSLDPPIEEEHQLRNSIE  
KLRARLEADKQQLCVLQQLKESEHHADLLKGRVENLERELEIARTNQEHAALEAENSKG  
EVETLKAKIEGTMQSLRGLLELDVVTIRSEKENLTNELQKEQERISELEIINSSFENILQE  
KEQEKVQMKESSTAMEMLQTLKELNERVAALHNDQEAACKAKEQNLSSQVECLELEKAQ  
LLQGLDEAKNNYIVLQSSVNGLIQEVEDGKQKLEKKDEEISRLKNQIQDQEQLVSKLSQV  
EGEHQLWKEQNLELRLNLTVELEQKIQVLQSKNASLQDTLEVLQSSYKNLENELELTKMDK  
MSFVEKVNKMTAKETELQREMHEMAQKTAELQEELS G EKNRLAGELQLLLLLEIKSSKDQL  
KELTLENSELKKS LDCMHKDQVEKEGKVVREEIAEYQLRLHEAEKKHQALLLD TNKQYEVE  
IQTYREKLTSKEECLSSQKLEIDLKSSKEELNNSLKATTQILEELKKTMDNLYVNQL  
KKENERAQGKMKLLIKSCKQLEEEKEILQKELSQLQAAQEKQKTGTVM DTKVDEL TTEIK  
ELKETLEEKTKEADEYLDKYCSLLISHEKLEKAKEMLETQVAHLCSQQSKQDSRGSPLL  
PVVPGPSPIPSVTEKRLSSGQNKASGKRQRSSGIWENGRGPTPATPESFSKSKKAVMSG  
IHPAEDTEGTEFEPEGLPEVVKKGFADIP TGTSPYILRRRTMATRTPSRLAAQKLALSP  
LSLGKENLAESSKPTAGGSRSQVKVAQRSPVDSGTILREPTTKSVPVNNLPERSPDSDP  
REGLRVKRGRLVSPKAGLESNGSENCKVQ

>P81508

DLECPSGWSSYDRYCYKPFKQEMTWADAERFCSEQAKGRHLLSVETALEASFVDNVL  
KEYLTRYIWIWGLRVQNKGQPCSSIIYSENLVDPFDCFMVSRDTRLREWFKVDCEQQHSFIC  
KFTRPRR

>Q9X006

MKISERQKDLLKEIGNIGAGNAATAISYMINKKVEISVNPVEIVPISKVIFIAKDPEEIV  
VGVKMPVTGDIEGSVLLIMGTTVVKKILEILTGRAPDNLLNLDEFSSASALREIGNIMCGT  
YVSALADFLGFKIDTLPPQLVIDMISAIFAEASIEELEDNSEDQIVFVETLLKVEEEEEEP  
LTSYMMMPKPGYLKIFERMGIQE

>Q32067

KRSLRDLGIPVNQIIP EGGSLKYLKDLPRAWFNIVPYREVGLMTAIFLEKKYGMPIVSVT  
PMGILDTAEFIAQMEKLVNAWASVLSKEKVNYISYIKNQTFV

>Q9T4F6

MLSDQVTTAELHPSAPLTECETGIYHTFCPISCVAWLYQRVEDSFFLVIGTKTCGYFLQN

ALGVMIFAEPYAMAEELEEGDISAQFN DYHELRRLCVQIQQDRHPSVIVWIGTCTTEI IK  
MDLEGMAPTLQAEIGIPVVARANGLDYAFTQGEDTVLAAMAQRCPDWT PDRATQSTSS  
PPLVIFGSPATVVSQ LTFELQRQKVEVTGWLP SARYADLP AVGEDVYACGVNPF LSRTA  
ITLMRRRRCKMIGSPFP IGPDGTRAWIEKICHVFGL ETTGLAERERQVWSQLEDYLSLVR  
GKSAFLMGDNLLEISLARFLIRCGMIVHEVGI PYMDARFQAAELHLLMRTCEAAHVMPR  
IVTKPDNFYQVQRMRDVPDLAITGMAHANPLEARGTGT KWSVELTFWQLHGFASAKDLL  
ELVTRPLRRTH

>P07668

MASNEASTSAAGSGPESAALFSKLR SFSIGSGPN SPQRVVSNLRGFLTHRLSNI T P S D T G  
WKDSILSIPKKWLSTAESVDEF G F P D T L P K V P P A L D E T M A D Y I R A L E P I T T P A Q L E R T K  
ELIRQFSAPQGGIGARLHQYLLDKREAE DNWAYYYWLNEMYMDIRIPLPINSNPGMVFP PR  
RFKTVHDVAHFAARLLD GILSHREMLDSGELPLERAASREKNQPLCMAQYRLLGSCRRP  
GVKQDSQFLPSRERLNDEDRHV VVICRNQMYCVVLQASDRGKLSESEIASQILYVLS DAP  
CLPAKVPVPGLLTAEPRSTWARDREMLQEDERNQRNLELIETAQVVLCLDEPLAGNFNAR  
GFTGATPTVHRAGDRDET NMAHEMIHGGGSEYNSGNRWF D K T M Q L I I C T D G T W G L C Y E H S  
CSEGI AVVQLLEKIYKKIEEHPDEDNGLPQHLLPPPERLEWHVGPQLQLRFAQASKSVDK  
CIDDLDFYVYRYQSYGKTFIKSCQVSPDVYIQLALQLAHYKLYGRLVATYESASTRRFLH  
GRVDCIRAASTEAL EWAKAMCQEGANVPLESDREDEEESRKKVFSIYSKDHLRELFRCA  
VARQTEVMVKNILNGIDIPLLGLREASIEVTGEMHELFKDES Y I I S Q C F L L S T S Q V A C S  
TDSFMGYGPVTPRGY GCSYNPHPEQIVFCVSAFYSCEDTSASRYAKSLQD SLDIMRDLLQ  
N

>P51790

MTNGGSINSSTHLLD LLDLEPIPGVGT YDDFHTIDWVREKCKDRERHRRINSK K K E S A W E M  
TKSLYDAW S G W L V V T L T G L A S G A L A G L I D I A A D W M T D L K E G I C L S A L W Y N H E Q C C W G S N E  
TTFEERDKCPQWK TWAELIIGQAEGPGSYIMNYIMYIFWALSFAFLAVSLVKVFAPYACG  
SGIPEIKTILSGFIIRGYLGKWTLMIKTITLVLAVASGLSLGKEGPLVHVACCCGNIFSY  
LFPKYSTNEAKKREVL SAASAAGVSVAFGAPIGGVLFSL E E V S Y Y F P L K T L W R S F F A A L V  
AAFVLR SINPFGNSRLVLFYVEYHTPWYLFELFPFILLGVFGGLWGAF F I R A N I A W C R R R  
KSTKFGKYPVLEVIIVAAITAVIAFPNPYTRLNTSELIKELFTDCGPLESSSLCDYRNDM  
NASKIVDDIPDRPAGIGVYS AIWQLCLALIFKIMTVFTFGIKVPSGLFIP SMAIGAIAG  
RIVGIAVEQLAYYHHDWFIFKEWCEVGADCITPGLYAMVGAAACLGGVTRMTVSLVIVF  
ELTGGL EYIVPLMAAVMTSKWVGDAFGREGIYEAHIRLNGYPFLDAKEEF EF TH T T L A A D  
VMRPRRNDPPLAVLTQDNMTVDDIENMINETS YNGFPVIMSKE SQR L V G F A L R R D L T I A I  
ESARKKQEGIVGSSRVCFAQHTPSLPAESPRPLKRSILDMSPF TVTDHTPMEIVVDIFR  
KLGLRQCLVTHNGRLLGIITKKDILRHMAQTANQDPASIMFN

>O59702

MGFGKKKVSYFYDEEDVGNHYGYPQHPMKPHRVRMVHNLV VNYNLYEKLNVITPVRATRND  
MTRCHTDEYIEFLWRVTPDTMEKFQPHQLKFNVGDDCPVFDGLYEFCSISAGGSIGAAQE  
LNSGNAEIAINWAGGLHHAKKREASGFCYVNDIALAALELLKYHQRVLYIDIDVHHGDGV  
EEFFYTTRVMTCSFHKFG EYFPGTGHIKDTGIGTGKNYAVNVPLRDGIDDESYESVFKP  
VISHIMQWFRPEAVILQCGTDSLADRLGCFNL SMKGHS MCVDFVKSFNLP MICVGGGGY  
TVRNVARVWTYETGLLAGEELDENLPYNDYLQYYGPDYKLVLSNNMENHNTRQYLD SIT  
SEI IENLRNLSFAPSVQMHKTPGDFTFENA EKQNI AKEEIMDERV

>P60069

MSQRQVAYVFDL NKCIGCHTCTMACKQLW TNRDGREYMYWNNVETRPGKGYPKNWEKGKG  
GFDQEGK LKTNGIIPIMADYGGRI GDFNLNEV LLEGGKADQVVPHEKATWGP N W D E D E G K G

EFPNHNSFYLPRI CNHCSNPACLAACPTKAIYKRPEDGIVVVDQTRCRGYRYCVKACPYG  
KMYFNLQKGKSEKICIGYPRVEKGEAPACVKQCSGRIRFWGYRDDKNGPIYKLVEQWKVA  
LPLHAEYGTPEPNVYVPPMNTTPPPFEEDGRLGDKPRIPIEDLEALFGPGVKQALATLGG  
EMAKRRKAQASELTDILIGFTNKDRYGV

>Q06156

MSGFSLSEYLTKFQTTDRESYPRLQDPSRELNVIIDQLAVSPEQIDASPDLSLEALIDLCH  
DFPHLTPKLTQQLSYLISSSLSNLSKDIKANLSSNVNFTEIGGLIPQWKRHLEEGYLIQ  
VLLTFLQDELHKVSSQSTNLNRSKNSKNSANVELFKRDCNQMENLLESITKLEINLS  
KIFQTTPEKDLFIGLFTPLFVLEIEPVTKVSSLKMFIQRILAMCVKNHGQSSSIQSSL  
MTNLTYFLHLSVFNAELLKLLNDEYNYPQLTEDILKEISTRVFNADDTTGPKAISNFLIK  
LSELSPGIMLRQMNLVITLLNNSITLRCSSVVEACGNIVAELAQDPQTMHEYKQQIAVLI  
ELLEERFQDSNPYVRTKAIQGCISKICDLSSKFNKSKAKFTSLAVRSLQDRSSLVRRNSVK  
LLSKLLKHPFKAIHGSQRLRSEWEEYKLGSESQLNSTLKKVESQETLNDTIERSLIEEE  
VEQDEGQCRTELEGSFNKSAELSRINEVENINATNTSVLMKLLKLMIVYKDAISFIKEI  
HKSIELISNLLFSKNRNEVLESMDFLVLADAFDIELSEFGIKKMLHLVWMKGTNDEGTSI  
SVHLIECYKQLFLTAPDSCNMQEKAHIAKNLINLSIGASIALDASLEQLLGMMEYQKLI  
DQHVINILWAIYNSASKASMQEQNVNMRDSEKGFSEKQIHGSIILGMLSLADNEIALK  
GLESLLNIGLGAVGLKDLTLCRYSCALERMVPKRSTIITKAINQELEDDVAVKKLYAIII  
NYTKDNEYYPMCEQALSALFTISSKPDILATDLIREKTMFTFGKPEEEDSILSLEQSSRV  
VLSQLLFIQVQVAIKTLVYLEKCEAEFKKRKIEAETRNGKVKNQGADVNTTQDNGGDK  
ELEMIGGTNEDDFTDAIQFVKENELLFGEKSIKGFCEPVEEIVSNSSRFSDPMLQRTAT  
LCLEKLMCLSSKYCEKSLPLLITVMEKSPDPTIRSNVGLGLGDMVCFNNLVDENTDYLY  
RRLHDENLMVQRTCLMTVTFLILAGQVKVKGQLGEMAKCLDNPQGISDMCRLFFTELAS  
KDNAIYNGFIDIFSNLSSDILLGKESFKKIIFLLTFIDKERHQKQLNEKLVGRRLKRCET  
QKQWDDIAFVLNLLPYKNEDVTALLEQGFKVVSAKE

>P38170

MTTQLRYENDDDERVEYNLFTNRSTMMANFEWIKMATDNKINSRNSWNFALIDYFYDL  
DVLKDGENNINFQKASATLDGCIKIYSSRVDSVTTETGKLLSGLAQRKTNGASNGDSSNG  
GNGEGLGGDSDEANIEIDPLTGMPISNDPDVNMNTRRRVYNRVLETTLVEFETIKMKELDQ  
ELIIDPLFKKALVDFDEGGAKSLLNLTNLNIDNTARVIFDASIKDTQNVGQKLRKEEEL  
IERDSLVDDENEPSQSLISTRNDSTVNDSSVISAPSMEDEILSLGMDFIKFDQIAVCEISG  
SIEQLRNVVEDINQAKDFIENVNRFNDFLTEEELQAAVPDNAEDSDGDFMGMQQLCY  
PDENHDNTSHDEQDDDNVNSTTGSIFEKDLMAYFDENLNRNWRGREHWKVRNFKKANLVN  
KESDLEETRRTTIGDTTDKNTTDDKSMPTKHKHKQKQVLEIDFFKTDDSFEDKVFASKGR  
TKIDMPIKNRKNNDTHYLLPDDFHFSTDRITRFLIKPAQKMSLFSHRKHTRGDVSSGLFEK  
STVSAHNSNNDIPTIADEHFADNYERKEQEEKEKEQSKEVGDVVGALDNPFEEDMDGV  
DFNQAFEGTDDNEEASVKLQLDQDEDEHKFPIRENKVTYSRVSKKVDVRRLLKKNVWRSINN  
LIQEHSRKNREQSSNDSEHTTEDESTKELKFSDI IQGISKMYSDDTLKDISTSFCFICL  
LHLANEHGLQITHTENYNLIVNYEDLATTQAAS

>Q10429

MSCIQIISSSQTSIAGHRKLCNKLFTLRTOEGFETDILRALNIIITVKKGNSNADRVLRF  
LVTFVNYLQKQDPEIDIVQPIKHLRGLDAKDKTVRYRCCQI IARVVNCVKEIDDDLIN  
TLKEKLLSRVLDRESIVRLEAVVALSRLQEDTGDEENDVRNILLFLLQNDPSSSEVRRSVL  
LNIEVSNSTLPPFILERARDVDAANRKCVCYARVLPKIGDFRYLSIKKRVRILKWGLNDRDE  
SVEKAAADMLAYQWIENADNLLLELLERLDVSNNSDVAVLAIKKFFDVRVDSLSQLEFPE  
QFWLELTAESSLLARTFNEICIEKNYTDLLDKMPEVVQLTYIERYQVSLRDKSSYDESC  
FIIIEQLLYIGLSQDMVDEIGRRKLLKSLTNSLSTMALPDSLISLHIELLRKLCSSSENDFC

SLLVEIITEVFEQGHSONQTEEQGNSNAPELNKNDYEGEEITVSQKSPSPSLPPNELNEP  
EPDDMDGYKEAFNELRCLSYVQCLFENITSSLNENLYMVDMLKTLIIPAVRSHDLP IREK  
GLECLSLVCLLNADLAFENVPLYLHCYKESVVLKCTAIRTLTDMLIQHGKAKFTEYEDA  
ISSILFEALGEFENAELQTLGAEAIAKLLVILHYRDELFLKPLIIQYFEPNTVDNHALRQ  
VLGYFFPVYAFGAHENQWRIATIFCDALLSLEIYRDLDEDDVQLSIGHIAQQMLDWTDN  
EKLYERKTQTGDYIALNHNHVLHLANMIFESLPNASEGKERKFMISLLGKLIKIPDLP  
SDYQRTKRKLETYESHGFTMDSTSL SILAKFERMLLQNEEARSKFEETEERLMENAEEN  
EHAGAEAISGEIIPDPTVEANMEDEEEVYVKQEEDL

>Q9YHB5

MVKEGKAMEIKEAFDLSQKAHQNHAKLVSSLRRAAYNKTEDKSIFLEEF IHFLKFPLIVYR  
REPAVERVMDFVAKFVTSFHNSGGENEDEEENSPVNCLFNFLQSHGASSMAVRFRVC  
QLINKLLVNLPENAQIDDDLFDKIHDAMLIRLKDVRPNVRIQAVLALARLQDPSDPDCPV  
SNAYVHLLENDSNPEVRRAVLTCIAPSAKSLPKIVGRTMDVKEPVRKLAYQVLSEKVHIR  
ALTIAQRVKLLQOGLNDRSAAVKDVIQKLIQAWLQYSEGVDLDDLHRLDVENSPEVSL  
ALNALFSVSPVGELVQCNKNDERKLIPVETLTPENVLYWRALCEHLKSKGDEGEAALEN  
ILPEPAVYARYLSSYLQTLPVLSQDQADMTKIEDLMTKEFIGQQLILTIGCLDTSEEG  
RKRLAVLQEIILVMQNTPTSLISSLAELLLFVLKDDDKRIQTVAEIISELREPIVTVDN  
KDAAQSRKLQKLADVKVQLIEAKQALEDSLTDNEDYSRASELKEKVKELESKTLQIIEA  
EPEMKEIRVEKNDPETLLKCLIMCNELKHLKSLKGLGGTLNEICESLILPGITNVHPS  
VRNMAVLCIGCCALQNKDFARQHLPLLLQILQLDEVKVKNSALNAVFDMLLLFGMDILKS  
KPTNPDDSQCKAQENADEDI SEQEKPGSVDENLTNEEVQEEATVNGILHLFSGFLDSEI  
AEIRTETAELVKLMSGRLISAKLLSRLILLWYNPVTEDTKLRHCLGVFFPIFAYSCR  
SNQECFAEAFPLTLQTLFNAPASSPLADVDVANVAELLVDLTRPSGLNPQNKQSODYQAA  
MVHDGLAIKICNEILKDPAPDVR IYAKALCSLELSRENSTDLLPLLDCAVEDVTDKVE  
RAIEKVRSQLRSGREEHRVSKETEPQVSKETEDRTNLQENEEGKQKDEANCDENTDTVKE  
KAARGKATKGRKGPAAAATRRKASKAEAEAEEMERQEE SQVVPVNTRPSRRAKTAALEK  
TKKNLSKLLNEEAN

>Q06680

MQDPDGIDINTKIFNSVAEVFQKAQGSYAGHRKHIAVLKKIQSKAVEQGYEDAFNFWFDK  
LVTKILPLKNEIIGDRIVKLVAAFIASLERELILAKKQNYKLTNDEEGIFSRFVDQFIR  
HVLRGVESPDKNVRFRVLQLLAVIMDNIGEIDESLFLNLLILSLNKR IYDREPTVRIQAVF  
CLTKFQDEEQTEHLTELSDNEENFEATR TLVASI QNDPSAEVRRAMLNLINDNNTRPYI  
LERARDVNI VNRRLVYSRILKSMGRKCFDDIEPHIFDQLIEWGLEDRS VRNACKRLIA  
HDWLNALDGD LIEELLEKLDVSRSSVCVKAIEALFQSRPDILSKIKFPESIWKDF TVEIAF  
LFRAIYLYCLDNNITEMLEENFPEASKLSEHLNHYILLRYHHNDISNDSQSHFDYNTLEF  
IIEQLSIAAERYDYSDEVGRRSMLTVVRNMLAL'TTLSEPLIKIGIRVMKSLSINEKDFVT  
MAIEIINDIRDDIEKQEQEEKIKSKKINRRNETSVDEEDENGTHNDEVNEDEEDDNISS  
FHSAVENLVQGNVSESDIINNLPPEKEASSATIVLCLTRSSYMLELVNTPLTENILIA  
SLMDTLITPAVRNTAPNIRELGVKNLGLCCLLDVKLAIDNMYILGMCVSKGNASLKYIAL  
QVIVDIFSVHGNTVVVDGEGKVDSSISLHKIFYKVLKNNGLPECQVIAAEGLCCKLFLADVFT  
DDDLFETLVLSYFSPINSSNEALVQAF AFCIPVYCF SHPAHQQRMSRTAADILLRLCVLW  
DDLQSSVIPEVDREAMLKPNII FQQLLFWTDPRNLVNQTGSTKKDTVQLTFLIDVLKIYA  
QIEKKEIKKMIITNINAIFLSSEQDYSTLKELEYSDDIAENDNLDNVSKNALDKLRNNL  
NSLIEEINERSETQTKDENNTANDQYSSILGNSFNKSSNDTIEHAADITDGNNTLTKTT  
VNI SAVDNTTEQSNSRKRTRSEAEQIDTSKNLENMSIQDTSTVAKNVSFVLPDEKSDAMS  
IDEEDKDSESFSEVC

>P42695

MVALRGLGSGLQPWCPLDLRLEWVDTVWELDFTEPETPLDPSIEAEI IETGLAAFTKLYES  
LLPFATGEHGSMESIWTFFIENNVSHSTLVALFYHFVQIVHKKNVSVQYREYGLHAAGLY  
FLLLEVPGSVANQVFPVDFDKCIQTLKKSQWQESNLNRKRKKEQPKSSQANPGRHRKRK  
KPPRREDIEMDEIIEEQEDENICFSARDLSQIRNAIFHLLKNFLRLLPKFSLKEKPQCVQ  
NCIEVFVSLTNFEPVLHECHVTQARALNQAKYIPELAYYGLYLLCSPIHGEGDKVISCVF  
HQMLSVILMLEVGEGRAPLAVTSQVINCRNQAVQFISALVDELKESIFPVVRILLQHI  
CAKVVDKSEYRTFAAQSLVQLLSKLPCEYAMFIAWLYKYSRSSKIPHRVFTLDVVLALL  
ELPEREVDNTLSLEHQKFLKHKFLVQEIMFDRCLDKAPTVRSKALSSFAHCLELTVTSAS  
ESILELLINSPTFSVIESHPGTLRLNNSAFSYQRQTSNRSEPSGEINIDSSGETVGSGER  
CVMAMLRIRDEKTNVRKSALQVLVSILKHCDVSGMKEDLWILQDQCRDPAVSVRKQAL  
QSLTELLMAQPRCVQIQKAWLRGVVPMVMDCESTVQEKALEFLDQQLLQNIHSHSHFHSG  
DDSQVLAWALLTLLTTESQELSRYLKAFHIWSKKEKFSPTFINNVISHTGTEHSAPAWM  
LLSKIAGSSPRLDYSRIIQSWEKISSQONPNSNTLGHILCVIGHIAKHLPKSTRDKVTDA  
VKCKLNGFQWSLEVISSAVDALQRLCRASAETPAEEQELLTQVCGDVLSTCEHRLSNIVL  
KENGTDGNDLKVYIIFTLGDIQALCPARVEKRIFLLIQSVLASSADADHSPSSQGSSE  
APASQPPPQVRGSMPSVIRAHAIITLGLKCLQHEDLAKKSIPALVRELEVCEDEVAVRNN  
VIIVMCDLCIRYTIMVDKYIPNISMCLKSDPFIRKQTLILLTNLLQEEFVKWKGS�FFR  
FVSTLIDSHPDIAFGEFCLAHLKRNPMVFFQHFIECIFHFNNYEKHEKYNKFPQSER  
EKRLFSLKGSNKERRMKIYKFLLEHFTDEQRFNITSKICLSILACFADGILPLDLASE  
LLSDTFEVLSSKEIKLLAMRSKPKDLLMEEDMALANVMQEAQKKLISQVQKRNFIEN  
IIPIIISLKTVLEKNKIPALRELMHYLREVMQDYRDELKDFFAVDKQLASELEYDMKKYQ  
EQLVQEQLAKHADVAGTAGGAEVAPVAQVALCLETVPVPAGQENPAMSPAVSQPCTPRA  
SAGHAVASSPTPETGLQRLLPKARPMSLSTIAILNSVKKAVESKSRHRSRSLGVLPTL  
NSGSPEKTCSQVSSYSLEQESNGEIEHVTKRAISTPEKSIDVTFGAGVSYIGTPRTPSS  
AKEKIEGRSQNDILCLSLPDKPPPQPPQWNVRSRPNKDTPACSRRLRKTPLKTAN

>Q8IV77

MSQDTKVKTTESPPAPSKARKLLPVLDPDPSGDYWWLNTMVFVPMYNIILVCRACFPD  
LQHGVLVAVLVDYTSDDLVLDMVVRFHGTGFLEQGIILVVDKGRISSRYVRTWSFFDLA  
SLMPTDVVYVRLGPHPTLRLNRFLRAPRLFEEAFDRTETRTAYPNAFRIAKLMLYIFVVI  
HWNSCLYFALSRYLGFGRDAWVYPDPAQPGFERLRRQYLYSFYFSTLILTTVGDTPPPAR  
EEEYLFMVGDFLLAVMGFATIMGSMSSVIYNMNTADAAFYPDHALVKKYMKLQHVNRKLE  
RRVIDWYQHLQINKMTNEVAIQHLPERLRAEVAVSVHLSTLSRVQIFQNCESLLEEL  
VLKLQPQTYSPGEYVCRKGDIGQEMYIIREGQLAVVADDGITQYAVLGAGLYFGEISIIIN  
IKGNMNGNRRTANIKSLGYSDFCLSKEDLREVLSEYPQAQTIMEEKGREILLKMNKLDV  
NAEAAEIALQEATESRLRGLDQQLDDLQTKFARLLAELESSALKIAYRIERLEWQTRWP  
MPEDLAEADDEGVPEEGTSKDEEGRASQEGPPGPE

>P20849

MKTCWKIPVFFFVCSFLEPWASAAVKRRRPRFPVNSNSNGGNELCPKIRIGQDDLPGFDLI  
SQFQVDKAASRAIQRVVGSATLQVAYKLGNNVDFRIPTRNLYPSGLPEEYSFLTTFRMT  
GSTLKNWNIWQIQDSSGKEQVGIKINGQTQSVVFSYKGLDGSQTAAFSNLSSLFDSQW  
HKIMIGVERSSATLFVDCNRIESLPKPRGPIDIDGFAVLGKLADNPQVSVPFELQWMLI  
HCDPLRPRRETCHELPARITPSQTTDERGPPGEGQPPGPPGPPGVPIDGIDGDRGPKGP  
PGPPGPAGEPGKPGAPKPGTPGADGLTGPDPGSPGISGSKGQKGEVPGVPSRGRFPGRGIP  
GPPGPPGTAGLPGELGRVGPVGDPRRGGPPGPPGPPGPRGTIGFHDGDLPCPNACPPGRS  
GYPGLPGMRGHKGAKEIGEPGRQGHKGEEDQGEELGEVGAQPPGAQGLRGITGIVGDK  
GEKGARGLDGEPPGQGLPGAPGDQQRGPPGEAGPKGDRGAEGARGIPGLPGPKGDTGLP  
GVDGRDGIIPMPGTKEGPKPGPPGDAGLQGLPGVPGIPGAKGVAGEKGTGAPKPGQM  
GNSGKPGQQGPPGEVGRGPQGLPGSRGELGVPVSPGLPGKLGSLGSPGLPGLPGPPGLP

GKMGDRGVVGEPPGPKGEQASGEEGEAGERGELGDI GLPGPKGSAGNPGEPLRGPEGSR  
GLPGVEGPRGPPGPRGVQGEQATGLPGVQGPGRAPTDQH IKQVCMRVIQEHFAEMAAS  
LKRPDGATGLPGRPGPPGPPGPPGENGFPGQM GIRGLPGIKGPPGALGLRGPKGDLGEK  
GERGPPGRGNLPGA IGLPGDPGPASYGKNRDRGERGPPGLAGIPGVPPGPPGGLPGF  
CEPASCTMQAQRAFNGKDPDP

>Q14055

MAAATASPRSLLVLLQVVVLALAQIRGPPGERGPPGPPGPPGVPGSDGIDGNGPPGKAG  
PPGPKGEPGKAGPDGPDGKPGIDGLTGAKGEPGPMGIPGVKQPGPLPGPPGLPGPFAGP  
PGPPGPVGLPGEI GIRGPKGDPGPDGSPGPPGPKPGRPGTIQGLEGSADFLCPTNCP  
GMKGGPGLQGVKGHAGKRILGDPGHQKPGPKGDVGASGEQGI PGP GPGQIRGYPGMA  
GPKGETGPHGYKGMVGAIGATGPPGEEGPRGPPGRAGEKGDGSPGIRGPGQITGPKGAT  
GPPGINGKDGTPGTPGMKGSAGQAGQPGSPGHQGLAGVPGQPGTKGGPGDQGEPPGQGLP  
GFSGPPGKEGEPGRGEIGPQIMGQKGDQGERGVPVGPQGRQGPKEGQPPGIPGPQ  
GLPGVKGDKSGPKTGPRKVGDPVAGLPGEKGEKGESEGEPPGKQQGVRRGEPGYPGPS  
GDAGAPGVQGYPPGPRGLAGNRGVPGQPRQGVVEGRDATDQH IVDVAKMLQEQLAEV  
AVSAKREALGAVGMMGPPGPPGPPGYPGKQGPHGHPGRGVPGIVGAVGQIGNTGPKGKR  
GEKGDPEVGRGHPGMPGPPGIPGLPGRPGQA INKDGDRGSPGAPGEAGRPGLPGPVGL  
PGFCEPAACL GASAYASARL TEPGSIKGP

>Q14050

MAGPRACAPLLLLLLLLGELLAAAGAQRVGLPGPPGPPGPPGKPGQDGDIDGEGPPGLPGP  
PGPKGAPGKPGKPEAGLPGLPGVDGLTGRDGP GPKGAPGERGSLGPPGPPGLGGKGLP  
GPPGEAGVSGPPGGI GLRGP GPSGLPGLPGPPGPPGPPGHPGVLP EGATDLQCPSICPP  
GPPGPPGMPGFKGPTGYKGEQGEVVKDGEKGDGPPGPA GLPGSVGLQGPRGLRGLPGPL  
GPPGDRGPIGFRGPPGIPGAPGKAGDRGERGPEGFRGPKGDLGRPGPKGTPGVAGPSGEP  
GMPGKDGQNGVPGLDGQKGEAGRNGAPGEKGPNGLPGLPGRAGSKGEKGERGRAGELGEA  
GPSGEPGVPGDAGMPGERGEAGHRGSAGALGPQPPGAPGVRGFQGGKGSMDPGLPGPQ  
GLRGDVDRGPGGAAGPKGDQGIAGSDGLPGDKGELGPPSGLVGPKEGSGSRGELGPKGTQ  
GPNGTSGVQGVPPGPLGLQGVPGVPGITGKPGVPGKEASEQR IRELCGGMISEQIAQL  
AAHLRKPLAPGSIGRPGPAGPPGPPGPPGSI GHPGARGPPGYRGPTGELGDPGPRGNQGD  
RGDKGAAGAGLDGPEGDQGPQGPQGVPGT SKDGQDGAPGEPGPPGDPGLPGAIGAQTTPG  
ICDTSACQGA VLGGVGEKSGSRSS

>Q05815

MSISSSNVTSGFID IATKDEIEKYMYGGKTSTAYFVRETRKATWFTQVPVSLTRANGSAN  
FGSEWSASISRAGDYLLYTWRVRIPSVTLLSTNQFGANGRIRWCRNFMHNLIRECSITF  
NDLVAARFDHYHLDFWAAFTTPASKAVGYDNMIGNVSALIQPQVPVAPATVSLPEADLN  
LPLPFFFSRDSGVALPTAALPYNEMRINFQFHDWQRLLILDNIAAVASQTVVPVVGATSD  
IATAPVLHHGTVWGNYAIVSNEERRRMGCSVRDILVEVQQTAPRHVWNPTTNDAPNYDIR  
FSHA IKALFFAVRNTTFSNQPSNYTTASPVITSTTVILEPSTGAFDPIHHTTLIYENTNR  
LNHMGSDFSLVNPWYHAPTIPGLTGFHEYSYSLAFNEIDPMGSTNYGKLTNISIVPTAS  
PAAKVGAAAGTGPAGSGQNFQTFEFIVTALNMMNIRISGGALGFPVL

>P29929

MHLLLAQKGTIADGNEAIDLQTPADILFLSAADTELSSIAAAHGRRDGGLSLR IASLMS  
LMHPMSVDTYVERTARHAKLIVVRPLGGASYFRYLLEALHAAAVTHRFEI AVLPGDDKPD  
PGLEPFSTVAADDRQLWAYFTEGGSDNAGLFLDYAAALVTGAEKPPAKPLLKAGIWWP  
GAGVIGVSEWQSLVQGRMVAREGFEPPTVGICFYRALVQSGETRPEALIDALEAEGVRA  
LPVVFSSLKDAVSVGTLQAI FSEAAPDVMMNATGFVSSPGADRQPTVLESTGAPVLQVI

FSGSSRAQWETSPQGLMARDLAMNVALPEVDGRILARAVSFKAASIYDAKVEANIVGHEP  
LEGRVRFAADLAVNWANVRRRAEPAERRIAIVMANYPNRDGRLGNGVGLDTPAGTVEVLSA  
MAREGYAVGEVPADGDALIRFLMAGPTNAASHDREIRERISLNDYKTFFDLSPKQIKDEV  
AGRWGVPEADPFFLDGAFALPLARFGEVIVGIQPARGYNIDPKESYHSPDLVPPHGYLAF  
YAFLRQQFGAQAIVHMKGHNLEWLPKGKALALSETCYPEAIFGPLPHIYPPFIVNDPGEGT  
QAKRRTSAVIDHLLTPPLTRAESYGPLKDLEALVDEYYDAAGGDPRLRLLSRQIILDLVR  
DIGLSDAGIDRGSDDKALEKLDAYLCDLKEMQIRDGLHIFGVAPTEGRLLTDLTVALAR  
VPRGLGEGGDQSLQRAIAADAGLRGFAIPTSAAGNPARDAPFDPLDCVMSDTWTGPKPS  
ILADLSDAPWRTAGDTVERIELLANLVSGELACPDHWANTRAVLGEIETRLKPSISNSG  
AAEMTGFLTGLSGRFVAPGPGSAPTRGRPDVLPTRNFYSVDSRAVPTPAAYELGKKSAAE  
LLIRRYLQDHGEWPFSSFGLTAWGTANMRTGGDDIAQALALIGAKPTWDMVSRRVMGYEIV  
PLAVLGRPRVDVTLRISGFFRDAFPDQIALFDKAIRAVALEEDDADNMIAARMRAESRRL  
EAEGVEAAEAARRASYRVFGAKPGAYGAALQALIDEKGWETKADLAEAYLTWGAYAYGAG  
EEGKAERDLFEERLRTIEAVVQNDNREHDLSDDDYYQFEGGMSAAAQELGGHRPAIYH  
NDHSRPEKPVIRSLLEEIGRVVVRARVVNPKWIDGVMRHGYKGAFFIAATVDYMFAPAATT  
GAVRDHHEFAAYQAFIVDERVADFMRDKNPAAFAELAERLLEAIDRNLTWTPRSNSARFEL  
AGIGTAATRLRAGNE

>O32220

MLSEQKEIAMQVSGMTCAACAARIKGLKRMPGVTDANVNLATETSNVIYDPAETGTAAI  
QEKEIKLGYHVVTEKAEFDIEGMTCAACANRIEKRLNKIEGVANAPVNFALFTVTVEYNP  
KEASVSDLKEAVDKLGYKLLKGEQDSEAAAKKKEERKQTARLIFSAVLSFPLWAMVSH  
FTFTSFIWVPDIFLNPWMQFALATPVQFLIGWPFYVYVAYKALRNKSANMDVLVALGTTAA  
YAYSLYLTFQSIGSHGHTDGLYYETSAILLTLILLGKLFETKAKGRSSDAIKKLMKLQAK  
TATVVRDQEQIIPIDEVLVNDIVYVKPGERIPVDGEVVEGRSAVDESMITGESLPVDKN  
PGDSVTGSTVNANGFLKIKAVNVGKDTALSHI IKIVEEAQGSKAPIQRLADQISGIFVPI  
VLGIAVLTFLIWIYLAAPGDFAEAI SKFIAVLVIACPCALGLATPTSIMAGSGRAAEFGI  
LFGKGEHLEKTHRLDITVLDKGTGTNGKPRLTDAIPFGRFEEKDLLQFAAAAE TGSEHP  
LGEAIIAGVKDKGLEIPKLTTRFEAKVAGILAEAGGKSILVGTTRKLMESEQVEHGALLAQ  
MEELEAEGKTVMLVLSIDGEAAGLVAVADTIKDTSRKAVARLKEGLDVIIMMTGDNRRTAE  
AIAKEAGIANIIAEVLPEQKAAE IARLQKEGRQTAMVGDGINDAPALATADIGMAIGTGT  
DIAMETADITLIRGDLNSIADAIRMSRLTMKNIKQNLFWALGYNSLGIPIAALGFLAPWI  
AGAAMAFSSVSVVLNLRQLQKVK

>O32221

MEQKTLQVEGMSQHCVKAVETSVGELDGVSAVHVNL EAGKVDVSFDADKVSVKDIADAI  
EDQGYDVAK

>P07318

MSQPAAKASATAAVNPGPDGKKGAGPPPGPAPGSGPAPAPAPAPAQPAPAAKAE LPPGSY  
KLVVFEQENFQGRRVEFSGECLNLGDRGFERVRSIIVTSGPWVAFEQSNFRGEMFVLEKG  
EYPRWDTWSSYSRDLMSFRPIKMDAQEHKLCLEFEGANFKGNTMEIQEDDVP SLWVYGF  
CDRVGSRVRSSTWVGYPGYRGYQYLLLEPGDFRHWNEWGAFQPMQAVRRLRDRQWHR  
EGCFPVLA AEPPK

>P33522

MGPTSLLSFFFTFLTLFHGFTAQQWPNECQLDQLNALEPSQIIKSEGGRIEVWDHHPQL  
RCSGFATERFVIEPQGLYLPFTLNAGKLTFFVHGHALMGKVTGCAETFNDSPVFGQGQG  
QEQQGQGQGQGQGFDMHQKVEHLRSGDTIATPPGVAQWFYNNNGNEPLILVAAADIANN  
LNQLDRNLRPFLLAGNNPQGGQWLQGRQQKQNNIFNGFAPQILAQAQFKISVETAQKLQN



QQVNRGNIVKVQGFVIRPPLRQGGQQPQEEGNLEETLCTMRCTENLDDPSSADV  
KPSLGYISTLNSYNLPILRFLRLSALRGSIHNNAMVLPQWNVNANAALYVTKGKAHIQNV  
NDNGQRVFDQEISKGQLLVVPQGFVAVKRATSQQFQWIEFKSNDNAQINTLAGRTSVMRG  
LPLEVISNGYQISPQEARSVKFKSTLETTLTQSSGPMGYGMPRVEA

>P15509

MLLLVTSLLLCELPHPAFLLIPEKSDLRTVAPASSLNVRFDSTRMTNLSWDCQENTTFSKC  
FLTDDKKNRVVEPRLSNNECSCTFREICLHEGVTFFEVHVNTSQRGFQQKLLYPNSGREGTA  
AQNFSCFIYNADLMNCTWARGPTAPRDVQYFLYIRNSKRRREIRCPYYIQDSGTHVGCHL  
DNLSGLTSRNYFLVNGTSREIGIQFFDSLDDTKKIERFNPPSNVTVRCNTHCLVRWKQP  
RTYQKLSYLDYQYQLDVHRKNTQPGTENLLINVSGDLENRYNFPSPSEPRAKHSVKIRAAD  
VRILNWSWSEAEIEFGSDDNLGSVYIYVLLIVGTLVCGIVLGFVLFKRFLRIQRLFPVPV  
QIKDKLNDNHEVEDEIIWEEFTPEEGKGYREEVLTVKEIT

>P35206

MSTLLWFSSVIGYVIQTKCLSNIQSKKEISVGPNGTIATPETNGDNGNSSSLTFYLTFM  
YFASWLLWVPASRLWEKMRPMFVSDSDSNRNSQFDNNSGSVTNEVDVTFSHVLDDPQPR  
IPAQQQKQKIIISVATFKYVAKLTVLALIMIVADLTYNMALSLSPAFDVALMQNTAIFEIV  
TLLYGVCGISRKNYVFRNFLIMMNAVIGILIIISYTKATCDMLAGKLSVNPNTGELSDPFL  
FDRLKCALICGLGALIMGPFVAVLWNRWFCNSIKNENSAAVVLVKQSTHMALIGIIGMVIL  
LPPFIPKFPRESVESISLIFYNDKSFWFSLLGSIIFGSLPSLISILELNRKAPAEYLTTCN  
LGAIIFMGLAEWVCEPTQTTIVRWEVIGYIMLTVSLLVLSVTLGEGKYHH

>Q8TG13

MARVYADVQNMPRAYWDYDSVNI SWGVLENYEVVRKIGRGKYSEVFEGINVVNYQKCVI  
KVLKPKVKKKIKREIKILQNLAGGPNIVALLDVVRDSQSKTPSLIFEYVNNTFRTLYPR  
FNDFDVRYIIFELLKALDFCHSKGIMHRDVKPHNVMIDHENRKLRLIDWGLAEFYHPGTE  
YNVRVASRYFKGPELLVDFQEYDYSLDMWSLGAMFASMIFRKEPFFHGGQSNSDQLVKIAK  
VLGTDELFDYLDKYEIELDAQYDDILGRFQRKPWHSFINAENQRFVSNEAIDFLDKLLRY  
DHNERLTAKEAMAHPYFAPVRDEATRARYLAGETIN

>Q12748

MSLILDDIILSLTNANERTPPQALKTTLSLLYEKSKQYGLSSPQLQALVRLLCETSIDT  
VTKVYIVENCFLPDGYLTKELLEIINH LGTPTVFSRYRIQTTPVLQSALCKWLHVYFL  
FPVHSEREHNISSSIWLHLWQFSFLQKWITPLVIWQATTPVDVKPWKLSIIKRCAMHPGY  
RDAPGSATLILQRFOQLVGASSQITESIITINCNRKTLKSHRNKLDHAFLSILKRILSR  
AHPANFPADTVQNTIDMYLSEIHQLGADSIYPLRLQSLPEYVPSDSTVSLWDVTSLEQLA  
QNWPQLHIPNDVDYMMKPSLNSNVLLPRKVMSRDSLKHLYSIIILIKNSRDESSPYEWC  
IWQLKRCFAHQIETPQEVIPIIISVSSMDNKLSSRIIQTFCNLYLKLDELTLKKVCGGI  
LPLWKPELISGTREFFVKFMASIFMWSTRDGHNNCTFSETCFYVLQMITNWLDDKLI  
LGLTLLHDMQSLTLDKIFNNATSNRFSTMAFISSLDILTQLSKQTKSDYAIQYLIVGPD  
IMNKVFSDDPLLLLSAACRYLVATKNKLMQYPTNKFVRMQNYIMDLTNYLYRNKVLSS  
KSLFGVSPDFFKQILENLYIPTADFKNAKFFTITGIPALSYICIIILRRLETAENTKIKF  
TSGIINEETFNNFFRVHHEIGQHGWIKGVNNIHDLRVKILMHLSTANPYRDIAAFLFT  
YLKSLSKYSVQNS

>P33752

MNSKIIIRFENLRSFFKDGMTIMIGGFLNCGTPTKLIIDFLVNLNIKNLTIISNDTCYPNTG  
IGKLIISNNQVKKLIASYSNPDTGKKLFFNNELEVELSPQGTIVERIRAGGSGLGGLVTK  
TGLGTLIEKGKKKISINGTEYLLLELPLTADVALIKGSIVDEAGNTFYKGTTKNFPYAM

AAKTVIVEAENLVSCEKLEKEKAMTPGVLINYIVKEPA

>P23673

MINDKNLAKEIIAKRVARELKNQQLVNLGVGLPTMVADYIPKNFKITFQSENGIVGMGAS  
PKINEADKDVVNAGGDYTTVLPDGTFFDSSVSFSLIRGGHVDVTVL GALQVDEKGNIANW  
IVPGKMLSGMGAMD LVNGAKKVI IAMRHTNKGQPKILKKCTLPLTAKSQANLIVTELGV  
IEVINDGLLLLTEINKNTTIDEIRSLTAADLLISNELRPMVA

>O93426

MGRFIFVVSFGLLVFLSLSGTGAGLHCPDSDWYDQHCYRIFNEEMNWEDAWEFCTKQAK  
GAHLVSIKSAKEADFVAWMVTQNIIEESFSHVSIGLRVQNKKEKQCSTKWSDGSSVSYDNLL  
DLYITKCSLLKKETGFRKWFVASCIGKIPFVCKFPPQC

>O93427

MGRFIFVVSFGLLVVFLSLSGSEAGFCCPSHWSSYDRYCYKVFQEMTWADAWEFCTQOHT  
GSHLVSFHSTEEVDFVVKMTHQSLKSTFFWIGANNIWNKCNWQSDGTKPEYKEWHEEFE  
CLISRTFDNQWLSAPCSDTYSFVCKFEA

>P32434

MELTRAKHIAFFKRHLILFPTPYEEHDCERTVLAFFCLLGLDLLNALNTIDDDDKKSWIE  
WIYKNYVTKESKGIKYSGFQAYRTGIQPI SFEQEPQLAGTVFSICCLLFLGDNLSRIDRD  
LIKNFVELCKTSQGHFRSIAVPSCSQDMRQLYMATTIASLLDFSLSDPLCSIQYIKSCQ  
RYEGGFSLLPYGEAHAGATFCALASWSLILKMI PNSSLNNTSNQSYNLMDCVPKVERLIRW  
LASRQLSSGGLNGRTNKDVDTCYAYWVLSLKLDDALPFIDGGELEKYLLLHAQHALGGF  
SKTPGEFPDVLHSALGLYAMAYQDDKSF PKVNADIHMTSKYINICRDCIQAAK GK

>Q47945

MLNALTRDRLVSEMKGWKLAAAIGLMAVSFGAAHAQDADEALIKRGEYVARLSDCIACH  
TALHGQPYAGGLEIKSPIGTIYSTNITPDPEHGI GNYTLEDFTKALRKGIRKDGATVYPA  
MPYPEFARLSDDDIRAMYAFFMHGVPVALQNKAPDISWPLSMRWPLGMWRAMFVPSMTP  
GVDKSIDPEVARGEYLVNPGHCGECHTPRGFGMVKAYGTAGGNAYLAGGAPIDNWIA  
PSLRSNSDTGLGRWSEDDIVTFLKSGRIDHSAVFGGMADVVAYSTQHWSDDDLRATAKYL  
KSMPAVPEGKNLGQDDGQTTALLNKGGQGNAGAEVYLHNCAICHMNDGTGVNRMFPPLAG  
NPVVITDDPTSLANVVAFFGILPPTNSAPSAVAMPGFKNHLSDQEMADVNVNFMRKGWGNN  
APGTVSASDIQKLRRTTGAPVSTAGWNVSSKGMAYMPQPYGEDWTFSPQTHTGVDDAQ

>P21156

MDQIRLTHLRQLEAESIHI IREVAAEFSNPVMLYSIGKDSSVMLHLARKAFYPGTLFPPL  
LHVDTGWKFRMEYFRDR TAKAYGCELLVHKNPEGVAMGINPFVHGS AKHTDIMKTEGLK  
QALNKYGFDAAFGGARRDEEKSRAKERIYSFRDRFHRWDPKNQRPELWHNYNGQINKGES  
IRVFPLSNWTEQDIWQYIWLENIDIVPLYLAAERPVLERDGMMLMIDDNRIDLQPGEVIK  
KRMVRFRTLGCWPLTGAVESNAQTLPEIIEEMLVSTTSERQGRVIDRDQAGSMELKKRQG  
YF

>P23845

MNTALAQQIANEGGVEAWMIAQQHKSLLRFLTCGSVDDGKSTLIGRLLHDTRQIYEDQLS  
SLHNDSKRHGTQGEKLDLALLVDGLQAEREQGITIDVAYRYFSTEKRFI IADTPGHEQY  
TRNMATGASTCELAILLIDARKGVLDQTRRHSFISTLLGIKHLVVAINKMDLVDYSEETF  
TRIREDYLT FAGQLPGNLDIRFVPLSALEGDNVASQSE SMPWYSGPTLLEVLETVEIQRV  
VDAQPMRFPVQYVNRPNLDFRGYAGTLASGRVEVGQRVKVLPSPGVESNVARIVTFDG DRE

EAFAGEAITLVLTDEIDISRGDLLLADEALPAVQSASVDVWMAEQPLSPGQSYDIKIA  
GKKTRARVDGIRYQVDINNLTQREVENLPLNGIGLVDLTFDEPLVLDRYQQNPVTGGLIF  
IDRLSNVTVGAGMVHEPVSQATAAPSEFSAFELELNALVRRHFPHWGARDLLGDK

>P0A6J5

MRVVILGSGVVGVASAWYLNQAGHEVTVIDREPGAALETSAANAGQISPGYAAPWAAPGV  
PLKAIKWMFQRHAPLAVRLDGTQFQLKWMWQMLRNCDTSHYMENKGRMVRLAEYSRDCLK  
ALRAETNIQYEGRQGGTLQLFRTEQQYENATRDIAVLEADAGVPYQLLESSRLAEVEPALA  
EVAHKL TGGLQLPNDETGDCQLFTQNLARMAEQAGVKFRFNTFPVDQLLCDGEQIYGVKCG  
DEVIKADAYVMAFGSYSTAMKGIVDIPVYPLKGYSLTIPIAQEDGAPVSTILDETYKIA  
ITRFDNIRIVGGMAEIVGFNTELLQPRRETLEMVVRDLYPRGGHVEQATFWTGLRPMTPD  
GTPVVGRTRFKNLWLNLTGHGTLGWTMACGSGQLLSDLLSGRTPAIPYEDLSVARYSRGFT  
PSRPGHLHGAHS

>Q9NQZ3

MSAANPETPNSTISREASTQSSSAAASQGWVLEPGKIVPNTVVFVGGIDARMDETEIGSCF  
GRYGSVKEVKIITNRTGVSKGYGFVSFVNDVDVQKIVGSQIHFHGKCLKLGPARKQKLC  
ARHVQPRPLVVNPPPPQFQNVWRNPNTETYLQPQITPNPVTQHVQSAANPETPNSTISR  
EASTQSSSAAASQGWVLEPGKIVPNTVVFVGGIDARMDETEIGSCFGRYGSVKEVKIITNR  
TGVS KGYGFVSFVNDVDVQKIVGSQIHFHGKCLKLGPARKQKLCARHVQPRPLVVNPP  
PPQFQNVWRNPNTETYLQPQITPNPVTQHVQSAANPETPNSTISREASTQSSSAAASQGW  
VLEPGKIVPNTVVFVGGIDARMDETEIGSCFGRYGSVKEVKIITNRTGVSKGYGFVSFVND  
VDVQKIVGSQIHFHGKCLKLGPARKQKLCARHVQPRPLVVNPPPPQFQNVWRNPNTET  
YLQPQITPNPVTQHVQAYSAYPHSPGQVITGCQLLVYNYQEYPTYPSAFQVTTGYQLPV  
YNYQFPAYPRSPFQVVTAGYQLPVYNYQAFPAYPNSPFQVATGYQFPVYNYQFPAYPSS  
PFQVVTAGYQLPVYNYQAFPAYPNSPFQVATGYQFPVYNYQAFPAYPNSPVQVTTGYQLPV  
YNYQAFPAYPSSPFQVTTGYQLPVYNYQAFPAYPNSAVQVTTGYQFHVYNYQMPQPQCPVG  
EQRRNLWTEAYKWWYLVCLIQRRD

>P0ACF0

MNKTQLIDVIAEKAELSKTQAKAALESTLAAITESLKEGDAVQLVGFGTFKVNHRAERTG  
RNPQTGKEIKIAANVPFVSGKALKDAVK

>P19921

MAKAIELTINGHPVEALVEPRTLLIHFIREQQNLTGAIHICDTSCHGACTVDLDGMSVK  
SCTMFAVQANGASITTIIEGMAAPDGTLSALQEGFRMMHGLQCGYCTPGMIMRSHRLLQEN  
PSPTEAEIRFGIGGNLCRCTGYQNIKAIQYAAAKINGVPFEEAAE

>Q92466

MAPKKRPETQKTSEIVLRPRNKRSRSPLELEPEAKKLCAGSGPSRRCDSDCLWVGLAGP  
QILPPCRSIVRTLHQHKLGRASWPSVQQGLQQSFLHTLDSYRILQKAAPFDRRATSLAWH  
PTHPTAVAVGSKGGDIMLWNFGIKDKPTFIKIGAGGSITGLKFNPLNTNQFYASSMEGT  
TRLQDFKGNILRVFASDITINIWFCSLDVSASSRMVVTGDNVGNVILLNMDGKELWNLRM  
HKKKVTHVALNPCCDWFLATASVDQTVKIWDLRQVRGKASFLYSLPHRHPVNAACFSPDG  
ARLLTTDQKSEIRVYSASQWDCPLGLIPHRHFQHLTPIKAAWHPRYNLIVVGRYPDPN  
FKSCTPYELRTIDVFDGNSGKMMCQLYDPESSGISSLNEFNPMGDTLASAMGYHILIWSQ  
EEARTRK

>P35638

MAAESLPFSFGTLSSWELEAWYEDLQEVLSSENGGTYVSPPGNEEEESKIFTTLDPASL

AWLTEEEPEPAEVTSTSQSPHSPDSSQSSLAQEEEEEDQGRTRKRKQSGHSPARAGKQRM  
KEKEQENERKVAQLAEENERLKQEIERLRTREVEATRRLIDRMVNLHQA

>Q74HC2

MTVIVLSGPIGAGKSSLTGILSKYLGTNPFYESVDDNPVLPFLFYENPKKYAFLLQVYFLN  
TRFRSIKSALTDDNNVLDRSIYEDALFFQMNADIGRATPEEVDTYEYELLHNMSELDLDRMP  
KKNPDLLVHIDVSYDTMLKRIQKRGRNYEQLSYDPTLEDYKRLRLRYKYPWYEKYDYSPK  
MTIDGDKLDFMASEEDRQEVLNQIVAKLKEMGKFEDDWKPNLVK

>P28998

CRPPSSPSLSWPPGLRSPALPRAVACARGRSAKRDVAAKRLRSRSPRMDATTGDF TALQK  
AVKQMATKAGTEGLVHGKKNPELRQLLTFIFMKDPEQQEFMQAVREVAVSLQPVFEKRPE  
LLPIFKQIVEPERVITFRVSWLDDAGNLQVNRGFRVQYSSAIGPYKGLRFHPSVNL SIM  
KFLAFEQIFKNSLTTLPMGGGKGGSDFDPKGKSDAEVMRFCQSFMTLQRHISYVQDVPA  
GDIGVGAREIGYLFQYKRITKNYTGVLTKGKQYEGGSEIRPEATGYGAVL FVENVLKDK  
GESLKGKRCVSGAGNVAQYCAELLLLEKGAIVLSLSDSQGYVVEPNGFTREQLQAVQDMK  
KKNNSARISEYKSDTAVYVGDRRKPWELDCQVDIAFP CATQNEIDEHDAELLIKHG CQYV  
VEGANMPSTNEAIHKYNKAGIICYCPGKAANAGGVAVSGLEMTQNRMSLNLWTR EEV RDKLE  
RIMKDIYDSAMGPSREYNVDLAAGANIAGFTTKVADAVKAQGAV

>O05542

MTSGLLTPIKVTKRLLSCAAALAFSAAVPVAFQAQEDTGTAITSSDNGGHPGDWLSYGRS  
YSEQRYSPLDQINTENVGKLLAWHYDLDTNRGQEGTPLIVNGVMYATTNWSKMKALDAA  
TGKLLWSYDPKVPGNIADRGCCDTVSRGAAYWNGKVYFGTFDGR LIALDAKTGKLVWSVY  
TIPKEAQLGHQRSYTVDGAPRIAKGKVLIGNGGAEFGARGFVSAFDAETGKLDWRFFTV P  
NPENKPDGAASDDILMSKAYPTWGKNGAWKQQGGGGTVWDSLVDVPTDLVYLVGVNGSP  
WNYKFRSEGKGDNLFLGSIVA INPDTGKYVWHFQETPMDEWDYTSVQQIMTLDMPVNGEM  
RHVIVHAPKNGFFYIIDAKTGKFITGKPYTYENWANGLDPVTGRPNYVPDALWTLTGK PW  
LGIPGELGGHNFAAMAYS PKTKLVYIPAQQIPLLYDGQKGGFKAYHDAWNLGLDMNKIGL  
FDDNDPEHVAAKKDFLKV LKGWTVAWDPEKMAPAFTINHKGPNWGGLLATAGNVIFQGLA  
NGEFHAYDATNGNDLYSFPAQSAIIAPPVTTYTANGKQYVAVEVGVGGIYPFLYGGVARTS  
GWTVNHSRVIAFSLDGKDSLPPKNELGFTPVKPVPTYDEARQKDG YFMYQTFCSACHGDN  
AISGGVLPDLRWGAPRGRESFYKLVGRGALTAYGMDRFDTSMTPEQIEDIRNFIVKRAN  
ESYDDEVKARENSTGVPNDQFLNVPQSTADVPTADHP

>P12293

MNRNTPKARGASSLAMAVAMGLAVLTTAPATANDQLVELAKDPANWVMTGRDYNAQNYSE  
MTDINKENVKQLRPAWSFSTGVLHGHEGTPLVVGDRMF IHTPPNTTFALDLNEPGKILW  
QNKPKQNPTARTVACCDVVNRGLAYWPGDDQVKPLIFRTQLDGHIVAMDAETGETRWIME  
NSDIKVGSTLTIAPYVIKDLVLVGS SGAELGVRGYVTAYDVKSGEMRWRAFATGPDEELL  
LAEDFNAPNPHYGQKNLGL ETWEGDAWKIGGGTNWGWYAYDPEVDL FYYGSGNPAPWNET  
MRPGDNKWTMAIWGREATTGEAKFAYQKTPHDEWDYAGVNVMMMLSEQEDKQGMKLLTH  
PDRNGIVYTLDR TNGDLISADKMDDTVNWWKEVQLDTGLPVRDPEFGTRMDHKARDICPS  
AMGYHNQGHDSYDPERKVFM LGINHICMDWEPFMLPYRAGQFFVGATLTMYPGPKATAER  
AGAGQIKAYDAISGEMKWEKMERFSVWGGT MATAGGLTFYVTL DGF IKARDSDTGDL LWK  
FKLPSGVI GHPMTYKHDGRQYVAIMYGVGGWPGVGLVFDLADPTAGLGSVGA FKRLQEFT  
QMGGGV MVFSLDGESPYS DPNVGEYAPGEPT

>P14776

MQDKAMLMI PGPTPVPE SVLLSLGKHPIGHRSGEFSQIMAAMTAGIKWLHQ TQNEVLILA

ASGTGAMEAGIINFLSAGDRVVVGCNGKFGDRWGEVCDAYGLTTERISAPWGQPLNPDDF  
KAVLDGHRQKPSKAVIVTHSETSTGVINDLEAINRHVKAHQALIIVDAVTSLGAVSVPI  
DEWGLDVVGSQKGYMIPPGLAFVSVSPKAWAYKTATLPKIFYLDLKGKRDAAKHTTP  
FTPPVNLFFALKTALEMMQAEGLEAIFQRHQRLMQATRAAMKALNPLLYAADSCASPAIT  
AVAPQGVAAENIRSLMKKRFDIALAGGQDHLKGQIFRIGHLGFVGDRLILAAVSALEAVL  
AELGYTNFTPGAGVAAASRVLSTA

>P82466

NSVHPCCDPVTCKPKRGKHCASGPCCENCYIVGVGTVCNPARGDWDDNCTGVSSDCPPN  
PWNGKPSDN

>Q33DR3

MSLRQLLLRLSGYLGASGPPSRHWWYFRSLDIS SAGSWRGRSSRSPAHWNQVSEAEKI  
VGYPASFMSLRCLLSDEL SNIAMQVRKLVGTGHP LLTTARALVHDSRHNLQLRGLVLLI  
SKAAGPSTRNAACQNYDMVSGVYSCQRSLAEITELIHTALLVHRGIVNLSELQSSDGPLK  
DMQFGNKIAILSGDFLLANACNGLALLQNTKVVVELLSSALMDLVHGVYQENSASTKENS I  
PDDIGISTWKEQTFLSHCALLAKSCQAAMELAKHDAAVQDMAFYGKHMAMSHKINADLQ  
PFIKDKASDKTFNLNSAPVVLHQEF LGRDLWIKQIGEAQEKGSLNYSKLRETIKAGKGV  
TSAIDLCRYHGNKALEALESFPPSEARSALENIVFAVTRFS

>O13851

MSFPFASLLKRPSAISLLSLKPKGSWSSILLKAVGVLSRDSRWHSDDLKMLTEEMDSL N  
GQINTWTDNNPLLDEITKPYRKSSTRFFHPLLVLMSRASVNGDPPSQQLFQRYKQLARV  
TELIHAANIIHINIGEEQSNEQIKLATLVGDYLLGKASVDLAHLENNAITTEIMASVIANL  
VEGHFGSRQNGSVGLSNERTILLQSAFMPAKACL CASILNNSQYINDACFN YGKFLGLS  
LQLAHKPVSPDAQVLQKNNDILKTYVENAKSSLSVFPDIEAKQALMEIANSVSK

>P18776

MTTQYGGFFIDSSRCTGCKTCE LACKDYKDLTPEVSFRRIEYAYAGGDWQEDNGVWHQNVFA  
YYLSISCNHCEDPACTKVCPSGAMHKREDGFVVVDEDCIGCRYCHMACPYGAPQYNETK  
GHMTKCDGCYDRVAEGKPKICVESCP LRALDFGPIDELRKKHGD LAAVAPLPRAHF TKPN  
IVIKPNANSRPTGDTTGYLANPKEV

>O64301

MITINSKEHILEQKYRPSSIDECILPAYDHETFKSLVSKGKLPHIILHSPSPGTGKT TVA  
KALCNDINAEMMFVNGSDCKIDFVRGPLTAFARSVSMEGKPKVIVIDEFDRSGLAESQRH  
LRTFMEEFSSNCSIIITANNIDGII EPLRSRRCRVIEFGRPTEEDKISMMKKMIHRMVEIC  
KNENIEIADMKVVAALVKKNFPDFRRTIGQLDQYSSKGVLDAGILSIVTNRGTVSDVIE  
AMKNKDIKQLRALAPKYAADYSWFIDKLVSECYDQVAPGKSIISLYE IAGENNKFHGLAS  
NIELHV MYMLLQLTCELTWK

>Q01743

MNLFDDDVQLNEHQIAWKSNEPD AIQKCADMFKEKPENEFFKI INAIN EKKSMSIAQVDY  
SKFMVENSLSQFPECMPAVYMMNLV GSELSDEAHFN YMMAAIPRGRRFSKWAKLVEDTSE  
LLVIKLLMKHYTINMNDATEYKRLLEKNKLP IVLKELKAMVTDEF LKEVTKNVKEQKQF  
KKLAL EW

>P27344

MSNLVKEKAPVFPISKVKKIAKCDPEYVITSNVAISATAFAAELFVQNLVEESLVLAQLN  
SKGKTSRLRLSLNSIEECVEKRDNFRFLEDAIKQLKKN S ALDKKRELNMQPGRSDQEVVIE

EPELHEDDGVEEEEEEDEVSEEEEPVHNEELLDDSKDQQNDKSTRSVASLLSRFQYKSAL  
DVGEHSDSSDIEVDHTKSTDP

>Q04603

MPPKGWRKDAQGNYPTTSYIKEQENITIQDLLFPKSTIVNLAREVPPQSGKKLLINKDAS  
LALQRGATVFNHLLLFAREIAKSQDKKSCSVDDVLSALDHIGHSALKGPVRDKLDEYQA  
AVEQRKKEKLDSGEVDADGDIDMGEDKENVPVEKVKEHDEIEEQGDALQDVEESSEKKQK  
TESQDVETRVQNLQET

>P30315

MEELKTCPFTNVIPIYGLLYDKLKKKEKNNDVPENYVIEEFDKLLKNYERPNVYDEIGNATF  
KNDEDLITFQIDLDYTVENIFKNMIYNESGNSNNSILNDIYMPYRILLSKDKNYVSVPIIR  
IYSLRKDGCSVLINVHNFPPYFYVEKPDFFDNEDLIKLEMLMNNENLNLNSQYKIYEKKIL  
KIEIVKTESLMEYFKKNGKDFLKITVLLPKMVPSLKKYFEGIVHVNNKSIGGIVYEANLP  
FILRYIIDHKITGSSWINCKKGHYIRNKNKKISNCTFEIDISYEHVEPITLENEYQQIP  
KLRILSFDIECIKLDGKGFPEAKNDPIIQISSILYFQGEPIDNCTKFIPTLLECASIPGS  
NVIWFNDEKTLLEAWNEFIIRIDPDLTGYNIINFDPYILNRGTALNLKLLKFLGRIGN  
VASTVKDSSFSSKQFGTHETKEINIFGRIQFDVYDLIKRDYKLSYTLNYVSFEFLKEQK  
EDVHYSIMNDLQNESPESRKRIATYCIKDGVLPLRLIDKLLFIYNYVEMARVTGTPFVYL  
LTRGQQIKVTSQLYRKCKELNYVIPSTYMKVNTNEKYEGATVLEPIKGYIIEPISTLDFA  
SLYPSIMIAHNLCYSTLIKSNHEVSDLQNDITTIQGNLKFVKNVKKGILPLIVEEL  
IEARKKVKLLIKNEKNITKMLVNGRQLALKISANSVYGYTGASSGGQLPCLEVAVSITT  
LGRSMIEKTKERVESFYCKSNGYEHNSTVIYGDTSVMVKFGTNNIEEAMTLGKDAERI  
SKEFLSPIKLEFEKVYCPYLLLNKKRYAGLLYTNPNKHDKMDCKGIETVRRDFCILIQQM  
METVLNKLLEIKNLNSAIEYTKSKIKELLTNNIDMSLLVVTSLGKTDYETRLPHVELAK  
KLRQDSATAPNVGDRVSYIIVKGVKGQAQYERAEDPLYVLDNNLAIDYNHYLDAIKSPL  
SRIFEVIMQNSDSLFSGDHTRHKTILTSSQTALSKFLKKSVCIGCNSSIKKPPLCNHCK  
ENKEFSIYMQIKDFKNKQNEFFQLWTECQRCQGNLHVDVICMNRDCPIFYRRAKIKKDI  
ANLQEQVTSLRMDW

>P47110

MDQKASYFINEKLFTEVKPVLFTDLIHHLKIGPSMAKKLMFDYKQTTNAKYNVCVVICCY  
KDQTIKIIHDLSNIPQQDSIIDCFIYAFNPMSDFIPYYDIDQKDCLTIKNSYELKVSES  
SKIIERTKTLEEKSKPLVRPTARSKTTPPEETTGRKSKSKDMGLRSTALLAKMKKDRDDKE  
TSRQNELRKRKEENLQKINKQNPAREAQMELNNLFFVEDDLDTTEEVNGGSKPNSPKETDS  
NDKDKNNDLEDLLETTAEDSLMDVPKIQQTKPSETEHSKEPKSEEEPPSSFIDEDGYIVT  
KRPATSTPPRKPSPVVKRALSSSKKQETPSSNKRLKKQGTLESFFKRKAK

>P30316

MTDRSSNEGVVLNKENYFPRRNGSIHGEITDVKRRRLSERNGYGDKKGSSSKEKTSSFE  
DELAEYASQLDQDEIKSSKDQQWQRPALPAINPEKDDIYFQQIDSEEFTEGSVPSIRLFG  
VTDNGNSILVHVVGFLPYFYVKAPVGFPEMLERFTQDLDATCNGGVIDHCIEMKENLY  
GFQNEKSPFIKIFTTNPRIILSRARNVFERGEFNFEELFPVGVGVTTFESNTQYLLRFMI  
DCDVVGMNWIHLPAKYQFRYQNRVSNQCIEAWINYKDLISLPAEQWQSKMAPLRIMSFD  
IECAGRKGVPDPSIDPVIQIASIVTQYGDSTPFVRNVFCVDTCSQIVGTQVYEFQNQAE  
MLSSWSKFVRDVPDVLIGYNICNFDIPYLLDRAKSLRIHNFPLLGRIHNFVSVAKETTF  
SSKAYGTRESKTTIPGRLQLDMLQVMQRDFKLSYSLNAVCSQFLGEQKEDVHYSIITD  
LQNGTADSRRLAIYCLKDAYLPQRLMDKLMCFVNYTEMARVTGVFPNFFLLARGQQIKVI  
SQLFRKALQHDLVVPNIRVNGTDEQYEGATVIEPIKGYDTPIATLDFSSLYPSIMQAHN  
LCYTTLLDSNTAELLKLLKQDQVDYSVTPNGDYFVKPHVRKGLLPILADLLNARKKAKADL

KKETDPFKKAVLDGRQLALKVSANSVYGF TGATNGRLPCLAISSSVTSYGRQMIEKTKDV  
VEKRYRIENGYSHDAVVIYGD TDSVMVKFGVKTLP EAMKLGEEAANYVSDQFPNPIKLEF  
EKVYFPYLLISKRYAGLFWTRTDTYDKMDSKGIETVRRDNCPLVSYVIDTALRKMLIDQ  
DVEGAQLFTKKVISDLLQNKIDMSQLVITKALSKTDYAAKMAHVELAERMKRDRDAGSAPA  
IGDRVAVVIKGAQGDQFYMRSEDP IYVLENNIPIDAKYYLENQLSKPLLRIFEPILGEK  
ASSLLHGDHTRTISMAAPSVGGIMKFAVKVETCLGCKAPIKKGKTALCENCLNRS AELYQ  
RQVAQVNDLEVR FARLWTQCQRCQGS MHQDVICTSRDCPIFYMRIAEHKKLQQSVDLLKR  
FDEMSW

>P15436

MSEKRSLPMVDVKIDDEDTPQLEKKIKRQSIDHGVGSEPVSTIEIIPSDSFRKYNSQGFK  
AKD TDLMG TQLESTFEQDVSQMEHDMADQEEHDLSSFERKKLP TDFDPSLYDISFQQIDA  
EQSVLNGIKDENTSTVVRFFGV TSEGHSVLCNV TGFKNYLYVPAPNSSDANDQE QINKFV  
HYLNETFDHAIDSIEVVSKQSIWGYSGDTKLPFWKIYV TYPH MVNKLRTAFERGHLSFNS  
WFSNGTTTTYDNIAYTLRLMVDCGIVGMSWITL PKGKYSMIEPNNRVSSCQLEVSIN YRNL  
IAHPAEGDWSHTAPLRIMSFDIECAGRIGVFPEPEYDPVIQIANVVS IAGAKKPFIRNVF  
TLNTCSPITGSMIFSHATEEEMLSNWRNFIKVD PDVIGYNT' TNFDIPYLLNRAKALKV  
NDFPYFGRLKTKVQEI KESVFSSKAYGTRETKNVNIDGRLQLDLLQFIQREYKLR SYTLN  
AVSAHFLGEQKEDVHYSIISDLQNGDSETRRRLAVYCLKDAYLPLRLMEKLMALVNYTEM  
ARVTGVPFSYLLARGQQIKVVSQ LFRKCLEIDTVIPNMQS QASDDQYEGATVIEPIRGYY  
DVP IATLDFNSLYPSIMMAHNL CYTTLCNKATVERLNLKIDEDYVITPNGDYFVTTKRRR  
GILPIILDELISARKRAKKDLRDEKDPFKRDV LNGRQLALKISANSVYGF TGATV GKLP C  
LAISSSVTAYGR TMILKTKTAVQEKYCIKNGYKHDAVVYGD TDSVMVKFGTTDLKEAMD  
LGTEAAKYVSTL FKHPINLEFEKAYFPYLLINKKRYAGLFWTNPDKFDKLDQKGLASVRR  
DSCSLVSI VMNKVLK KILIERNV DGALAFVRETINDILHNRVDISKLIISKTLAPNYTNP  
QPHAVLAERMKRREGVGP NVGDRVDYVIGGNDKLYNRAEDPLFVLENNIQVDSRY YLTN  
QLQNP IISIVAPIIGDKQANGMFVVKSIKINTGSQKGGLMSFIKKVEACKSCKGPLRKGE  
GPLCSNCLARSGELYIKALYDVRDLEEKYSRLWTQCQRCAGNLHSEVLCSNKNCDFYMR  
VKVKKELQEKVEQLSKW

>P27487

MKTPWKVLLGLLGAAALVTIITVPPVLLNKGTD DATADSRKTYTLTDYLNKNTYRLKLYSL  
RWISDHEYLYKQENNILVFNAEYGNSSV FLENSTFDEF GHSINDYSISP DGQFILLE YNY  
VKQWRHSYTASYDIYDLNKRQLITEERIPNNTQWVTWSPVGHKLAYVWNNDIYVKIEPNL  
PSYRITWTGKEDIIYNGITDWVYEEEEVFSAYSALWVSPNGTFLAYA QFNDEVP LIEYSF  
YSDESLQYPKTVRVPYPKAGAVNPTVKFFV VNTDSLSSVTNATS IQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPS  
EPHFTLDGNSFYKII SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTS DYLYYISN  
EYKGMPPGRNLYKIQLSDYTKVTCLSCELNPERCQYYSVSFSKEAKYYQLRCSG PGLPLY  
TLHSSVNDKGLRVLEDNSALDKMLQNVQMP SKKLDFIILNETKFWYQMILPPHFDKSKKY  
PLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDGRGSGYQGDKIMHAINRR LGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYV TSMVLGSGSGVFKCGIAVAPVSRWE  
YYDSVYTERYMGLPTPEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQIS  
KALVDVGVDFQAMWYTDEDHGIASSTAHQHIYTHMSHF IKQCFSLP

>Q5T2R2

MASRWWRRRGC SWKPAARS PGPSPGRAGPLGPSAAA EVRAQVHRRKGLDLSQIPYINL  
VKHLTSACPNVCRISRFHHTTPDSKTHS GEKYTDFPKLGWRDLKGLYEDIRKELLISTSE  
LKEMSEYFFDGKGAFRPIIVALMARACNIHNNRSRHVQASQRAIALIAEMIHTASLVHD  
DVIDDASSRRGKHTV NKIWGEKKAVLAGDLILSAASIALARIGNTTVISILTQVIEDLVR

GEFLQLGSKENENERFAHYLEKTFKKTASLIANSCKAVSVLGCPCDPVVHEIAYQYGKNVG  
IAFQLIDDLVLDFTSCSDQMGKPTSADLKLGLATGPFVLFACQQFPEMNAMIMRRFSLPGDV  
DRARQYVLQSDGVQQTYYLAQQYCHEAIREISKLRPSPERDALIQLSEIVLTRDK

>O43091

MIQYVYLKHMRLKLSLKGKVRSTVLRFSSTNRNASHLIKNELEQISPGIRQMLNSNSEFLE  
ECSKYTTIAQGKQMRPSLVLLMSKATSLCHGIDRSVVGDKYIDDDDLRSFSTGQILPSQL  
RLAQITEMIHIALHDDVIDHANVRRGSPSSNVAFGNRRSILAGNFILARASTAMARLR  
NPQVTELLATVIADLVRGEFLQLKNTMDPSSLEIKQSNFDYYIEKSFKKTASLISKSCKA  
STILGQCSPTVATAAGEYGRICIGTAFQLMDDVLDYTSKDDTLGKAAGADLKLGLATAPVL  
FAWKYPPELGAMIVNRFNHPSDIQRARSLVECTDAIEQTITWAKEYIKKAKDSLLCLPDS  
PARKALFALADKVITRKK

>Q59109

MSETPLLDLELEKGPWPSFVKEIKKTAELMEKAAAEGKDVKMPKGARGLLKQLEISYKDKK  
THWKHGGIVSVVGYGGGVIGRYSDLGEQIPEVEHFHTMRINQPSGWFYSTKALRGLCDVW  
EKWGSGLTNFHGSTGDIIFLGTRESEYLQPCFEDLGNLEIPFDIGGSGSDLRTPSACMGPA  
LCEFACYDTLELCYDLTMTYQDELHRPMWPYKFKIKCAGCPNDCVASKARSDFAIIGTWK  
DDIKVDQEAKEYASWMDIENEVVKLCPTGAIKWGKELTIDNRECVRCMHCINKMPKAL  
KPGDERGATILIGGKAPFVEGAVIGWVAVPFVEVEKPYDEIKEILEAIWDWWDEEGKFRE  
RIGELIWRKGMREFLKVIGREADVRMVKAPRNNPFMFFEKDELKPSAYTEELKKRGMW

>P45574

MAKHATPKLDQLESGPWPSFVSDIKQEAAYRAANPKGLDYQVPVDCPEDLLGVLELSYDE  
GETHWKHGGIVGVFGYGGGVIGRYCDQPEKFPGVVAHFHTVRVAQPSGKYYSADYLRQLCD  
IWDLRGSGLTNMHGSTGDIVLLGTQTPQLEEFFELTHNLNTDLGGSGSNLRTPECLGK  
SRCEFACYDSQAACYELTMEYQDELHRPAFPYKFKFKFDACPNCGVASIARSDFSVIGTW  
KDDIKIDAEAVKAYVAGEFKPNAGAHSGRDWGKFDIEAEVNVNRCPSKCMKWDGSKLSIDN  
KECVRCMHCINTMPRALHIGDERGASILCGAKAPILDGAQMGSLLVFPVAAEFPDEIKE  
VVEKIWDWWMEEGKNRERLGETMKRLSFQKLLLEVTEIAPVPQHVKEPRTNPIFFKEEEV  
PGGWDRDITEYRKRHLR

>P45573

MAEVTYKGSFEVDEDGFLLRFDWCPEWVEYVKESEGISDISPDHQKIIDFLQDYKKN  
GIAPMVRILSKNTGFKLKEVYELFSPSGPGKGACKMAGLPKPTGCV

>A0ZWU1

MNSLQKGSYKVI PGSSFSKNSNGLLSIKYNFIPESVDPSSRRGVLEKAQEAYRLRLPSTFD  
DDRPHIFEGSCQRARNVDCVLIIFNAKTKTFTLEHIDEIARLNALRNPKVSKTVPNAITQ  
SDNSQISESKSTSQSAVTTNSTRRKEKELEASKDGKIKPSSNTRYPAISSKGPITTDTN  
DEPDMEVMELDDFAKELELGFDQEFNSIDDPSTVSQTASKPISLRGLSSQERDYASSAQA  
EGISSASEDED

>Q57231

MAVTYEKTFEIEIINELSASVYNRVLNLYVNLNHELKNDSQLLEVNLLNQLKLAKRVNLF  
YSLEELQAVHEYWRSMNRYSKQVLNKEKVA

>P0AC73

MRIIDNLEQFRQIYASGKKWQRCVEAIEINIDNIQPGVAHSIGDSLTYRVETDSATDALFT  
GHRRYFEVHYLQGGQKIEYAPKETLQVVEYYRDETDREYKGCGETVEVHEGQIVICDI



HEAYRFICNNAVKKVVLLKVTIEDGYFHNK

>Q5H7P5

MGKQVLDSGWLAARSTELELTGVQLTTTRPPSGTSAPWIEAVVPGTVLGTLLKNKLVDPD  
FYGLNNEGILDIYDSGREYTFWFFKSFECKLSENQHVSLNFRAINYSAEVYLNHGHEIL  
PKGMFRRHSIDITDILHPDGKNMLAVLVHPPDHPGQIPPEGGQGGDHEIGKDVATQYVEG  
WDMAPIRDRNTGIWDEVSLYTSGPVKIADVHLVSSFFDMFRRAYLHSTVELENKSSWRA  
ECSLTILVTTTELDFNLIEYHQTHELSIPPESVIQYTLPLFFYKPNLWWPNGMGKQSL  
YNVEITIAVKGFGSDSDSWNNKFGFRQIESAIDEATGGRLFKVNGQRFVIRGGNWILSDGL  
LRLSKKRYMTDIKFHADMFNMIRCWGGGLAERPEFYHYCDIYGLLVWQEFWITGDCDGR  
GIPVSNPNGLDHALFLHCARDTIKLLRNHASLALWVGGNEQIPPEDINSALKNDLKLHP  
FFKHNGVTVIGEDMLSETEDPSQYLDGTRVYIQGSMWEGFANGKGF'TDGPYEIQNPEDF  
FKDDFYSGFNPEVGSVGVPAATIRATMPPEGWQIPLFKRLSDGFIIEVNPPIWEYHKY  
ISYSKPGKVHDQIVLYGQPTNLDDFCEKAQLVNYVQYRALLEGWTSRMWTKYTGVLWKT  
QNPWTGLRGQFYDHLHDQTAGFYGCRCAAEPVHVQLNLATYFIEVVNTTHEELSDVAIEV  
SVWDLGTCPPYKVIENVLVSPKKVLPITELKYQGSKNAKPVYFVLLKLFPSNTTILSR  
NFYWLRLPGTDFKLLPEYRAIEAPLKLTSSEVNIIVGSAYKIQMRVQNLNLSSESVNFLA  
NDEKSDLSKKEGYISRICSGFKNSGTDLSRVVETKGTGSGVAFFLHFSVHAVKKDENEIE  
DLRILPVHYSNDYFSLVPGETTNISSIFEVPHGVTPRVSLRGWNCSEEHYSVL

>P81017

DQDCLSGWSFYEGHCYQLFRLKTWDEAEKYCNQWDGGHLVSIENAKAEFVAQLISRKLP  
KSAIEDRVWIGLRDRSKREQCGHLWTDNSFVHYEHVVPPTKCFVLERQTEFRKWIAVNCE  
FKFPFVCKAKIPR

>P81996

NCLPDWSVYEGYCYKVFKERMNWADAEEKFCMKQVKDGHVLSFRNSKEVDFMISLAFPLK  
MELVWIGLSDYWRDCYWEWSDGAQLDYKAWDNERHCFAAKTTDNQWMRRKCSGEFYFVCK  
CPA

>P49880

MMKRRWSNNGGFALRMLDDSSSEVTSSSAALGMTMSPNSLGSPNYDELELWSSYEDNAY  
NGHSVLSNGNNNLGGCGAANNLLMNGIVGNLNLNGMMNMQAVQANANSIQHIVGNLIN  
GVNPNQTLIPPLPSIIQNTLMNTPRSESVNSISSGREDLSPSSSLNGYTDGSDAKKQKKG  
PTPRQOEEELCLVCGDRESGYHYNALTCGCKGFFRRSVTKNAVYCKFGHACEMDMYMR  
KCQECRLKCLAVGMRPECVVPEQCAIKRKEKKAQKEKDKVQTNATVSTTNSTYRSEIL  
PILMKCDPPPQAIPLPEKLLQENRLRNIPLLTANQMAVIYKLIWYQDGYEQPSEEDLK  
RIMIGSPNEEDQHDVHFRHITEITILTVQLIVEFAKGLPAFTKIPQEDQITLLKACSE  
VMMLRMARRYDAATDSILFANNRSYTRDSYRMAGMADTIEDLLHFRCRQMFSLTVDNVEYA  
LLTAIVIFSDRPGLEQAELVEHIQSYIDTLRIYILNRHAGDPKCSVIFAKLLSILTELR  
TLGNQNSEMCFSLKLNKRLPRFLEEIWDVQDIPPSMQAQMHSHGTQSSSSSSSSSSSSSS  
NGSSNGSSNSNSSQHGPHPHGQQLTPNQQQHQQHSQLQQVHANGSGSGGGSNNNS  
SSGGVVPGLGMLDQV

>P34021

MKRRWSNNGGFMRLEPESSEVTSSSNGLVLP SGVNMSPSSLDSDHYCDQDLWLCGNESE  
SFGGSNGHGLSQQQSVITLAMHGCSSTLPAQTIIIPINGNANGNGGSTNGQYVPGATNL  
GALANGMLNNGFNGMQQIQNGHGLINSTPTPTPLHLQQNLGGAGGGIGGMGILHH  
ANGTPNGLIGVVGGGGGVGLGVGGGGVGLGMQHTPRSDSVNSISSGRDDLSPSSSLNGY  
SANESCDAKKSKKGPAPRVQEEELCLVCGDRASGYHYNALTCGCKGFFRRSVTKSAVYCC

KFGRACEMDMYMRRCQCECRLKKCLAVGMRPECVVPENQCAMKRREKKAQKEKDKMTTSP  
SSQHGGNGSLASGGGQDFVKKIILDLMTCEPPQHATIPLLPDEILAKCQARNIPSLTYNQ  
LAVIYKLIWYQDGYEQPSEEDLRRIMSQPDENESQTDVSRHITEITILTVQLIVEFAKQ  
LPAFTKIPQEDQITLLKACSSVMMMLRMARRYDHSSDSIFFANNRSYTRDSYKMAGMADN  
IEDLLHFCRQMFMSKVDNVEYALLTAIVIFSDRPGLEKAQLVEAIQSYIDTLRIYILNR  
HCGDSMSLVFYAKLLSILTELRTLGNQNAEMCFSLKLNKRLPKFLEEIWDVHAIPPSVQ  
SHLQITQEENERLERAERMRSVGGAITAGIDCDSASTSAAAAAAQHQPQPQPQPSSSL  
TQNDSQHQTQPQLQPQLPPQLQGQLQPQLQPQLQTLQPQIQPQPQLLQVSAVPASVTA  
PGSLSAVSTSSEYMGGSAIIGPITPATTSSITAAVTASSTTSAVPMGNGVGVGVGGNV  
SMYANAQTAMALMGVALHSHQEQLIGGVAVKSEHSTTA

>P02994

MGKEKSHINVVVIGHVDSGKSTTTGHLIYKCGGIDKRTIEKFEKEAAELGKGSFKYAWVL  
DKLKAERERGITIDIALWKFETPKYQVTVIDAPGHRDFIKNMITGTSQADCAILLIAGGV  
GEFEAGISKDGTREHALLAFTLGVRLIVAVNKMDSVKWDESRFQEVKETSINFIKKVG  
YNPKTVPFVPI SGWNGDNMIEATTNAPWYKWEKETKAGVVKGKTLLEAIDAIEQPSRPT  
DKPLRLPLQDVYKIGGIGTVPVGRVETGVIKPGMVVTFAPAGVTTTEVKSVMHHEQLEQG  
VPGDNVGFNVKNVSVKEIRRGNVCGDAKNPDKGCASFNATVIVLNHPGQISAGYSPVLD  
CHTAHIACRFDELLEKNDRRSGKKLEDHPKFLKSGDAALVKFVPSKPMCVEAFSEYPPLG  
RFAVRDMRQTVAVGVIKSVDKTEKAAKVTKAAQKAAK

>P32471

MASTDFSKIETLQNLNASLADKSYIEGTAVSQADVTVFKAFQSAYPEFSRWFNHIASKAD  
EFDSFPAASAAAAEEEEEDDDVLDLFGSDDEEADAEAEKLAERIAAYNAKKAAPAKPAK  
SIVTLDVKPWDETNLEEMVANVKAIEMEGLTWGAHQFIPIGFGIKKLQINCVEDDKVS  
LDDLQQSIEEDEDHVQSTDIAMQKL

>P28025

MASKKEDKGNIQVVVRCRPFNQLERKASSHSVLECDQSQRKEVYVRTGEVNDKLGKKTYYT  
FDMVFGPAAKQIEVYRSVVCPI LDEVIMGYNCTIFAYGQTGTGKTFTEGERSSDEEFTW  
EQDPLAGIIPRTLHQIFEKLSENGTEFSVKVSLLEIYNEELFDLLSPSPDVGERLQMFDD  
PRNKRGVIIKGLEEISVHNKDEVYHILERGAARRKTASTLMNAYSSRSHSVFSVTIHMKE  
TTVDGEELVKIGKLNLDLAGSENI GRSGAVDKRAREAGNINQSLTLGRVITALVERTP  
HIPYRESKLTRILQDSLGGRTKTSIIATVSPASINLEETVSTLDYANRAKSIMNKPEVNQ  
KLTKKALIKYEYTEEIERLKRRELAAREKNGVYLSSENYEQLOGKVLSSQEEMITEYTEKIT  
AMEEELKSISELFADNKKELEECTTILQCKEKELEETQNHLESKEQLAQESFVVSAFET  
TEKKLHGTANKLLSTVRETTRDVSGLHEKLDKKAQVQHNQVHENFAEQMDRRFSVIQR  
TVDDYSVKQQGMDFYTN SIDLLGASSRSLSATASAVAKSFASVQETVTKQVSHSVEEI  
LKQETLSSQAKGDLQQLMAAHRGTGLEEALRSDDLPPVVTAVLDLNSHLSHCLQNFLIVADK  
IDSHKEDMNSFFTEHSRSLHKLRLDSSSALSSIQSEYESLKEIATAQSMHSEGVNLLIS  
SLQNQLNLLGMETQQQFSGFLSKGGKLOKSVGSLQQLDLVLSSEAEIECISSHHKKLAEQS  
QDVAVEIRQLAGSNMSTLEESSKQCEKLTSSINTISQESQQWCESAGQKIDSVLEEQVCY  
LHSSKKHLQNLHKGVEDSCGSSVVEITDRVNAQRQAEEKALTSLVEQVRDDQEMVGEQRL  
ELQEQVQSGLNKVHSHYKKEELRNDVPTGTTTPQRRDYAYPSLLVKTKPRDVLLQFRQQQ  
EYLESISSVISEAVEPPVEQDSLEDEPPVAVNDSVISERSCIDLSMTCQEKGGIRFFQQK  
KALRKEKENRGNNTLLERSKIMDEVQALTKSKLPLRMQN

>Q8N6I1

MSKLPADSSVPQTGAANGDRDVPQAEVGRGRREPAPAQPPEEAGEGAMAAAARGGPVPAARE  
GRMAAARAAPAAAARGAPVAAAALAAAAAGRESAAAAAREARMAEVARLLGEPVDEEG

PEGRPRSRHNGGLAALPYLRLRHPLSVLGINYQQFLRHYLENYP IAPGR IQELEEERRRR  
FVEACRAREAAFDAEYQRNPHRVLDLDILTFTIALTASEVINPLIEELGCDKFINRE

>O43086

MQIVGYLSADSQSNPDLKSENEAKEEEKPIGRRHTMSPVPATSENKYFGKSPLSGSRKPRR  
SRSLHKERSYMRKFFDMDMEESKDFENDQSLLVTLKVSTSLGQKIENILHPKLSNDTNST  
AFPPAKSSGEASDTNILVENINSQETVNSSPLVSELHYSNLADSPSNLRNTVTSMHPPFM  
SKSVKKNSEIKFVSEERGGTKPERLLDPLWPTPDSQSMLEYAGSIEPSVFWFPKHHLEEA  
IILEETSHLSFKEVLSSTTANMITPLAEKNKTEVLQVTPSKLHTFALES LCFSPAPFIQKV  
LSRLLPSPDPNVEMPMIPQILEKGLWVSKYAPSKTQDCCAFSQCLSKIADWLRSCR LTKPE  
SSSVPPSSSISRSTIHSCTSSKRNEDSLSESDFEPIIEEEDDSDEFNPSVSRKKAKLT  
SSQFSNWMLVTGVTGIGKTSCLYAI CRELNFEVVEIHPGMRRSGKELLERIGELTQSHIV  
DKSRLNNTPDILILLEEVDILFQDDRGFQAVSTLIEKSKRPVVMTCNETDFLPSAFLQE  
DHIVQFQSISSALLTDYISSVLYADRCII SRNVVESISYRYGSDLRGILMQLNFWSLVNF  
PSLPSKDKQDDSHPEFIEATISAFDEGVGVYNPRIQTSEDLLQTYSEEQMGDIGLLFMPN  
LVNWRKVCVPKSEMEEKEAIMEKLIYSHQYADSLSYVDYRFSSQPTIYETYELMNDASAF  
EDMSLECRDNCANAFQDNLVGFPTISNPFHANAPPEPHELKLYHSFCFINNLFKSSLK  
AISSNDSIVPKALNNRELQLSALASTIGYKLDPDDVYNILSFLSFANSQVTSYTPPNSID  
RPNDILILEVAPFVRCMRRYDRIRLNSYKLLLLSSKGRSASHISRRGAASILRSAGYNYGR  
LQYLEGSDRILSTWFSTTLD

>Q9P7X2

MIRNSSISDALPVALGGNEEESPLLMLVQLPKEFLEGYLSGTITDVSLECSVDVGT SILAN  
DRSYKCTSVPETAPHEIYRLVDSNSLQLVGRVSQKLQLRRELDSLTAERVKNRTQEAQKE  
KEEKRIVTLQNDGGSKNTTARKQKQLKKNGLRPLNTSASRIGLSSSPTNTPSPNLVPSQP  
SASPHYSGDKNSAKGIDLRTV IQLLAIAPETEDFLRLRTKASLSKLQALLPEVAWKNNM  
NQWELLNPVYKDVRVFDWRPYSIADRNAVLSRMSNAFDNMQLPPDAPERSLLVSKQKNIT  
KLNNEKRIPPQLAQPTSHVPSFIDTNSPSMPSISSVSSYQQQHRIPKLNASNYSPLLSPS  
SHRKTSGNLSRTGSESSAVSLSDTTNLNTPISDIPSPGSSSTTCSNLSSPHIKRKSRSPPQ  
SLPSTPFPTSSSSTNGTLEPNANS PKKNEQDAWI AKRRRQQR YTTTEEMRALAKRFRETYP  
RYKNLYLKVSSYDNDTNNPNLNKLQDELISLHSQLKSWKNTLYDASSELAL

>P83940

MDGEEKTYGGCEGPDAMYVKLISSDGHEFIVKREHALTSGTIKAMLSGPGQFAENETNEV  
NFREIPSHVLSKVCMYFTYKVR YTNSSTEIPEFP IAP EIALELLMAANFLDC

>Q7T2Q1

MGRFISVSFGLLVVFLSLSGTGADFDPCSDWTAYDQH CYLAIGEPQNWYEAERFCTEQAK  
DGHLVSIQSREEGNFVAQLVSGFMHRSEIYVWIGLRDRREEQQCNPEWNDGSKI IYVNWK  
EGESKMCQGLTKWTFHDWNNINCEDLYPFVCKFSAV

>Q7T2Q0

MGRLISVRFSLLVVFLSLSGIGAGLCCPLGWSSFDQHCYKVFEPVKNWTEAEEICMQQHK  
GSRLASIHGSEEEAFVSKLASKALKFTSMWIGLNNPWKDCWEWSDNARFDYKAWKRRPY  
CTVMVVKPDRIFWFTRGCEKSVSFVCKFLTDPAV

>P25032

MASSSATSGDDRPPAAGGGTPAQAHAEWAASMHAYYAAAAASAAGHPYAAWPLPPQAQQH  
GLVAAGAGAAYGAGAVPHVPPPPAGTRHAHASMAAGVPYIMAGESASAAGKGRVGTQRV  
PSGEINSSSGDAGSQGSSEKGDAGANQKGSSSSAKRRKSGAAKTEGEPQAATVQNAV

TEPPLLEDKERSASKLLVLAPGRAALTSAAPNLNIGMDPLSASPSSLVQGEVNAAAASSQSN  
ASLSQMDERELKRERRKQSNRESARRSRLRKQQECEELAQKVSELTAANGTLRSELDQLK  
KDCKTMETENKMLMGKILSHDDKMQQSEGPSVVTTLSIQVEAPEPHQGGHGKAS

>P18491

MKSLTAVCQTGASGMPALNASGRIQRHPTHRGDGENAEMKMYLSKLDLVPFMPKNRKLT  
KLEIIQHVIDYICDLQTELETHPEMGNFDAAAALTAVNGLHEDESDMEDADAEAEAEVD  
PDILAQRLNAEQPAKVSSPAARLPLTDRQTPNTLVAPAHQQHQQQQQQLQLQQQQQLQSQQ  
QLSNSLATPQNAEKDSRQS

>Q6P179

MFHSSAMVNSHRKPMFNIHRGFYCLTAILPQICICSQFSVPSSYHFTEDEPGAFPVATNGE  
RFPWQELRLPSVVIPLHYDLFVHPNLTSLDFVASEKIEVLVSNATQFIILHSKDLEITNA  
TLQSEEDSRYMKPGKELKVLSPAHQEQIALLVPEKLTPHLKYYVAMDFQAKLGDGFEGFY  
KSTYRTLGGETRILAVTDFEPTQARMAFFCFDEPLFKANFSIKIRRESRHIALSNMPKVK  
TIELEGGLLEDHFETTVMKSTYLVAYIVCDFHSLSGFTSSGVKVSIIYASPKRNQTHYAL  
QASLKLDDFYEKYFDIYYPLSKLDLIAIPDFAPGAMENWGLITYRETSLLFDPKTSSASD  
KLWVTRVIAHELAHQWFGNLVTMEWVNDIWLKEGFAKYMELIAVNATYPELQFDDYFLNV  
CFEVITKDSLNSRPIKPAETPTQIQEMFDEVSYNKGACILNMLKDFLGEEKFQKGI IQ  
YLKFKFSYRNAKNDLWSSLSNSCLESDFTSGGVCHSDPKMTSNMLAFLGENAEVKEMMTT  
WTLQKGIPLLVVKQDGC SLRLQQRFLQGVFQEDPEWRALQERYLWHIPLTYSTSSSNI  
HRHILKSKTDTLIDLPEKTSWVKFNVD SNGYYIVHYEGHGDQLITQLNQNH TLLRPKDRV  
GLIHDVFLVQVAGRLTLDKALDMTYLQHETSSPALLEGLSYLESFYHMDRRNISDISE  
NLKRYLLQYFKPVIDRQSWSDKGSVWDRMLRSALLKLACDLNHAPCIQKAAELFSQWMS  
SGKLNIPDVLKIVYSVGAQT TAGWNYLLEQYELSMSSAEQNKILYALSTSKHQEKLLKL  
IELGMEGKVIKTQNLAAALHAIARRPKGQQLAWDFVRENWTHLLKKFDLGSYDIRMISG  
TTAHFSSKDKLQEVKLF FESLEAQGSHLDIFQTVLETITKNIKWLEKNLPTLR TWLMVNT

>P05453

MSDSNQGNQOQYQOYSQNGNQOQGNRYQGYQAYNAQAQPAGGYQNYQGYSGYQQGGY  
QQYNPDAGYQQOYNPQGGYQQYNPQGGYQQQFNPQGGRGNYKNFNYNNNLQGYQAGFPQ  
SQGMSLNDQKQKQAAPKPKKTLKLVSSSGIKLANATKKVGTKPAESDKKEEKSAETK  
EPTKEPTKVEEPVKKEEKPVQTEEKTEEKSELPKVEDLKI SESTHNTNANVTSADALIK  
EQEEEVDDEVVNDMFGGKDHVSLIFMGHVDAGKSTMGGNLLYLTGSVDKRTIEKYEREA  
DAGRQGWYLSWVMDTNKEERNNDGKTEIEVGKAYFETEKRRTIILDAPGHKMYVSEMIGGAS  
QADVGLVVISARKGEYETGFERGGQTRERHALLAKTQGVNKMVVVVKMDDPTVNWSKERY  
DQCVSNVSNFLRAIGYNIKT DVVFMVPSGYSGANLKDHDVDPKECPWYTGP TLLEYLDTMN  
HVD RHINAPFMLPIAAKMKDLGTIVEGKIESGHIKKGQSTLLMPNKTAVEIQNIYNETEN  
EVD MAMCGEQVKLRIGVEEEDI SPGFVLTSPKNPIKSVTKFVAQIAIIVELKSI IAAGFS  
CVMHVHTAIEEVHIVKLLHKLEKGTNRKSKKPPAFKKGKVI AVLETEAPVCVETYQDY  
PQLGRFTLRDQGT TIAIGKIVKIAE

>P53199

MSKIDSVLIIIGSGFLGLHLIQQFFDINPKPDIIHFDVVDLPEKLSKQFTFNVD DIKFHK  
GDLTSPDDMENAINESKANVVVHCASPMHGQNPDIYDIVNVKGTNRVIDMCKKCGVNIILV  
YTSSAGVIFNGQDVHNADETPWPIPEVPMDAYNETKAI AEDMVLKANDPSSDFYTVALRPA  
GIFGPGDRQLVPGLRQVAKLGQSKFQIGDNNNLF DWTYAGNVADAHVLAQAQLLDPKTRT  
AVSGETFFITNDTPTYFWALARTVWKADGHIDKHVIVLKRPAICAGYLSEWVSKMLGKE  
PGLTPFRVKIVCAYRYHNI AKAKKLLGYTPRVGIEEGINKTLAWMDEGL

>Q12452

MNRKVAIVTGTNSNLGLNIVFRLIETEDTNVRLTIVVTSRTLPRVQEVINQIKDFYNKSG  
RVEDLEIDFDYLLVDFTNMVSVLNAYYDINKKYRAINYL FVNAAQGI FGDGIDWIGAVKEV  
FTNPLEAVTNPTYKIQLVGVKSKDDMGLIFQANVFGPYFISKILPQLTRGKAYIVWISS  
IMSDPKYLSLNDI ELLKTNASYEGSKRLVDLLHLATYKDLKKGINQYVVPQGI FTSHSF  
SEYLNFFTYFGMLCLFY LARLLGSPWHNIDGYKAANAPVYVTRLANPNFEKQDVKYGSAT  
SRDGMPIYIKTQEIDPTGMSDVFAYIQKKKLEWDEKLDQIVETRTP I

>P0AEJ7

MKLKTTLFGNVYQFKDVKEVLAKANELRSGDVLAGVAAAASSQERVAAKQVLSEMTVADIR  
NNPVIAYEDDCVTRLIQDDVNETAYNQIKNWSISELREYVLSDETSVDDIAFTRKGLTSE  
VVAAVAKICSNADLIYGAKKMPVIKKANTTIGIPGTF SARLQPNDRDDVQSIAAQIYEG  
LSFGVGDAVIGVNPVTDDVENLSRVLDTIYGVIDKFNIPTQGCVLAVHTTQIEAIRRGAP  
GGLIFQSIGSEKGLKEFGVELAMLDEARAVGAEFNRIAGENCLYFETGQGSALSAGANF  
GADQVTMEARNYGLARHYDPFIVNTVVGFIGPEYLYNDRQIIRAGLEDHFMGKLSGISMG  
CDCCYTNHADADQNLNENLMILLATAGCNYIMGMP LGDDIMLNYQT TAFHDTATVRQLLN  
LRPSPEFERWLESMGIMANGRLTKRAGDPSLFF

>P19265

MDQKQIEEIVRSVMASMGQDVPQPAAPSTQEGAKPQCAAPT VTESCALDLGSAEAKAWIG  
VENPHRADVLT ELRRSTAARVCTGRAGPRPRTQALLRFLADHSRSKDTVLKEVP EEWKA  
QGLLEVRSEISDKNLYLTRPDMGRRLSPEAIDALKSQVMNPDVQVVVSDGLSTDAITAN  
YEEILPPLLAGLKQAGLVGTPFFVRYGRVKIEDQIGEILGAKVVILLVGERPGLGQSES  
LSCYAVYSPRVATTVEADRTCISNIHQGGTPPVEAAAVIVDLAKRMLEQKASGINMTR

>Q9UQ84

MGIQGLLQFIKEASEPIHVRKYKGQVAVD TYCWLHKGAIACA EKLAKGEP TDRYVGF CM  
KFNVMLLSHGIKPI LVFDGCTLPSKKEVERSRRERRQANLLK GKQLLREGKVSEARECFT  
RSINITHAMAHKVIKAARSQGV DCLVAPYEADAQLAYLNKAGIVQAIITEDSDLLAFGCK  
KVILKMDQFGNGLEIDQARLGMC RQLGDVFTTEEF RYMCILSGCDYLSL RIGIGLAKACK  
VLR LANNPDI VVKVIKIGHY LKMNI TVPEDYINGFIRANNTFLYQLVFDPIKRKLIPLNA  
YEDDVPETLSYAGQYVDDSI ALQIALGNKDINTFEQID DYNPD TAMP AHSRSHSWDDKT  
CQKSANVSSIWHRNYSRPESGTVSDAPQLKENPSTVGVERVISTKGLNLPRKSSIVKRP  
RSAELSEDDL S QYSLSFTKKT KNSSEGNKSLSFSEVFPDLVNGPTNKKSVSTPPRTR  
NKFATFLQRKNEESGAVVVPGTRSRFFCSDSTDCVSNKVS IQPLDETA VTDKENNLHES  
EYGDQEGKRLVDTDVARNSSDDIPN NHIPGDHIPDKATVFTDEESYSFESSKFTRTISPP  
TLGTLRSCFSWSGGLGDFSRTPSPSPSTALQQFRRKSDSPTS L PENNMSDVSQ LKSEESS  
DDESHPLREEACSSQSQESGEFSLQSSNASKLSQCSSKSDSDEESDCNIKLLDSQSDQTS  
KLRLSHFSKKDTPLRNKVPGLYKSSSADSLSTTKIKPLGPARASGLSKKPASIQKRKHHN  
AENKPLQIKLNELWKNFGFKK DSEKLPCKKPLSPVRDNIQLTPEAEEDIFNKPECGRV  
QRAIFQ

>P21151

MEQVVIVDAIRTPMGRSKGGAFRNVRAEDLSAHLMRSL LARNPALEAAAALDDIYWGCVQQ  
TLEQGFNIARNAALLAEVPHSVP AVTVNRLCGSSMQALHDAARMIMTGDAQACL VGGVEH  
MGHVPM SHGVDFHPGLSRNVAKAAGMMGLTA EMLARMHGISREM QDAFAARSHARAWAAT  
QSAAFKNEI IPTGGHDADGV LKQFN YDEVIRPETTVEALATLRPAFDPVNGMVTAGTSSA  
LSDGAAAMLVMSESRAHELGLKPRARVRSMAVVGCDPSIMGYGVPASKL LALKKAGLSAS  
DIGVFEMNEAFAAQILPCIKDLGLIEQIDEKINLNGGAIALGHPLGCSGARIST TLLNLM  
ERKDVQFGLATMCI GLGQGIATVFERV

>P21177

MLYKGD TLYLDWLEDGIAELVFDAPGSVNKLDTATVASLGEAIGVLEQQSDLKGLLLRSN  
KAAFIVGADITEFLSLFLVPEEQLSQWLHFANSVFNRLLEDLPVPTIAAVNGYALGGGCEC  
VLATDYRLATPDLRIGLPETKLGIMPFGGSSVRMPRMLGADSALEIIAAGKDVGADQALK  
IGLVDGVVKA EKLV EGA KAVLRQAINGDL DWKAKRQPKLEPLKLSKIEATMSFTIAKGMV  
AQTAGKHYPAPITAVKTIEAAARFGREEALNLENKSFVPLAHTNEARALVGI FLNDQYVK  
GKAKKLT KD VETPKQAAVLGAGIMGGGIAYQSAWKGVVPMKDINDKSLTLGMTEAAKLL  
NKQLER GKIDGLKLAGVISTIHPTLDYAGFDRVDIVVEAVVENPKVKKAVLAETE QKVRQ  
DTVLASNTSTIPISELANALERPENFCGMHFFNPVHRMPLVEIIRGEKSSDETI AKVVAW  
ASKMGKTPIVVNDPCPGFFVNRVLFPPYFAGFSQLLRDGDADFRKIDKVM EKQFGWPMGPAYL  
LDVVGIDTAHHAQAVMAAGFPQRMQKDYRDAIDALFDANRFGQKNGLGFWR YKEDSKGKP  
KKEEDA AVELLLAEVSQPKRDFSEEEI IARMMIPMVNEVVRCL EEGI IATPAEADMALVY  
GLGFPPFHGGAFRWLDTLGS AKYLDMAQQYQHLGPLYEVPEGLRNKARHNEPYPPVEPA  
RPVGD LKTA

>Q8GC87

MSKGFVVD TTRCTACRGCQVACKQWHGNPATPTENTGFHQNPDPDFNFHTYKLVRMHEQE I  
DGRIDWLFPPDQCRHCIAPPCKATADMEDESAI IHDDATGCVLFTPKTKDLEDYESVISA  
CPYDVPRKVAESNQMAKCDM CIDRITNGLRPACVTSCTPGAMNFGDLSEMEAMASARLAE  
IKAAYS DAKLCDPDDVRVIFLTAHNPKLYHEYAVA

>P30438

MKGACVLVLLWAALLLISGGNCEICPAVKRDVDLFLTGTPDEYVEQVAQYKALPVVLENA  
RILKNCVD AKMTEEDKENALS VLDKIYTSPLC

>Q923Z4

MAAYPESCLDATV LNFVADLSLASPRHPLLCEFPFGVDFGDRTLGYREGRPGRLSQFDER  
YQEV EGVDEVEYEDPEEEEEEGEGRGRVASLLGRPKRKRVI TYAQRQAANIRERKRMFNLN  
EAFDQLRRKVPTFAYEKRLSRIETLRLAIVYISFMTELLQSKEEKEAS

>Q6QHK4

MDPAPGVLD PRAAPPALLGTPQAEVLEDVLR EQFGPLPQLAAVCRLKRLPSGGYSSTENL  
QLVLERRRVANAKERERIKNLNRGFARLKALVPFLPQSRKPSKVDILKGATEYIQVLSDL  
LEGAKDSKKQDPDEQSYSNNTSESHTSSARQLSRNITQHISCAFGLKNEEEGPWADGGSG  
EPAHACRHSVMSTTEIISPTRSLDRFP EVELLSHRLPQV

>Q8W493

MATTMNAAVSLTSSNSSSFPATSCAIAPERIRFTKGAFYYKSNNVVTGKR VFSIKAQIT T  
ETDTPTPAKKVEKVS KNEEGVIVNRYRPKEPYTGKCLLNTKITADDAPGETWHMVFSHQ  
GEIPYREGQSVGVIADGIDKNGKPHKVRLYSIASSALGDLGNSETVSLCVKRLVYTNDQG  
ETVKGVCSNFLCDLAPGSDVKLTGVPVGKEMLPKDPNATVIMLATGTGIAPFRSFLWKMF  
FEKHDDYKFNGLAWLFLGVPTTSSLLYQEEFDKMKAKAPENFRVDY AISREQANDKGEKM  
YIQTRMAQYAAELWELLKKDNTFVYMCGLKGMEKGIDDIMVSLAANDGIDWFDYKKQLKK  
AEQWNVEVY

>P11939

MMYQGFAGEYEAPSSRCSSASPAGDSLTYYPSPADSFSSMGSPVNSQDFCTDLAVSSANF  
VPTVTAISTSPDLQWL VQPTLISSVAPSQNRGHPYGVPA PAPPAAYSRPAVLKAPGGRGQ  
SIGRRGKVEQLSPEEEEEKRRIRRRERNKMAAAKCRNRRELTDTLQAETDQLEEEKSALQA

EIANLLKEKEKLEFILAAHRPACKMPEELRFSEELAAATALDLGAPSPAAAEAFALPLM  
TEAPPAVPPKEPSGSGLELKAEPFDELLEFSAGPREASRSVPDMDLPGASSFYASDWEPLG  
AGSGGELEPLCTPVVTCTPCPSTYTSTFVFTYPEADAFPSCAAHRKGSSSNEPSSDSL  
SPTLLAL

>P18625

MYQDYPGSFDTSSRGSSGSPGHPEPYSAGAAQQKFRVDMPGSGSAFIPTINAITTSQDLQ  
WMVQPTVITSMSSPYRSHPYSHPLPPLSSVAGHTALQRPVVIKTIGTTVGRRRRDEQLS  
PEEEERIRRRERKNLAAAKCRNRRELTEKLQAETEVLEEEKSVLQKEIAELQKEKEKL  
EFMLVAHSPVCKISPEERRSPPTSSLQSVRTGASGAVVVKQEPVEEIPSSSLVLDKAQR  
SVIKPISIAAGGYGEEALNTPIVVTSTPAITPGSSNLVFTYPNVLDQESPLSPSECSKA  
HRRSSSSGDQSSDSLNSPTLLAL

>P21525

MIALKATEMQHNNNALQQQQQLQHQLLQHQHQHQHQQLQQQLNSPDNNYIWATTHNANIS  
RNNAMLQLQQQLRAPWITDCNKQHHINNNMSMNVNQNQLTQQPQQQQQQQTQYMQHNYN  
NYTQQQQQHLVPATTSQSNSHFYQC�QQQQQQQFLAPT'TT'TAAVVVAAAHQHQHQHQH  
QSQQQQQHQRQDYASLQMGRLGNFETGQSVLTLTTPTLTPTTTRNIEDTLGHLLSDTQT  
DRVAGCAGFAVPKVLPAIDVLGMGIPTGVSSLPLOQTFDLSLGGSESEDSNASYNDTQ  
MNEEQDTTDTSSAHTDSTSQAGHIMAGSVNGGVNNSVLAAVSSSRGSASVGSNNAN  
TSNTPARGGGRRPNRSTNMTPEEEQKRAVRRERNKQAAARCRKRRVDQTNELTEEVEQL  
EKRGESMRKEIEVLTNKSNQLEYLLATHRATCQKIRSDMLSVVTCNGLIAPAGLLSAGSS  
GSGASSHHNHNSNDSSNGTITGMDATLNSTGRSNSPLDLKPAANIDSLMHKDEPLDGA  
IDSGSSLDQDGGPPSKRITLPPMSTMPHVHLSTILTPTGASSGSLQTPITSTAPGGFGSA  
FPVTSNGSSINNINSIGNNMNSPTLNAHNKVPKERPNTLAFQRPLGQMHLTMANNKAGGP  
TQIQGVPIQTPSTGTFFNFDLSLMDGGTGLTPVSGPLVPNSSSTNKHPLELPTPTAEPKLV  
SL

>Q06547

MSLVDLGKLLLEAARAGQDDEVRIILMANGAPFTTDWLGTSPHLHAAQYGHYSTTEVLLRA  
GVSRDARTKVDRTPLHMAASEGHASIVEVLLKHGADVNAKMLKMTALHWATEHNNHQEVV  
ELLIKYGADVHTQSKFCKTAFDISIDNGNEDLAEILQIAMQNIINTNPESPDVTIHAAT  
PQFIIGPGGVNLTGLVSSSENSKATDETGVSAVQFGNSSTSVLATLAALAEASAPLSNS  
SETPVVATEEVVTAESVDGAIQQVVSSGGQVITIVTDGIQLGNLHSIPTSGIGQPIIVT  
MPDGQQVLTVPATDIAEETVISEEPPAKRQCIEIEENRVESAEIEEREALQKQLDEANRE  
AQKYRQQLLKEQEAAYRQKLEAMTRLQTNKEAV

>P81069

MSLVDLGKRLLEAARKQDDEVRTL MANGAPFTTDWLGTSPHLHAAQYGHYSTAEVLLRA  
GVSRDARTKVDRTPLHMAAADGHVHIVELLVRS GADVNAKMLQMTALHWATEHHHRDVV  
ELLIKYGADVYAFSKFDKSAFDIAMEKNNTEILVMLQEAMQNVNTNHERANPVANPVTV  
TAPFIIFTSGEVINLASFVSSANTKATSAHLEEMEEGNSLDSSTQQVVGSGGQRVITIVTD  
GVPLGNIQTSLPAGGIGQPFIVTMQDQQVLTVPAGQVAEETIEDEEEEEEEKLPLVKRP  
RMAEMTNRVEEMKEGSERELLQQQLQEANRRAQEYRHQLLKEQEAQYRLRLEAMAQQQ  
TNGVEVDVTVVEEVAEVDVVVTEGDEVERATQVMKSGRTTEPHTNVS IETISS

>O34215

MMKSILALVLTLSFAALADDQANDALVKRGEYLARAGDCVACHSVKGGQPFAGGLPMAT  
PIGTIYSTNITPDKTTGIGDYSYDDFQKAVRHGVAKNGDTLYPAMPYPSYAVVSDDEDMKA  
LYAYFMHGVAPVAQANKDSDIPWPLSMRWPLAIWRGVFAPDVKAFQPAAQEDPVLARGRY

LVEGLGHC GACHTPRSITMQEKALSNDGAHDYLSGSSAPIDGWTASNLRGDNRDGLGRWS  
EDDLRQFLRYGRNDHTAAFGGMDVVEHSLQHLSDDDITAIARYLKSLGAKDASQTVFTQ  
DDQVAKALWKGDDSQTGASVYVDS CAACHKTDGSRLSALLPGAAWQPGGAGEPDPTSLIH  
IVLTGGTLPGVQGAPTAITMPAFGWRLNDQQVADV VNFIRGSWGN GAKATVTAKDVASLR  
KDETVQAHQGNADIKVLEQQQ

>O34213

MSEHKNGHTRRDFLLRTITLAPAMAVGSTAMGALVAPMAAGAAEQSSGSQTARDYQPTWF  
TAEFFAFITAAVARLIPNDERGPGALEAGVPEFIDRQMNTPYALGSNWYMQGPFNPDLPK  
ELGYQLPLVPQQIYRLGLADADSWSKHQHGKVFAELSGDQQDALLSDFESGKAFTQLPA  
KTFFSFLQNTREGYFTRSDPRWQSGHGGL EADWLP RRTR

>O06491

MSLFDHKITELKQLIHKKEIKISDLVDESYKRIQAVDDKVQAF LALDEERARAYAKELDE  
AVDGRSEHGLLF GMPIGVKDNI VTKGLRTTCCSSKILENFDP IYDATVVQRLQDAEAVTIG  
KLN MDEFAMGSSSTENSAYKLTKNPWNLDTPVGGSSGGSAAVAAGEV PPSLGS DTGGSIR  
QPASFCGVVGLKPTYGRVSRYLVAFASSLDQIGPITRTVEDNAFLLQAI SGVDKMDSTS  
ANVDVPDFLSSLTGDIKGLKIAVPKEYLGEGVGKEARESVLAALKVLEGLGATWEEVSLP  
HSKYALATYYLLSSSEASANLARFDGIRYGYRTDNADNLIDLYKQTRAEGFGNEVKRRIM  
LGT FALSSGYDAYYKKAQKVRTLIK KDFEDVFEKYDVIVGPTTPTPAFKIGENTKDPLT  
MYANDILTIPVNLAGVPGISVPCGLADGLPLGLQIIGKHFDESTVYRVAHA FEQATDHHK  
AKPEL

>O26802

MSYQGRARKFLESASIDVGMVLVEKPDVTYEGMVLD RADDADDRHIVL KLENGYNIGVE  
ISDARIELLEK GSEPRIELPPVEAAEDPEL PDVSIISTGGTVASI IDYRTGAVHPAFTAD  
DLLRANPELLDIANIRGRAVFNILSENMKPEYVWETARAVYGEIKDGADGVVVAHGTDTM  
HYTSAALS FMLRTPVPVFTGAQRSSDRPSSDASLNIQCSVRAATSEIAEVTVMHATMD  
DLSCHLHRGVKVRKMHTSRRD TFRSMNALPLAEVTPDG I KILEENYRKRGSDELELSDRV  
EERVAFIKSYPGISPDIKWHLDEGYRGIVIEGTGLGHCPDTLIPVIGEAHDMGVPVAMT  
SQCLNGRVNMNVYSTGRRL LQAGVIPCDMLPEVAYVKMCWVLGQTDDPEMAREMMRENI  
AGEINERTSIAYFRG

>Q06700

MGFYSPRYFQNPQVGKPLKKADAANEEQLKKIEE EIHQLIKEAQEAGKADADVNKRGE  
LTALQRIEKLVEPGSWRPLNTLFN PQGNKNGSVAIVKGLGRVNGKWCVVVASDNKKLAGA  
WVPGQAECLLRASDTAKTLHVPLVYVLNCSGVK FDEQEKVYPNRRGGGTPFFRNAELNQL  
GIPVIVGIYGTNPAGGGYHSISPTVIAAHEKANMAVGGAGIMGGMNPKGHVDLEYANEIA  
DMVDRTGKTEPPGAVDIHYTETGFMREYVYASEEGVLEGIKKYVGMLPKYDPEFFRVDDPK  
APAFPADDLYSMVPLNDKRAYDIYNVIARLFDNSELHEYKKGYP EMVTGLAKVNGLLVG  
VVANVQGLLMNYPEYKAAGSVGIGGKLYRQGLVKMNEFVTLCARDRLP I VWIQDTTGIDV  
GNDAEKAELLGLGQSLIYSIQTSHIPQFEITLRKGTAAAHYVLGGPQGN D TNAFSIGTAA  
TEIAVMNGETAATAMYSRRLAKDRKAGKDLQPTIDKMNNLIQAFYTKSRPKVCAELGLVD  
EIVDMNKIRGYVEAFTEAAYQNPE SICPFHQMILPRAIREFETFVKK

>Q9ZAA7

MRKFNVNVNGTVYTVVEVEEVGGAVTAAPAAPAAPAAA PVAAPAAA PAPAPAAA PA  
AAPAPAAK PAAA PAVSVPMPGKILSVNVKPGDKVEAGDVLLI LEAMKMQNEIMAP  
EDGTVSEVRVNAGDTVATGDVMVIL



>P54376

MKHRYLPATEKDKQEMLATIGVSSIDDLFADIPENVKYKKEHQIKKAKSETELTRELTKL  
ASKNRDTVQYASFLGAGVYDHYQPVIVDHVISRSEFYTAYTPYQPEISQGELQAIFEFQT  
MICELTGMDIANSSMYDGGTALAEAAMLASGHTKKKKIVVSKTVHPESREVLKTYAKGQY  
IDVVEVPAADGVTDLDALRQTVCENTAAVIVQYPNFFGRIEPLKDIPIAHQKSMFIVS  
ANPLALGLLTPPGKFQSDIVVGDHRFGIP SAYGGPHCGFFAVTKKLMRKVPGRLVGQTE  
DENGKRGFVLTQAREQHRRDKATSNICSNQALNALAASVAMTALGKNGVKDIARQNL  
KANYAKQEAKKAGLTVMFDPGFNEFVIKLDPEPVRVAVNKRLLAKGMIGGYDLGLTYPELD  
CHMLIAVTELRTKEEIDALIQLGDRHE

>Q59111

MSKVMTLKDAIAKYVHSGDHIALGGFTTDRKPYAAVFEILRQGITDLTGLGGAAGGDWDM  
LIGNRVKAYINCYTANSGVTNVSRRFRKWF EAGKLTMEDYSQDVIYMMWHAALGLPFL  
PVTLMQGSGLTDEWGISKEVRKTLDKVPDDKFKYIDNPFKPGKVVAVPVPQVDVAIIHA  
QQASPDGTVRIWGGKFQDVIDAEAAKYTIVTCEEIISDEEIRRDPKNDIPGMCVDAVVL  
APYGAHPSQCYGLYDYNPFLKVYDKVSKTQEDFADFCKEWFVLDLKDHDYLNKLGATRL  
INLKVVPGLGYHIDMTKEDK

>Q59112

MADYTYNTNKEMQAVTIAKQIKNGQVVTVGTGLPLIGASVAKRVYAPDCHIIVESGLMDC  
SPVEVPRSVGDLRFMAHCGCIWPNVRFVGF EINEYLHKANRLIAFIGGAQIDPYGNVNST  
SIGDYHHPKTRFTGSGGANGIATYSNTIIMMQHEKRRFMNKIDYVTSFGWIDGPGGRERL  
GLPGDVGPQLVVTDKILKFDEKTKRMYLAAAYPTSSPEDVLENTGFDLDDVSKAVELEAP  
DPAVIKLIREEIDPGQAFIQVPTEAK

>O02298

MFGWIHESFRQLVTRKYGKDIWEKIVHMSKFEELGTESEIAHYNDDETLRLVNSMANVIG  
IPIEEIWEAYGGFLIQFTMETGWDELLRAMAPDLEGF LDSLDSLHYFIDHVYKTKLRGP  
SFRCDVQADGTLHLHYYSKRSGLYP IVKGVVREVARRIYDTEVVMKVQERKQEHLDVFT  
EHVVFVITQIENANSTQPKSISKADSQIDLSTGIYEISSSDFSLAFPYHICFDPDLFVE  
HFGNFIKKTFFNAMRQETRVTDLLELVHPEVPPFSYESIKYYKNSLFFVRLKGLGDIVHNA  
NDEAKTVLLKGSVMFIDEGKYILYMCVNVTTVRELIERNLHLSMQRHDGTRDVI MLNQ  
SRMSQVELNRTLEETTKLKKMAQELEIEKQKTDELCELMPASVADSLRSGKAMDAKEF  
ADCTLLFTDIVTFTNICAMCTPYDVVTLNLDLYLRFDRLVGLHDAYKVETIGDAYMIVGG  
VPERCENHAERVLNISI GMLMESKLVLSPI THKPIKIRLGVHCGPVVAGVVGIKMPRYCL  
FGDTVNVANKMESNGIQCKIHVSETGKLNGLKANPSYVVIDRGNTEIRGKMMYTYFLER  
NDRKSVWELCSRPRSGETIDGYMELHDQSIYQEEGGQQENLTVENGNSAQNNHNNNNNT  
HHSGRKLMNGSSVDPGSHHIRSPTCTIS

>Q6DNF4

MFGFIHESIRQLMIRTYGEAFWSKVLERAGFEAGKENIINHYYSDADTFSLVDAVSVILK  
VTREQVWEMYGCFLIQYTMETGWDDLIRSMSPNLKGFLDNLDSLHYFIDHVYKANLRGP  
SFRCEDNPDGTITLHYTGRPGLYP IVKGVLREAAKRVFKLDVSMITITGRTQRSVQMATG  
ERIEEHVIFLVKTLNTDQSNEEALGTAVVQHSNNYKIRLTHMDFISTFPYHMVVDQCKI  
VQVGRELYNHIPKDLLSVGTPLMRIFEVTRPQIPLDFDSICNF INAVFVLQVKTPMEFQ  
RNANKRAAQAI EASENLYEDNNGALALSQSQHLKLGQMMMLMSSGGHIMYLCSPYVTSIP  
ELLQYGLRLTAMPIHDPTRDLILLNQQR LSDVEMNLQLEANNEQLENMAKDLEVEKGTKD  
ALLREMLPPSVAQQLKQGLSVEAREYEEATVMFTDVPTFQQIVPLCTPKDIVHLLNELFT  
KFDRLIGIQKAYKVETVGD SYMSVGGIPDLVDDHCEVICHLLALGMVMEARTVCDPITNTP  
LHIRAGIHSPPVAGVVGAKMPRYCLFGDTVNTSSRMESHSPIGRIHCSENAKKCAESTG

RFEFEPGRVQIKGKGEMNTYFLLRSFKRSIWEI IDRRRDENCNSIDGYNELREGYVDDV  
LNKVTQKNSKTCSIS

>P33402

MSRRKISSSEFSSSLGSDYLETSPEEEEGECPLSRLCWNGSRSPGPLEPSPAAAAAAPA  
PTPAASAAAAAATAGARRVQRRRRVNLDSLGESISRLTAPSPQTIQQTLKRTLQYYEHQV  
IGYRDAEKNFHNI SNRCSYADHSNKEEIEDVSGILQCTANILGLKFEEIQKRFGEFFNI  
CFHENERVLRVGGTLQDFNFNGFDALLEHIRTSFGKQATLESFSLCKELPEGTLMLHYF  
HPHHIVGFAMLGMIKAAGKKIYRLDVEVEQVANEKLCSDVSNPGNCSCLTFLIKECENTN  
IMKNLPQGTSQVPADLRISINTFCRAFPFHLMFDPMSVQLGEGLRKQLRCDTHKVLKF  
EDCFEIVSPKVNATFERVLLRLSTPFVIRTKPEASGSENKDKVMEVKGQMIHVPESNSIL  
FLGSPCVDKLDDELMGRGLHLSDIPIHDATAIDRVILVGEQAKAQDGLKKRMDKLNKATLERTH  
QALEEEKKTVDLLYSIFPGDVAQQWLQGGQVQARKFDDVTMLFSDIVGFTAICAQCTPM  
QVISMLNELYTRFDHQCGFLDIYKVEITGDAYCVAAGLHRKSLCHAKPIALMALKMMELS  
EEVLTPDGRPIQMRIGIHSVLAGVVGVRMPRYCLFGNNVTLASKFESGSHPRRINVSP  
TTYQLLKREESFTFIPRSREELPDNFPKEIPGICYFLEVRTGPKPPKPSLSSSRIKKVS  
NIGTMFLRETSL

>O54865

MYGFVNHALELLVIRNYGPEVWEDIKKEAQLDEEGQFLVRIIYDDSKTYDLVAAASKVLN  
LNAGEILQMFQGMFFVFCQESGYDTILRVLGNSVREFLQNLDALHDHLATIYPGMRAPSF  
RCTDAEKKGKGLILHYYSEREGLDIVIGIKTVAQQIHGTEIDMKVIQQRNEECDHTQFL  
IEEKESKEEDFYEDLDRFEENGTOESRISPYTFCKAFPFIIFDRNLVVTQCGNAIYRVL  
PQLQPGNCSLLSVFSLVRPHIDISFHGILSHINTVFLRSKEGLLDVEKLECEDELGTAE  
ISCLRLKGQMIYLPEADSILFLCSPSVMNLDLTLRRGLYLSDIPLHDATRDLVLLGEQFR  
EYKLTQELEILTDRQLTLRALEDEKKTDTLLYSVLPSPVANELRHKRVPVPAKRYDNV  
TILFSGIVGFNAFCSKHASGEGAMKIVNLLNDLYTRFDTLTDSRKNPFVYKVEITVGDKYM  
TVSGLPEPCIHHARSICHLALDMMIAGQVQVDGESVQITIGIHTGEVVTGVIGQRMPIRY  
CLFGNTVNLTSRTTETGKKGKINVSEYTYRCLMSPENSDFLHLEHRGPVSMKGGKPEMQ  
VWFLSRKNTGTEETNEEDEN

>P22717

MEAILKLFGEYFFKFKMSGYDRMLRTLGGNLTEFIEENLDALHSYLALSQYEMNAPSFRV  
EEGADGAMLLHYYSRHRGLCHIVPGIIEAVAKDFFDTDVAMSILDMNEEVERTGKKEHV  
FLVVQKAHRQIRGAKASRPQGSSEDSQADQEQALQGTLLRMKERYLNIIPVCPGKESHSTAVR  
ASVLFQKGPLRDTFQPVYPERLWVEEVEFCDAFPFHIIVFDEALRVKQAGVNIQKYVPGIL  
TQKFALDEYFSIIHPQVTFNISSICKFINSQFVLKTRKEMMPKARKSQPMLKLRGQMIWM  
ESLRCMIFMCPNVRSLQELEESKMHLSDIAPHDTTRDLILLNQQLAEMELSCQLEKKK  
EELRVLNHLAIEKKKTETLLYAMLPEHVANQLKEGRKVAAGEFETCTILFSDVVTFTNI  
CAACEPIQIVNMLNSMYSKFDRLTSVHDVYKVEITIGDAYMVVGGVVPVESHQQRVANFA  
LGMRIISAKEVMNPVTGEPQIRVGIHTGPVLAGVVGDKMPRYCLFGDTVNTASRMESHGL  
PSKVHLSPTAHRALKNKGFEIVRRGEIEVKGKGKMTTYFLIQNLNATEDEIMGRPSAPAD  
GKEVCTPGNQVRKSPAVPRNTDHOQQVYKGD PADASNEVTLAGSPVAGRNSTDAVNNQPS  
PDETKTSVVASGPVLSAFCVVL

>Q9VEU5

MYGMLYESVQHYIQQEYGMETWRKVCQIVDCKHQSFKTHQIYDPKLMPDFAAALSASTGE  
SFDFCMNFFGRCFVRRFFSNFGYDKMIRSTGRYFCDFLQSIDNIHVQMRFTYPKMKSPSMQ  
LTNMDDDGAVILYRSRGTGMSKYLIGQMTVEAKEFYGLDMTAYVLESQNDICGGTAGPIK  
LTEGPLTVIVKYRLDFDNRDYMARRVNVIAHPSQLKMPVLDLNVFLLELFPFTIVLDHDMK

ITLAGEKIVETWILHNPVGNPKTFIGSHILERFKCRRPKDTQIQWETILQMRTVLFEFEL  
IRTGHNRAAYDAALNFDNFENFDEASSLNEAQAMALASAKEFSAENAKEEAAAAATSKDEI  
DPATGQRRHSVGLRSILLKGMFYIKDVDSLIFLCSPLIENLDELHGIGLYLNDLNPGL  
SRELVMAQWQHCSKLEIMFEKEEQRSDELEKSLELADSWKRQGDDELLYSMIPRPIAERMR  
KSEEHVCQSFEEVSVIFIEVMNIYDSGSNNIQDAMQAVTTLNKFVFSALDEEIIISPFVYKV  
ETVGMVYMAVSGAPDVNPLHAEHACDLALRVMKKVKAHALPGVAIRVGINS GPVVAGVVG  
MKVPRYCLFGDTVNTASRMESSDPWMIQLSNY TALKVQKVGKVEARGFVKVKGK GEME  
TYWLLLEGPE

>P80237

VAVSADPNPNVIVTRLTLVCSTAPGPLELDLTGDLESFKIKISFRYIQHTYRKGVKIDK  
TDYMGVSGYPRAEEYFLTPMEEAPKGMLARFTDDDKTDHLSGERNLTIKK

>Q9NWZ8

MAAVKASTSKATRPWYSHPVYARYWQHYYQAMAWMQSHHNAYRKAVESCFNLPWYLP  
LQSSYDNEAAYPQSFYDHHVAWQDYPCSSSHFRRSGQHPRYSSRIQASTKEDQALSKEE  
EMETESDAEVECDLSNMEITEELRQYFAETERHREERRRQQQLDAERLDSYVNADHDLYC  
NTRRSVEAPTERPGERRQAEMKRLYGDSAQIQAEEAAVQLSFDKHCDRKPQKYWPV  
IPLKF

>P32022

GRLDEFSADNDYYDGGIMSRGKNAGSWYHSYTHQYDVFYLLAMQPWRHFVWTTCDKNDNT  
ECYKYTINEDHNKVEDINKTNIKQDFCQKEYAYPIEKYEVDWDNVPVDEQRIESVDING  
KTCFKYAAKRPLAYVYLNTKMTYATKTEAYDVCRMDFIGGRSITFRSFTENKAFIDQYN  
TNTTSKCLLNVDNNTHLAIIFGITDSTVIKSLQENLSLLSQLKTVKGVTLTYLKD  
DFTYFTVNITLDQLKYDTLVKYTAGTGQVDPLINIAKNDLATKVADKSKDKNANDKIKRGTMI  
VLMDTALGSEFNAEFDRKNI SVHTVVLNRNKDPKITRSALRLVSLGPHYHEFTGNDEV  
NATITALFKGIRANLTERCDRDKCSGFC DAMNRCTCPMCCENDCFYTS CDVETGSCIPWP  
KAKPKAKKECPATCVGSYECRDLEGCVVTKYNDTCQPKVKCMVPYCDNDKNL TEVCKQKA  
NCEADQKPS SDGYCWSYTC DQTTFGCKKDKRGKEMCTGKTNNCQEYVCDSEQRCSVRDKV  
CVKTSPIYIEMSCYVAKCNLNTGMCENRLS CDTYSSCGGDSTG SVCKCDSTTG NKCQC  
NKV KNGNYCNSKNHEICDYTGTT PQCKVSNCTEDLVRDGLIKRCNETSKTTYWENVDCSNTK  
IEFAKDDKSETMCKQYYSTTCLNGKCVVQAVGDVSNVGCYCSMGTDNIIITYHDDCNSRK  
SQCGNFNGKCIKGS DNSYSCVF EKDKTSSKSDNDICAECSSLTCPADTTYRYYTYDSKTG  
TCKATVQPTPACSVCESGKFVEKCKDQKLERKVTLENGKEYKYTI PKDCVNEQCIPRTYI  
DCLGNDNFKSIYNFYLPQAYVTATYHYSSLFNLTSYKLHLPQSEEFMKEADKEAYCTY  
EITTRECKTCSLIETREKVQEVDLCAEETKNGGVPFKCKNNNCI IDPNFDCQPIECKIQE  
IVITEKDGIKTTTCKNTTKATCDT MNKRIEDARKAFIEGKEGIEQVECASTVCQNDNSCP  
IITDVEKCNQNTTEVDY GCKAMTGECDGTTYLCKFVQLTDDPSLDSEHFRTKSGVELNNA  
CLKYKCVESKGS DGI THKWEIDTERSANPKPRNPCETATCNQTTGETIYTKKTCTVSEF  
PTITPNQGRFCFYQC SYLDGSSVL TMYGETDKEYYDLDACGNCRVWNQTDRTQQLNHNTE  
CILAGEINNVGAI A AATTVA AVIVAVVVALIVVSI GLFKTYQLVSSAMKNAITITNENAE  
YVGADNEATNAATFNG

>Q03077

MIILVLLISYSFGKTQDGKDQLSPNYPYGMNKDVNFNPKPFTSAVDSYQIQQYAENGVFS  
ANQENYVRAKCKTCCRVI FASDYNKYTNTQFTDEDDKKGDERYVMDMEFDDKRSVRF  
RNG GYEQNILLRPLKQGNELQFFEFAPYRMYTSYAI PKRVHDIRGGANE EATLI IWPKNP  
PLS DAPGTRNQR FVYVHPYPT EWYPEYNSTTKYTQNGKTVIKTLKWP TYKRHFYLPYRLD  
VDLCYQARKATDGRSTWTGNKLNLTTSKSYQIIASRCSATEARQIFIPVFA

>P04251

MSTVAELANAVVSNADQKDLLRLSWGVLSDMEGTGLMLMANLFKTSSAARTKFARLGDV  
SAGKDNSKLRGHSITLMYALQNFIDALDNVDRLKCVVEKFAVNHINRQISADEFGGEIVGP  
LRQTLKARMGSYFDEDTVSAWASLVAVVQAAL

>P55229

MVVSADCRISLSAPSCIRSSSTGLTRHIKLGSGFCNGELMGKKLNLSQLPNIRLRSSTNFS  
QKRILMSLNSVAGESKVVQELETEKRDPRTVASIIILGGGAGTRLFPLTKRRAKPAVPIGGA  
YRLIDVPMSNCINSGINKVYILTQYNSASLNRHLARAYNSNGLGFGDGYVEVLAATQTPG  
ESGKRWFQGTADAVRQFHWLFEDARSKDIEDVLIILSGDHLYRMDYMDFIQDHRQSGADIS  
ISCIPIDRRASDFGLMKIDDKGRVIFSSEKPKGDDLKAMAVIDTTLGLSKEEAEEKPYI  
ASMGVYVFKKEILLNLLRWRFPPTANDFGSEIIPFSAKEFYVNAYLFNDYWEDIGTIRSF  
EANLALTEHPGAFSIFYDAAKPIYTSRRNLPPSKIDNSKLIDSIIISHGSFLTNCLEHSIV  
GIRSRVGSNVQLKDTVMLGADYYETEAEVAALLAEGNVPIGIGENTKIQECIIDKNARVG  
KNVIIANSEGIQEADRSSDGFYIRSGITVILKNSVIKDGVI

>P55233

MDASAAAINVNAHLTEVGKKRFLGERISQSLKKGDLRALFSRTEKGRNVNKPVGAVSVL  
TSDFNQSVKESLKYEPALFESPKADPKNVAAIVLGGGAGTRLFPLTSRRAKPAVPIGGCY  
RLIDVPMSNCINSGIRKIFILTQFNSFSLNRHLARTYNFGDGVNFGDGFVEVFAATQTPG  
ESGKKWFQGTADAVRQFFWAFEDSKSKDVEHIVILSGDHLYRMDYMSFWQKHIDTNADIT  
VSCIPMDDSRASYGLMKIDHTGRIVHFAEKPKGSDLTAMQVDTTVLGLSDLEAMSNPYI  
ASMGVYVFRDVLMEILLNRKYPSSNDFGSEIIPSAVGESNVQAYLFNDYWEDIGTIKSF  
DSNLALTQOPPKFEFYDPKTPFYTSARFLPPTKVDRCKIVDSIVSHGCFLQESSIQHSIV  
GVRSRLESGVEFQDTMMMADYYQTESEIASLLAEGKVPVGVGQNTKIKNCIIDKNAKIG  
KDVVIANTDGVVEADRPNEGFYIRSGITIIILKNATI QDGLVI

>P30524

MSSMQFSSVLPLEGKACVSPVRREGSACERLKIGDSSSIRHERASRRMCNGGARGPAATG  
AQCVLTSDASPADTLVLRTSFRRNYADPNEVAAVILGGGTGTQLFPLTSTRATPAVPIGG  
CYRLIDIPMSNCFNSGINKIFVMTQFNSASLNRHHRHYLGGGINFTDGSVEVLAATQMP  
GEAAGWFRGTADAVRKFIFWVLEDYKHKSEIHLILSGDQLYRMDYMELVQKHVDDNADI  
TLSCAPVGESRASEYGLVKFDSSGRVIQFSEKPKGDDLEAMKVDTSFLNFAIDDPKYPY  
IASMGVYVFKRDVLLNLLKSRYAELHDFGSEILPRALHDHNVQAYVFTDYWEDIGTIRSF  
FDANMALCEQPPKFEFYDPKTPFFTSRPRYLPPTKSDKCRIKEAIIISHGCFLECKIEHSI  
IGVRSRLNSGSELKNAMMMGADSYETEDEISRLMSEKVPVIGVGENTKISNCIIDMNARI  
GRDVVISNKEGVQEADRPEEGYIRSGIVVIQKNATIKDGTVV

>P23509

MAASIGALKSSPSSNNCINERRNDSTRAVSSRNLSFSSSHLAGDKLMPVSSLRSQGVRFN  
VRRSPMIVSPKAVSDSQNSQTCLDPDASRSVLGIILGGGAGTRLYPLTKKRAKPAVPLGA  
NYRLIDIPVSNCLNSNISKIYVLTQFNSASLNRHLSRAYASNMGYKNEGFVEVLAQQS  
PENPDWFQGTADAVRQYLWLFEEHTVLEYLILAGDHLYRMDYEKFIQAHRETDADITVAA  
LPMDEKRATAFGLMKIDEEGRIIEFAEKPOGEQLQAMKVDTTILGLDDKRAKEMPFIASM  
GIYVISKDVMLNLLRDKFPGANDFGSEVIPGATSLGMRVQAYLYDGYWEDIGTIEAFYNA  
NLGITKKPVPDFSFYDRSAPIYTQPRYLPPSKMLDADVTDVIGEGCVIKNCKIHHSVVG  
LRSCISEGAIIEDSLLMGADYYETDADRKLLAAKGSVPVIGIGKNCHIKRAIIDKNARIGD  
NVKIIINKDNVQEAARETDGYFIKSGIVTVIKDALIPSGIII

>P10346

MIEFKNVSKHFGPTQVLHNIDLNIAQGEVVVIIGPSGSGKSTLLRCINKLEEITSGDLIV  
DGLKVNDPKVDRLIRQEAGMVQQFYLFPHLTALENVFMGPLRVRGANKEEAEKLADEL  
LAKVGLAERAAHYPSELSSGGQQQRVAIARALAVKPKMMLFDEPTSAIDPELRHEVLKVMQ  
DLAEEGTMVIVTHEIGFAEKVASRLIFIDKGRI AEDGNPQVLIKNPPSQRLQEFLQHVS

>Q96T91

MPMASPQTLVLYLLVLAVTEAWQEAVIPGCHLHPFNVTVRSDRQGTCCQGSVAQACVGH  
CESSAFPSRYSVLVASGYRHNTSVSQCTISGLKVKVQLQCVGSRREELEIFTARACQ  
CDMCRLSRY

>P54935

MNFPVLKGAGYVLVHTPDMIMHNGTTQTTEKIVNPESEYLKKLPEHLRSFEDVVAYAPNQ  
TYIGSMTPEALGEIAMPWWTEDKKVAGADRYGKLGEIMPQDEFLLALMSASDVFDLVLFEK  
EFIEGAKAKLAAHPVVGNAESVNAAGVELAEIEKQLSEFHAEGLYNNGKLVGCVKRAHDV  
DVNLNSHTMLENLAVKASGVLLALANLIAKNVNP AEVDYIEECSEACGDMNQRGGGNFA  
KALAEMTGCVNATGSDMRGFCAGPTHALIAAAALVKSQVYKNVIAAGGATAKLGMMNGKD  
HVKKEMPILEDCLGGFAVLVSENDGVNPI LR TD LVGRHTVATGSAPQAVIGSLVLSPLKA  
GGLKITDVKYSVEMQNPDI TKPAGAGDVPEANYKMI AALAVMGKEIERADIAAFVEKHG  
MVGWAPTQGHIPSGVPYIGFAISDLTEGVSVRTMIVGKGSFLGRMTNLF DGVSIVAERN  
TGKVESGSSVSTEEIRKMI AESMKDFAAHL LAE

>Q47878

MSDIKQMIKTFMEIADAIETGSFAGKVKVGIITTLGSEHGVENLVKGAELAAKDAAGFDI  
VLIGPKVETSLEVEVATEEEEEAHKKMEELLD SGYIHS CVTVHYNFP IGVSTVGRVVT PGM  
GKEMFIATTTGTSAQRVEAMVRNALYGIITAKSMGIENPTVGI LNLDGARAVERALKEL  
AGNGYPI TFAESLRADGGSVMRGN DL LGGAADVMVTDSL TGNIMMKV FSSYTTGGSY EGL  
GYGYGPGIGDGYNRTILILSRASGVPVAANA I KYAAKLAQNNVKAIAAAEFKAAKAAGLE  
SILAGLSKDTKKASTE E EVKMPKPEVVTGTISGVDVMDLEDAQKVLWKAGIYAESGMGCT  
GPIVMVNEAKVEEAAKILKDAGIVA

>P48507

MGTDSRAAKALLARARTLHLQTNLLNWGR LRK KCPSTHSEELHDCIQKTLNEWSSQINP  
DLVREFPDVLECTVSHAVEKINPDEREEMKVS AKL FIVE SNSSSSTRSAVDMACSVLGVA  
QLDSV I IASPP IEDGVNLSLEHLQPYWEELENLVQSKKIVAIGTSDLDKTQLEQLYQWAQ  
VKPNSNQVN LASCCVMPD L TAF AKQFDIQLLTHNDPKELLSEASFQ EALQESIPDIQAH  
EWPVLWLLRYSVIVKSRGI I KSKGYILQAKRRGS

>P48506

MGLLSQGSPLSWEETKRHADHVRRHGILQFLHIYHAVKDRHKDVLKWGDEVEYMLVSFDH  
ENKKVRLVLSGEKVLETLQEKGERTNPNHPTLWRPEYGSYMI EGT PGQPYGGTMSEFNTV  
EANMRKRKREATSILEENQALCTITSFPR LGCPGF TLPEVKPNPVEGGASKSLFFPDEAI  
NKHPRFSTL TRNIRHRERGEKVVINVP I FKDKNTPSPF IETFTEDDEASRASKPDHIYMDA  
MGFGMGNCC LQVTFQACSI SEARYLYDQLATICPIVMALSAASPFYRGYVSDIDCRWGI  
SASVDDRTREERGLEPLKNNYRISKSRYSIDSYLSKCGEKYNDIDL TIDKEIYEQLLQ  
EGIDHLLAQHVAHLFIRDPLTLFE EK IHLDDANESDH FENIQSTNWQ TMRFKPPPNSDI  
GWRVEFRPMEVQLTDFENSAYVVFVLLTRVILSYKLD FLIPLSKVDENMKVAQKRDAVL  
QGMFYFRKDI CKGGNAVVDGCGKAQNSTELAAEEYTLMSIDTI INGKEGVFPGLIPILNS  
YLENMEVDVDTRCSILNYLKL IKKRASGELMTVARWMREFIANHPDYKQDSVITDEMNY  
LILKCNQIANELCEPELLGS AFRKVKYSGSKTDSSN

>P35669

MEIEKYTPEQIEELGKGARDFAFAHGVVFTTELSVSKEGRNIATQIPITLFP SVIPHGAFV  
EAVSVQKAYNKLYAKIANDYEFRLRLHLSITKYDEFMKNLWNLYQKHREAV AHLKENQFQ  
PLSLGVFRSDYMVHQDDSFIGCKQVEFNTISVSFSGGVSKAVSNLHAYCSQSGLYRKPLTT  
NYLTVNTSVSGICTGISNAVDAYRDYVKNITSKMNIASDNTKPIVLFVVKGGERNITDQR  
TLEYELLRNFHVISKRIDIAELNSLIHDKSSNKLYMKTSTFTTYEVAVVYRVGYALDDYP  
SQEAWDMRLTIENTLAIKCP S ISTHLAGSKKIQQVLAESNALERFLEGDELQAVRSTFAD  
MYPLDDTPRGKEGIKLAFEKPEDFVLKQPREGGNNTYGKDIPGLLSKMPQE EWDSYILM  
RYINAVPSQNYILKGERPEKFDVVDEIGILGTIVWNIKTDEVVQNGQSGFICRTKPKKTN  
EGGVATGYASLSSIELSE

>P04905

MPMILGYWNV RGLTHPIRLLLEYTDSSYEEKRYAMGDAPDYDRSQWLNEKFKLGLDFPNL  
PYLIDGSRKITQSN AIMRYLARKHHL CGETEEERIRADIVENQVMDNRMQLIMLCYNPDF  
EKQKPEFLKTIPEKMKLYSEFLGKRPFAGDKVTYVDFLAYDILDQYHIFEPKCLDAFPN  
LKDFLARFEGLKKISAYMKSSRYLSTPIFSKLAQWSNK

>Q8SSG3

MVVIQGGKGGKADPRVIGKDEEHQKSIVKLSQIKKIMKDRTRMRI SKDALVAVSACVMYLI  
SEITDGAKNVASTDGKKKVM PKHINNAICNDTELHFVGHDWLIKNGGMKSYIAPGDFAVS  
SKKGSSRD

>Q9XG57

MARMKHTARMSTGGKAPRQLASKALRKAPPPPTKGVKQPTTTTSGKWR FARFHRKLPFQ  
GLVRKIWQDLKTHLRFKNHSVPPLEEVTEVYPCQTIGGCY

>Q1AGS9

MSLSAKDKATVKDFFGKMSTRSDDIGAEALSRLVAVYYPQTKSYFAHWKSASPGSAPVRKH  
GITIMGGVYDAVGKIDDLKAGLLSLSELHAFMLRVDPVNFKLLAHCMLVCM SMVFP EEFT  
PQVHVAVDKFLAQLALALCEKYR

>P18974

VLTEDDKNHIRAIWGHVDNNPEAFGVEALTRLFLAYPATKTYFAHF DLNPGSAQIKAHGK  
KVVDALTQAVNNLDDIPDALAKLADLHAEKLRVDPVNFGLLGHCILVTIAAHNHGPLKAD  
VALSMDKFLTKVAKTLVAHYR

>P29624

SLSDKDKAAVRALWSKIGKSADAI GNDALSRMIVVYYPQTKTYFSHWPDVTPGSAHIKAHG  
KKVMGGIALAVSKIDDLKAGLS DLSEQHAYKLRVDPANFKILNHCILVVISTMFPKDFTP  
EAHVSLDKFLSGVALALAEYR

>P02019

SLTAKDKSVVKAFWGKISGKADVVGAEALGRDKMLTAYPQTKTYFSHWADLSPGSGPVKK  
HGGIIMGAIGKAVGLMDDL VGMSALSDLHAFKLRVDPGNFKILSHN ILVTLAIHFPSDF  
TPEVHIAVDKFLAAVSAALADKYR

>P07430

MLLSADDKHHIKAIMPSIAAHGDKFGGEALYRMFLVNP KTKTYFP TFD FHHNSKQISAHG  
KKVVDALNEASNHL DNIAGSLSKLSDLHAYDLRVDPGNFPLL AHNILVVVAMNFPKQFDP

ATHKALDKFLATVSSVLTSKYR

>P10784

VLSSQDKANVKAVWEHVKGHEEVYGAELHRAVFCDPQTQTYFAGKDLKENSAYLHGK  
KVMSALTNVAHIDDIIEGSMKLSDKHAHELMVDPGNFDILAHHILTTMAMFMPQCLTSA  
NHRVSKFLSTVKHVLTSKYR

>P11896

MVLSAEKALVVGLCGKISGHCDALGGEALDRLFASFQTRTYFSHFDLSPGSADVKRHG  
GKVLSAIGEAAKHIDSMDQALSKLSDLHAYNLRVDPGNFQLLSHCIAVLAHFPAFDFP  
QCQAADKFLAAVSAVLTSKYR

>P02015

MFKLSGEDKANVKAVWDHVKGHEDAFGHEALGRMFTGIEQTHTYFPDKDLNEGSFALSH  
GKKVMGALSNAVAHIDDLLEATLVKLSDKHAHDLMDPAEFPRLAEDILVVLGFHLPKFT  
YAVQCSIDKFLHVTMRLCISKYR

>P84216

MVLSDANKQEIHHVAELIKPHAEAVGADALARLFELHPQTKTYFPNFSGYHATDAPVKAH  
GAKVINAVLKAAEHLDDLPHKLEKLATKHGHELLVDPHNFVLFSDIIVVTLATKLPFSP  
ATHRAIDKFLLEELVHQLSSKYR

>P02021

STSTSTSDYSAADRAELAALSKVLAQNAEAFGAELARMFTVYAATKSYFKDYKDFATAA  
PSIKAHGAKVVVTALAKACDHLDDLKTHLHKLATFFHGSELKVDPANFYLSYCLEVALAVH  
LTEFSPETHCALDKFLTNVCHELSSRYR

>P23740

GLTAADKTLIKSIWKGVEKETEAIGVEALVRLFKCFPQSKVYFDHFTDLSPSSQKLHAHA  
KVVVLGALTKAVNHLDNITDTHLHDI SLVHAKLLVDPVNFELLGHCLEVALAAHFATDFP  
EVHLAIDKFLYEVEKALFETYR

>P02020

MRFSQDDEVLIKEAWGLLHQIPNAGGEALARMFSCYPGTKSYFPFHGHDFSANNEKVKHH  
GKKVVDAIGQGVQHLHDLSSCLHTLSEKHARELMVDPGNFYLI EAIMTTIAAHYGEKFT  
PEINCAA EKCLGQIVHVLISLYR

>Q9YGW2

MAFTACEKQTIGKIAQVLAKSPEAYGAELARLFVTHPGSKSYFEYKDYSAGAKVQVHG  
GKVIRAVVKA AEHVDDLHSHLETALHGHKLLVDPQNFPLSECIIVTLATHLTFEFPD  
THCAVDKLLSAICQELSSRYR

>Q862A7

MVLSPADKTNVKAADKVGGHAGDYGAELERMFLSFPTTKTYFPHFSDLSHGSAQVKAH  
GKKVGDALNNAVGHMDDLPTALSALSDLHAHKL RVDPVNFKLLSHCLLVTLACHHPAEFT  
PAVHASL DKFLANVSTVLVSKYR

>P07408

VLSAADKTAIKHLTGSLRTNAEAWGAESLARMFATTPSTKTYFSKF'TDF'SANGKRVKAHG  
GKVLNAVADATDHLDNVAGHLDPLAVLHGT'TLCVDPHNFPLLTQCILVTLAAHLTELKPE

THCALDKFLCEVATALGSHYR

>P80945

MSLSAKDMAVVKGFWNKIAPKADEIGGEALGRMLRVFPQTKAYFAHWKDTSPNSPEVKKH  
GALILATIGDVVNRIENMTTVLGSLSDLHAFKLRVDPANFKILGHNIMVVICMTFPNDF'T  
PEVHLSVDKFFQNF'TLALSERYR

>P51465

MPFSASDRHDITHLWEKMAPNVEFLGEEAMERLFFKSHPKTKTYF'SHLNVEHGSAAVRAQG  
AKVLNAIGHASKNLDHLDEALSNDKHAHDLRVDPGNF'HLLCHNILLVVLAIHF'PEDF'TP  
RAHAADFDFLA'AVSETLYSKYR

>P04442

MLTAEDKKLITQLWEKVAGHQEEFGSEALQRMFLAYPQTKTYF'PHFDLHPGSEQVRGHGK  
KVAAALGN'AVKSLDNLSQALSEL'SNLHAYNLRVDPVNF'KLLAQCFQV'VLA'AAHLGKDYSPE  
MHAADFDFMS'AVA'AVLAEKYR

>P0C0U7

VLTAEDRRL'LLQASV'GKLGCRLEDIGADALN'RL'LLIVFPQSKTYF'SHFNLS'PGSKDIVHQGE  
KVGKALDSAL'KHLDDIRG'TLSQLSDLHAYNLRVDPVNF'QLLSKCLHVS'LATHLRNEYNAS  
TCLAWDKFLEQVADVLCEKYR

>P02008

MSLTKTERTII'VSMWAKISTQADTIGTETLERLFLSHPQTKTYF'PHFDLHPGSAQLRAHG  
SKVVA'AVGDAVKSIDDIGGALS'KLS'ELHAYILRVDPVNF'KLLSHCLLV'TLAARFPADFTA  
EAHA'AWDKF'LSV'VSSVLTEKYR

>Q90486

MVEWTD'AERTAILGLW'GKLNIDEIGPQALS'RC'LI'VYPWTQRYFAT'FGNLSS'PAAIMGNPK  
VAAHGRTVM'GGLERA'IKNMDNVKNTYAALS'VMHSEK'LVDPDNF'RLLADCITVCAAMKFG  
QAGFNADVQEA'WQKFLAVVVSALCRQYH

>P20246

VSLTDEEIRLIQHIWSNVNVVEITAKALERVFYVYPWT'TRLFT'SFNHNF'KASDKQVHDHA  
VNVSNAISAAIGDLHDINKNF'SALSTKHQK'LGVDTSNFM'LLGQAF'LVELAALEKDKF'TP  
QYHKAALKLFEVVTEALSCQYH

>P07429

MVNLTAKERQLITGTWSKICAKTLGKQALGSMLYTPWTQRYFSSFGNLSSIEAIFHNAA  
VATHGEKVLTSIGEAIKHMDDIKNTYAELSVLHCDKLVDPDNF'QLLAECLTIVLAAQLGK  
EDFTPELQAAFEKLF'AAIADALGKGYH

>P23018

VEWTNFERATIKDIFSKLEYDVVGPATLARCLVVYPWTQRYFGKFGNLYNAAAIAENAMV  
SKHGTTIIHGLDQAVKNMDDIKNTYAELSVLHCDKLVDPDNF'QLLAECLTIVLAAQLGK  
EFTGEVQAA'FQKFM'AVVVS'LSL'GKQYH

>P02133

MVHWTAE'EKAAITSVWQKVNVEHDGHDALGRLLIVYPWTQRYF'SNFGNLSNSAAVAGNAK  
VQAHGKKVLSAVGNAISHIDSVKSS'LLQQLSKIHATEL'FVDPENFKRFGGVLVIVLGAKLG



TAFTPKVQAAWEKFI AVLVDGLSQGYN

>P02130

ASFDAHERKFI VDLWAKVDVAQCGADALSRLI VYPWKRRYFEHFGKMCNAHDILHNSKV  
QEHGKVKVLASFGEAVKHLDNIKGHFANLSKHLHCEKHFHVDPENFKLLGDI I I IVLAAHHP  
DFSVECHAAFQKLVQRVAAALAAEYH

>P84217

VKITDKKAAAYITGIWSKLDKKVTTAHALERVFTVYPWTTRLFKSFNGHFKAGDSGVQGHA  
EKVVGALDTAVLHLHDIDAGYKLLSEKHQLIGVDTQNFKLLGQAFLEVELAILFKEGFTPE  
LHEAAYKFFLAVAGGLSSQYH

>P56692

MVKLSEDEHYIKGVWKDVKQITAKALERVVVYPWTTRLFSKLGQGLFSANDIGVQQH  
ADKVQRALGEAIDDLKVEINFQNLGKHQEIGVDTQNFKLLGQTFMVELALHYKKTFRP  
KEHAAAYKFFRLVAEALSSNYH

>P02143

VHWSEVELHEITTTWKSIDKHSLGAKALARMFIVYPWTTRYFGNLKEFTACSYGVKEHAK  
KVTGALGVAVTHLGDVKSQFTDLSKKHAEELHVDVESFKLLAKCFVVELGILLKDKFAPQ  
TQAIWEKYFGVVDAISKEYH

>P23741

VHWTETERATIETVYQKHLHLDEVGREALTRLFIVYPWTTRYFKSFGDLSSSKAIASNPV  
TEHGLKVMNKLTEAIHNLDHDKDLFKHSEKHFHELHVDPNFKLLSKCLIIVLATKLGK  
QLTPDVQATWEKLLSVVVAALSREYH

>P02138

VHWEDAEEKYIVSVFSKIDVDHVGANTLERVLIVFPWTKRYFN SFGLSSPGA I KHNNKV  
SAHGRKVLAAIIECTRHFGNIKGHLANLSHLHSEKHLHVDPHNFRVLGQCLRIELAAALGF  
KEFTPERNAYFQKFMDVISHSLGREYH

>P18707

VHLTDAEKNLVSGLWGKVNADAVGAEALGRLLVVTPWTQRFFEHFGDLSSASAVMNNPQV  
KAHGKVIHVSFADGLKHLDNLKGAFSSLSLHCDKHLHVDPENFKLLGNMIIIVLSHDLGK  
DFTPSAQSAFHKVVAGVANALAHKYH

>Q9YGW1

MVHWTQEERDEISKTFQGTDMKTVVVTQALDRMFKVYPWTNRYFQKRTDFRSSIHAGIVVG  
ALQDAVKHMDDVKTFLFKDLSKKHADDLHVDPGSFHLLTDCIIVELAYLRKDCFTPHIQGI  
WDKFFEVIDAISKQYH

>P02134

GSDLVSGFWGKVDHAKIGGEALARLLVVYPWTQRYYFTTFGNLGSADAI CHNAKVL AHGK  
VLAAIGEGLKHPENLKAHYAKLSEYHSNKLHVDPANFRLLGNVFI TVLARHFQHEFTPEL  
QHALEAHFCAVGDALAKAYH

>P07409

VHWTGEEKALVNAVWTKTDHQAVVAKALERL FVVYPWTKTYFVKFNGKFHASDSTVQTHA  
GKVVSALTVAYNHIDDVKPHFVELSKKHYEELHVDPENFKLLANCLEVELGHALHKEFTP

EVQAAWSKFSNVVVDALSKGYH

>P18436

MVHFTAEEKAIITSLWAKVNVEETGGEALGRLLLVVYPWTQRFDFNFGNLSSASAIMGNPK  
VKAHGKQVLSLGEAVTHMDDLKDAFAHL SRLHCDLHVDPENFRVTPGKRAVIVLAHHF  
GREFTPQVQAAWKKLMSAVAIAMGHKYH

>O33818

MKNILRLTLNGRAREDLPDNMLLLDYLRETVGLTGTKQGCDGGEGACTVLVDDRPRLA  
CSTLAHQVAGKKVETVESLATQGTLSKQLQAAFHEKLGTCGFCCTPGMIMASEALLRKNPS  
PSRDEIKAALAGNLCRCTGYVRSSKSVETAAAAARLCEEGAR

>P31114

MLNIIRLLAESLPRISDGNENTDVWVNDMKFKMAYSFLNDDIDVIERELEQTVRSDYPLL  
SEAGLHLLQAGGKRIRPVFVLLSGMFGDYDINKIKYVAVTLEMIHMASLVHDDVIDDAEL  
RRGKPTIKAKWNRIAMYTG DYMLAGSLEMMTRINEPKAHRILSQTIVEVCLGIEQIKD  
KYNMEQNLRTYLRRIKRKTALLIAVSCQLGAIASGADEKIHKALYWFYGYVGMYSYQIIDD  
ILDFTSTEEELGKPVGGDLLQGNVTLPVLYALKNPALKNLKLINSETTQEQLPEIIEEI  
KKTDAIEASMAVSEMYLQKAFQKLNLTLPGRARSSLAAIAKYIGKRKF

>Q86M34

MIVLLLLLSYCFAGNGVNVKNQLLLMPYPTTVNAQFGSNDCEATSNIKMVLSNNCQNDP  
NCLSFMTFNFNHTITYPLQRQRNLEDFRVSIFAPIDIEEMKGNVVSANTVNIELTGNNI  
EEIYPLKIGIDESYSLDVTKEGIKISATTVYGARLGLLETLIQMLRPYQGYIKHIPIM  
IEDKPRQLQWRGLMIDVARNFSRSFAVKIINAMAAIKANVLHIHLSDAQTFMFESKEYPE  
LSKKGAFFQNKVLTQSFQKLVQYGAKRGVIVYPEIDTPAHTASWNAGYPGVVADIWDYI  
VSSSMRYGENVLALNPANEKTFISI DALMKEMGEVFGNDYVHFGGDEVWTGAWSKAKEYP  
AILEWMMNKGINTLKELEAYFNKYAQEQIKNGKTPVCWEEVYQKGSADKKTIIQVWNNV  
NLLKEAATAGYKVI LSAGYYLDMQMP L CSDYVADSC TNP NHMWWWTNRDMYRNDPIKELD  
YATKQNVLGGEACSWDESVD EQNFDRVFRQFSAVAERFWSSEIDTDPESHEVRANYVRC  
LGLRRNFLKGTGPLYHSYQLPEDI

>P60664

MLAKRIIPCLDVRDQVVKGVQFRNHEIIGDIVPLAKRYAEEGADELVFYDITASSDGRV  
VDKSWVSRVAEVIDIPFCVAGGIKSLEDAAKILSFGADKISINSPALADPTLITRLADRF  
GVQCIVVGIDTWYDAETGKYHVNQYTGDESRTVQWETLDWVQEVQKRGAGEIVLNMNM  
QDGVNRNGYDLEQLKKVRECHVPLIASGGAGTMEHFLEAFRDADVDGALAASV FHKQIIN  
IGELKAYLATQGVEIRIC

>Q9X0C6

MLAKRIIACLVDKGRVVKGTNFENLRD SGDPVELGKFYSEIGIDELVFLDITASVEKRK  
TMLELVEKVAEQIDIPFTVGGGIHDFETASELILRGADKVSINTAAVENPSLITQIAQTF  
GSQAVVVAIDAKRVDGEFMVFTYSGKKN TGILLRDWVVEVEKRGAGEILLTSIDRDGTKS  
GYDTEMIRFVRPLTTLPIIASGGAGKMEHFLEAFLAGADAALAASV FHFREIDVRELKEY  
LKKHGVNVRLEGL

>Q7SIB9

MSLAKRIVPCLDVHAGRVVKGVNFVNLRDAGDPVEAARAYDEEGADELVFLDISATHEER  
AILLDVVARVAERVFIP LTVGGGVRSL EDARKLLLSGADKVSVNSAAVRRPELIRELADH  
FGAQAVVLAIDARWRGDFPEVHVAGGRVPTGLHAVEWAVKGVELGAGEILLTSMRDGDK

EGYDLRLTRMVAEAVGVPVIASGGAGRMEHFLEAFQAGAEAAALAASVHFHGEIP I PKLKR  
YLAEKGVHVRLD

>P49869

MMRDRLASLIVVKQEGGSNTSISHHQATAIKCEASLYTESSLFQEINNNSCYRQNLNAPT  
HQQSHTSHLQHAQQHQTHQQHPLLPPPLPTLPLIYPCRNLFDPGCDINHLACSSSNSNS  
NCNSDSNSTSSSPGNSHFFANGNTCAAALTPAPPATEPRKIKPLGAGKLVGKTDSNSDS  
NSNCDSRAAAAAASTSATSATSATTLAATAAAATAAAAAEAGGAASAAAAAKISQVRLTNQAT  
TSMLLLQPNSFSLSLSPFDNFSTQTASTTTTTTSASAAGHHQHNNHLLHQHNNQQQQQQQ  
QQQQQQQQQQQEHLLQQHQQQLVSPQQHLLKSETLLSHEEDQLISNLTDSVVSHELF  
SDLFFPSDSNNSLLSPTTSGYPDNPAEDLTSSIENLTKLTCLRDKRLSSIPEQQLSSEQE  
QQLCLLSLRSSSDPAIALHAQQQQQQQQQQQQQQQQHQQQQHLQLQLISPIGGPLSCGS  
SLPSFQETYSLKYNSSSGSSPQQASSSSTAAPTPTDQVLTCLKMDEDCFPPLSGGWSASPP  
APSQLOQLHTLQSQAQMSHPNSSMNSSNAGNSHMNSGGYNYHGHFNAINASANLSPSSS  
ASSLYEYNGVSAADNFYQQQQQQQQSYQQHNYNSHNGERYSLPTFFPTISELAAATAAVE  
AAAAATVGGPPPVRASLPVQRTVSPAGSTAQSPKLAKITLNQRHSHAHALQLNSAPN  
SAASSPASADLQAGRLLQAPSQQLCAVCGDTAACQHYGVRTCEGCKGFFKRTVQKGSKYVC  
LADKNCPVDKRRRNRQCQFCRFQKCLVGMVKEVVRTDSLKGRRRRLPSKPKSPQESPPSP  
PISLITALVRSHVDTPDPSCLDYSHYEEQSMSEADKVQFYQLLTSSVDVIKQFAEKIP  
GYFDLLPEDQELLFQSASLELFLVRLRAYRARIIDDTKLIFCNGTVLHRTQCLRSFGEWLND  
IMEFSRSLHNLEIDISAFACLALTLITERHGLREPKKVEQLQMKIIGSLRDHVITYNAEA  
QKKQHYFSRLLGKLPFLRSLSVQGLQRIFYLKLEDLVPAPALIENMFVTTLPF

>P50582

MAEAHITLSPKVTHEQQTIDIDSECEITEVDDENVNENKSQEMIQDIPARDREEIENITRT  
FVELQENYRLIEKIGEGTFSSVYKAEDLHYGRYINDWDIQSEVLKESSEFGKEKIPVNEDS  
RKPKYVAIKKIYATSSPARIYNELEILYLLRGSSVIAPLITALRNEDQVLVVLPPYEHTD  
FRQYYSTFSYRDMSIYFRCLFQAMQQTQTLGI IHRDIKPSNFLFDVVRTKHGVLVDFGLAE  
RYDGRQQSHSCRCTNSAAELAHDFSIAQETS LGYIKNDTRPSKRANRAGTRGFRAPEVL  
FKCSSQSPKVDIWSAGVILLSFLTKRFPMFNSKDDVDALMEIACIFGKSEMRQCAALHGC  
TFETNVSTLTEKRVNFRKLILWASCGSASIYKEKLRHKPSQEERLCLDFLEKCLELDCNK  
RISAEALDHDFLYLDNLAYEKKDDDTAFDNSFGETSF EKDEDLTAKHLSHILDFKEQEE  
TDEPTSLSKRKR SIDEILPNDALQDGA

>O24646

MQEATSSLAASSLPSSSERSSSSAPHLEIKEGIESDEEIRRVPEFGGEAVGKETSGRES  
GSATGQERTQATVGESQRKRGRTPAEKENKRLKRLLRNRVSAQQARERKKAYLSELENRV  
KDLENKNSLEERLSTLQENQMLRHILKNTTGNKRGGGGGSNADASL

>Q8W191

MSLQRPNGNSSSSSSSHKKHKTEESDEELLMVPDMEAAGSTCVLSSSADDGVNNPELDQTQ  
NGVSTAKRRRGRNPVDKEYRSLKRLLRNRVSAQQARERKKVYVSDLESRANELQNNNDQL  
EEKISTLTNENTMLRKMLINTRPKTDDNH

>Q60819

MASPQLRGYGVQAI PVLLLLLLLLLLLLPLRVTPGTTCPPPVSIHADIRVKNYSVNSRERY  
VCNSGFKRKAGTSTLIECVINKNTNVAHWTTPSLKCIRDPSLAHYSVPVPTVVTPKVTSQP  
ESPSPSAKEPEAFSPKSDTAMTTETAIMPGSRLTPSQTT SAGTTGTGSHKSSRAPSLAAT  
MTLEPTASTSLRITEISPHSSKMTKVAISTSVLLVGAGVMAFLAWYIKSRQPSQPCRVE  
VETMETVPMTVRASSKEDEDTGA

>Q8N6P7

MRTLLTILTVGSLAAHAPEDPSDLLQHVKFQSSNFENILTWDSGPEGTPDTPVYSIEYKTY  
GERDWVAKKGCQRITRKSCNLTVETGNLTLEYARVTAVSAGGRSATKMTDRFSSLQHTT  
LKPPDVTCISKVRSIQMIVHPTPTPIRAGDGHRLTLEDIFHDLFYHLELQVNRITYQMHLG  
GKQREYEFFGLTPDTEFLGTIMICVPTWAKESAPYMCRVKTLDPDRTWYTSFSGAFLFSMG  
FLVAVLCYLSYRYVTKPPAPPNSLNVQRVLTFQPLRFIQEHVLIIPVFDLSGPPSSLAQPVQ  
YSQIRVSGPREPAGAPQRHSLSEITYLGQPDISILQPSNVPPPQILSPLSYAPNAAPEVG  
PPSYAPQVTPAQFPFYAPQAIKVKQVSSYAPQATPDSWPPSYGVCMEGSGKDSPTGTLS  
SPKHLRPKGQLQKEPPAGSCMLGGLSLQEVTSLAMEESQEAQSLHQPLGICTDRTSDPNV  
LHSGEEGTPQYLKQQLPLLSSVQIEGHPMSLPLQPPSRPCSPSDQGPPSPWGLLESVCPK  
DEAKSPAPETSDLEQPTELDSLFRGLALTVQWES

>Q8IU57

MAGPERWGPLLLLCLLQAAPGRPRLAPPQNVTLSSQNFVSVYLTWLPGLGNPQDVTYFVAYQ  
SSPTRRRWREVEECAGTKELLCSMMCLKKQDLYNKFKGRVRTVSPSSKSPWVESEYLDYL  
FEVEPAPPVVLVLTQTEEILSANATYQLPPCMPPLDLKYEVAFWKEGAGNKTLFPVTPHGQ  
PVQITLQPAASEHHCLSAARTIYTFVSPKYSKFSKPTCFLEEVPEANWAFVLVPSLLILLLL  
VIAAGGVIWKTLMGNPWFQRAKMPRALDFSGHTHPVATFQPSRPESVNDLFLCPQKELTR  
GVRPTPRVRPATQQTRWKKDLAEDEEEDEEDTEDGVSFQPYIEPPSFLGQEHQAPGHS  
EAGGVDSGRPRAPLVPSEGSASWSSDRSWASTVDSSWDRAGSSGYLAEKGGPGGPGGDG  
HQESLPPPEFSKDSGFLEELPEDNLSSWATWGTLPPPEPNLVPGGPPVSLQTLTFCWESSP  
EEEEEEARESEIEDSDAGSWGAEESTQRTEDRGRTLGHYMAR

>P28041

MASKSSITPLLLAAVLASVFAAATATGQYCYAGMGLPSNPLEGREYVAQQTCGVTIAGS  
PVSSEPGDTPKDRCCQELDEAPQHCRCEAVRYF IGRRSHPDWSVLKDLPGCPKEPQRDFA  
KVLVTPGQC NVLTVHNAPYCLGLDI

>P32936

MASKSSCDLLLAAVLVSIFAAVAAVGSEDCPTWTATPITPLPSCRDYVEQQACRIETPGP  
PYLAKQQCCGELANIPQQCRQCALRFFMGRKSRPDQSGLMELPGCPREVQMDFVRILVTP  
GFCNLTTVHNTPYCLAMDEWQWNRQFCSS

>P11643

MACKSSRSLLLLATVMVSVFAAAAAAAAAATDCSPGVAFPTNLLGHCRDYVLQQTCAVFTP  
GSKLPEWMTSAELNYPGQPYLAKLYCCQELAEIPQQCRCEALRYFMALPVPSQPVPDPTG  
NVGQSGMLDLPGPCPREMQRDFVRLLVAPGQC NLATIHNVRYPAVEQPLWI

>P20067

MKVASGSAAAAAGPSCSLKAGRTAGEVVLGLSEQSVASRCAGTRLPALLDQQVNVLLY  
DMNGCYSRLKELVPTLPQNRKVSKEILQHVIDYIRDLQLELNSESEVGTGGRGLPVRA  
PLSTLNGEISALAAEVRSESEYYIILQWETEATGGGCPPSLLFRRIAI

>Q02363

MKAFSPVRSVRKNSLSDHSLGISRSKTPVDDPMSLLYNMNDCYSKLKELVPSIPQNKKVS  
KMEILQHVIDYILDQLIALDSHPTIVSLHHQRPGQNQASRTPLTTLNTDISILSLQASEF  
PSELMSNDSKALCG

>P47928

MKAVSPVRPSGRKAPSGCGGELALRCLAEHGHSLLGGSAAAAAAAAAARCKAAEAAADEP  
ALCLQCDMNDYCYSRLRRLVPTIPPNNKVKVSKVEILQHVIDYILDLQLALETHPALLRQPPP  
PAPPHHPAGTCPAAPPRTPLTALNTDPAGAVNKQGDSILCR

>Q06197

MAAFQKIKVANPIVEMDGDEMTRVIWKS IKDKLILPFLLELDIKYYDLGLPYRDE'TDDKVT  
IESAEATLKYNVAIKCATITPDEARVKEFGLKSMWKS PNGTIRNINLNGTVFREPILCKNI  
PRLVPGWTKAICIGRHAFGDQYRATDTVIKAGKLLKLVFVPEGQGEETEFVFNFTGEGG  
VSLAMYNTDESIRSF AEAS MATALEKKWPLYLSTKNITILKKYDGRFKDIFQEVYEASWKS  
KFEAAGIWIYEHRLIDDMVAYALKSEGGYVWACKNYDGDVQSDFLAQGFGLMTSVLVC  
PDGKTIEAEAAHGTVTRHFRVHQGGGETSTNSIASIFAWTRGLAHRAKLDDNAKLLDFTE  
KLEAACIGVVEAGKMTKDLALILHGSKLSREHYLNTEEFIDAVAAELSARLSA

>O36041

IGHVAHGKSTLCKVLTGVDP IKFAAEKVNNITIKLGFANAKIFECKDCAAPKNYFSQKSS  
SPDQPPCPTCKGTHTQLLRHISIIDCPGHHDYMTTMLS GVAAMDGTLILLISAEQRCPQE  
TREHFQAIQATGQKKIIIAQNKIDLVTEQQAQNNYQEIQAQFVHGISDINVVPISAIQNLN  
IDYILKHLVETITPPRRNLKAHPRFTIIRS

>P57231

MVLTKAAISENLF EKQLTKKESKEFVEFFFEVVRKSLEKGEAVKLSGFGNFQIKKKKAR  
PGRNPRTGEIFLITARRVVTFKAGQKLNKINNYLIKNNNF

>Q9K4Q3

MTKADIEEGVYEKVGFSKKE SAEIVELVFDLTKETLERGDKIKISGFGNFQVRQKKARVG  
RNPQTGKEIEISARRVLTFRPSQVLKSALNGEAPPEDHAEIDAREEAAAADAAEARGEDFD  
EEGMEDMEG

>P64392

MTLTKAELADILVDKVSNTKNDAKEIVELFFEEIRSTLASGEEIKISGFGNFQLRDKPQ  
RPGRNPKTGEEVPI TARRVVTFHASQKLSMVEHYDYDKQR

>Q51472

MGALTKAEIAERLYEELGLNKREAKELVELFFEEIRQALEHNEQVKLSGFGNFDLRDKRQ  
RPGRNPKTGEEIPITARRVVTFRPGQKLLKARVEAYAGTKS

>P30787

MSEKTLTRMDLSEAVFREVGLSRNESAQLVETVLQHMSDALVRGETVKISSFGTFSVRDK  
TSRMGRNPKTGEEVPI SPRRVLSFRP SHLMKDRVAERNAK

>Q9RNZ5

MQADIPTLTRADITDMLYHEVGLSRADS AKMIEQMLGHITDALKKGENVKISGFGSFI LR  
DKNERVGRNPKTGIEVPIAPRRVLTFRASQLMRQRIKGA

>P57394

MIKSELFERIAEQKINISNKMI ERAAKEMLEHMIISLANGKRIEIRGFGSFSLHYRSSRI  
GRNPKTGKSVKLNKEYVVPYFKPGKKLRDRANIHK

>P43724

MTKSELMEKLSAQPTLPAKEIENMVKGILEFISQSLENGDRVEVRGFGSFSLHHRQPRL

GRNPKTGDSVNLSAKSVPYFKAGKELKARVDVQA

>P0A0U3

MTKSELMVRLAEVFAAKNGTHLLAKDVEYSVKVLVDTMTRSLARGQRIEIRGFGSFDLNH  
RPARIGRNPKTGERVEVPEKHVPHFKPGKELRERVDLALKENAN

>Q06607

MIRSELIAKIAEENPHLFQRDVEKIVNTIFEEIIEAMARGDRVELRFGAFSVKKRDART  
GRNPRTGTSVAVDEKHVPFFKTGKLLRDRDLNGGEE

>Q9PAQ8

MTKSELIEILTKRQAHLKSDVDLAVKSLEMMGGALSEGDRIEIRGFGSFSLHYRPPRC  
GRNPKTGESVALPGKYVPHFKPGKELRERVASVVPLAECGDITE

>Q9HBE5

MPRGWAAPLLLLLLQGGWCPDLVCYTDYLTQTVICILEMWNLHPSTLTLTWQDQYEELKD  
EATSCSLHRSAHNATHATYCHMDVHFHMADDIFSVNITDQSGNYSQECGSFLLAESIKP  
APPFNVTVTFSGQYNISWRSDYEDPAFYMLKGLQYELQYRNRGDPWAVSPRRKLISVDS  
RSVSLPLLEFRKDSSYELQVRAGPMPGSSYQGTWSEWSDPVIFQTQSEELKEGWNPHLLL  
LLLLLVIVFIPAFWSLKTHTPLWRLWKKIWAVPSPERFFMPLYKGCSDGDFKKWVGAPFTGSS  
LELGPWSPEVPSTLEVYSCHPPRSPAKRLQLTELQEPALVESDGVKPSFWPTAQNSGG  
SAYSEERDRPYGLVSIIDTVTVLDAEGPCTWPCSCEDDGYPALDL DAGLEPSPGLEDPLLD  
AGTTVLSGCVSAGSPGLGGPLGSLLDRLKPLADGEDWAGGLPWGGRSPGGVSESEAGS  
PLAGLDMDTFDSGFVSDCSSPVECDFTSPGDEGPPRSYLRQWVVI PPPPLSSPGPQAS

>Q8NEV9

MGQTAGDLGWRLSLLLLPLLLVQAGVWGFPRPPGRPQLSLQELRREFTVSLHLARKLLSE  
VRGQAHRAESHLPGVNLYLLPLGELPDVSLTFQAWRRLSDPERLCFISTTLQPFHALL  
GGLGTQGRWTNMEMQLWAMRLDLRDLQRHLRFQVLAAGFNLP EEEEEEEEEEEEEERKGL  
LPGALGSALQGPAQVSWPQLLSTYRLLHSLELVL SRAVRELLLLLSKAGHSVWPLGFPTLS  
PQP

>P26951

MVLLWLTL LLLIALPCLLQTKEDPNPPITNLRMKAKAQQLTWDLNRNVTDIECVKDADYSM  
PAVNNSYQFGAISLCEVTNYTVRVANPPFSTWILFPENSGKPWAGAENLTCWIHDVDFL  
SCSWAVGPGAPADVQDYLYLVANRRQYECLEHYKTDAQGTRIGCRFDDISR LSSGSQSS  
HILVGRSAAFGIPCTDKFVVSQIEILTPPNMTAKCNKTHSFMHWKMRSHFNKFRYEL  
QIQKRMQPVITEQVRDRTSFQLLNPGTYTVQIRARERVYEFLSAWSTPQRFECQEEGAN  
TRAWRTSL LIALGTL LALVCFVVICRRYLVMQRLFPRI PHMKDPIGDSFQNDKLVVWEAG  
KAGLEECLVTEVQVVQKT

>P26952

MAANLWLILGLLASHSSDLAAVREAPPTAVTTPIQNLHIDPAHYTLSWDPAPGADITGA  
FCRKGRDIFVWADPGLARCSFQSLSLCHVTNF'TVFLGKDRAVAGSIQFPDDDDGDHEAAA  
QDLRCWVHEGQLSCQWERGPKATGDVHYRMFWRDVRLGPAHNRECPHYHSLDVNTAGPAP  
HGGHEGCTLDLDTVLGSTPNSPDLVPPQVTITVNGS GRAGPVPCMDNTVDLQRAEVLAPPT  
LTVECNSEAHARWVARNRFHHLGGLGYTLQVNSRSEPEYNSIPHFVWP NAGAISFR  
VKSRESEVYPRKLSWSEAWGLVCPPEVMPVK TALVTSVATVLGAGLVAAGLLLWWRKSL  
YRLCPPIPRLRLPLAGEMVWVPEALEDCVTPVTD A

>P26955

MDQQMALTWGLCYMALVALCWGHGVTEAEETVPLKTLQCYNDYTNHI ICSWADTEDAQGL  
INMTLYHQLEKKQPVSCELSEKLMWSECPSSHRCVPRRCVIPYTRFSITNEDYYSFRPDS  
DLGIQLMVPLAQNVQPPLPKNVSISSSEDRFLLLEWSVSLGDAQVSWLSSKDIEFEVAYKR  
LQDSWEDAYSLSHTSKFQVNFEPKLFPLNSIYAPRVTRRLYPGSSLSGRPSRWSPEAHWDS  
QPGDKAQPNLQCFDGIQSLHCSWEVWTQTTGSVSFGLFYRPSVPAPEEKCSPPVKEPP  
GASVYTRYHCSLPVPEPSAHSQYTVSVKHLEQGKF IMSYNHIQMEPPTLNLTKNRDSYSL  
HWETQKMAYSFIEHTFQVQYKKS SDSWEDSKTENLDRAHSMDLSQLEPDTSYCARVRVKP  
ISNYDGIWSKWSEEYTWKTDWVMP TLWIVLILVFLILTL LLLILRFGCVSVYRTRYR KWKEK  
IPNPSKSLLFQDGGKGLWPPGSM AAFATKNPALQGPQSRL LAEQG ESYAHLEDNNVSPL  
TIEDPNI IRVPPSGPDTTPAASSESTEQLPNVQVEGPTPNRPRKQLPSFDFNGPYLGPPQ  
SHSLPDLDPQLGSPQVGGSLKPALPGSLEYMCLAPGGQVQLVPLSQVMGQGQAMDVQCGS  
SLETSGSPSVEPKENPPVELSMEEQEARDNPVTLPISSGGPEGSMASDYVTPGDPVLT  
PTGPLSTSLGPSLGLPSAQSPSLCLKLPRVPSGSPALGPPGFEDYVELPPSVSQAAKSPP  
GHPAPPVASSPTVIPGEPREEVGPASPHPEGLLVLQQVGDYCF L PGLGPGSLSPH SKPPS  
PSLCSETEDLVQDLSVKKFPYQMPQAPAIQFFKSLKHQDYLSLPPWDNSQSGKVC

>Q01344

MIIVAHVLLIILLGATEILQADLLPDEKISLLPPVNFTIKVTGLAQVLLQWKNPNDQEQRN  
VNLEYQVKINAPKEDDYETRITESKCVTILHKGFSASVRTILQNDHSL LASSWAS AELHA  
PPGSPGTSIVNLTCTTNTTEDNYSRLRSYQVSLHCTWLVGTDAPEDTQYFLYRYGSWTE  
ECQEYSKDTLGRNIACWFPRTFILSKGRDWLAVLVNGSSKHS AIRPFDQLFALHAIDQIN  
PPLNVTAIEIEGTRLSIQWEKPVSAFP IHCFDYEVK IHNTRNGYLQIEKLMTNAF ISIIDD  
LSKYDVQVRAAVSSMCREAGLWSEWSQPIYVGNDEHKPLREWFVIVIMATICFILLILSL  
ICKICH LWIKLFPPI PAKSNIKDLFVTTNYEKAGSSETEIEVICYIEKPGVETLEDSVF

>P83036

QVLVDLDGDPLYNGMSYYILPVARGKGGGLELARTGSESCPRTVVQTRSETSRGLPARLA  
SPYRILIGSNIPLTIEFQPKPYSCHGHSSRSLQWKVEKTQMVK IASSDEEQR LFGPFQI  
QPYRNHYKLVYCESESR

>O81313

MMEPQPHHLLMDWNKANDLLTQEHA AFLNDPHHMLDPPPETLIHLDEDEEYDEDMDAMK  
EMQYMIAVMQPVDIDPATVPKPNRRNVRISDDPQTVVARRRRERISEKIRILKRIVPGGA  
KMDTASMLDEAIRYTKFLKRQVRILQPHSQIGAPMANPSYLCYYHNSQP

>P29001

MEHHKPLLPTSSHAAPTSSTRKDLLFVLCGLLFLSSLVAYGGYRASGVPHAHLSSPTS NH  
QQDHQSPTSLPSSKWYPVSRGVSSGVSEKSSNLLFAGEGGASEAFPWDNSMLSWQRTSFH  
FQPEKNW MNDPNGPMYKGYWHFFYQYNPNGAVWGDIVWGHAVSRDMIHWLHLPLAMVAD  
QWYDKQGVWTGSATILPNGEIIMLYTGSTNESVQVQNLAYPADPSDPLLLDWIKHTGNPV  
LVPPP GIGAKDFRDPTTAWLTSEGKWRITIGSKLNKTGIALVYDTEDFKTYELKEGLLRA  
VPGTGMWECVDFFPVSKKNGNGLDTSVNGAEVKHVMKVSLDDDRHDY YAI GTYDDNKVLF  
TPDDVKNDVGVGLRYDYGIFYASKTFYDQNKDRRILWGWIGESDSEYADVTKGWASVQSI  
PRTVRLDTKTGSNLLQWPVDEVESLRLRSDEFKSLKAKPGSVVSLDIETATQLDVVAEFE  
IDTESLEKTAESNEEFTCSSSGGAAQRGALGPFGLLVLADEGLSEYTPVYFYVIKGRNGN  
LRTSFCSDQSRSSQANDVRKQIFGSVVPVLKGEKFSLRMLVDHSIVESFAQGGRTCVTSR  
VYPTKAIYGAARLFLFN NATEATVTASLKVWQMNSAFIRPFPFNPDPQKS

>Q51697

MIEFILNGQPVRVTEVPEDAPLLWVREHLKLSGTFKFCGLGLCGACTVHINGEAARSCI  
TPLSVVARQSVTTIEGLDPQHAHPLQRAWIAEQVPCQGYCQSGQIMQAAALLKKVPKPSD  
AQIVEAMDGNLCRCGTYQRIKIAIHRAAKEAA

>O15397

MDLNRFIQALKGTIDPKLRIAAENELNQSXYKIINFAPSLLRIVSDHVEFPVRQAAAIYL  
KNMVTQYWPDPREPPPGEAIFPFNIHENDRQRIRDNIVEGIRSPDLVRVQLTMCLRAIK  
HDFPGHWPVVDKIDYYLQSQSSASWLGSLCLYQLVKTYEYKKAEEEREPLIAMQIFLP  
RIQQQIVQLLPDSSYSVLLQKQILKIFYALVQYALPLQLVNNQMTTWMEIFRTIIDRT  
VPPETLHIDEDDRPELVVWKCKKVALHIVARLFFERYGSAGNVTKKEYFEFSEFFLKYAVG  
IQQVLLKILDQYRQKEYVAPRVLQQAFNYLNQGVVHSITWKQMKPHIQNISEDVIFSVMC  
YKDEDEELWQEDPYEYIRMKFDIFEDYASPTTAAQTLLLYTAAKKRKEVLPKMMAFYQIL  
TDPNFDPRKKDQALHVIQSLAEILLKKSFLFKDQMEFLQNHVFPPLLSNLGYLRARSCWV  
LHAFSSLKFHNEINLRNAVELAKKSLIEDKEMPVKVEAALALQSLISNQIQAKEYMKPHV  
RPIMQELLHIVRETENDDVTNVIQKMICEYSQEVASIAVDMTQHLAEIFGKVLQSDYEYEE  
VEDKTVMAMGILHTIDTILTVVEDHKEITQQLENI CLRIDLVLQKHVIEFYEEILSLAY  
SLTCHSISPQMWQLLGILYEVFQQDCFEYFTDMMPLLNHYVTIDTDTLLSNAKHLEILFT  
MCRKVLQCGDAGEDAECHAAKLLEVIILQCKGRGIDQCIPLFVQLVLERLTRGVKTSELRT  
MCLQVAIAALYYPDLLLHTLERIQLPHPNGPITVQFINQWMNDTDCFLGHHDRKMCIG  
LSILLELQNRPPAVDAVVQIVPSILFLFLGLKQVCATRQLVNREDRSKAEKADMEENE  
ISSDEEETNVTAQAMQSNNGRGEDEEEEDDDWDEEVLEETALEGFSTPLDLDNSVDEYQF  
FTQALITVQSRDAAWYQLLMAPLSEDRQALQEVYTLAEHRRTVAEAKKKIEQQGGFTFE  
NKGVLSAFNFGTVPSNN

>Q00978

MASGRARCTRKLNRNWVVEQVESGQFPGVCWDDTAKTMFRIPWKHAGKQDFREDQDAAFFK  
AWAIFKGGYKEGDTGGPAVWKTRRLRCALNKSSEFKEVPERGRMDVAEPYKVYQLLPPGIV  
SGQPQTQKVPKQHSVSSERKEEEDAMQNTLSPSVLQDSLNNEEEGASGGAVHSDIG  
SSSSSSPEPQEVTDTEAPFQGDQRSLEFLLPPEPDYSLLLTFIYNGRVVGEAQVQSLD  
CRLVAEPSGSESSMEQVLFPPKPGPLEPTQRLLSQLERGIIVASNPRGLFVQRLCPIPI SW  
NAPQAPPGGPHLLPSNECVELFRAYFCRDLVRYFQGLGPPPKFQVTLNFWEEESHGSSH  
TPQNLITVKMEQAFARYLLEQTPEQQAAILSLV

>P24924

KELLDADGDILRNGGAYYILPALRGKGGGLTLAKTGDESCPLTVVQAQSETKRGLPAVIW  
TPPKIAILTPGFYLNFEFQPRDLPAQLQKYSTLPWKVEGESQEVKIPAPKEKEQFLVGSFK  
IKPYRDDYKLVYCEGNSDDESKDLGISIDDENNRRLVVKDGHPLAVRFEKAHRSG

>P23806

MGRFIFMSFGLLVVAASLRGTGADCLSGWSSYEGHCYKAFKYEKWTWEDAERVCTEQAKGA  
HLVSIESSGEADFVAQLVTQNMKRLDFYIWIWGLRVQGVKQCNSEWSDGSSVSYENWIEA  
ESKTCLGLEKETDFRQVWNIYCGQQNPFVCEA

>P23807

MGRFIFMSFGLLVVFLSLSGTAADCPDWSYEGHCYKPFSEPKNWADAENFCTQQHAGG  
HLVFSQSSEADFVVKLAFQTFGHSIFWMGLSNVWNQCNWQWSNAAMLRYKAWAEEESYCV  
YFKSTNNKWRSRACRMMAQFVCEFA

>P05627

MTAKMETTFYDDALNASFLQSESGAYGYSNPKILKQSMTLNLADPVGSLKPHLRKNSDL



LTSPDVGLLKLASPELERLI IQSSNGHITTTPTPTQFLCPKNVTDEQEGFAEGFVRALAE  
LHSQNTLPSVTSAAQPVSGAGMVAPAVASVAGAGGGGGYSASLHSEPPVYANLSNFPNGA  
LSSGGGAPSYGAAGLAFPSQPQQQQPPQPPHHLPQQIPVQHPRQLQALKEEPQTVPEMPG  
ETPPLSPIDMESQERIKAEKRMRNR IAASKCRKRKLER IARLEEKVKTLKAQNSELAST  
ANMLREQVAQLKQKVMNHVNSGCQLMLTQQLQTF

>P04263

DAEQHGEVALKDANAKLQDLKAALQQAKEDLARLLKEYQELMNVKLALDIEIATYRLLLE  
GEECRMSGECQSSVSIEMVHNTTSSSSGGSGALGGGAGGRGGLGSGGLGSGSLGSGRLGS  
GGRGSRASRGNLALDSSSGGSAVRGVSNSGGSCAVSGVGGRGSVRVVTQSSSQSRSHH  
KL

>Q03215

MNSVYGVAFRSLSTGDEKLYKEATRFYHSLGFQTVKLYDNFKNHDDSNLIVGTSKNSVK  
ECWLESFKLSELD SQGFRVPQQEASNQLQTDGVMIKLRRLVDTEPLNQTADTVVYYTVSLD  
EVSKIGERVDDHNVKLVDP LGNVVLVTDSDHGKELNASEFIAPKDSSVEQKITVELVDKD  
SKKKKIIVMTSGGDSQGMNAAVRAVVRSSIIYGC DVYAVYEGYEGLVKGGDYLRKMEWKD  
VRGWLSEGGTLIGTARSKEFRERWGRKQACSNLIDQGIDALVVIGGDGSLTGADLFRSEW  
PSLVEELVKDGKFTEDVALYQNLTIIVGMVGSIDNDMSGTDSTIGAYSALERICEMVDYI  
DATAKSHSRAFFVEVMGRHCGWLGLMSGIATAADYIFIPERAAPHGKWQDELKRVCQRHR  
EKGRRNNTVIVAEGALDDQLNPITAEQVKDVLVELGLDTKITTLGHVQRGGTAVAHDRWL  
ATLQGVDAVKAILNMTPETPSPLIGILENKVIRMPLVESVKLTKQVAAAIEAKDFDKAIS  
LRDTEFIELYSNFMSTTVNDDGSQLLPEADRLNIAIVHVGAPSAALNAATRAATLYCLAH  
GHRPYAITNGFSGLIQTGQVKELSWIDVEDWHNLGGSEIGTNRSVAAEDMGTIAYHFQKN  
KFDGVIILGGFEGFKSLKQLRDRDQYPIFNIPMCLIPATVSNVPGTEYSLGSDTCLNA  
LVKYTDAIKQSASSTRRRVFVVEVQGGHSGYVASFTGLVTVGAVSVYTPENAINLKTIQED  
LALLKESFKHEQGETRNGKLVIRNEMASDVYTTPELLADIIITEQSNDRFGVRTAIPGHVQQ  
GGVPSSKDRVIASRFAVKCVKFI EQWNKNTAADNEDFKILRFNYVNGVKQYTVLDEDLS  
AAVICVNGSKIISFKPIAHIWENETNIELRKQGEIHWEEYNEIGDILSGRSM LRRKIQKEQ  
QEESLPSVADTPLSSVTVSTSAAKEDSALYV

>P16862

MTVTTFPVNGTSYCTVTAYSQSYKAAIDFYTKFLSLENRSPDENSTLLSNDSISLKIIL  
LRPDEKINKNVEAHLKELNSITKTQDWRSHATQSLVFNTSDILAVKDTLNAMNAPLQGY  
TELFPMQLYTLDP LGNVVGVSTSTKNAVSTKPTPPAPEASAESGLSSKVHSYTDLAYRMK  
TTDTYPSLPKPLNRPQKAIIVMTSGGDAPGMNSNVRAIVRS AIFKGCRAFVVM EGYEGLV  
RGGPEYI KEFWEDVRGWSAEGGTNIGTARCM EFKKREGRL LGAQH LIEAGVDALIVCGG  
DGSLTGADLFRSEWPSLIEELLKTNRISNEQYERMKHLNICGTVGSIDNDMSTTDATIGA  
YSALDRICKAIDYVEATANSHSRAFFVEVMGRNCGWLALLAGIATSADYIF IPEKPATSS  
EWQDQMCDIVSKHRSRGRKRTTIVVVAEGAIAADLTPISP SDVHKVLVDRLGLDTRITTLG  
HVQRGGTAVAYDRILATLQGLEAVNAVLESTPDTPSPLI AVNENKIVRKPLMESVKLTKA  
VAEAIQAKDFKRAMSLRDTEFIEHLNFMAINSADHNEPKLPKDKRLKIAIVNVGAPAGG  
INSAVYSMATYCMSQGHRPYAIYNGWSGLARHESVRSLNWKDMLGWQSRGGSEIGTNRVT  
PEEADLGMIAYYFQKYEFDGLIIVGGFEAFESLHQLERARESYPAFRIPMVLI PATLSNN  
VPGTEYSLGSDTALNALMEYCDVVKQSASSTRGRAFFVDCQGGNSGYLATYASLAVGAQV  
SYVPEEGISLEQLSEDI EYLAQSFEKA EGRGRFGK LILKSTNASKALSATKLAEVITAEA  
DGRFDAKPAYPGHVQGGGLPSPIDRTRATRMAIKAVGFIKDNQAAIAEARAAEENFNADD  
KTISDTAAVGVKGS HVVYNSIRQLYDYETEVS MRMPKVIHWQATRLIADHLVGRKRVD

>P63142

MTVATGDPVDEAAALPGHPQDTYDPEADHECCERVVINISGLRFETQLKTLAQFPETLLG  
DPKKRMRYFDPLRNEYFFDRNRPSFDAILYYYQSGGRLRRPVNVPLDIFSEEIRFYELGE  
EAMEMFREDEGYIKEEERPLPENEFQRQVWLLFEYPSSGPARIIAIVSVMVILISIVSF  
CLETLPFRDENEDMHGGGVTFHTYSNSTIGYQQSTSFTDPFFIVETLCIIWFSFEFLVR  
FFACPSKAGFFTNI MNII DIVAIIPYFITLGTTELAEKPEDAQGGQAMSLAILRVIRLVR  
VFRIFKLSRHSKGLQILGQTLKASRELGLLIFFLFIGVILFSSAVYFAEADERDSQFPS  
IPDAFWWAVVSMTTVGYGDMVPTTIGGKIVGSLCAIAGVLTIALPVPVIVSNFNFYHRE  
TEGEEQAQYLQVTSCKPISSPDLKKSRSASTISKSDYMEIQEGVNNSNEDFREENLKTA  
NCTLANTNYVNI TKMLTDV

>Q9UJ96

MEPWPCSPGGGGTRARHVI INVGGCRVRLAWAALARCPLARLERLRACRGHDDLRLVCD  
DYDVSREDEFFDRSPCAFRAIVALLRAGKLRLLRGPALAFRDELAYWGIDEARLERCCL  
RRLRRREEEAAEARAGPTERGAQGS PARALGPRGRLQRGRRRLRDVVDNPHSGLAGKLF  
CVSVSFAVAVTAVGLCLSTMPDIRAEEREGECSPKCRSLFVLETVCVAVFSFEFLRLSLQA  
ESKCAFLRAPLNI IDILALLPFYVSLLLGLAAGPGGTKLLERAGLVLRLLRALRVLYVMR  
LARHSLGLRSLGLTMRRRCAREFGLLLLFLCVAMALFAPLVHLAERELGARRDFSSVPASY  
WWAVISMTTVGYGDMVPRSLPGQVVALSSILSGILLMAFPVTSIFHTFSRSYSELKEQQQ  
RAASPEPALQEDSTHSATATEDSSQGPDSAGLADDSADALWVRAGR

>P23276

MEGGDQSEEEPRERSQAGGMGLWSQESTPEERLPVEGSRPWAVARRVLTAILILGLLLC  
FSVLLFYNFQNCGRPCETSVCCLDLRDHYLASGNTSVAPCTDFFSFACGRAKETNNSFQE  
LATKNKNRLRRIILEVQNSWHPGSGEEKAFQFYNSCMDTLAIEAAGTGPLRQVIEELGGWR  
ISGKWTSLNFRNTRLRLMSQYGHFPFFRAYLGPHPASPHTPVIQIDQPEFDVPLKQDQEQ  
KIYAQIFREYLYTYLNQLGTLGGDPSKVVQEHSSLSISITSRFLQFLRPLEQRRRAQKLFQ  
MVTIDQLKEMAPAIDWLSCLQATFTPMSLSPSQSLVVHDVEYLNMSQLVEEMLLKQRDF  
LQSHMILGLVVTLSPALDSQFQEARRKLKSLRELTEQPPMPARPRWMKCV EETGTFEFEP  
TLAALFVREAFGPSTRSAAMKLF TAIRDALITRLRNLPMWNEETQNMAQDKVAQLQVEMG  
ASEWALKPELARQEYNDIQLGSSFLQSVLSCVRSRLRARIQSFQLQPHQHRWKVSPWDVN  
AYYSVSDHVVVFPAGLLQPPFFHFGYPRAVNF GAAGSIMAHELLHIFYQLLLPGGCLACD  
NHALQEHLCLKRHYAAFPLPSRTSFNDSLTFLENAADVGLAIALQAYSKRLLRHHGET  
VLPSLDLSPOQIFFRSYAQVMCRKPSQDSDHDTSPHPLRVHGPLSSTPAFARYFRCARG  
ALLNPSSRCQLW

>Q9Y496

MPINKSEKPESCDNVKKVVRCRPLNEREKSMCYKQAVSVDEMRTITVHKTDSSNEPPKT  
FTFDTVFGPESKQLDVYNLTARPIIDSVLEGYNGTIFAYGQTGTGKFTMEGVRAIPELR  
GIIPNSFAHIFGHIKAEGDTRFLVRVSYLEIYNEEVRDLLGKDQTORLEVKERPDVGVY  
IKDLSAYVVNNADDMDRIMTLGHKNRSVGATNMNEHSSRSHAI FTITIECSEKIDGNMH  
VRMGKHLVLDLAGSERQAKTGATGQRLKEATKINLSLSTLGNVISALVDGKSTHVPYRNS  
KLTRLLQDSLGGNSKTMMCANIGPADYNYDETISTLRYANRAKNIKKNKARINEDPKDALL  
RQFQKEIEELKKKLEEGEEISGSDISGSEEDDDEEGEVGEDGEKRKKRRDQTGKKKVPD  
KMIEMQAKIDEERKALETKLDMEEEERNKARAELEKREKDLLKAQQEHQSLLEKLSALEK  
KVIVGGVDLLAKAEQEKLLEESNMELEERRKRAEQLRRELEEEKEQERLDIEEKYTSLQE  
EAQGKTKKLLKVVMTLMAAKSEMADLQOEHQREIEGLLENIRQLSRELRLQMLIIDNFIP  
RDYQEMIENYVHWNEDIGEWQLKCVAYTGNMNRKQTPVDPDKKEKDPFEVDLSHVYLAYTE  
ESLRQSLMKLERPRTSKGKARPKTGRRKRSAPKPTVIDSLLQ

>O55165

MASKTKASEALKVVARCRPLSRKEEAAGHEQILTM DVKLGQVTLRNPRAAPGELPKTFTF  
DAVYDASSKQADLYDETVRPLIDSVLQGFNGTVFAYGQTGTGKTYTMQGTWVEPELRGVI  
PNAFEHIFTHISRSQNQQYLVRASYLEIYQEEIRDLLSKEPGKRLELKENPETGVYIKDL  
SSFVTKNVKEIEHVMNLGNQARAVGSTHMNEVSSRSHAI FVITVECSERGSQDHIRVG  
KLNLDVLAGSERQNKAGPNTPGGPATQSTAGGGGGGGTSGSGSSGERPKEASKINLSLS  
ALGNVIAALAGNRSTHPIYRDSKLRLLQDSLGGNAKTIMVATLGPASHSYDESLSLTLRF  
ANRAKNIKPKPRVNEDEPKDTLLREFQEEIARLKAQLEKKGMLGKRPRRKSSRRKKA VSAP  
AGYPEGAVIEAWVAEEEDNNNNHRPPQPTLEAAALEKNMENYLQEQKERLEEEKAAIQDD  
RSLVSEEKQKLLLEEKEKMLEDLKREQQATELLAAKYKAMESKLLIGGRNIMDHTNEQQKM  
LELKRQEI AEQRREREMQQEMLLRDEETMELRGTYSSLQQEVEVKTKKLYAKLQAV  
KAEIQDQHEEYIRVRQDLEEAQNEQTRELKLYLI IENFIPPEEKNKIMNRLFLDCEEEQ  
WKFQPLVPAGVNNSQMKKRPTS AVGYKRPISQYARVAMAMGSHPRYRAENIMFLELDVSP  
PAIFEMEFSHDQEQDPRVLHMERLMRLDSFLERPSTSKVRKSRSWCQSPQRPPPPSTVHA  
SMASAPLHPATVVDHD

>P36375

MWFLILFLALSLGGIDAAPPQSRIVGGYKCEKNSQPWQVAI INEYLCGGVLIDPSWVIT  
AAHCYSNYHYVLLGRNNLFEDEPFQAQYRFVNQSFPHDPYKPF LMRNHTRQRGDDYSNDLM  
LLHLSEPADITDGVKVIDLPTEEPKVGSTCLASGWGSTKPLNWELPDDLQCVNIHLLSNE  
KCIEAYEQKVTDLMLCAGEMDGRKDTCKGDSGGPLICDGVLQGITSWGNVPCAEPYNGV  
YTKLIKFTSWIKEVMKENP

>O14343

MSRQSSITVTVRVRPFSTAESANLIASSDRLSFGTSSSLRNPGRQIRRVVKVLDGRVL  
VFDPPDETTATLSATNRRLSTSQQSLARLSRKSNNNSAGFGRDLRYAFDRVDETATQQQV  
YERTARPLLDNILDGFNATIFAYGATGCGKTH TISGTMQDPGLIYLT LKELFERMDHLRD  
EKIFDLRLSYLEIYNETIRDLLVSPTPNQAKPLNLRDADRRITVPGLTSLSPESLEEII  
DIIMKGNANRTMSPTEANAASSRSHAVLQVTLIQKPRTAGINEDHTLATLSIIDLASER  
ATATKLRGSRLEFEGANINKSLALGNCINALCDPHRRAHVPYRDSKLRLLKFSLGGNCR  
TVMIVCVSPSSVHYEETHNTLKYANRAKNIKTEVLRNMISVDRHVSQYVKAIVELREQIS  
ELENRLAQIDLSSQSNQSDQDAVTQSFAHESKLA EARNLLRMTFEETLPLQNDTINKVEK  
VKHFDD SIRVLKYWLSYERILPNSADERVFLVRSKLESLLTRRAEIIADIDPELVYQKF  
QRSVSHIINTYKQEGATMYADVLQDEVDLLKSI IENQVLD AQNKVDEFTPVLESLLRSSF  
KASSLLKEGGMQELFSILEKWLLGIGLGEKPNISVLSSESYKLNSTSDDSRTINRDRVHSF  
PTQPLLNNNLPRMFFVKSPKKPVVFSKRSPKKRVRFDSDMSTSDSGASAYNSPIQTSK LK  
NMNFFNTMHPSTPAHKRPENKNQIDVEINLTSPVSPMLEDKPEPGLLIKSPLEKKQEVN  
SESTQLDQLLAEDSSTDDVSLPHLDTIDL DGSVPKVPDLNFSRANMDSPTFILNNEAIIH  
NFD FSKPKTRQSLSSLTTLHLSNPANIIRKSL SMAENEEEEKAT

>O59751

MKEGSSISVAVRVRPFTEREKGLLAETPKSKEFLGDGSLAVSNTSSNTFCTNGIRKIVRV  
LDDNVLIIFDPPEENPLAKVQKSLLPAGKRFRDVR YAFDRLFGEEASQEDVYKGTTEPLLD  
SVLQGYNATVFAYGATGCGKTH TISGRPDDPGIIFL TMRALLDRVEGLKRTMNVDISVSY  
LEIYNEKIRDLLVQDPLSMEKPKSLNICEDAEQNVSV PGLSYFTPTNLEEVM EIIIRGNS  
NRTMSPTEANAVSSRSHAVLQIYITQTPKSGEKQEESESQNSHKVRSVFSFIDLASERA  
SATKNRGKRLVEGANINRSLALGNCINSLCEPRRRQHVPYRDSKLRLLKFSLGGNCR  
CMIVCISPSSEHYDETHNTLKYGNRAKNIKTKVSRNVVSVDRHVSEYVRTIYELRQK VSI  
LQKRIAEESKQLALNKEVRKISSREIKMLDARSMLKNSFDGSRDLQKSLIEHVRTLRRIE  
DEITLTKMWISIAKESDAMSGHNIKSVETR LAKLYDQRSLITAKVNPEEICKTFQNSISH  
IVSSFKGEGADMYADMLQDDVDLLKSI IENQILD AKHESETFSSTSRKLIQNLFLLFPLL

PGNAIDVNESLARAFDQLVGI V PSEPTIQV PNLIEK GKAPLLSMFEI PRSPSRFKARSPS  
KAARVLK KPLK KRVRFSEVPTTSSVPPVEIKNKDSKPKVEKSLDKHNMNDRSFLVPSRD  
ARNSLTSLSLHSNVAKNKSSHSSKWPHTLSPIIT TALKQPVRRISLVSQPLQKTGGTEN  
TPNA

>Q13241

MAVFKTTLWRLISGTLGIICLSMATLGILLKNSFTKLSIEPAFTPGPNIELQKDSDCCS  
CQEKWVG YRCNCYFISSEQKTWNESRHL CASQKSSLLQLQNTDELDFMSSSQQFYWIGLS  
YSEEHTAWLWENG SALSQYLFPSFETFN TKNCIAYNPNGNALDESCEDKNRYICKQQLI

>P16948

MLIFSVL MYLGLLLAGASALPNGLSPRNNAFCAGFGLSCKWECWCTAHGTGNELRYATAA  
GCGDHL SKSYDARAGHCLFSDDL RNQFYSHCSSLNMNMSCRSLSKRTIQDSATDTVDLG  
AELHRDDPPPTASDIGKRGKRPRPVMCQCVDTTNGGVRLDAVTRAACSIDSFIDGYYTEK  
DGFCRAKYSWDLFTSGQFYQACLRYSHAGTNCQPDPQYE

>P46871

MSKKS AETVKVVVRCRPMNSKEISQGHKRIVEMDNKRGLVEVTNPKGPPGEPNKSFTFDT  
VYDWSNKQIDLYDETFRSLVESVLQGFNGTIFAYGQTGTGKTFTMEGVRSNPELRGVIPN  
SFEHIFTHIARTQNQQFLVRASYLEIYQEEIRDLLAKDQKKRLDLKERPDTGVYVKDLSS  
FVTKSVKEIEHVMTVGMNMR SVGSTNMNEHSSRSHAIFITIECSELGVDGENHIRVGKL  
NLVDLAGSERQAKTGATGDR LKEATKINLSLSALGNVISALVDGKSSHIPYRDSKLTRLL  
QDSLGGNAKTMVMANMGPASYNFDETIITTLRYANRAKNIKPK INEDPKDALLREFQEE  
ISRLKQALDKKGP SDGRKKGKKRKPGEQGGDDI EDETEEEGDEMDEEEMYKESQQKLEE  
EKEKIMANQSMIAEEKQKLLSEVQKRQGEIKKEHQKEMLEGKIKAMESKLLVGGKSI VD  
HTNEQQRKIEEQRLLLAE EKNRERDMERKLKEQDDKTVEIEGTFSSLQQEVEVKTKK LKK  
LFAKLQSYKSDIQDLQDEHARERQELEQTQNELIRELKLK KVIADNFI PVEERTKITTRA  
VFDEETE EWLLTPLAKAEGPSQMAKRPVSAVGNRRPIADYARMAAQMGGNPRYKAENILS  
VDLDMPNRTTRDYEGPSVAPRVQAALDAALQDEDDLLEVQPEVFKAKTKLKKDKVRSKH  
KAVAKPGSNSQLYPQARGLIQK

>Q06655

MMSLSL LLLLGLIALPATQAIDYRKQASQILKEHGMDKVIPLPELVCTMFHISGLSTQAE  
VNNHSNKEYGIFQISNNGWCAEKQEDVANSVCGILCSKFLDDDITDDIECAKKILQLPEG  
LGYWKAHETFCIEDLDQWRC

>P00716

MMPLVPLLLVSIVFPGIQATQLTRCELTEK LKELDGYRDISMSEWICTLFHTSGLDTKIT  
VNNNGSTEYGFIFQISDKLWCVSKQNPQSKNICDTPCENFLDDNL TDDVKCAMKILDKEGI  
DHWLAHKPLCSENLEQWVCKK

>P00714

MMRFVPLFLACISLPAFQATEFTKCEVSHAIEDMDGYQGIGISLLEWTCVLFHTSGYDSQAI  
VKNNGST EYGLFQISNRNWKSSSEFPESENICDISCDKFLDDELADDIVCAKKIVA I KGI  
DYWKAHKPMCSEKLEQWRCEKPGAPALVVPALNSETPVP

>P81646

KVFEKCELSQMLKANGLDGFQGITLEEWICIAFHESGFDSRALNYNGSSSHGLFQINRQ  
YWCDGQDAKSTEP SVNACQISCDKLRDDDI EDDIKCVKKILKESQGITAW EAWQPFCIAD  
LDQWKC

>Q4PRD1

MGRFISVSVFGWLVVFLSLSGTEAVLDCPSGWLSEYQHCYKGFNDLKNWTDAEKFCTEQKK  
GSHLVSLHSREEEEKFVVNLI SENLEYPATWIGLGNMWKDCRMEWSDRGNVKYKALAEESY  
CLIMITHEKVWKSMTCNFIAPVVCKF

>Q4PRD2

MGRFISVSVFGLLVVFLSLSGTGAGLDCPPDSSLYRYFCYRVFKEHKTWEAAERFCMEHPN  
NGHLVSI ESMEEA EFVAKLLSNTTGKFI THFWIGLMIKDKEQECSSSEWSDGSSVSYDKLG  
KQEFRKCFVLEKESGYRMWFNRNCEERYL FVCKVPEEC

>P25045

MAHIPEVLPKSIPAFIVTTSSYLWYFNLVLTQIPGGQFIVSYIKKSHHDDPYRTTVE  
IGLILYGI IYYLSKPQQKSLQAQKPNLSPQEIDALIEDWEPEPLVDP SATDEQSWRVAK  
TPVTMEMPIQNHITITRNNLQEKYTNVFN LASNNFLQLSATEPVKEVVKTTIKNYGVGAC  
GPAGFYGNQDVHYTLEYDLAQFFGTQGSVLYGQDFCAAPSVLPAFTKRGDVIVADDQVSL  
PVQNALQLSRSTVYYFNHNDMNSLECLLNELTEQEKLEKLP AI PRKFIVTEGIFHNSGDL  
APLPELTKLKNKYKFR L FVDETFSIGVLGATGRGLSEHFNMDRATAIDITV GSMATALGS  
TGGFVLGDSVMCLHQRIGSNAYCFSACLPA YTVTSVSKVLKLMDSNND AVQTLQKLSKSL  
HDSFASDDSLRSYVIVTSSPVSAVLHLQLTPAYRSRKFYGTCEQLFETMSALQKKSQTNK  
FIEPYEEEEKFLQSIVDHALINYNV LITRNTIVLKQETLP IVPSLKICCNAA MSPEELKN  
ACESVKQSILACCQESNK

>P40970

MSTPANYTRVPLCEPEELPDDIQKENEYGTLDSPGHLYQVKSRRHGKPLPEPVVDTPPYI  
SLLTYLNYLIL IILGHVHDFLGMTFQKNKHLDLLEHDGLAPWFSNFESFYVRR IKMRIDD  
CFSRPTTGVPGRFIRCIDRISHNINEYFTYSGAVYPCMNLS SYN YLGF AQSKGQCTDAAL  
ESVDKYSIQSGGPRAQIGTTDLHIKA EKLVARF IGKEDALVFSMGYGTNANLFNAFLDKK  
CLVISDELNHTSIRTGVRLSGAAVRTFKHGD MVGLEKLIREQIVLGQPKTNRPWKKILIC  
AEGLFSMEGTL CNL PKLVELK KKYCYLFIDEAHSIGAMGPTGRGVCEIFGVDPKDVDIL  
MGTFTKSFGAAGGYIAADQWIIDRLRLDLTTVSYSSEMPAPVLAQTIS SLQTISGEICPG  
QGTERLQRIAFNSRYLR LALQRLGFIVYGVADSPVIPLLLYCP SKMPAFSRMMLQRR IAV  
VVVAYPATPLIESRVRFCMSASLTKE DIDYLLRHVSEVGDKLN LKSNSGKSSYD GKRQRW  
DIEEVIRRTPEDCKDDKYFVN

>P02873

MIMASSKLLSLALFLALLSHANSATETSFI IDAFNKTNLILQGDATVSSNGNLQLSYNSY  
DSMSRAFYSAPIQIRDSTTGNVASFDTNFTMNIRTHRQANS AVGLDFVLVPVQPESK GDT  
VTVEFDTFLSRISIDVNNNDIKSVPWDVHDYDQNAEVRITYNSSTKVFSVLSNPSTGK  
SNNVSTTVELEKEVYDWSVGF SATSGAYQWSYETHDVL SWSFSSKF INLKDQKSER SNI  
VLNKIL

>P19588

MASSTVSVVLSLFLLLL TQAYSADIQSF SFKNFN SSSFILQGDATVSSSKLRLTKVKNG  
LPTLSSLGRAFYSSPIQIYDKSTGAVASWATSFTANIFAPNKSSSADGIAFALVPVGSEP  
KSNSGFLGVFDSVDYDNSAQTVAVEFDTF SNTDWDPTSRHIGIDVNSIKSIRTASWGLAN  
GQNAEILIT YNAATSLLVASLVHPSRRTSYIVSERVDITNELPEYVSIGFSATTGLSEGY  
TETHDVL SWSFASKLPDDSTTEPLDIASYLVRNVL

>P42088

ANSVCFTFTDFESGQQDLIFQGDASVGSNKALQLTKVDSKGNPQGGSVGRALYTAP IRLW  
QSSSLVASFETTTFFSISIQSSSTPAAALTFFFIASPDTKIPSGSGRLLGLFGSSNAGSD  
NGVVAVEFDYTPNTDIDGPNYRHIGIDVNSIRSKAASKWDWQNGKTATAHISYNSASKRL  
SVVSSYPNSSPVVVSFDVELNNAVGPDPVRVGFSAATTGQYTQTNNILAWSFRSSLMGYQAN

>P02870

MASLQTMISFYLIFLSILLTTIFFFKVNSTETTSFSITKFSQKLNLIQGDGYTTKGGK  
LTLTKAVKSTVGRALYSTPIHIWDRDTGNVANFVTSFTFVIDAPSSYNVADEFTFFIAPV  
DTKPQTGGGYLGVFNSKEYDKTSQTVAVEFDTFYNAAWDPSNKERHIGIDVNSIKSVNTK  
SWNLQNGERANVVIAFNAATNVLTVTLTYPNSLEEENVTSYTLNEVVPLKDVVPEWVRIG  
FSATTGAEFAAHEVHSWSFHSELGGTSSSKQAADA

>P56625

SESTSFSTNFNPNQENLILQEDALVNSKGTLELTKNGKVPESLGRNCTTLASFTTSFS  
FVMSAPNSLDVADGLAFFLAPPDTPQPKRGGFLGLFKDRKHDISYQSVAVEFDYSNVWD  
PNTTHIGIDTNTIESKKITPFDVMYGEKILFASLVFPVSQDILPEYVRVGFSAATTGLNEG  
VVETH

>Q44427

MVGVTQSGKPRTLAEKVWDDHVVRTAAEAGEPDLFIDLHLLHEVTSPQAFDGLRMAGR  
VRRDLDLTLATEDHNTPTGYADPSFNTRRGELLTIADTVSRTQIETLRKNCAEFGVEIRPL  
GDVNQGIHVHIGPQLGLTQPGMTIVCGDSHTATHGASGALAFGIGTSEVEHVLTATQTL  
SKPKTMAVTVVGGELRPGVSAKDLILTLITQGTGGGNGHIVEYRGEAIRKLSMEGRMTIC  
NMSIEWGAKAGMIAPDETTFDYLSGRKHARRGADWDAAVAYWKTATDEGAEYDTEIILD  
ASKISPFITWGTNPGQGAALDGVVDPDQDFLDEVERGAAERALAYMGLTPGTPFRDVPD  
VVFVGSCTNGRLEDLRAAADVIRGRKVADGVRMMIVPGSYQVREQAEAEGLDKIFIDAGA  
EWRFAGCSMCLGMNPDTLSPGQRAASTSNRNFEGRQKGGRTHLVSPQVAAATAVVGKLA  
APADL

>P56934

MKKTLYDKIYDSHIVYEEKNNTSLLYIDLHLLHEVTSPQAFDSLDRDKNRQVQPKKTFAT  
MDHNVSTTSQDINASGSMKAVQMQLIKNCSEFNISLYDIKNPNQGIHVHISPEKGMTLP  
GMTIVCGDSHTSTHGAFGALSFGIGTSEVEHVLTATQTLKQQRFKNMKIEITGEIQKFVTA  
KDLILFIIIGKLGSSGGAGYIIIEFCGNVIEKMSMEERMTICNMAIEIGAKSGLIAPDEVTF  
SYLKNKMYAPRGVFWKALNFWKNLKSCKNAFFDKVNVNINISDLSPQITWGTNPDQVISI  
DQKIPDFSSFDNLIKDLAKSACKYMGLKIGTYLTNITVDKVFIGSCTNGRIEDLRAASK  
ILKDKKIANNVKAIVVPGSGSVKREAENEGLDKIFISAGFEWRLPGCSMCLGMNKDRLND  
GERCASTSNRNFEGRQGRGRTHLVSPIMAAAAAVYGFVDVRKLYNGENN

>Q02142

MSGKTIKDKLWDQHVVIAGNEGEPQLLYIDLHVIHEVTSPQAFQGLREAGRRVRRKDLTYG  
TLDHNVPTQDIFNIQDLISKQIDTFTKNVKEFDVPAETHGGKGGQGIHVHVAPESGRTQP  
GKTIVCGDSHTATNGAFGAIAGIGTSEVEHVLTATQTIWQVQPKRMKIEFQGHPPQKGIYS  
KDFILALIAKYGVDAVGVAVEYSGDAISDLSMEERMTICNMSIEFGAKIGLMNPDEKTY  
DYVKGREHAPKNFDEAVSKWEKLVSDSAQYDKILSLDVSQKPMVTWGTNPGMGLEFGE  
KFPEINNDLNYERAYQYMDLKPQGTASAIIDLGYIFIGSCTNARLGDLEAAKIGDRHIA  
DGLTGIVVPGSRPVKEAAEAQGLDKIFKEAGFEWREPGCSACLGMNPDQIPEYVHCASTS  
NRNFEGRQGHNARTHLCSPAMAAAAAIAKGFVDVRTLVTD

>Q44023

EFGGSAVRSLPVEARLTLCLNLAVEFSAFSGIVAPDDTVFEYLAGRPYAPAGAQWEPALWH  
WRSLSYSDADAVFDRELSVDCRQLAPMVTWGTSPQHGVAVDGAVPNPAIDAIDATRQAMER  
ALSYMDLRPGQRMADIAIDAAFISCTNSRSLDLRSAAGVLAGRKVAPGVTAICVPVSSA  
VKRAAEAEGLDRVFREAGFEWRESGCSMCFYAGGESFGHRQRVISSTNRNFESESRQGPQTR  
THLAGPATVAASAVLGRIADPRRPPGA

>P31960

HAPIALKAAGVSCVIAKSFARIFYRNSINIGFPILECEEAVNDAKNNHELEVDFTTGI IK  
NITLGKEYKAQAYPQFMIDIMKNEGLINCVKNGALNSFMR

>P11995

MKFAIAFLACVAVVTATAYHKTHDIKVADKAFLMKQKFLFEIVYRVEDPLMFEEYIAMGK  
QFYFDKEHYTHFDLYMEKFFFEAHKAHALLPKGEFFGALVKHHAKQARGLFNFFYYAKDWE  
TFMTNVAFARMHFNEMGFVYALTLAVIHRDDFHGLVLPALHEIFPQFFNSKFMVMEAEKF  
DYEMWMMKTSLYEKEYMDVYHKIPTFSSYEHGYKQGMAYGYGKTHGHGQTYEHEFGSMYQT  
SDYMYMKDFKTWQWWKLMGLGEHWYSESNYILRENIYEYNQESNWLTMKDVKKFYMPVD  
YSRDLYLYNEESKLSYFTEDLGWNSYWYYLNMDYSFFLDGKTFGLQNDRRGEWWLYNVHQ  
LLSRYHMERLSHGLGEIPQFSWFHQIEMGYDPQLIYYNGIGYSYRKNYYELETYGNFEML  
DKITGFQORIQNIVELGYQTTDGHMIDLRKPESIEIIGNMLQGNVDAIDNIFQFWYML  
AHMYFADTHYYQMEVYPNVMNLNFEETMMRDPMFYMFYKSIQVYFQFMHHLPKYTKEQLLM  
PGVTLKHVEVSELVTYFDLVDVDTNMLNGKMFHEGQFLWDKSLFARQMRNLNHPFSYT  
YTIDSARDEKVVIRAFGLPKFDEYGRMISLTDNRNMFMEIDEFTYTLKTKGSNLI TRKSTD  
FAWTVKDRTTYTELYYYTMMAFDGKYDYPLDLTEPHCGFPDRLVLPMGWKKGMPMQMFFM  
VVPYMAPQHEQFSTFDYTYSCGIGSGARHVDSLPGYFPDREINEYEFHVPNMYFKDVTI  
YHADTMEKYYNYKEYTNYGHFDYSFFNDYTYKYFKL

>P11997

MKLTLVILALVACVTAFSVPTQKVKIADKNFLEKQKFLFEIVHRIDEPLMFEEWIKMGQK  
LITDKAQYETFDYMEKLWESYKLGALLPKGEFFGALVKTHHKQAYGLFNFFYYAKDWET  
FVRNVAWARIHVNEGMFVYALTLAVIHKPEFEGILLPQIYEIFPQYFFNSKFMVYAAEKFD  
YEVFSKLTMYEKEYKDILYKDYSEFTGNFYFYTKDWKTWQWYKMMGLDQEWYVEDKYFLR  
ENLSQFVNDPKYVDVVKGLKKFYMPVDYTRDIDFFNDETKMTYFTEDLGWNAWYYLNMD  
YAFFLNGKQFGLDKDRRGEYWIYNVQQILARYYQERLANGFGEIPEFFWYKQIEYGYDPQ  
LIYYNGIGYSYRKNYYDFYTYGKFEMYSQIQNFFSRVYKVLLETGFYKTADGQVFDLHKPE  
AIKIVGNYLQGNADTFDKYFFNYLLAHMYFADVDYNDMEVFPNVFLNFEETMLRDPFFY  
TFYKKFTDVFYTFKYLLKPYTQKDLFYEGITIKDVSVSKLVTYDIDVDFDVTNLLNDKMT  
FVDGQYIWDKALLARQARLNHKPFNFEEFTIDSDKVQKGVVRVFLGPKFDEYGRV IPLDYN  
RKNFVQIDSFVYPIAGTNTIKRSSKEFSWTAEDRITYTELYKYVMLASEGKYDFPLDIS  
EPHNAFPDRLVLPKGWEQGMPMQFYFFVSPFAETYEQFSNFDYTYSSGVSGTRFVDTKP  
FGYFPDRQIDESDFVPNGFFKDVKVVYVDTFAKYFEKKYTQFGTFDYSIEY

>P29238

MKISNICFSYQPPGESHQEVMERFIRLGVASEELNFDGFYTLHHFTEFGITGNLYIACA  
NILGRTKRIQVGTMGIVLPTEHPARHVESLLVLDQLSKGRFNYGTVRGLYHKDFRVFGTS  
QEDSRKTAENFYSMILDASKTGVLHTDGEVVEFPDNNVYPEAYSKKQPTCMTAESSETIT  
YLAERGLPMVLSWIIIPVSEKVSQMELYNEVAAEHGHDINNIEHILTFICSVNEDGEKADS  
VCRNFLENWYDSYKNATNIFNDSNQTRGYDYLLKAQWREWVMKGLADPRRRLDYSNELNPV  
GTPERCIEIIQSNIDATGIKHITVGFANGSEQEIRESMELFMEKVAPHLKDPQ

>P23146

MKFGNLLTYQPPQFSQTEVMKWLVKLGRISEECGFDTVWLEHHFTEFGLLGNPYVAAA  
YLLGATKKNLVGTAAIVLPTAHPVRQLEEVNLLDQMSKGRFRFGICRGLYNKDFRVFGTD  
MNNSRALMECWYKLIIRNGMTEGYMEADNEHIKFKVKVLP TAYSQGGAPIYVVAESASTT  
EWAAQHGLPMLISWIINTNDKKAQIELYNEVAQEYGHDIHNIHCLSYITSVDHDSMKAK  
EICRNFLGHWYDSYVNATTIFDDSDKTKGYDFNKGQWRDFVLKGHKNTNRRVDYSYEINP  
VGTPQECIDI IQTDIDATGISNICCGFEANGTVDEI I SSMKLFQSDVMPFLKEKQQFSY  
IS

>P19840

MKFGFLFLNFINSTTVQEQSIVRMQEITEYVDKLNFEQILVYENHFS DNGVVGAPLTVSG  
FLLGLTEKIKIGSLNHIITTHHPVAIAEEACLDDQLSEGRFILGFSDCEKKDEMHHFNRP  
VEYQQQLFEECYEIINDALTTGYCNPDNDFYSFPKISVNP HAYTPGGPRKYVTATSHHIV  
EWAACKGIPLIFKWDDSDVRYEYAERYKAVADKYDVDLSEIDHQLMILVNYNEDSNKAK  
QETRAFI SDYVLEMHPNENFENKLEEI I AENAVGNYTECITAAKLAI EKCGAKSVLLSFE  
PMNDLMSQKNVINIVDDNIKKYHMEYT

>P29239

MNFGFLFLNFQPEGMTSEMVLDMVDTVALVDKDDYHFKRVLVSEHHFSKNGI I GEPLTA  
ISFLLGLTKRIEIGSLNQVITTHHPVRIGEQTGLLDQMSYGRFVLGLSDCVNDFEMDFFK  
RKRSSQQQFEACYEILNEALTTNYCQADDDFFNFPRISVNP HCISEVKQYILASSMGVV  
EWAARKGLPLTYRWSDSLAEKEKYYQRYLAVAKENNIDVSNIDHQFPLLVNINENRR IAR  
DEVREYIQSYVSEAYPTDPNIELRVEELIEQHAVGKVD EYDSTMHAVKVTGSKNLLLSF  
ESMKNKDDVTKLINM FNQKIKDNLIK

>P19908

MKFGFLFLNFQKDGITSEETLDNMVKTVTLIDSTKYHFNTAFVNEHHFSKNGIVGAPITA  
AGFLLGLTNKLIHIGSLNQVITTHHPVRVAEEASLLDQMSEGRFILGFSDCESDFEME FFR  
RHISSRQQQFEACYEIINDALTTGYCHPQNDFYDFPKV SINPHCYSENGPKQYVSATSKE  
VVMWAACKALPLTFKWEDNLETKERYAILYNKTAQQY GIDISDVDHQLTVIANLNADRST  
AQEEVREYLKDYITETYPQMDRDEKINCI I EENAVGSHDDYESTKLA VEKTGSKNILLS  
FESMSDIKDVKDIIDMLNQKIEMNLP

>P07739

MKFGFLFLNFMNSKRSSDQVIEEMLDTAHYVDQLKFDTLAVYENHFSNNGVVGAPLTVAG  
FLLGMTKNAKVASLNHVIITTHHPVRVAEEACLDDQMSEGRFAFGFSDCEKSADMRFNRP  
TDSQFQLFSECHKIINDAFTTGYCHPNNDFYDFPKISVNP HAFTEGGPAQFVNATSKEVV  
EWAACKLGLPLVFRWDDSNARKEYAGLYHEVAQAHGVDVSQVRHKL TLLVNQNV DGEAAR  
AEARVYLEEFVRESYSNTDFEQKMGELLSENAIGTYEESTQAARVAIECCGAADLLMSFE  
SMEDKAQQRAVIDVNVANIVKYHS

>P84809

MISVQVIFIAFISIIAFSMVCGGNVFPNRELGILYGCKGYGNAFCDKVCKMHLARGGRC  
GEPNPMWACECIDIDEDNGYFLNALEKQCPLKKG

>Q944S9

MGRGKIEIKRIENATNRQVTYSKRRTGIMKKARELTVLCDAQVAIIMFSSTGKYHEFCSP  
STDIKGI FDRYQQAIGTSLWIEQYENMQRTL SHLKDINRNL RTEIRQRMGEDLDGLEFDE  
LRGLEQNVDAALKEVRHRKYHVITTTQETETYKKVKHSYEAYETLQQELGLREEPAFGFVD  
NTGGGWDGGAGAGAAADMFAFRVVP SQPNLHGMAYGGNHDLRLG



>Q0D4T4

MGRGPVQLRRIENKINRQVTF SKRRNGLLKKKAHEISVLC DADVALIVFSTKGKLYEFSSH  
SSMEGILERYQRYSFDERAVLEPNTEDQENWGDEY GILKSKLDALQKSQRQLLGEQLDTL  
TIKELQOLEHQLEYS LKHIRSKKNQLLFESISELQKKEKSLKNQNNVLQKLMETEKEKNN  
AIINTNREEQNGATPSTSSPTPV TAPDPIPTTNNSSQSQPRGSGESEAQPSPAQAGNSKLP  
PWMLRTSHT

>P50538

MATAVGMNIQ LLLLEAADYLERREREA EHG YASMLPYSKDRDAFKRRNKPKKNSTSSRSTH  
NEMEKNNRAHLRLCLEK LKGLVPLGP ESRHTTLLSLLTKAKLHIKKLEDCDRKAVHQIDQ  
LQREQRHLKRRLEKLG AERTRMDSVGSVVSSE RSDSDREELDVDVDVDVDV DVEGTDYLN  
GDLGWSSSVSDSDER GSMQSLGSD EGYSSATVKRAKLQDGHKAGLGL

>Q80US8

MEPVASNIQVLLQAAEF LERREREA EHG YASLCPHHS PGTVCRRRKPPLQAPGALNSGRS  
VHNELEKRRRAQLKRCLEQLRQQMPLGVDCTRYTTLSLLRRARVHIQKLEEQEQARRLK  
EKLRSKQQLQQLQGLPGARERERLRADSLDSSGLSSERSDSQEDLEVDVESLVF  
GTETELLQSF SAGREHSYSHSTCAWL

>Q60948

MELNSLLLLLEAAEYLERRDREA EHG YASMLPFDGDFARKKTKTAGLVRKGPNNRSSHNE  
LEKHRRAKRLRYLEQLKQLG PLGPDSTRHTTLLSLLKRAKMH IKKLEEQDRRALS I KEQLQ  
REHRFLKRRLEQLSVQSV ERVRTDSTGSAVSTDDSEQEV DIEGMEFGPGELDSAGSSSDA  
DDHYSLQSSGCS DSSYGHP CRRPGCPGLS

>P80078

MEKKTIVLGVIGSDCHAVGNKILDHAF TNAGFN VVNIGVLS PQEVFIKAAIETKADAILL  
SSLYGQGEIDCKGLRQKCDEAGLE GILLYVGGNIVVGKQHWP DVEKRFKDMGYDRVYAPG  
TPPEVGIADLKKDLNIE

>P37221

MAIFSNQMRLSSTLLKRLHQ RVAAAVNSSSSRNFTTTEGHRPTIVHKRSLDILHDPWFNK  
GTAFSFTERDRLHIRGLLP NVMSFEQQIARFMADLKRLEVQARDGPSDPYVLAKWRILN  
RLHDRNETLYYKVL MENIEEYAPIVYTP TVGLVCQKYSGLFRRPRGMYFSAEDRGEMMSM  
VYNWPADQVDMIVVTDGSRILGLGDLGIGIGIAIGKLDLYVAAAGINPQRVLPVMIDVG  
TDNENLLKDPYLG LQDHRLDGEEYIEVIDEFMEAVFTRWPHVIVQFEDFQSKWAFKLLQ  
RYRNMYRMFNDDIQGTAGVAIAGLLGAVRAQGRPMIDFPKMKIVVAGAGSAGIGVLNAAR  
KTMARMLGNTEIAFESARSQFWVDAKGLITEARENVD PDARPFARKIKEIERQGLSEGA  
TLAEVVREVKPDVLLGLSACGGLFSKEVLEALKHSTSTRPAIFPMSNPTRNAECTPEEAF  
SILGENIIFASGSPFKD VDLGNHVGHCNQANMFLFPGIGLGTLLSGSRIVSDGMLQAA  
AECLAAYITEEEVLKGI IYPSISRIRDITKEVAAAVVKEAIEEDLAEGYREMDSRELRLKL  
DEAQISEFVENNMWSPDYPTLVYKKD

>Q9JHS3

MLRPKALTQVLSQANTGGVQSTLLLNNEGSL LAYS GYGD TDARV TAAIASNIWAA YDRNG  
NQAFNEDSLKFILMDCMEGRVAITRVANLLLCMYAKETVGF GMLKAKAQALVQYLEEPLT  
QVAAS

>P01366

MDDIC SMAENINRTL FNILGTEIDE INLNTNNLYNFIMESNLTKVEQHTLHKNI SNNRLE

IYHHIKKEKSPK GKSSISPQARAFLEQVFRKQSLNSKEKEEVAKKCGITPLQVRVWF IN  
KRMRSK

>P52161

MSDNDDIEVSDADSPRFHGVADKRAHHNALERKRRDH IKDSFHSLRDSVPALQGEKQSI  
KQASRAQILDKATEYIQYMRKNH THQQD IDDLKRQNALLEQQVRALEKVKGTTQLQANY  
SSSDSSLYTNPKGQAVSAFDGGS DSSSGSEPEEQRT RKKHRPEDS

>P91664

MSMSDDDRDIDIESDEGDSDTGLGSSRHTNTANFTQA EKRAHHNALERRRRDH IKESFT  
NLREAVPTLKGEKASRAQILKKTTECIQTMRRK ISENQKDIEEIKRQNNI IAKQIQALES  
SNGDQFSEFLSDEEVGSEEADDEDLDQDFSRNKKMKTFHA

>Q12262

MTNSSEKQWERIQQLEKEHVEVYRELLITLDRLYLIRKHNH AVILSHTQQRLLEIRHQLQ  
INLEKTALLIRLLEKPDNTNVLF TKLQNLLEESNSLDYELLQSLGAQSSSLHKQLIESRAE  
RDELMSKLIELSSKFPKPTIPDSDTAGKQVEVEKENETIQELMIALQIHSGYTNISYT  
I

>P47167

MDVEKDVLDVYIKNLENQIGNKRYFLKQAQGAIDEITKRSLDTEGKPVNSEVFT ELLRKP  
MFFSERADPIGFSLTSNFLSLRAQSSSEWLSLMDQSV DQKAMLLLQNNINSDLKELLRK  
LQHQMTIMDSKKQDHAHIRTRKARNKELWDSLADFLKGYLVPNLDDNDESIDS LTNEV ML  
LMKRLIEHDNLNLTNDFSSKTIPIYRLLLRANIITVIEGSTNPGTKYIKLIDFNETS LT

>Q02574

MKLKLI VNGCEAPDDYKLLRTTINTVASLRKTAI LRFNSERLTIISTPKSSLNSSNNGTI  
LRGDTGQLWCTIPHDVFRLYTVISARELNTITMECNCD SLLSVFKRYDRVMNQGSSSNMT  
IKLQSMPEWNTNNGT LSGGTAGGVDTTSKPNPICALGITFEEIVHTSGPND AIVMNGGVD  
EHNGLPTTVGTGNLLASNKVIMHSFKVPVKLLFRAQDTRI QEPMINYIQLMMYKLPPI SG  
EFGSAFHGFIRRV EYSNVNHIHLMGVKKKEHGN EGDDVELKIVN ELDWHEICWNGPL  
DSVIQRQEGLTDNPSQNQHIDTDGRQE EGS LPIEADKPMSSLYTNTR DREMEENIRYDE  
DLLRIEDSSIADTRGNIYTADTSGDTEFNDISVMVEKA EQESSSTHEVIIRCKDWKVC SK  
LYAAFEVVLAISHDESCVFHCSLD RGSLEDS SEDVEKPRERGQI IYYIARSKGL

>Q14814

MGRKKIQIQRITDERNRQVTFTRKRFGLMKKAYELSV LCDCEIALIIFNHSNKL FYAST  
DMDKVL LKYTEYN EPHE SR TNADIETL RKKGFNGCDSPEPDGEDSLE QSP LLEDK YRRA  
SEELDGLFRRYGSTVPAPNFAMPVTVVSNQSS LQFSNPSGSLVTPSLVTSSL TDPRLLS  
PQQPALQRNSVSPGLPQR PASAGAMLGGDLNSANGACPSPVGN GYVSARASPGLLPVANG  
NSLNKVI PAKSPPPPTHSTQLGAPSRKPDLRVITS QAGKGLMHHLTE DHLDLNNAQRLGV  
SQSTHSLTTPVVS VATPSLLS QGLPFSSMPTAYNTDYQLTSAE LSSLPAFSSPGGLSLGN  
VTAWQPPQQPQQPQQPQQPPQPPQPPQPPQPPQPPQPPQPSHLVPVSLSNLIPGSP  
LPHVGAALTVTTHPHISIKSEPVSPSRERSPAPPPPAVFP AARPEPGDGLSSPAGGSYET  
GDRDDGRGDFGPTLGLLRPAPEPEAE GSAVKRMRLDTWTLK

>O00470

MAQRYDDLPHYGGMDGVGIPSTMYGDPHAARSMQPVHHLNHGPPLHSHQYPHTAHTNAMA  
PSMGSSVNDALKRDKDAIYGHPLFP LLLALIFEKCE LATCTPREPGVAGGDVCSSESFNED  
IAVFAKQIRA EKPLFSSNP ELDNLMIQAIQVLRFHLLLELEK VHELCDNFC HRYISCLK GK

MPIDLVIDDREGGSKSDSEDI TRSANLTDQPSWNRDHDDTASTRSGGTPGPSSGGHTSHS  
GDNSSEQGDGLDNSVASPSTGDDDDDPDKDKKRHKKRGI FPKVATNIMRAWLFQHLTHPYP  
SEEQKKQLAQDTGLTILQVNNWF INARRRIVQPMIDQSNRAVSQGTPYNPDGQPMGGFVM  
DGQQHMGIRAPGPMMSGMNMGMEGQWHYM

>Q61847

MDARHQPWFLVFATFLLASGLPAPEK FVKDIDGGIDQDIFDINQGLGLDLFEGDIKLEAN  
GKNSIIGDHKRWPHTIPYVLEDSLEMNAKGVILNAFERYLKTCIDFKPWSGEANYISVF  
KSGSGWSSVGNIHAGKQELSIGTNC DRIATVQHEFLHALGFWHEQSRADRDDYVIVWDR  
IQPGKEHNFNIYND SVSDSLNVPYDYTSVMHYSKTAFQNGTESTIVTRISEFEDVIGQRM  
DFSDYDLLKLNQLYNCTSSLSFMDSCDFELENICGMIQSSGDSADWQRVSQVLSGPESDH  
SKMGQCKDSGFFMFHNTSILNEGATAMLESRLLYPKRGFQCLEFYLYNSGSGNDQLNIYT  
REYTTGQQGGVLTQRQIKEVPIGSWQLHYVTLQVTKKFRVVFEGLRGPGTSSGGLSIDD  
INLSETRCPHHIWHIQNFTQILGGQDTSVYSPPFYSSKGYAFQIYMDLRYSTNVGIYFHL  
ISGANDDQLQWPCPWQQATMTLLDQNPDIRQRMFNQRSITTDPTMTSDNGSYFWDRPSKV  
GVTDVFPNGTQFSRIGYGTTFVITRERLKSREFIKGDDIYILLTVEDISHLNSTSAVPD  
PVPTLAVHNACSEVVCQNGGICVVQDGRAECKCPAGEDWWYMGKRCEKRGSTRDTVIIAV  
SSTVTVFAVMLIITLVSVYCTRRKYRKKARANTAAMTLENQHAF

>P31153

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVA  
KTGMILLAGEITSRAAVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQG  
VHLDRNEEDIGAGDQGLMFGYATDETEECMPLTIVLAHKLNAKLAE LRRNGTLPWLRPDS  
KTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEM RDALKEKVIKAVVPAKYLDEDT  
IYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW  
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVI  
VRDLDLKKPIYQRTAAYGHFGRDSFPWEVPPKLLKY

>P49028

MSTEDFYLRYYVGHKGFGEHEFFEFPRPDGKLR YANNSNYKNDTMIRKEAFVHQSVMEE  
LKRIIIDSEIMQEDDLPWPPDRVGRQELEIVIGDEHISFTTSTKTGSLVDVNRSKDPEGL  
RCFYLLVQDLKCLVFSLIGLHFKIKPI

>O88653

MADDLKRFLYKKLPSVEGLHAI VVSDRDGVPVIKVANDSAPEHALRPGFLSTFALATDQG  
SKLGLSKNKSIIICYNTYQVVQFNRLPLVVSFIASSSANTGLIVSLEKELAPLFEELIKV  
VEVS

>Q9YGG9

MGRFIFVSGLLLVFSLSGAEDSDCPDWSNGRFCYKLFQQMKWADAERFCTEQRT  
GAHLVSIESNTEAA FVNQMISENIKKT DYVWIGLTVQNEEQCKSRWSDRSSVSYENLVK  
PNSKKCFVLKEYEGSRKWFNVYCGQKYAFMCKFLRPR

>O74983

MAKVPRNFKLLLEELEKGEKGLGESSCSYGLTNADDITLSDWNATILGPAHSVHENRIYSL  
KIHCDANYPDAPP IVTFVSRINLPGVDGETGKVNPHKIDCLRHWKREYSMETVLLDLKKE  
MASSNRKLPQPPEGSTFF

>P53102

MGPKRQTVSLQEKKNRILNFFQETYTFYNIKELEKSIPKCKGISPMIVKDLVQQMIDEDG

VISVEKCGNINIYWCFKNQTLQKLYDSSELIKKKIQEVKCDIATYKQELDKTLATGRRKK  
FTVVGQKSYNREALLEKRKKIQDEIKKKSNLQKIESIRWDAAKIQENKQQIRLKKVHLEK  
TTDNIEILIDYLYKKFFLKPEQIRKEFGIPEEFKEFTEV

>P30748

MIKVLFFAQVRELVGTDATEVAADFPTVEALRQHMAAQSDRWALALEDGKLLAAVNQTLV  
SFDHPLTDGDEVAFFPPVTGG

>P30749

MAETKIVVGPQPFVSGEEYPWLAERDEDEDGAVVTFGTGKVRNHNLGDSVNALTLEHYPGMTE  
KALAEIVDEARNRWPLGRVTVIHRIGELWPGDEIVFVGVTSABRSAFEAGQFIMDYLKT  
RAPFWKREATPEGDRWVEARESQQAAKRW

>P02882

GEWEIIDIGPFTQNLGKFAVDEENKIGQYGRLLTFNKVIRPCMKKTIYEEN

>P23955

MLNRFRRPARLVAQSSRCLPLTRARAGPLPVNNARTLATRAAAVNTKEPTERDNITTLNSG  
VRVASEDLPDFASGVGVYIDAGSRYENDYVRGASHIMDRLAFKSTSTRTADEMLETVEKL  
GGNIQCASSRESMMYQAATFNKAIPTAVELMAETIRDPKLTDEELEGQIMTAQYEVNEIW  
SKAELILPELVHMAAFKDNTLGNPLLCPKERLDYINRDVIQTYRDAFYRPERLVVAFAGV  
PHERAVKLAEKYFGDMKASDAPGLSRTGSETSVDSLSESEASSESSSSSSSDSESSGG  
LLSKLFSKAKKATPNPFLTRVPISTEDLTRPAHYTGGFLLPSQPPPLNPNLPTFTHIQ  
LAFEGLAISDDDIYALATLQTLGGGGSFSSAGGPGKGMYSRLYTNVLNQHGWVESCVAFN  
HSYTDSGLFGIAASCYPGRTLPLMLQVMCRELHALTTDHGYSALGELEVSRAKNQLRSSLL  
MNLESRMVELEDLGRQVQVHGRKIPVREMTRRINELTVKDLRRVAKRVVGGMANNAGQGS  
GAPTIVVLQEATVQGLKTTTELGDQIQDTIAQWKLGR

>P20069

MATAVWAAARLLRGSAAALCARPKFGSPAHRRFSSGATYPNIPLSSPLPGVPKPIFATVDG  
QEKFETKVTTLDNGLRVASQNKFGQFCTLGILINSGSRYEAKYLSGIAHFLEKLAFSSTA  
RFDSKDEILLTLEKHGGICDCQTSRDTTMYAVSADSKGLDTPVGLLADVVHLHPRLTDEEI  
EMTRMAVQFELEDLNMRPDPEPLLEMIHEAAFRONTVGLHRFCPVENIGKIDREVLHSY  
LKNYYTPDRMVLAVGVVEHEHLVECARLYLLGVQPAWGAAGAVWMLTAQWHSTRGGSSRW  
RETCQMSALRPPRFQSSHIYGGARELLLLLEEDFIPFAVLNMMGGGGSFSSAGGPGKGMFS  
RLYLVNLRNHHWYNATSYHHSYEDTGLLCIHASADPRQVREMVEIITKEFILMGRVVDL  
VELERAKTQLMSMLMMNLESRPVIFEDVGRQVLATHSRKLPHELCTLRNVKPEDIKRVA  
SKMLRGKPAVAALGDLTDLPTYEHIQAALSSRDGRLPRTYRLFR

>P29677

MYRCASSRLSSLKARQGNRVLTRFSSAAVATKPSGGLFSWITGDTSSSVTPLDFPLNDV  
KLSPLPDYVEPAKTQITTLANGLKVASEASVNPAAASIGLYVDCGSYIETPASYGATHLL  
ERMAFKSTLNRSHLRIVREIEAIGGNVTASASREHMIYTYDALKTYVPQMVEMLADCVRN  
PAFLDWEVKEQLEKVKAEISEYSKNPQHLLLEAVHSAGYAGPYGNSLMATEATINRLNST  
VLEEFVAENYAPRMVLAASGVEHEEFLKVAEPLLSLDPKVATIEEPKPVYVGGDYRCQA  
DAEMTHFALAFEVPGGWMSEKESMTLTVLQMLMGGGGSFSSAGGPGKGMYSRLYLRLVNLQY  
PQIHAFSAFSSIIYNTGLFGIQGTTSSDFGPQAVDVAVKELIAPANPSEVDQVQLNRAKQ  
ATKSAILMNLSESRMVASEDIGRQLTYGERNPVEHFLKAIDAVSAKDIASVVQKLISSPL  
TMASYGDVLSLPSYDAVSSRFRSK

>P11914

MLRNGVQRLYSNIARTDNFKLSSSLANGLKVATSNTPGHFSALGLYIDAGSRFEGRNKGC  
THILDRLAFKSTEHVEGRAMAETLELLGGNYQCTSSRENLMYQASVFNQDVGKMLQLMSE  
TVRFPKITEQELQEQKLSAEYEIDEVWMKPELVLPPELLHTAAYSGETLGSPLICPRELIP  
SISKYYLLDYRNKFYTPENTVAAFVGVPEHEKALELTEKYLGDWQSTHPPITKKVAQYTG  
ESCIPPAPVFGNLPFLFHIQIGFEGLPIDHPDIYALATLQTLGGGGSFSAGGPGKGMYS  
RLYTHVLNQYYFVENCVAFNHSYSDSGIFGISLSICIPQAAPQAVEVIAQQMYNTFANKDL  
RLTEDEVSRAKNQLKSSLLMNLKSLVELEDMGRQVLMHGRKIPVNEMISKIEDLKPDDI  
SRVAEMIFTGNVNNAGNGKGRATVVMQGDGRGSDVENVLKAYGLGNSSSSKNDSPPKKK  
WF

>Q03346

MAAAAVSRTLLPVAGRRLWGFTRRLPLRAAAAQPLYFGGDRLRSTQAAPQVVLNVPETQV  
TCLENGLRVASENSGISTCTVGLWIDAGSRYENEKNNGTAHFLEHMAFKGTKKRSQLDLE  
LEIENMGAHLNAYTSREQTYYYAKAFSKDLPRAVEILADIIONSTLGEAEIERERGVILR  
EMQEVETNLQEVVFDYLDHATAYQNTALGRTILGPTENIKSISRKDLVDYITTHYKGPRI  
LAAAGGVCHNELLELAKFHFGDSLCAHKGDVPALPPCKFTGSEIRVRDDKMPLAHLAVAI  
EAVGWTHPDTICLMVANTLIGNWDRSFGGGMNLSKLAQLTCHGNLCHSFQSFNTSYTDT  
GLWGLYMVCEQATVADMLHAVQKEWMLCTAVSESEVARAKNLLKTNMLLQLDGGSTPICE  
DIGRQMLCYNRRIPPELEARIDAVDAEMVREVCTKYIYGKSPAIAALGPIERLPDFNQI  
CSNMRWTRD

>P10507

MFSRTASKFRNTRRLSTISSQIPGTRTSKLPNGLTIATEYIPNTSSATVGI FVDAGSRA  
ENVKNGTAHFLEHLAFKGTQNRSQGGIELEIENIGSHLNAYTSRENTVYYAKSLQEDIP  
KAVDILSDILTKSVLDNSAIERERDVI IRESEVDKMYDEVVFDHLHEITYKDQPLGRTI  
LGP IKNIKSITRTDLKDYITKNYKGDRLVLAGAGAVDHEKLVQYAQKYFGHVPKSESPVP  
LGSPRGPLPVFCRGERFIKENTLPTTHIAIALEGVSW SAPDYFVALATQAI VGNWDRAIG  
TGTNSPSP LAVAASQNGSLANSYMSFSTSYADSGLWGMYIVTDSNEHNVQLIVNEILKEW  
KRIKSGKISDAEVNRAKAQLKAALLLSLDGSTAIVEDIGRQVVTGKRLSPEEVFEQVDK  
ITKDDIIMWANYRLQNKPVSMVALGNTSTV PNVSYIEEKLNQ

>Q8U1N9

MKFAHLADIHLGYEQFHKPQREEEFAEAFKNALEIAVQENVDFIL IAGDLFHSSRPSPGT  
LKKAIALLQIPKEHSIPVFAIEGNHDR TQRGPSVLNLLLED FGLVYVIGMRKEKVENEYLT  
SERLNGEYLVKGVYKDL EIHGMKYMSSAWFEANKEILKRLFRPTDNAI LMLHQGVREVS  
EARGEDYFEI GLGDLPEGYLYALGHIHKRYETSYSGSPVVYPGSLERWDFGDYEVRYEW  
DGIKFKERYGVNKG FYIVEDFKPRFVEIKVRPFIDVKIKGSEEEIRKAIKRLIPLIPKNA  
YVRLNIGWRKPFDLTEIKELLNVEY LKIDTWRIKERTDEESGKIGLPSDFFTFELKIID  
ILGEKDFDDFDYI IKLITEGKVEEEGPLEEAVKKVSEEKGTVRQKIESIPKKKRGTLD  
WLGGAR

>P43246

MAVQPKETLQLESAAEVGFVRRFFQGMPEKPTTTVRLFDRGDFYTAHGEDALLAAREVFKT  
QGVIKYMG PAKANLQSVVLSKMNFE SFVKDLLLVRQYRVEVYKNRAGNKASKENDWYLA  
YKASPGNLSQFEDILFGNNDMSASIGVVGVKMSAVDGRQVGVGYVDSIQRKLGLCEFPD  
NDQFSNLEALLIQIGPKECVLPGETAGDMGKLRQIIQRGGILITERKKADFSTKDIYQD  
LNRLKGGKGEQMNSAVLPEMENQVAVSSLSAVIKFLELLSDDSNFGQFELTTFDFSQYM  
KLDIAAVRALNLFQGSVEDTTGSQSLAALLNKCKTPQGQRLVNQWIKQPLMDKNRIEERL  
NLVEAFVEDAELRQTLQEDLLRRFPDLNRLAKKFQRQAANLQDCYRLYQG INQLPNVIQA

LEKHEGKHQKLLLA V F V T P L T D L R S D F S K F Q E M I E T T L D M D Q V E N H E F L V K P S F D P N L S E  
L R E I M N D L E K K M Q S T L I S A A R D L G L D P G K Q I K L D S S A Q F G Y Y F R V T C K E E K V L R N N K N F S  
T V D I Q K N G V K F T N S K L T S L N E E Y T K N K T E Y E E A Q D A I V K E I V N I S S G Y V E P M Q T L N D V L A  
Q L D A V V S F A H V S N G A P V P Y V R P A I L E K G Q G R I I L K A S R H A C V E V Q D E I A F I P N D V Y F E K D  
K Q M F H I I T G P N M G G K S T Y I R Q T G V I V L M A Q I G C F V P C E S A E V S I V D C I L A R V G A G D S Q L K  
G V S T F M A E M L E T A S I L R S A T K D S L I I I D E L G R G T S T Y D G F L A W A I S E Y I A T K I G A F C M F  
A T H F H E L T A L A N Q I P T V N N L H V T A L T T E E T L T M L Y Q V K K G V C D Q S F G I H V A E L A N F P K H V  
I E C A K Q K A L E L E E F Q Y I G E S Q G Y D I M E P A A K K C Y L E R E Q G E K I I Q E F L S K V K Q M P F T E M S  
E E N I T I K L K Q L K A E V I A K N N S F V N E I I S R I K V T T

>P25847

M S S T R P E L K F S D V S E E R N F Y K K Y T G L P K K P L K T I R L V D K G D Y Y T V I G S D A I F V A D S V Y H T  
Q S V L K N C Q L D P V T A K N F H E P T K Y V T V S L Q V L A T L L K L C L L D L G Y K V E I Y D K G W K L I K S A S  
P G N I E Q V N E L M N M N I D S S I I I A S L K V Q W N S Q D G N C I I G V A F I D T T A Y K V G M L D I V D N E V Y  
S N L E S F L I Q L G V K E C L V Q D L T S N S N S N A E M Q K V I N V I D R C G C V V T L L K N S E F S E K D V E L D  
L T K L L G D D L A L S L P Q K Y S K L S M G A C N A L I G Y L Q L L S E Q D Q V G K Y E L V E H K L K E F M K L D A S  
A I K A L N L F P Q G P Q N P F G S N N L A V S G F T S A G N S G K V T S L F Q L L N H C K T N A G V R L L N E W L K Q  
P L T N I D E I N K R H D L V D Y L I D Q I E L R Q M L T S E Y L P M I P D I R R L T K K L N K R G N L E D V L K I Y Q  
F S K R I P E I V Q V F T S F L E D D S P T E P V N E L V R S V W L A P L S H H V E P L S K F E E M V E T T V D L D A Y  
E E N N E F M I K V E F N E E L G K I R S K L D T L R D E I H S I H L D S A E D L G F D P D K K L K L E N H H L H G W C  
M R L T R N D A K E L R K H K K Y I E L S T V K A G I F F S T K Q L K S I A N E T N I L Q K E Y D K Q Q S A L V R E I I  
N I T L T Y T P V F E K L S L V L A H L D V I A S F A H T S S Y A P I P Y I R P K L H P M D S E R R T H L I S S R H P V  
L E M Q D D I S F I S N D V T L E S G K G D F L I I T G P N M G G K S T Y I R Q V G V I S L M A Q I G C F V P C E E A E  
I A I V D A I L C R V G A G D S Q L K G V S T F M V E I L E T A S I L K N A S K N S L I I V D E L G R G T S T Y D G F G  
L A W A I A E H I A S K I G C F A L F A T H F H E L T E L S E K L P N V K N M H V V A H I E K N L K E Q K H D D E D I T  
L L Y K V E P G I S D Q S F G I H V A E V V Q F P E K I V K M A K R K A N E L D D L K T N N E D L K K A K L S L Q E V N  
E G N I R L K A L L K E W I R K V K E E G L H D P S K I T E E A S Q H K I Q E L L R A I A N E P E K E N D N Y L K Y I K  
A L L L

>Q03834

M A P A T P K T S K T A H F E N G S T S S Q K K M K Q S S L L S F F S K Q V P S G T P S K K V Q K P T P A T L E N T A T  
D K I T K N P Q G G K T G K L F V D V D E D N D L T I A E E T V S T V R S D I M H S Q E P Q S D T M L N S N T T E P K S  
T T T D E D L S S S Q S R R N H K R R V N Y A E S D D D S D T T F T A K R K K G K V V D S E S D E D E Y L P D K N D G  
D E D D D I A D D K E D I K G E L A E D S G D D D D L I S L A E T T S K K K F S Y N T S H S S S P F T R N I S R D N S K  
K K S R P N Q A P S R S Y N P S H S Q P S A T S K S S K F N K Q N E E R Y Q W L V D E R D A Q R R P K S D P E Y D P R T  
L Y I P S S A W N K F T P F E K Q Y W E I K S K M W D C I V F F K K G K F F E L Y E K D A L L A N A L F D L K I A G G G  
R A N M Q L A G I P E M S F E Y W A A Q F I Q M G Y K V A K V D Q R E S M L A K E M R E G S K G I V K R E L Q C I L T S  
G T L T D G D M L H S D L A T F C L A I R E E P G N F Y N E T Q L D S S T I V Q K L N T K I F G A A F I D T A T G E L Q  
M L E F E D D S E C T K L D T L M S Q V R P M E V V M E R N N L S T L A N K I V K F N S A P N A I F N E V K A G E E F Y  
D C D K T Y A E I I S S E Y F S T E E D W P E V L K S Y Y D T G K K V G F S A F G G L L Y L K W L K L D K N L I S M K  
N I K E Y D F V K S Q H S M V L D G I T L Q N L E I F S N S F D G S D K G T L F K L F N R A I T P M G K R M M K K W L M  
H P L L R K N D I E S R L D S V D S L L Q D I T L R E Q L E I T F S K L P D L E R M L A R I H S R T I K V K D F E K V I  
T A F E T I I E L Q D S L K N N D L K G D V S K Y I S S F P E G L V E A V K S W T N A F E R Q K A I N E N I I V P Q R G  
F D I E F D K S M D R I Q E L E D E L M E I L M T Y R K Q F K C S N I Q Y K D S G K E I Y T I E I P I S A T K N V P S N  
W V Q M A A N K T Y K R Y S D E V R A L A R S M A E A K E I H K T L E E D L K N R L C Q K F D A H Y N T I W M P T I Q  
A I S N I D C L L A I T R T S E Y L G A P S C R P T I V D E V D S K T N T Q L N G F L K F K S L R H P C F N L G A T T A  
K D F I P N D I E L G K E Q P R L G L L T G A N A A G K S T I L R M A C I A V I M A Q M G C Y V P C E S A V L T P I D R  
I M T R L G A N D N I M Q G K S T F F V E L A E T K K I L D M A T N R S L L V V D E L G R G G S S S D G F A I A E S V L  
H H V A T H I Q S L G F F A T H Y G T L A S S F K H H P Q V R P L K M S I L V D E A T R N V T F L Y K M L E G Q S E G S  
F G M H V A S M C G I S K E I I D N A Q I A A D N L E H T S R L V K E R D L A A N N L N G E V V S V P G G L Q S D F V R

IAYGDGLKNTKLGSGEVLNYDWNIKRNVLKSLSFSI IDDLQS

>P34882

MEKKLISLFSGAGGMDIGFHAAGFSTAVAVEQDPSCCNTLRLNMPDTPVIEGDITSITQ  
VILEAAKVNPLEIDLVIIGPPCQSFSLAGKRMGMDDPRGMLVLEFLRVVREALPKCFVME  
NVKGMINWSKGALEAIMTEASQPIKYAGKEYKYAVSYHVLNAADFVPPQFRERVFIVGN  
RLGKTFQFPEPTHGPSNQARQIDLFGKQLKPYKTVQDAISTLPPATPPSAMALRVSQTIK  
DRIKNHGY

>P34883

MDIKNVHIKNHEQTAHAPSTLEKIRKVKQGGKLSEQTKTFGSTYRRLDPNQPSPTVTRSG  
YRDFIHPFEDRMLTVRELACLQTFPLDWEFTGTRLDYSYSSKRKVTMTQFGQVGNVAPPLL  
AEAVAKAVSEQLLDVIDEK

>Q6B2C0

MNKIPIKDLLNPQITDEFKSSILDINKKLFSICCNLPKLPESVTTEEEVELRDILGFLSR  
ANKNRKISDEEKKLLQTTSQLTTTITVLLKEMRSIENDRSNYQLTQKNKSADGLVFNVT  
QDMINKSTKPYRGHRFTKENVRILESWFAKNIENPYLDTKGLLENLMKNTSLSRIQIKNWV  
SNRRRKEKTITIAPELADLLSGEPLAKKKE

>P53595

MSILIDEKTPILVQGITGDKGTFHAKEMIAYGSNVVGVTGKGGKTHCGVPVFNTVKEA  
VEATGATTSITFVAPPFAADAIMEAADAGLKLVCISITDGIPAQDMMRVKRYLRRYPKEKR  
TMVVGPNCAGIISP GKSM LGIMP GHIYLP GKVGVISRSGLGYEAAAQMKELGIGISTSV  
GIGGDPINGSSFLDHLALFEQDPETEAVLMIGEIGGPQEAESA WIKENFSKPVIGFVAG  
LTAPKGRRMGHAAHGFSGG

>P55156

FLCFISSYSASVKGHTTGLSLNNDRLYKLYSTEVFLDRGKGNLQDSVGYRISSNVDVAL  
LWRSPDGDNDQLIQITMKDVNLENVNQORGEKSIFKGGKSSQIRKENLEAMQRPVLLHL  
IHGKIKEFYSYQNEPAAIENLKRGLASLFQMLSSGTTNEVDISGDCKVTYQAHQDKVTK  
IKALDSCKIERAGFTTPHQVLGVTSKATSVTTYKIEDSFVAVLSEEIRALRLNFLQZIA  
GKIVSRQKLELKTTEASVRLKPGQVA AIKAVDSKYTAIPVIGQVFQSKCKGCP SLSEH  
WQSIRKHLQPDNLSKAEAVRSFLAFIKHLRTAKKEEILQILKAENKEVLPQLVDAV TSAQ  
TPDSLDAILDFLDFKSTESVILQERFLYACAFASHPDEELLRALISKFKGSFGSNDIRES  
VMIIGALVRKLCQNGCKLKGVI EAKKILGGLLEKAEKKEDIVMYLLALKNARLPEGIP  
LLLKYTETGEGPISHLAATTLQRYDVPFITDEVKKT MNRIYHQNRKIHEKTVRRTAAAI  
LKNNPSYMEVKNILLSIGELPKEMNKYMLSIVQDILRFETPASKMVRQVLKEMVAHNYDR  
FSKSGSSSAYTGYVERTSHSASTYSLDILYSGSILRRSNLNI FQYIEKTP LHGIQVIE  
AQGLEALIAATPDEGEENLDSYAGLSALLFDVQLRPVTFNNGYS DLM SKMLSASSDPMSV  
VKGLLLLIDHSQELQLQSGLKANMDVQGLAIDITGAMEFSLWYRESKTRVKNRVSVLIT  
GGITVDSSFVKAGLEIGAETEAGLEFISTVQFSQYPFLVCLQMDKEDVPYRQFETKYERL  
STGRGYISRKRKESLIGGCEFFLHQENSDMCKVVFAPQPESSSSGWF

>Q05065

MRIPEFDDIELGAGGGPSGSAEQWRAAVKESVKGSESDLLWETPEGIAVKPLYTGADVEG  
LDFLETYPGVAPYLRGPYPTMYVNPWTIRQYAGFSTAEESNAFYRRNLAAGQKGLSVAF  
DLPTHRYGSDHPRVTGDVGMAGVAIDSIYDMRQLFDGIPLDKMTVSM TMNGAVLPVLAL  
YIVAAEEQGVPEKLAGTIQNDILKEFMVRNTYIYPPKPSMRIISDIFAYTSQKMPRYNS  
ISISGYHIQEAGATADLELAYTLADGVEYLRAGQEAGLDVDAFAPRLSFFWAIGMNFME

VAKLRAARLLWAKLVKQFDPKNAKSLSLRTHSQTSGWSLTAQDVFNNVTRTCVEAMAATQ  
GHTQSLHTNALDEALALPTDFSARIARNTQLLIQQESGTTRTIDPWGGSAYVEKLTIDLA  
RRAWQHIEEVEAAGGMAQAIDAGIPKLRVEEAAAARTQARIDSGRQPVIQVNVKRVDTDEQ  
IDVLKVDNSSVRAQQIEKLRRLREERDDAACQDALRALTAAAERGPQGLEGNLLALAVD  
AARAKATVGEISDALESVYGRHAGQIRTIISGVYRTEAGQSPSVERTRALVDAFDEAEGRR  
PRILVAKMGQDGHDRGQKVIASAFADLGFVDVVGPLFQTPAEVARQAVEADVHIVGVSSL  
AAGHLTLVPALREELAAEGRDDIMIVVGGVIPPQDVEALHEAGATAVFPFGTVIPDAAHD  
LVKRLAADLGHEL

>P50541

MSTCPFNDVFNSTDSSMINTFLKNVQVLLLEAASYIESAERKDGKCEHGYASTFPPIQHSS  
YQRQRKFRNKKCNNNHYRSTHNELEKNRRAHLRLCLERLKTLLIPLGPECSRHTTLGLLNK  
AKAHIKKLEEADRKSRYQLESLEQRHLRRLDLDLRDGGGSLEAERIRTDMSGSTPCSE  
RSDRSDSQEEEMVDVESTEFSHGELDSVSTASTSDLDDHSSLQSTASDEGYSSCSIKLA  
FSS

>Q9W4S7

MALYRSDPYSIMDDQLFSNISIFDMDNDLYDMDKLLSSSTIQSDLEKIEDMESVFDYDL  
EEDMKPEIRNIDCMWPAMSSCLTSGNGNGIESGNSAASSYSETGAVSLAMVSGSTNLYSA  
YQRSQTTDNTQSNQOHVNSAENMPVIKKELADLDYTVQCQKRLRLSGGDKKSQIQDEVH  
LIPPGGSLLRKRNQDIIRKSGELSGSDSIKYQRPDTPHSLTDEVAASEFRHNVDLRACV  
MGSNNISLGTGNDSDVNIKQISRELQNTGKDPLPVRYIPPINDVLDVNLQHSNSTGGQQQ  
LNQQQLDEQQQAIDATGRNTVDSPTTGSDDSDSDGGEPLNFDLRHHRRTSKSGSNASIT  
NNNNSNNKNNKLKNNNSGMLHMMHITDHSYTRCNDMVDDGPNLETSPSDSDEEIDVVSYTD  
KKLPTNPSCMLGALQFQMAHKISIDHMKQKPRYNNFNLPYTPASSSPVKS SVANSRYPS  
SSTPYQNCSSASPSYSPLSVDSSNVSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS  
SSSVYLPGVNNKVTHSSMMSKKSRRGKVVGTSSGNTSPISGQDAMDNRWQRRSGGIA  
TSTSSNSSVHRKDFVLGFDEADTIEKRNQHNDMERQRRIGLKNLFEALKKQIPTIRDKER  
APKVNILREAAKLCIQLTQEEKELSMQRQLLSLQLKQRQDTLASYQMELNESRSVSG

>Q26464

MKLSCLLLTLAIFVLTIVHAPNVEAKALADPESDAVGFADAVGEADPIDWKKVDWKKVS  
KKTCKVMLKACKFLG

>P85097

FSPIDRYNDNHTQETIEDREWENVYRSTHGVNCTGSCSWKDGIVTWEGQELNYPTTGPDM  
PDFEPRGASYSWYLYSANRGLVLSMWQEELQNNESPLDAWKSSWQEVNELIAASNVTYVK  
TYGPDRVAGFSPIPAMSMVSYASGARTPDAHFTEVRVVSVPDFAESTKLCDLWLAPKQ  
GTDAAMALAMGHVMLREFHLDNPSDYFLNYCRQYTDFFFLVTLVLSKQKGDQFVADRAADLV  
DALGQENNPWKPVLWNENTNDFATPHGTMGSRGKWNLEQRLEDEETGEKLSVLGIEDEI  
GTVRLQLADGSTALVTTVYDLTMANYGLERGLGGQEPKDFNDVFPFPAWQEKITGVPRE  
LIIQIAREFADNADKTHGRAVLNLLVGAQGVNNGGWVHVGQEKLRPAEGWQTIAMAK  
HMNSTSYFYNHSSQWRYETVTAQELLSPMADKYQHHDYDYNVLAARMGWLPSAPQLGTNPL  
RQAGMSPVDYTVKFAAEQPENGNHPRNLFVWRSNLLGSSGKGHEYMLKYLGTENGIQG  
KQGGVKPEEVEWKLSSSTCLYSDIVLPTATWYEKDDMNTSDMHPFIHPLSAAVDPAWESKS  
DWDIFTSLSKKFSEVCVGHGKETDVVTLPIQHDSAAELAQLDVKDWKGECEPIPGKTM  
PQIHVVERDYPATYERFTSIGPLMEKGIWNTQSEMDLLRAWAALSEFTGRDHTHLALNK  
EDEKFRDIQAQPRVITSPAFTGSEKQSFYLDHDMMKDFGESLLVYRPPIDTRKSRPEVE  
GKEITLNYLTPHNKGGPIVWISSETDARDLGIEDNDWIEVFNNGAL'TARVPAGMTMMYHA  
QERGGIHNSVTRPTHMIGGYAQLAYGFNYGTVGSNRDEFVVRNINWLDGEGNDQVQES



VK

>P85098

SQVGMVLNLDKCI GCHTCSVTCKEGMEYAWFMNVESKLCHEHCLNPACVATCPSGAIYKRE  
EDGIVLIDQDKLCISGCPYKCI FFCYPRIESGQPTVCSETCVGRYLGVL LYDADR IEEAAS  
TEHETDLLYERQLDVF LDPNDPKVIEQA IKGIPQNV IDAAQRSPVYK LALPLHPEYRAA  
DAGELGSNGILPDVESLRMLSAGDTGPVIRSQTVEGVTDTTRALEEVGLTEAQAQEMYRYL  
AIANYEDRFVVPSSHRIDAINITEVR

>Q14919

MPSKKKKYNARFPPARIKKIMQTDEEIGKVAAAVPVIISRALFLFLESLLKKACQVTQSR  
NAKTMTTSHLKQCI ELEQQDF LKDLVASVPDMQGDGEDNHMDGDKGARRGRKPGSGGRK  
NGGMGT KSKDKKLSGTDSEQEDESED TDTDGE EETSQPP PQASHPSAHFQSPPTPFLPFA  
STLPLPPAPPGPSAPDEEDEEDYDS

>P52299

ARGDSYVDLSQYRDQHFRGNRSDQESLLKQSC TLYVGNLSFYTTTEEQIHELFSKSGDVKR  
IVMGLDKVKKTACGFCFVEYYTRADAGTAMRFINGTRLDDRIVRTDWDAGFKGRQYGRG  
KSGGQVRDEYRQDYDAGRGGYGVVQSF

>Q13562

MTKSYSESGLMGEPQPQPPSWTDECLSSQDEEHEADKKEDDLEAMNAEEDSLRNGGEEE  
DEDEDLEEEEEEEEEEDDDQKPKRRGPKKKKMTKARLERFKLRRMKANARERNRMHGLNAA  
LDNLRKVVPCYSKTQKLSKIETLRLAKNYIWALSEILRSGKSPDLVSFVQTLCKGLSQPT  
TNLVAGCLQLNPRTFLPEQNQDMPHLP TASA SFPVHPYSYQSPGLPSPPYGTMDS SHVF  
HVKPPP HAYSAALEPFESPLTDCTSPSFDGPLSPPLSINGNFSFKHEPSAEFEKNYAFT  
MHYPAATLAGAQSHGSIFSGTAAPRCEIPIDNIMSFDSHSHHERVMSAQLNAIFHD

>Q16236

MMDLELPPPLPSQQDMDLIDILWRQDIDLGVSRVDFDFSQRRKEYELEKQKKLEKERQE  
QLQKEQEKAFFAQLQLDEETGEFLPIQPAQH IQSETSGSANYSQVAHIPKSDALYFDDCM  
QLLAQTFFPVDDNEVSSATFQSLVPDIPGHIESPVFIATNQAQSPETSVAQVAPVDLDGM  
QQDIEQVWEEELLSIPELQCLNIENDKLVETTMVPSPEAKLTEVDNYHFYSSIPSMEKEVG  
NCSPHFLNAFEDSFSSILSTEDPNQLTVNSLNSDATVNTDFGDEFYSAFIAEPSISNSMP  
SPATLSHLSSELLNGPIDVSDLSLCKAFNQNHPESTAEFNDSGSLNTSPSVASPEHS  
VESSSYGDTLLGLSDSEVEELDSAPGSVKQNGPKTPVHSSGDMVQPLSPSQGSTHVHDA  
QCENTPEKELPVSPGHRKTPFTKDKHSSRLEAHLTRDELRAKALHIPFPVEKIINLPVVD  
FNEMMSKEQFNEAQLALIRD IRRRGKNKVA AQNCRKRKLENIVELEQDL DHLKDEKEKLL  
KEKGENDKSLHLLKKQLSTLYLEVF SMLRDEDGKPYSPSEYSLQQTRDGNVFLVPKSKKP  
DVKKK

>P80188

MPLGLLWLGLALLGALHAQAQDSTSDLIPAPPLSKVPLQQNFQDNQFQGGKWYVGLAGNA  
ILREDKDPQKMYATIYELKEDKSYNVT SVLFRKKKCDYWIRTFVPGCQPGFETLGNIKSY  
PGLTSYLVRVVSTNYNQHAMVFFKKV SQNREYFKITLYGR TKELTSELKENFIRFSKSLG  
LPENHIVFPVIDQCIDG

>Q00853

MGINIVDTTLRDGEQKAGIALSVQDKVEIAKII SEMGVHQIEAGIPAMGGDEKISVSKIA  
ALGLPSKIAAWNRMSTKDIDT SIECGVDIVHISSPVSDLQIKTKLEKDRKWAENLKR TV

IYALEKDCEVTVGLLEDSSRADLNFLIQLCEMIFALGVKRVRYADTVGIMEPKELYSQIKK  
IRDKVPIDIEIHVHNDFGMAISNSFAAFKAGAKFADCTITGMGERAGNCDFLKFVKVIOE  
LTGEKIYTGDFEDIIEKENEIKKILRLNW

>Q00852

MAVVMGDKVKNIIIDRTIPNLVKKFQNFNDDIAYFLKLLHETGIDLFEINRDSMDKIKKF  
PLNLDYIYRIENIEDYNYLNNYNFKYIILNYKTIYRFLLEDEKIQKNLKEHNIILEIDIE  
DLDELYLSEDNKIFCIFNIVCLRINNLSKLDIFEDDFRIKDLKSKFNVLVDFCASNKYNM  
ATAIIINAFLNGSDIITTEFNSNDYAAMEEVI IALKSIRNIEIRGDLKLI SKLTRIYEKI  
TSERVYSMKPILGEDIFKYESGIHADGIAKNPKNYEPFNP ELIGTNRKLYIGKHSKGAAL  
VVKFKELNLCNNIDMNLFLQDIREKSIQEKRNVL DNEI IEMYKEYNKS YQR

>Q07444

MNKQRGTFSEVSLAQDPKQQRKPKGNKSSISGTEQEIFQVELNLQNASLNHQGIDKIYD  
CQGLLPPPEKLTAEVLGIIICIVLMATVLTIVLIPFLEQNNSSPNTRTQKARPCGHCPEE  
WITYSNSCYIYGKERRTWEESLQACASKNSSLLSIDNEEEMKFLASILPSSWIGVFRNS  
SHHPWVTINGLAFKHEIKDSDHAERN CAMLHVRGLISDQCGSSRI IRRGFIMLTRLVLNS

>Q51662

MSEIMTKNMARNVFYGGSIFFILIFGALTVHSHIYARTKAVDESQ LTPSVVEGKHIWERN  
ACIDCHTLGEGAYFAPELGNVMKRWGVQDDPDSAFETLKGWME SMPTGIEGRRQMPRFD  
LTDEEFRALSDFLWLWTGTINTQNWPPNDAG

>Q8TAT6

MAESIIIRVQSPDGVKRITATKRETAATFLKKVAKEFGFQNNGFSVYINRNKTGEITASS  
NKSLNLLKIKHGDLLFLFPSSLAGPSSEMETSVPVPGFKVFGAPNVVEDEIDQYLSKQDGK  
IYRSRDPQLCRHGPLGKCVHCVPLEPFDELYLNHLEPPVKHMSFHAYIRKLTGGADKGF  
VALENISCKIKSGCEGHLPPWNGICTKQPSAITLNRQKYRHVDNIMFENHTVADRFLDF  
WRKTGNQHFGYLYGRYTEHKDIPLGIRAEVAAIYEPPQIGTQNSLELLEDPKAEVVDEIA  
AKLGLRKVGWIFTDLVSEDTRKGTVRYSRNKDITYFLSSEECITAGDFQNKHPNMCRLSPD  
GHFGSKFVTAVATGGPDNQVHFEGYQVSNQCMALVRDECLLPCKDAPELGYAKESSEQY  
VPDVFYKDVKDFGNEITQLARPLPVEYLIIDITTTFPKDPVYTFSSISQNPFP IENRDVLG  
ETQDFHSLATYLSQNTSSVFLDTISDFHLLFLVTNEVMPLQDSISLLEAVRTRNEELA  
QTWKRSEQWATIEQLCSTVGGQLPGLHEYGAVGGSTHTATAAMWACQHCTFMNQPGTGHC  
EMCSLPRT

>P55055

MSSPTTSSLDTPLPGNGPPQPGAPSSSPTVKEEGPEPWPGGPDPDVPGTDEASSACSTDW  
VIPDPEEPEPERKRRKKGPAKMLGHEL CRVCGDKASGFHYNVLSCEGCKGFFRRSVVRGGA  
RRYACRGGGTCQMDAFMRRKCCQCR LRKCKEAGMREQCVLSEEQIRKKKIRKQQQESQS  
QSQSPVGPQSSSSASGPGASPGGSEAGSQSGEGEGVQLTAAQELMIQQLVAAQLQCNK  
RSFSDQPKVTPWPLGADPQSRDARQQRFAHFTELAIISVQEI VDFAKQVPGFLQLGREDQ  
IALLKASTIEIMLLETARRYNHETECITFLKDFTYSKDDFHRAGLQVEFINPIFEFSRAM  
RRLGLDDAEYALLIAINIFSADRPNVQEPGRVEALQQPYVEALLSYTRIKRPQDQLRFPR  
MLMKLVSLRRTLSSVHSEQVFALRLQDKKLPLLLSEIWDVHE

>Q13133

MSLWLGAPVPDIPD S AVELWKPGAQDASSQAQGGSSC I LREEARMPHSAGGTAGVGLEA  
AEPTALLTRAEPSEPT EIRPQKRKKGPAPKMLGNELCSVCGDKASGFHYNVLSCEGCKG  
FFRRSVIKGAHYICHSGGHCPMDTYMRRKQCECRLRKRQAGMREECVLSEEQIRLKKLK

RQEEEQAHATSLPPRASSPPQILPQLSPEQLGMIEKLVAAQQCNRRSFSDRLRVTPWPM  
APDPHSREARQORFAHFTELAIVSVQEIIVDFAKQLPGFLQLSREDQIALLKTS AIEVMLL  
ETSRRYNPGSESITFLKDFSYNREDFAKAGLQVEFINPIFEFSRAMNELQLNDAEFALLI  
AISIFSADRPVQDQLQVERLQHTYVEALHAYVSIHHPHDRMLFPRMLMKLVSLRTLSSV  
HSEQVFALRLQDKKLPPLLSEIWDVHE

>Q96RI1

MVMQFQGLENPIQIISPHCSCTPSGFFMEMMSMKPAKGVLTEQVAGPLGQNLEVEPYSQYS  
NVQFPQVQPQISSSSSYSNLGFYPPQPEEWYSPGIYELRRMPAETLYQGETEVAEMPVTK  
KPRMGASAGRIKGDDEL CVVCGDRASGYHYNALTCEGCKGFFRRSITKNAVYKCKNGGNCV  
MDMYMRRKCQECRLRKCKEMGLAEACMYTGLL TEIQCKSKRLRKNVKQHADQTVNEDSEG  
RDLRQVTSTTKSCREKTELTPDQQTLLHFIMDSYNKQRMPOEITNKILKEEFSAEENFLI  
LTEMATNHVQVLVEFTKKLPGFQTLDHEDQIALLKGS AVEAMFLRSAEIFNKKLPSGHSD  
LLEERIRNSGISDEYITPMFSFYKSIGELKMTQEEYALLTAIVILSPDRQYIKDREAVEK  
LQEPLLDVLLQKLCKIHQPENPQHFACLLGRRLTELRTFNHHHAEMLSWRVNDHKFTPLLC  
EIWDVQ

>O75469

MEVRPKESWNHADVFVHCEDESVPKGKPSVNADEEVGGPQICRVCGDKATGYHFVMTCEG  
CKGFFRRAMKRNARLRCPFRKGACEITRKRTRRQCQACRLRKCLESGMKKEMIMSDEAVEE  
RRALIKRKKCERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFTDTTFSHFKNFRLPGVLSS  
GCELPELQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLL  
PHMADMSTYMFKGIISFAKVISYFRDLP IEDQISLLKGAAFELCQLRFNTVFNAETGTWE  
CGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAI SLFSPDRPGVLQHR  
VVDQLQEQAIFAITLKS YIECNRPQPAHRFLFLKIMAMLTELR SIN AQHTQRLLRIQDIHPF  
ATPLMQELFGITGS

>Q9S1E5

MTKFKLLLAGSLVAIVSMGLLASNINEREKERVALNKTAHSQGI EGKAMSEEWARYYPRQ  
FDSWKKTKESDNITDMLKEK PALVVAWAGYPFSKDYNAPRGHYALQDNINTLR TGAPVD  
GKTGPLPSACWTCKSPDVPR IIEQDGELEYFTGKWAKYGDEIVNTIGCYNCHDDKSAELK  
SKVPYLD RGLSAAGFKTFAESTHQEKRS LVCAQCHVEYYFKKTEWKDDKGVDKTAMVVTL  
PWSKGISTEQMEAYYDEINFADWTHGISKTPMLKAQHPDWELYKTGIHGQKGVSCADCHM  
PYTQEGAVKYS DHKVG NPLDNMDKSCMNCHRESEQKLDIVKQKFERKEFLQDIAFDNIG  
KAHLETGKAMELGATDAELKEIRTHIRHAQWRADMAIAGHGSFFHAP EEVLRLLASGNEE  
AQKARIKLVKVLAKYG AIDYVAPDFETKEKAQKLAKVDMEAFIAEK LKFKQ TLEQE WKKQ  
AIAKGRLNPESLKG VDEKSSYYDKTKK

>P54989

MGANKQMN LGFLFQISGVHYGGWRYP SAQPHRATDIQYYAEIVRTAERGLDFCFLADSI  
AAYEGSADQDRSKDALMAAEPKRLLEPFTLLAALAMVTEHIGLVTTATTTYNEPYTMAR  
LFASLDHITN GRAGWNVVTSANLAEAHNFGRDGHVEHGDYRAREEF INVVFKLWDSIED  
GAYLRDKLAGRYGLSEKIHF INHIGEHFKVRGPLNVRPPQGHPIVQAGSSHPGKELAA  
RTAEVVFTAQQT LADGKAFYSDVKGRMAKYGRSSENKVLPGVVVYVAET ESEAKAKYET  
VSNLVPPDFGLFMLS DLLGEIDLKQFDIDGPLPEDLPEAKGSQSRREVI INLARREN LTI  
RQLYQRVSGASGHR SIWGT PKQIADQFEQWVYEEAADGFN ILPPYLPESMNDFVNFV VPE  
LQRRGIFRTEYEGSTLRDHLGLARPKNSVAKPS

>P54990

MADQIRSAT EGGDPTSDPKGFRRALGTFPTGVTIVTAPGVDPAGVTANSFASVSLDPPL

VLWSIGHTSRSHSKFQQSATFAINILADDQVGVSVQVFAGGSADKFSLVDWHTGRTGAPLI  
DNALAYFDCVCEARHEGGDHTIMIGRVVDFGRAEGSPLAFSQGRYGVTLHDHPEAAKARDH  
KSEEYGLDDLPLFLSLIAKAHYKEDADLEEQRSAAGCTPVGSKILAGLYGSAPLTADELAR  
RMYLDRREVVDLSNEFVADGHVESCDSSGRFALTESGKQRRRRMIEYVSRYQDEQLASISR  
SDLGVATRVLQAFLAGPGRGSS

>O75694

MPSSLLGAAMPASTSAAALQEALENAGRLIDRQLQEDRMYPDLSSELLMVSAPNNPTVSGM  
SDMDYPLQGPGLLSVPNLPEISSIRRVPLPPELVEQFGHMQCNCMMGVFPPISRAWLTID  
SDIFMWNVEDGGDLAYFDGLSETILAVGLVKPKAGIFQPHVRHLLVLATPVDIVILGLSY  
ANLQGTGSGVLNDSLSSGGMQLLPDPLYSLPTDNTYLLTITSTDNGRIFLAGKDGCLYEVAY  
QAEAGWFSQRCRKINHSSLSFLVPSLLQFTFSEDDPILQIAIDNSRNILYTRSEKGUI  
QVYDLGQDQGMSRVASVSQNAIVSAAGNIARTIDRSVFKPIVQIAVIENSESLDCQLLA  
VTHAGVRLYFSTCFRQPLARPNTLTLVHVRLPPGFSASSTVEKPSKVHRALYSKGIILLM  
AASENEDNDILWCVNHDTPFPQKPMETQMTAGVDGHSWALS SAIDELKVDKIITPLNKDH  
IPITDSPVVVQQHMLPPKKFVLLSAQGSMLFHKLRPVDQLRHLLVSNVGGDGEIEERFFK  
LHQEDQACATCLILACSTAACDREVSAAWATRAFFRYGGEAQMRFP'TLPPPSNVGPILGS  
PVYSSSPVPSGSPYPNPSFLGTPSHGIQPPAMSTPVCALGNPATQATNMSCVTGPEIVYS  
GKHNGICIFYSRIMGNIWDASLVVERIFKSGNREITAIESSVPCQLLESVLQELKGLQEF  
LDRNSQFAGGPLGNPNTTAKVQORLIGFMRPENGNPQQMQQELQRKFHEAQLSEKISLQA  
IQQLVRKSYQALALWKLCEHQFTIIVAELQKELQEQKITTFFKDLVIRDKELTGALIAS  
LINCYIRDNAAVDGISLHLQDICIPLLYSTDDAICSKANELLQRSRQVQNKTEKERMLRES  
LKEYQKISNQVDLSNVCAQYRQVRFYEGVVELSLTAAEKKDPQGLGLHFYKHGEPEEDIV  
GLQAFQERLNSYKCITDTLQELVNQSKAAPQSPSVPKPKGPPVLSSDPNMLSNEEAGHHF  
EQMLKLSQRSKDELFSIALYNWLIQVDLADKLLQVASFLEPHLVRMAKVDQNRVRYMDL  
LWRYYEKNRSFSNAARVLSRLADMHSTEISLQQRLEYIARAILSAKSSTAISIAADGEF  
LHELEEKMEVARIQLQIQETLQRQYSHHSSVQDAVSQLDSELMDITKLYGEFADPFKLAE  
CKLAI IHCAGYSDPILVQTLWQDIIEKELSDSVTLSSSDRMHALSLKIVLLGKIYAGTPR  
FFPLDFIVQFLEQQVCTLNWDVGFVIQTMNEIGVPLPRLLEVDQLFKSRDPFWRMKKP  
LHLLDCIHVLLIRYVENPSQVLNCCERRRFTNLCLDAVCGYLVVELQSMSSSVAVQAITGNF  
KSLQAKLERLH

>A0S865

MKTL LLA VAVVAVFVCLGSADQLGLGRQQIDWGKGQAKGPPYTLCFECNRETCSNCFKDNR  
CPPYHRTCYTLYRPDNGEMKWAVKGC AKTCTPAQPGE SVQC CNTPKCNDY

>P15816

MKTL LLL TLVVVTIVCLDLGYTKTCLKTPSSSTPQTCPPQGQD ICFLKVSCEQFCPIRGPVIE  
QGCAATCPEFRSNDRLLCCTTDNCNH

>P37941

MSVMSYIDAINLAMKEEMERDSRVFVLGEDVGRKGGVFKATAGLYEQFGEERVMDTPLAE  
SAIAGVGIGAAMYGM RPIAEMQFADFIMP AVNQI ISEAAKIRYRSNNDWSCP IVVRAPYG  
GGVHGALYHSQSVEAIFANQPGLKIVMPSTPYDAKGLLKA AVRDEDPVLF FEHKRAYRLI  
KGEVPADDYVLP I G KADV KREGDDITVITYGLCVHFALQAAERLEKDGISAHVVDLRTVY  
PLDKEAII EAASKTGKVLVTEDETKEGSIMSEVAAI ISEHCLFDL DAP IKRLAGPDIPAM  
PYAPTMEKYFMVNPDKVEAAMRELAEF

>P09061

MATTTMTMIQALRSAMDVMLERDDNVVVYGGQDVGYFGGVFRCTEGLQTKYGKSRVFDAP I

SESGIVGTAVGMGAYGLRPVVEIQFADYFYPASDQIVSEMARLRYSAGEFIAPLTLRMP  
CGGGIYGGQTHSQSPEAMFTQVCGLRTVMPSPYDAKGLLIASIECDDPVIFLEPKRLYN  
GPFDGHHDRPVTPWSKHPHSAVPDGYTVPPLDKAAITRPGNDVSVLTYGTTVYVAQVAEE  
ESGVDAEVIDLRSLWPLDLDTIVESVKKKTGRCVVVHEATRTCGFGAELVSLVQEHCFHHL  
EAPIERVGTGWDTPYPHAQEWAYFPGPSRVGAALKKVMVEV

>Q5SLR3

MALMTMVQALNRRALDEEMAKDPRVVVLGEDVVGKRGVFLVTEGLLQKYGPDRVMDTPLSE  
AAIVGAALGMAAHGLRPVAEIQFADYIFPGFDQLVSQVAKLRYSGGQFTAPLVVRMPSG  
GGVRRGGHHHSQSPEAHFVHTAGLKVAVSTPYDAKGLLKAIRDEDPVVFLEPKRLYRSV  
KEEVPEEDYTLPIGKAALRREGKDLTLIGYGTVMPEVLQAAAELAKAGVSAEVLDLRRLM  
PWDYEAVMNSVAKTGRVVLVSDAPRHASVSEVAATIAEDLLDMLLAPP IRVTGFDTPYP  
YAQDKLYLPTVTRILNAAKRALDY

>P35488

MAIITLLEAINQAIDQAMEKDESIVVFGEDAGFEGGVFRVTAGLQKKYGETRVFDTPIAE  
SAIVGSAVGMANGKPIAEIQFDGFIFFPGYTDLVTHAARMNRNRSRQFTVPMVLRRLPHG  
GGIRALEHHSEALEVLFSGSIPGLKVVPSTPYDAKGLLLAAINDPDPVVFLEPKRIYRAG  
KQEVPAEMEYIPIGKAKVVKQGTDMTVVAWGSIVREVEKAVKLVEAEGISVEIDLRTIS  
PIDEETILNSVKKTKGFMVVTEAVKSYGPAELITMVNEKAFFHLEAAPVRFTGFDITVP  
LARGEHYHFPQPEKIAAYIRKLAKARP

>P21874

MAQMTMVQAITDALRIELKNDPNVLIIFGEDVGVNGGVFRATEGLQAEFGEDRVFDTPLAE  
SGIGGLAIGLALQGFPRVPEIQFFGFVYEVMSICGQMARIRYRTGGRYHMPITIRSPFG  
GGVHTPELHSDSLEGLVAQQPGLKVVIPSTPYDAKGLLISAIRDNDPVIFLEHLKLYRSF  
RQEVPEGEYTIPIGKADIKREGKDITIIAYGAMVHESLKAAAEELEKEGISAEVVDLRTVQ  
PLDIETIIGSVEKTGRAIVVQEAQRQAGIAANVVAEINERAILSLEAPVLRVAAPDTVYP  
FAQAESVWLPNFKDVIETAKKVMNF

>Q9S3R8

MKAKSLLLALAGLACTFSATAQEATTQNKAGMHTAFQRDKASDHWFIIDAGGAGMALSGW  
NNDVDFVDRLSIVPTFGIGKWHPEYFGTRLQFTGFDIYGFPQGSKERNHNYFGNAHLDFM  
FDLTNYFGVYRPNRVFHIIPWAGIGFGYKHFHSENGEKEVGSKDDMTGTVNVGLMLKFR  
SRVDFNIEGQAFAGKMNFIGTKRKGADFPVMATAGLTFNLGKTEWTEIVPMDYALVNDL  
NNQINSLRGQVEELSRRPVSCPECEPTQPTVTRVVVDNVVYFRINSAKIDRNQEINVYN  
TAEYAKTNNAPIKVVGGADEKGTAAAYNMKLSERRAKAVAKMLEKYGVSAADRITIEWKGS  
SEQIYEENAWNRIVVMTAAE

>Q9S3R9

MKVKYLMLTLVGAIALNASAQENTVPATGQLPAKNVAFARNKAGSNWFVTLQGGVAAQFL  
NDNNNKDLMDRLGAIIGSLVSGKYHSPFFATRLQINGGQAHTFLGKNGEQEINTNFCAAHF  
DFMFDVVNYFAPYRENRFHLLIPWVGVGQHKFISGEWSKDNVESLTANVGMMAFRLGK  
RVDFVIEAQAHSNLNLSRAYNAKKTVPVFEDPAGRYNGFQGMATAGLNFRLGAVGFNAI  
EPMDYALINDLNGQINRLRSEVEELSKRPVSCPECEVTPVTKTENILTEKAVLFRFDSH  
VVDKDLINLYDVAQFVKETNEPITVVGADPTGNTQYNEKLSERRAKAVVDVLTGKYGV  
PSELISVEWKGDSTQPFSSKAWNRVIVRSK

>P72299

MYEVDMTIVGGGLVGASIAWGLARSGINPLVLDGDDLDLRASRANFGLVWVQKGLHAPH

YALWSDASAKVWPTMTKALSDDSGIDVGLRQAGAYTFALSEEELEAVREDMESIALETNG  
RAPHFDVLRNQQTLERVPGLGPDVVGSIYCSADGHANALALFHALHTAMQKKGAAYRSNH  
RVQTIIEPTTEGFILKGGHGFVSIARRVLAAGLENERLAPMVGLSCPLKCSKGQILVTEKS  
QTALPCLSAGMRQADEGGIMIGDSEETDSAKISSSSGISAVLASRALKIFPALSDDLNVLR  
SWTGFRVKTADGPIIYDQSERYPGAFLLFACHSGVTLAANHALIVAPQIASGKLEDDLVSF  
SARRFDAQQAE

>P00617

MNPAHLVLVSAVCVSLGAANIPPHPLNLIINFMEMIRYTIPTCEKTWGEYADYGCYCGAGG  
SGRPIDALDRCCYVHDNDCYGADEKHKCNPKTQSYSYKLTKRITIIICYGAAGTCGRIVCDC  
DRTAALCFGNSEYIEGHKNIDTARFCQ

>P60043

SNRPMLNTYQFKNMIQCTVPKRSWVDFADYGCYCGRGGSGTPIDDLDRCCQVHDNCYNS  
AREQGGCRPKQKTYSECKAGTLCSSGNSNCAATVCDLAAICFAGAPYNDNNYNID  
LKARCQ

>Q8JFG0

MRILWIVAVCLIGVEGNLFQFAKMINGKLGAFVWVNYISYGCYCGWGGQTPKDATDRCC  
FVHDCCYGRVRCNPKLAIYSYSFKKGNIVCGKNNGLRDIICECDRVAANCFHQKNTYN  
KNYRFLSSSRQRQTSEQC

>P53010

MNNWQHFFNPNVDLSEHLKKPYFRFDNRDKEITAI SFDEKANLIWSGDSYGCISSYDPTF  
QLYTRYRGHIGGNSVKDILSHRDGILSISEDSLHFANRRGVTKLNLTSIDIAAFSELNTM  
CYPHSLKNNIYCGGDNTNWGIASIDLNRGCLDSLNLNYSKVKLMCSNNKVLISIGRQTGT  
VDLLDPTSNRTIKSFNAHSASISAMDLRDNTLVTVGKSKRFYNLYADPFVNVYDLRTRMQ  
LPPVVSFSKGTMTGSGGADFVQLHPLLPTVMIVASSSGSFDIDLSNPTLRTQYVHPCQSI  
KKLCLSPNGDVLGILEADNHLDTWRRSSNNMGMFTNTPEMLAYPDYFNDITSDGPISVDD  
ETYPLSSVGMPYYLDKLLSAWPPVVFKEGTIPQLTGKSPLPSSGKLSNLAVISSQNEK  
LSTQEFPLLRDRTKYGMRNAIPDYVCLRDIRKQITSGLETSDIQTYTSINKYEVPPAYS  
RLPLTSGRFGTDNDFTFPNNTTEYSGLDPDVDNHYTNALIQLYRFIPEMFNFVVGCLKDE  
NFETTLTDLGGLFDMERSHGKICSSSNFQASLKSITDKRQLENGEPQEHLEEYLES LC  
IRESIEDFNSSSEIKRNMPQKFNRFLLSQLIKEEAQTVNHNITLNQCFGLETEIRTECSC  
DHYDTTVKLLPSSLISIGINKTVIKQLNKKSNQNILPYIEYAMKNVTQKNSICPTCGKTE  
TITQECTVKNLPSVLSLELSLLDTEFSNIRSSKNWLTSEFYGSIKKNKAVLRSTASELKG  
TSHIFKYELNGYVAKITDNNNETRLVTVYVKKYNPKENCFKWLMFNDYLVVEITEEEALKM  
TYPWKTPEIIICYDAEELRKPFFSVDTYSINYDILFRDYFANGIRDARREYKLLTHDEA  
PKSGTLVAIDAEFVSLQSELCEIDHQGIRSIIRPKRTALARISIRGEEGELYGVPFVDD  
YVVNTNHIEDYLTRYSGILPGDLDPKSTKRLVRRNVYRKYVLLMQLGCVFVGHGLNND  
FKHININVPRNQIRDTAIYFLQKRYLSLRYLAYVLLGMNIQEGNHDSIEDAHTALILYK  
KYLHLKEKAI FEKVLNSVYEEGRAHNFKVPETSKG

>P36102

MDKINPDWAKDIPCRNITIYGYCKKEKEGCPFKHSDNTTATTINDVPPPIDVGEATTPPTM  
TSVPKFNKVSASFPTMVGSDSLTTVTNTTSAATNATGNIAAATSATASTVNPMPINPI  
VNSSLVNNNNNSNISISIPTTASSSNYDPFNAPIFTPSSTSSIHNTANAHSPFPFSIAN  
SGGININATDDNSNNMSMANNVPPPMQPPPIESSNLKYPRIYPPPHSLLQYHLYAPEQPS  
SLKSLKPNERSADQLFIPNNIREDLTKKNLSILQVFPSSGKVIPSIVQDYFNLVPLNFN  
NNDFLNKTTLFKVFSNYDGKAYVLKRLPNIDKSMNPNKISKIYQIWSKINCTNLIKFRDI

FQTTKFGDLSICLVFDYYPNSLSLYDYHFVNFPKFPITNNYLWIYLVQLTNVINSIHSQN  
LSIGNTLNWRKVLITGDPGRIKLSHCNFMDDLNFDDTDTVVSSGGSTIEGQQQLDYKYL  
ELLFNLSINIENSNNNTAPKEYRLEEITPQSIDDMRQIDDKFKDVLKYLISDNGDSKKS  
HDLTSHFYDKMFMVLESSQTYTEYMEVLSRELENGRLFRLVNLKNCIFGRIESRIDINW  
SESGTKFPIILFYDYVFHQVDSNGKPIMDLTHVLRCLNKLDAQIQEKLMMLVTPDELNCII  
ISYKELKDLIESTFRSITQ

>O57184

MNRNPDQNTFPNITLKIIEITYLGRVPSVNEYHMLKLQARNIQKITVFNKDFVSLVKKNK  
KRFFSDVDTASASEIKDRILSYFSKQTQTYNIGKLFITIEELQSVLVTTYTDILGVLTIKAP  
NVISSKISYNVTSMEELARDMLNSMNVAVIDKAKVMGRHNVSSLVKNVNLMEEYLRHN  
KSCICYGSYSLYLINPNIRYGDIDILQTNSTFLIDLAFLIKFITGNNILSKIPYLRNY  
MVIKENDENHIIIDSFNIRQDTMNVVPKIFIDNIYIVDPTFQLLNMIKMFSQLDRLEDLSK  
DPEKFNARMATMLEYVRYTHGIVFDGKRNNMPMKCIDENNRIVTVTKDYFSFKCLVY  
LDENVLSSDILDNLADTSCDFESVTNSVYLIHDNIMYTYFSNTILLSDKGVHEISARGL  
CAHILLYQMLTSGEYKQCLSDLLNSMMNRDKIPIYSHTERDKKPRHGFINIEKDIIVF

>Q9VJS7

MHVQELLFVAAILVPOCLRALRYSQGTGDENCETLKSEIHLIKEEFDELGRMORTCNADV  
IVNKCEGLCNSQVQPSVITPTGFLKECYCCRESFLKEKVIITLTHCYDPDGTRITSPMG  
MDIRLREPTECKCFKCGDFTR

>Q01103

MINKTYESIASAVEGITDGSTIMVGGFGTAGMPSELIDGLIATGARDLTIISNNAGNGEI  
GLAALLMAGSVRKVCSFPRQSDSYVFDELYRAGKIELEVVPQGNLAERIAAAGSGIGAF  
FSPTGYGTLAEGKETREIDGRMYVLEMPHADFALIKAHKGDRWGNLTYRKAARNFGPI  
MAMAAKTAIAQVDQVVELGELDPEHIITPGIFVQRVVAVSGAAAASSIAKAI

>P0A102

MTITKKLRSREMAQRVAADIQEGAYVNLGIGAPTLVANYLGDKEVFLHSENGLLGMGPSP  
APGEEDDDLINAGKQHVTLTGGAFFHHADSFMMRGHLDIAVLGAFQVSVKGDLANWH  
TGAEGSIPAVGGAMDLATGARQVFMMDHLTKTGESKLVPECTYPLTGACVSRITYDLA  
VLEVTPEGLKVVEICADIDFDELQKLSGVPLIK

>Q09926

MTAKKKEVDDEKRRRILERNRIAASKFRQKKKEWIKLEQTANAAFEQSKRLQLLLSLO  
QEAFLKSQLLAHQGCQCSVKIRSVLTDFTAHNALHSQHMYRPVQPPPGDNMLESVVS  
VSPTQMHPSLQGLPPNQHPMPSSQQPNSDDVQQHMFSAAGLPRSLGGPI

>Q17770

MFRLVGLFFLVLGASAAVIEEEENVIVLTKDNFDEVINGNEFILVEFYAPWCGHCKSLAP  
EYAKAATQLKEEGSDIKLGLKLDATVHGEVSSKFEVRYGPTLKLFRNGKQPQYNGGRDHDS  
IIAWLKKKTGPVAKPLADADAVKELQESADVVIIGYFKDTSDDAKTFLEVAAGIDDVPF  
GISTEDAVKSEIELKGEGIVLFKKFDDGRVAFDEKLTQDGLKTWIQANRLALVSEFTQET  
ASVIFGGEIKSHNLLFVSKESSEFAKLEQEFKNAKQFKGKVLVYINTDVEENARIMEF  
FGLKKDELPAIRLISLEEDMTKFKPDFEETITENISKFTQNYLDGSVKPHLMSDIPEDW  
DKNPVKILVGKNFEQVARDNTKNVLVEFYAPWCGHCKQLAPTWDKLGKFADESIVIAK  
MDSTLNEVEDVKIQSFPTIKFFPAGSNKVVDTYTGDRTEGFTKFLLETNGKEGAGASEEEK  
AEEEEADEEGHTEL

>P35816

MPAPTQLFFPLIRNCELSRIYGTACYCHHKHLCCSPPYIPQSRPRYTPHPAYATFYRPKE  
SWWQYTOGRRYASTPQKFYLTTPQVNSILKANEYSFKVPEFDGKNVSSVLGFDSNQLPAN  
APIEDRRSAATCLQTRGMLLGVFDGHAGCACSQAVSERLFYYIAVSLLPHETLLEIENAV  
ESGRALLPILQWHKHPNDYFSKEASKLYFNLSLRTYWQELIDLNTGESTDIDVKEALINAF  
KRLDNDISLEAQVGDPSFLNYLVLRVAFSGATAACVAHVDGVDLHVANTGDSRAMLGVQE  
EDGWSAVTLSNDHNAQNEREVERLKLHEHPKNEAKSVVKQDRLLGLLMPFRAFGDVKFKW  
SIDLQKRVIESGPDQLNDNEYTKFIPPNYYTTPPYLTAEPEVTYHRLRPQDKFLVLATDGL  
WETMHRQDVVRIVGEYLTGMHHQOPIAVGGYKVTLGQMHGLLTERRAKMSSVFEDQNAAT  
HLIRHAVGNNEFGAVDHERLSKMLSLPEELARMYRDDITIIVVQFNSHVVGAYQNQE

>Q08024

MPRVVPDQRSKFENEFFRKLRSRECEIKYTGFDRDPHEERQTRFQNAACRDGRSEIAFVAT  
GTNLSLQFFPASWQGEQRQTPSREYVDLEREAGKVYLKAPMILNGVCVIWKGWIDLHRLD  
GMGCLEFDEERAQQEDALAQQAFFEEARRRTREFEDRDRSHREEMEARRQQDPSPGSNLGG  
GDDLKLR

>Q9UBV8

MASYPYRQGPCGAAGQAPGAPPGSYYPGPPNSGGQYGSGLPPGGGYGGPAPGGPYGPPAG  
GGPYGHPNPGMFPSGTPGGPYGGAAPGGPYGQPPSSYGAQQPGLYGQGGAPPNVDPPEAY  
SWFQSVSDSHSGYISMKELKQALVNCNWSSFNDETCLMMINMFDKTKSGRIDVYGFSAW  
KFIQQWKNLFQQYDRDRSGSISYTELQQALSQMGYNLSPQFTQLLVSRYCPRSANPAMQL  
DRFIQVCTQLQVLTEAFREKDTAVQGNIRLSFEDFVTMTASRML

>P49355

MASPSSFTYCCPPSSSPIWSEPLYSLRPEHARERLQDDSVETVTSIEQAKVEEKIQEVFS  
SYKFNHLVPRVLVQREKHFHYLKRGLRQLTDAYECLDASRPWLCYWILHSLELLDEPIPQ  
MVATDVCQFLELCQSPEGGFGGGPGQYPHLAPTYAAVNALCIGTEEAYDVINREKLLQY  
LYSLKQPDGSFLMHGGEVDVRSAYCAASVASLTNIITPDLFEGTAEWIARCQNWEGGIG  
GVPGMEAHGGYTFCGLAALVILKKERSLNLKSLQWVTSRQMRFEQGGFQGRCNKLVGDCY  
SFWQAGLLPLLHRALHAQGDPAALSMSRWMFHQQALQEYILMCCQCPTGGLLDKPGKSRDF  
YHTCYCLSGLSIAQHFGSGAMLHDVVVLGVPENALQPTHVYNIIGPKVVIQATMHFLQKPV  
PGFEEHEDEASAEPATD

>O13782

MDELSETQVMQNETATAVLP LLNGESQSFNLQKHLKYLTKMLDPLPSPFTVLDASRAWMV  
YWELSSLAAILGKLDSSVCERAISSVRQLKGPSSGFCGGNGQDEHLLSTYASILSICLCDS  
TDAYSLIERDRLYDWLFLSLKNPDGSFRVMNEGESDARSVYAAVCVSSLVGISMDDPLFEG  
TLQWLCKCQTYEGGLSGVPYAEAHGGYTFCALAAIALLGGLDNLNEIKLSTWLVQRQDPA  
LYGFSGRSNKLVGDCYSWWVGASHVIVASGYGSASHKSLPNLFYNPEKLLGYILQCCQST  
SGGLRDKPPKRPDQYHTCYCLLGLSSIAYDYRYHTSDGWSYKPSILHSSLSLPAHPYIY  
CVPFGFEERIKSYFLSQESSKF

>P53609

MVATEDERLAGSGEGERLDFLRDRHVRFFQRCLQVLPERYSSLET SRLTIAFFALSGLDM  
LDSL DVVNKDDII EWYISLQVLP TEDRSNLNRCGFRGSSYLGI PFNPSKAPGTAHPYDSG  
HIAMTYTGLSCLVILGDDL SRVNKEACL AGLRALQLEDGSFC AVPEGSEND MRFVYCASC  
ICYMLNNWSGMDMKAITY IRRSMSYDNGLAQGAGLESHGGSTFCGIASLCLMGKLEEVF  
SEKELNRIKRWCIMRQQNGYHGRPNKPVDTCYSFWWGATLKLKIFQYTNFEKRNRYILS  
TQDRLVGGFAKWPDSHPDALHAYFGICGLSLMEESGICKVHPALNVSTRT SERLLDLHQ



WTKTKDSKQCSENVHIST

>P53611

MGTPQKDVI I KSDAPDTLLLEKHADY I ASYGSKKDDY EYCMSEYL RMSGIYWGLTVMDLM  
GQLHRMNREE I LAFIKSCQHECGGISASIGHDPHLLYTL SAVQILLTLYDSINVIDVNKVV  
EYVKGLQKEDGSFAGDIWGEIDTRFSFCAVATLALLGKLDAINVEKAIEFVLS CMNFDGG  
FGCRPGSESHAGQIYCCTGFLAITSQLHQVNSDLLGWWLCERQLPSGGLNGRPEKLPDVC  
YSWWVLASLKI I GRLLHWIDREKLRNFILACQDEETGGFADRPGDMVDPFH TLFGIAGLSL  
LGEEQIKPVNPFVFCMPEEVLQRVNVQPELVS

>P80563

MGEVVRLTNSSTGGPVFVYVKDGKI I RMTPMDFDDAVDAPSWKIEARGKTFTPPRKTSIA  
PYTAGFKSMIYSDLRIPYPMKRKSFDPNGERNPQLRGAGLSKQDPWSDYERISWDEATDI  
VVAEINRIKHAYGPSAILSTPSSHHMWGNVGYRHSTYFRFMNMMGF'TYADHNPDSWEGWH  
WGGMMHWGFSWRLGNPEQYDLLEDGLKHAEMIVFWS SDPETNSGIYAGFESNIRRQWLKD  
LGVDVVFIDPHMNHARLVADKWFSPKIGTDHALSFAIAYTWLKEDSYDKEYVAANA HGF  
EEWADYVLGKTDGTPKTCWEAEEEE SGVPACEIRALARQWAKKNTYLAAGGLGGWGGACRA  
SHGIEWARGMIALATMQGMKPGSNMWS TTQGVPLDYEFYFPGYAEGGISGDCENSAAGF  
KFAWRMFDGKTTFFSPSNLNTSAGQH I PRLKIPECIMGGKFQWSGKGFAGGDISHQLHQY  
EYPAPGYSKI I KMFWKYGGPHLGTMTATNRYAKMYTHDSLEFVVSQSIWFEGEVPFADI I L  
PACTNFERWDISEFANCSGYIPDNYQLCNHRVISLQAKCIEPVGESMSDYE I YRLF AKKL  
NIEEMFSEKDELAWCEQYFNATDMPKYMTWDEFFKKG YFVVPDNP NRKKTVALRWF AEG  
REKDTPDWGPRLNNQVCRKGLQTTTGKVEFIATSLKNFEEQGY IDEHRPSMHTYVPAWES  
QKHSPLAVKYPLGMLSPHPRFSMHTMGDGKNSYMNY I KDHRVEVDGYKYWIMRVNSIDAE  
ARGIKNGDLIRAYNDRGSVILAAQVTECLQPGTVHSYESC A VYDPLGTAGKSADRGGCIN  
ILTPDRYISKYACGMANTALVEIEKWDGDKYE I Y

>P80564

MEQYYMVIDVAKCQDCNCFMGCMD EHELNEWPGYTASMQRGHRWMNIERRERGTYP RND  
INRPTPCMHCENAPCVAKNGAVYQREDGIVLIDPEKAKGK KELLDTCPYGMWNEEE  
NVAQKCTMCAHLDDDESWAPKMPRCAHN CGSFVYEF LKTTPEAMAKKVEEEGLEVIKPEL  
GTKPRVYYKNLYRF EKNYV TAGILVQGD CFEGAKVVLKSGGKEVASAETNFFG EFKFDAL  
DNGEYTVEIDADGKSYSDTVVIDDKSVDLGF I KL

>Q8WYR1

MQPGATTCTEDRIQH ALERCLHGLSLSR RSTSW SAGLCLNCWSLQELVSRDPGHFLILLE  
QILQKTREVQEKGTYDLLTPLALLFYSTVLCTPHFP PDSDLLKAASTYHRFLTWPV PYC  
SICQELLTFIDAELKAPGISYQRLVRAEQGLP I RSHRSSTVTVLLLNPVEVQAEFLAVAN  
KLSTPGHSPHSAYTTLLLHAFQATFGAHCDVPGLHCRLQAKTLAELEDIF'TETAE AQELA  
SGIGDAAEARRWLRTKLQAVGEKAGFPGLD T AKPGKLHTIPIPVARCYTYSWSQDSFDI  
LQEILLKEQELLQPGILGDDEEEEEEEEEVEEDLETDGHCAERDSLLSTSS LASHDSTLS  
LASSQASGPALSRHLLTSFVSGLSDGMDSGYVEDSEESSSEWPWRRGSQERRGHRRPGQK  
FIRIYKLFKSTSQVLVLRDRSLEGSSTALPLRRAGSLCSP LDEPVSPPSRAQRSRSLP  
QPKLGTQLPSWLLAPASRPQRRRPFLSGDEDPKASTLRVVVFGSDRISGKVARAYSNLRR  
LENNRPLLTRFFKLQFFYVPVKRSHG TSPGACPPPRSQTSPSPPTDSPRHASPGE LGTTPW  
EESTNDISHYLGMLDPWYERNVLGLMHLPP E VLCQQLKAEQAQALEGSPTQLPILADMLL  
YYCRFAARPVLLQVYQTELTFTITGEKTTEIFIHSL ELGHSAA TRAIKASGPGSKRLGIDG  
DREAVPLTLQIIYSKGAISGRSRWSNLEK VCTSVNLNKACRKQEELDSSMEALTLNLTEV  
VKRQNSKSKKGFNFQISTSQIKVDKVQII GSNSCPFAVCLDQDERKILQSVVRCEVSPCYK  
PEKSDLSSPPQTPPDLPAQAAPDLCSLLCLPIMTFSGALP

>Q3U6Q4

MESSDVELDFQRSVQAVLRELNTPNPALQSNQGMWRWSLHKKVERNPGKSSILVRILLRE  
LEKAESEDGRRV I I P L L L T L M S V L T K A T G I P E D L Y H R A Y T F C T R L L T L P A P Y S T V A L D C A  
I R L K T E T A V P G T L Y Q R T V I A E Q N L I S E L Y P Y Q E R V F L F V D P E L V S A S V C S A L L L E I Q A A Q  
E Q Q T P E A C M R H V V S H A L Q A A L G E A C H T G A L N R K L Q A S S R R V L E Y Y F H A V V A A I E Q V A S E D  
S P S R L G H L E K M E E I Y C S L L G P A T T R R H C V G D L L Q D R L P S I P L P S P Y I T F H L W T D Q E Q L W K  
E L V L F L R P R S Q L R L S A D L D A L D L Q G F R L D R D L A R V S T D S G I E R D L P L G S D E L P D P S S E M  
E R A A L Q R K G G I K K R V W P P D F F M P G S W D G P P L H R R T G R P S G D G E L L P G V S R V H T A R V L V L  
G D D R M L G R L A Q A Y Y R L R K R E T K K F C L T P R L S L Q L Y Y I P V L A P Q V T G Q D P E A S R K P E L G E L  
A S F L G R V D P W Y E S T V N T L C P A I L K L A E M P P Y L D T S R T V D P F I L D V I T Y Y V R M G T Q P I Y F Q  
L Y K V K I F T S L S H D P T E D I F L T E L K V K I Q D S K S P K E G S S P R R R G A A E G T G A E L S M C Y Q K A L  
L S H R P R E V T V S L R A T G L V L K A I P A G D T E V S G F F H C T S P N A A S A T D C S C L H V S V T E V V K S S  
N L A G R S F T T S T N T F R T S S I Q V Q S Q D Q R L L T L W L D K D G R R T F R D V V R F E V S P C P E P C S R T Q  
K S K T S A L N S H G Q E T E K N M A K P N S L L M P I N T F S G I I Q

>Q84LH8

M E Q V F A D W N F E D N F H M S T N K R S I R P E D E L V E L L W R D G Q V V L Q S Q A R R E P S V Q V Q T H K Q E T  
L R K P N N I F L D N Q E T V Q K P N Y A A L D D Q E T V S W I Q Y P P D D V I D P F E S E F S S H F F S S I D H L G G  
P E K P R T I E E T V K H E A Q A M A P P K F R S S V I T V G P S H C G S N Q S T N I H Q A T T L P V S M S D R S K N V  
E E R L D T S S G G S S G C S Y G R N N K E T V S G T S V T I D R K R K H V M D A D Q E S V S Q S D I G L T S T D D Q T  
M G N K S S Q R S G S T R R S R A A E V H N L S E R R R R D R I N E R M K A L Q E L I P H C S R T D K A S I L D E A I D  
Y L K S L Q M Q L Q V M W M G S G M A A A A A A A S P M M F P G V Q S S P Y I N Q M A M Q S Q M Q L S Q F P V M N R S  
A P Q N H P G L V C Q N P V Q L Q L Q A Q N Q I L S E Q L A R Y M G G I P Q M P P A G N Q M Q T V Q Q Q P A D M L G F G  
S P A G P Q S Q L S A P A T T D S L H M G K I G

>P81719

L T P N D P L Y S Q Q W G L S G T Y G I R A N T A W D N G Y Q G Q G K I I A V V D T G I T D H P D L L A N R T S P L G Y  
D F I

>P48007

M G R G K I E I K R I E N A N N R V V T F S K R R N G L V K K A K E I T V L C D A K V A L I I F A S N G K M I D Y C C P  
S M D L G A M L D Q Y Q K L S G K L W D A K H E N L S N E I D R I K K E N D S L Q L E L R H L K G E D I Q S L N L K N  
L M A V E H A I E H G L D K V R D H Q M E I L I S K R R N E K M M A E E Q R Q L T F Q L Q Q Q E M A I A S N A R G M M M  
R D H D G Q F G Y R V Q P I Q P N L Q E K I M S L V I D

>P81898

E P T P L H D T P P T V F F E V T K P I E V P K T K P C S Q L I L Q H D F A Y T Y G Q A P V F A N Y T P P S D C P S Q T  
F S T I V L E W K A T C R R R Q F D R I F G V W L G G V E I L R S C T A E P R P N G I V W T V E K D I T R Y S L L K S  
N Q T L A V Y L G N L I D K T Y T G I Y H V N I S L H F Y P A K E K L N S F Q Q K L D N L A S G Y H S W A D L I L P I S  
R N L P L N D G L W F E V Q N S N D T E L K E F K I P Q N A Y R A V L E V Y V S F H E N D E F W Y S N L P N E Y I A A N  
N L S G T P G N G P F R E V V V S L D G E V V G A V W P F T V I F T G G I N P L L W R P I T A I G S F D L P T Y D I E I  
T P F L G K I L D G K S H K F G F N V T N A L N V W Y D A N L H L W L D K Q S T K T E G K L S K H S S L P L V V S L V  
S D F K G L N G T F L T R T S R S V S S T G W V K S S Y G N I T T R S I Q D F Y Y S N S M V L G K D G N M Q I V N Q K I  
I F N D S V Y I N L P S S Y V H S L T S H K T F P L Y L Y T D F L G Q G N G T Y L L I T N V D L G F I E K K S G L G F S  
N S S L R N L R S A E G N M V V K N N L V V S G L E S T Q Q I Y R Y D G G K F C Y F R N I S S N Y T I L Y D K V G S K  
C N K K S L S N L D F V L S R L W P F G A R M N F A G L R F T

>Q05778

M L F K Q W N D L P E P K H L L D L P E I S K N L Q S L E V C P V P K V E F P Q D L D V P Q Y S T A V I T T K I M N P L

FPKNLLQLTSIGEIKTTLTVKSPSLPQSSGKHSWNYDENFPNEVDPDQKNDTADETVYGF  
SFPIYSFGKTLFLFSMEENFISISPIFGNMISRSIIISQLAQFSPDIIVIGTSDKIASMKVM  
TENECTLQPPEFITGFIGSVLTLQIVGVPKGLKFKCLVAPSEGPNGFEKLSLSDMGSLVD  
LCGQWLGFEPSRYSEECYRLWRCDSAAIGAQSGLYI

>P36040

MSCLVLPLVSVGNIPQLSIDWLLNSQANEWEYLEALDSKYLVEFVGPDRPEDGSDSLYK  
DADMKYSSALEVFYFNKKRGLFAIQORTPLVSVNYLNNFIVEIILPFLSKYNISEICIWDS  
LYAMEDENGVIIVRPQEVYSLGEFYFDDEAELLSNLHLNDQESMVNNWLHFTPTSFQDKIS  
VDQPIFKILFQILNASQRPKALRSIKYCSCLANEGDNSLDSQQFLQWIIISQKVIKNAPPI  
VKFVRPISWQGAYGMADARDKFVDLYN

>Q07951

MISYEFQTHLPKGGKSSLNASSENKELYVQATHFNNTILLQIRLNGEMDSTYEVSSKGLN  
PILDINVPLAGNLGNTGGDYDEEEEFVRDHLSDYQVVTKLGDSADPKVPVVCVQIAELY  
RRVILPEVSGTMAQDNMQFSLIISMSK IWRATKEQSADDNDFGKLVFVLKCIKDMYAK

>Q12245

MLVKTISRTEIESESGFLQPTLDVIATLPADDRSKKIPISLVVGFQAEASLNSSSSLSYY  
YAIPLMRDRHINLKSGGSNVVGIPLLDTKDDRIRDMARHMATIISERFNRPCYVTWSSLP  
SEDPSMLVANHLYILKKCLDLLKTELGE

>Q57716

MVTIAAIIYEPGNSIKNKTGTWRTRFRPILDNEKCVKENCYIFCPEGAIQEDENGNFKID  
YDYCKGCLICMNECPVNAITKVREEK

>P56815

MESLGATVKKPGSTVKNKTGSWRFTFKPVLDKDKCIDCDNCILFCPEGCINREHEIDYDYC  
KCGGICAEKCPVKAIKMEREK

>Q51803

MAESPFKADIERAQKELSEKMTPGAIVYIPGSSVINKTGSWRVFKPEFNRDKCVRCYLCY  
IYCPEPAIYLDEEGYPVFDYDYCKGCGICANECPKAIEMVREVK

>Q56316

MSLKSWEIPIGGVIDKPGTAREYKTGAWRVMRPI LHKEKCIDCMFCWLYCPDQAI IQEG  
GIMKGFNYDYCKGCGLCANVCPKQAIEMRPETEFLSEEG

>P37232

MSTIMVDTNSELCILTPLDEDDLESPLSGEFLQDIVDIQDITQTIGDDGSTPFGASEHQF  
FGNSPGSIGSVSTDLTDTLSPASSPASITFPAASGSAEDAACKSLNLECRVCSKASGFH  
YGVHACEGCKGFFRRTIRLKLKVYDRRCERMCKIQKKNRNKCQYCRFEKCLNVGM SHNAIRF  
GRMPRSEKAKLKAEVLMDQDVKDSQMADLLSLARLIYDAYLKNFNMNKVKARAILTGKA  
SNPPFVIHDMETLCMAEKT LVAKLVANGIQNKEAEVRI FHCCQCTSVETVTELTEFAKSI  
PGFTELDLNDQVTLKYGVEAMFAMLASVMNKDGM LVAYGNGITREFLKS LRKPIGDM  
MEPKFEFAMKFNALDDSDLSLFVAALICCGDRPGLVNIP SIEKMQESIVHVLK LHLQS  
NHPDDSFLFPKLLQKMADLRQLVTEHAQLVQTIKKTETDAALHPLLQE IYRDMY

>P37234

MVDTEMPFWSNLNFGMNSMDMSALEDHCQP YDIKPF'TTVDFSSINSHYDDILDEKTF LCR

NDQSPIDYKYDLKLQECQSSIKLEPPSPYPFSDKPQCSKAFEDTPNSFIAIECRVCGDKA  
SGFHYGVHACEGCKGFFRRTIRLKLIIYERCDLNCRIHKKSRNKCFQCRFQKCLAVGMSHN  
AIRFGRMPQAEKEKLLAEISSDIDQLNPESADQORVLAKHLYDSYVKSFPPLTKAKAPGHPD  
GQSHRQNSRGYTRHELADDGGGSDQGAVREPRAEQGGGDSNLPALSVALRGGVREITEFA  
KNIPGFVSLDLNDQVTLKLYGVHEIIFTMLASLMNKDGVLVVAEGQGFMTREFLKSRLKPF  
SDFMEPKFEFAIRFNSLELDDSLAIFVAVIILSGDRPGLLNPKPIEDIQDSLLQALELQ  
LKLNHPDSAQLFAKLLQKMTDLRQVVTEHVQLLQLIKKTEADMCLHPLLQEIYKDLY

>P10619

MIRAAPPPLFLLLLLLLLLLVSWASRGEAAPDQDEIQRLPGLAKQPSFRQYSGYLKGSQSK  
HLHYWFVESQKDPENSPVVLWLNNGGPGCSSLDGLLTEHGPFLLVQPDGVTLEYNPYSWNL  
ANVLYLESPAGVGFYSDDKIFYATNDTEVAQSNFEALQDFRLLFPPEYKNNKLFLLTGESYA  
GIYIPTLAVLVMQDPSMNLQGLAVGNGLSSYEQNDNSLVYFAYYHGLLGNRLWSSLQTHC  
CSQNKCNFYDNKDLECVTNLQEVARIVGNSGLNIYNLYAPCAGGVP SHFRYEKDTVVVQD  
LGNIFTRLPLKRMWHQALLRSGDKVRMDPPCTNTTAASTYLNPNPVYRKALNIPEQLPQWD  
MCNFLVNLQYRRLYRSMNSQYLKLLSSQKYQILLYNGDVMACNFMGDEWFVDSLQKME  
VQRRPWLVKYGDSEQIAGFVKEF SHIAFLTIKGAGHMVPTDKPLAAFTMFSRFLNKQPY

>O43447

MAVANS SPVNPVFFDVSIGGQEVGRMKIELFADVVPKTAENFRQFCTGEFRKDGVP IGY  
KGSTFHRVIKDFMIQGGDFVNGDGTGVASIYRGPFADEFKLRHSAPGLLSMANS GPSTN  
GCQFFITCSKCDWLDGKHVVFVKI IDGLLVMRKIENVPTGPNPKPLPVVISQCGEM

>Q8WY54

MAGCIPEEKTYRRFLELFLGFEFRGPCGGGEPEPEPEPEPEPEPESEPEPEPELVEAEA  
AEASVEEPGEEAATVAATEEGDQEQDPEPEEEAAVEGEEEEGAATAAAAPGHS AVPPPP  
PQLPPLPPLPRPLSERITPRPLSERITREEVEGESLDLCLQQLYKYNCP SF LAAALARAT  
SDEVLQSDLSAHYIPKETDGTEGTVEIETVKLARSVFSKLHEICCSWVKDFPLRRRPQLY  
YETSIHAIAIKNMRRKMEDKHVCIPDFNMLFNLEDQEEQAYFAVFDGHGGVDAAIYAS IHLH  
VNLVRQEMFPHDPAEALCRAFRVTDERFVQKAARESLRCGTTGVVTFIRGNMLHVAVVGD  
SQVMLVRKQGAVELMKPHKPDREDEKQRIEALGGCIVWFGAWRVNGSLSVSRAIGDAEHK  
PYICGDADSASTVLDGTEDYLILACDGFYDTPNPDEAVKVVSDHLKENNGDSSMVAHKL  
ASARDAGSSDNITVIVVFLRDMNKAVNVSEESDWTENSFQGGQEDGGDDKENHGECKRPW  
PQHQCSAPADLGYDGRVDSFTDRSLSLPGSQINVLEDPGYLDLTQIEASKPHSAQFLLPV  
EMFGPGAPKANLINELMMEKKSQSSLP EWSGAGEFPTAFNLGSTGEQIYRMQSLSPVC  
SGLENEQFKSPGNRVSRLSHLRHHYSKKWHRFRFNPKFYSLSAQEP SHKIGTSLSSLTG  
SGKRNRIRSSLPWRQNSWKGYSENMRKLRKTHDIPCPDLPWSYKIE

>Q04118

MLLILLSVALLALSSAQLNEDVSQEESPSVISGKPEGRPPQGGNQS QGPPPRPGKPEGP  
PPQGGNQS QGPPPRPGKPEGQPPQGGNQS QGPPPRPGKPEGPPPPQGGNQS QGPPPRGEP  
EGPPPQGGNQS QGPPPHPGKPEGPPPPQGGNQS QGPPPRPGKPEGPPPPQGGNQS QGPPPRP  
GKPEGPPPPQGGNQS QGPPPRPGKPEGPPPPQGGNQS QGPPPRPGKPEGSPSQGGNKPRGPP  
PHPGKPGQPPPPQEGNKPRPPPPRRPQGGPPPPGPNPQQPLPPPAGKPGQPPPPPPQGRPH  
RPPQGGPPQ

>P13727

MKLPLLLALLFGAVSALHLRSETSTFETPLGAKTLPEDEETPEQEMEETPCRELEEEEEEW  
GSGSEDASKKDGAVESISVPDMVDKNLTCPEEEDTVKVVGIPGCQTCRYLLVRS LQTFSQ  
AWFTCRRRCYRGNLVS IHNFNINRIQCSVSALNQGVWIGGRITGSGRCRRRFQWVDGSRW

NFAYWAAHQPWSRGGHCVALCTRGGYWRRACHLRRLLPFICSY

>P17980

MNLLPNIESPVTRQEKMATVWDEAEQDGI GEEVLKMSSTEEI IQRTRLLDSEIKIMKSEVL  
RVTHELQAMKDKIKENSEKIKVNKTLPYLVS NVIELLDVDPNDQEEDGANIDLDSQRK GK  
CAVIKTSTRQTYFLPVIGLVDAEKLKPGDLVGVNKDSYLIILETLPT EYDSRVKAMEVDER  
PTEQYSDIGGLDKQIQELVEAIVLPMNHKEKFENLGIQPPKGVLMYGPPTGKTLLARAC  
AAQTKATFLKLAGPQLVQMFIGDGA KLVRDAFALAKEKAPSIIFIDE LDAIGTKRFDSEK  
AGDREVQRTMLELLNQLDGFQPN TQVKVIAATNRVDILDPALLRSGRLDRKIEFPMPNEE  
ARARIMQIHSRKMNVSPDVNYEELARCTDDFNGAQCKAVCVEAGMIALRRGATELTHE DY  
MEGILEVQAKKANLQYYA

>Q16651

MAQKGV LGPGQLGAVAILLYLGLLRSGTGAEGAEAPCGVAPQARITGGSSAVAGQWPWQV  
SITYEGVHVC GGS L VSEQWVLSAAHCFPSEHHKEAYEVKLG AHQLDSYSEDAKVSTL KDI  
IPHPSYLQEGSQGDIALQLSRPITFSRYIRP ICLPAANASFPNGLHCTVTGWGHVAPSV  
SLLTPKPLQQLLEVPLISRETCNCLYNIDAKPEEPHFVQEDMVCAGYVEGGKDACQGDSSG  
PLS CPVEGLWYLTGIVSWGDACGARNRPGVYTLASSYASWIQSKVTELQPRVVPQTQESQ  
PDSNLCGSHLAFSSAPAQGLLRPILFLPLGLALGLLSPWLSEH

>P24665

MKFSTILTGSLFATAALAAPL TEKRRARKEARAAGKRHSNPPYIPGSDKEILKLN GTTNE  
EYSSNWAGAVLIGDGYTKVTGEFTVPSVSAGSSGSSGYGGGYG YWKNKRQSE EYCASAW  
GIDGDTCE TAILQTGVDFCYEDGQTSYDAWYEWYPDYAYDFSDITISEGDSIKVTVEATS  
KSSGSATVENLTTGQSVTHTFSGNVEGDL CETNAEWIVEDFESGDSLVAFA DFGSVTF TN  
AEATSGGSTVGP SDATVMDIEQDGSVLTETSVSGDSVTVTYV

>O14021

MAVSAVPHPSKQAQASEEGINQEK CINEEYKIWKKN SPFLYDLIITRALEWPCMSLQWYP  
EQQIFAEHGYTEQKMFLGVRADVGKYL LAVASIQLPYLNQTVPPPTMEGASAGDESSLRV  
NISNLYSHPE SVCSAKLMPQDDSCVATVGN YHNDVLFVFDKESFESYSSASESPLKPKYRL  
TKHTQPCTSV CWNFLSKGTLVSGSQD ATLS CWDLNAYNESDSASVLKVHIS SHEKQVSDV  
RFHYKHQDLLASVS YDQYLHVHD IRRPDASTKPARSVHAHSGPIHSVAFNPHNDFILATC  
STDKTIALWDLRNLNQRLHTLEGHEDIVTKISFSPHEEPILASTSADRRTLWDL SRIGE  
DQPAEEAQDGPPELLFMHGGHTSCTIDMDWCPNYNWTMATAAEDN ILQIWTPSR SIWGN E  
QLEEDATAYLS

>P28066

MFLTRSEYDRGVNTFSPEGRLFQVEY AIEA I KLGSTAIGIQTSEGVCLAVEKRITSPLME  
PSSIEKIVEIDA HIGCAMSLIADAKTLIDKARVETQNHWF TYNETMTVESVTQAVSNLA  
LQFGEEDADPGAMSRPFGVALLFGGVDEKGPQLFHM DPSGTFVQCDARAIGSASEGAQSS  
LQEVYHKSM TLKEAIKSSLIILKQVMEEKLNATNIELATVQPGQNFHMF'TKEELEEV IKD  
I

>O14818

MSYDRAITV FSPDGHLFQVEY AQEAVKKG STAVGVRGRDIVVLGVEKKSVAKLQDERTVR  
KICALDDNVCMAFAGLTADARIVINRARVE CQSHRLTVEDPVTVEYITRYIASLKQRYTQ  
SNGRRPFGISALIVGFDFDGT PRLYQTDPSGTYHAWKANAIGRGA KSVREFLEKNYTDEA  
IETDDLTIKLVIKALLEVVQSGGKNI ELAVMRRDQSLKILNPEEIEKYVAEIEKEKEENE  
KKKQKKAS

>Q8MAV7

MSGNTGERSFADIITSIRYWVIHSITIPSLFIAGWLFVSTGLAYDVFGSPRPNEYFTENQ  
QGIPLITGRFEPLEEQNEFSRRSQ

>Q5E9G3

MAKPCGVRLSGEALKQVDVFRQNLFQEAEEFLYRFLPQKI IYLNQLLQEDSFNVTDLNSL  
RAPLDIPIPDPPPDKDEMETDKQEKKKEVPKCGFLPGNEKVLALLALVKPEVWTLKEKCIL  
VITWIQHLIPKIEDGNDFGVAIQEKVLERVNAVTKVEAFQTTISKYF SERGDAVAKASK  
ETHVMDYRALVHERDEAVYGD LRAMVLDLRAFYAELYHI I SSNLEKIVNPKGEEKPSMY

>O95456

MAATFFGEVVKAPCRAGTEDEEEEEEGRRETPEDEVRLQLARKREVRLLRRQTKTSLEV  
SLLKEYPCSKFIIAIGNNAVAFLSSFVMNSGVWEEVGCALWNEWCR TTDTHLSSTEAF  
CVFYHLKSNPSVFLCQCSCYVAEDQQYQWLEKVFSGCPRKNMQITILTCRHVTDYKTS  
TGSLPSPFLRALKTQNFKDSACCPLEQPNIVHDLPAAVLSYCQVWKIPAILYL CYTDM  
KLDLITVEAFKPI LSTRSLKGLVKNI PQSTEILKKLMTTNEIQSNIYT

>Q969U7

MFVPCGESAPDLAGFTLLMPAVSVGNVQGLAMDLII STLNMSKIGYFYTDCLVPMVGNP  
YATTEGNSTELSINAEVYSLPSRKLVALQLRSIFIKYKSKPFCEKLLSWKSSGCARVIV  
LSSSHSYQRNDLQLRSTPFRYLLTPSMQKSVQNKIKSLNWEEMEKSRCIPEIDDSEFCIR  
IPGGGITKTLYDESCSKEIQMAVLLKFVSEGDNI PDALGLVEYLNEWLQILKPLSDDPTV  
SASRWKIPSSWRLLFGSGLPPALF

>P46960

MAVLLRDKHISYLHDIGNRTDELDFWLKEHLHVS AIYWSCMSFWLLKKKDQIDKERIVSF  
LLSCLTESGGFACYPGHDDHITNTVYAVQVLAMLD SLHVVDKDKVASYI IGLQNEGSMK  
GDRWGEIDARFLYSGINCLA I L GKLDYLNKNTAVDWLMKCYNFDGGFGLCPGAESHGAMV  
FTCVAALKILNKLDLIDEELLGWWISERQVKGGGLNGRPEKLPDSCYGWWDLSPLA I GK  
LDWIDRNQLIDFLLGTQDADSGGFADRKEDATDVYHTCFSLAGLSLLQFPNIEPVDPRFC  
LPLEVTQKMKL

>Q6ISU1

MAGTWLLLLLLALGCPALPTGVGGTTPFP SLAPPIMLLVDGKQQM VVCLVLDVAPPGLDSP  
IWFSAGNGSALDAFTYGPSPATDGTWTNLAHLSLPSEELASWEPLVCHTGPGAEGHSRST  
QPMHLSGEASTARTCPQEPLRGT PGGALWLGVLRLLLFKLLLF D L L L T C S C L C D P A G P L P  
SPATTTLRALGSHRLHPATETGGREATSSPRPQPRDRRWGDTPPGRKPGSPVWGE GSYL  
SSYPTCPAQAWCSRSALRAPSSSLGAFFAGDLPPPLQAGAA

>Q8UEB0

MPVKLRIFLSHGEEASCAKEPETFLG SNRVRPMSISNSIKITPELVASHGLKPDEYQRILD  
LIGREPSFTELGI FSAMWNEHCSYKSSKKWLKTLPTTGPRVIQGPGENAGVVDIDDGDCV  
VFKMESHNHPSYIEPYQGAATGVGGILRDVFTMGARPIAAMNALRFGAPDHPKTRHLVAG  
VVAGVGGYGN SFGVPTVGGVEVEFDPRYNGN I LVNAFAAGLAKSNAIFLSEAKGVGLPVVY  
LGAKTGRDGVGGATMASAEFDESIEEKRP TVQVGD P FTEKCLLEACLELMKTGAVIAIQD  
MGAAGLTCSAVEMGAKGDLGIELDLNAV PVREERMTAYEMMLSESQERMLMVLEPSKEEV  
AKAIFVKWGLDFAIVGKTTDDLRFV LHN GEEVANLP IKELGDEAPEYDRPWP TPAKVPAA  
LSETDIPEADIADALVSLVGSANSSRRWVYEQYDTLIQGNLQLPGGDAGVVRVEGHDK  
KALAFSSDVTPRYVEADAFEGGKQAVAEWRNITATGALPLAATDNLNFGNPEKPEIMSQ

LVHAIKIGIGEACRVLEFP IVSGNVSLYNETNGQAILPTPTIGGVGLLKDWRMARIRFAA  
ADEVVLLVVGAPAGLGTHIAQSVYMRDVHGRTDGPAPHVDLIAEKKNDFVRGLITEGLTT  
AVHDCSSGGLALAVAEMAISSGIGATIDAVEGHNPILTFYGEDQARYVLTVKKSDLKVR  
AAAKAAGVSCPLIGTTGGSTVKLG TARAVEIKELHLAYESWFPQFMDGETLIAAE

>A6TLS3

MTNQYEAVGLKAKEYEGIVEML GREPNELELNLYGVMWSEHCSYKHSRSMFKHFPTSGPS  
VLQGPGENAGIVDIGDLAIAMKIESHNHPSAIEPYQGAATGVGGI IRDIFAMGARP IAL  
LNSLRFGELEGDARVKYLLEGVVEGIAGYGNCMGIPTVGGEVYFNQSYRGNPLV NAMCVG  
LIEHDAIHRGTASGVGNSIMYVGAATGRDGI GGASFASATLTEESEEEKRAAVQVGD PFME  
KLLLEACLELLKTGSIIGIQDLGAAGLV SACCE TATRGE GMEIDVLKVP RRETGMVPVE  
VMISESQERMLLIVERGREEEVNEIVKKWGLHSV IIGRVTNDDKLRIFEGDKV VGEIPAE  
SLDSSGAPRYEPDYAPPADLAELQKLDIESIPEPRDLSSTLRKLLASPNIASKEWIYRQY  
DHMVRTNTVIKPGSDAAVLRIRGTTKGI ALTTDCNSRYCYLDPREGSKIAVVEAARNIVC  
SGGKPIAITDGLNFGSPETPEGYWQFRESVLGLSEACREMDTPV ISGNV SFYNQTEKGS I  
HPTPIVGMVGLIEDISKCTMAFKEAGDIIVLLGQTKAEIGGSEYLASIHGQEKGKIPHL  
NLSLEKRLQKEVLALI QGDLVQSAHDLSEGG LAVGVAECAIAGGIGARVEVNT ELRNDIV  
LFSSESQSRFLMTIKPEHLETVQERLKQSNIPHEQLGTVIGNELQMQINGNVVVKESIGEL  
EEIWRGALQCLMESMKID

>A7HIJ4

MTEKITPEVVAQHGLTQAEYDEVKRHLGREPNLTELGVFSVMWSEHCSYKSSRVHLKTFP  
TSGPRVLQGPGENAGVVDLGDGLAAAFKMESHNHP SYIEPYQGAATGVGGI LRDVFTMGA  
RPIASANSRFRGDP SHPKTAYLLEGVVAGIGGYGNCMGPVTVAGEVMFHP SYNGNCLVNA  
FTLGILPADKIFLGTAAAGVGNPVMIYIGAKTGRDGIHGATMASAEFDASTEERPTVQVGD  
PFMEKLLLEACLELFKTD AVVGIQDMGAAGFTSSSVEMAGRAGNGLDLFLDQVPLREEGM  
TPYEILLSESQERMLLVAAEGKEDMVRKICTKWDL DVAIVGRVTGTGRWRAHWHGKVVAD  
LPVDPLTEGAPKYQRPMTPHPALPALHAFDLSTVPEPADLGD TLLRLLARPTIASKEWVY  
QQYDHMVRVLVGA VRPGDAAVVR IATGDERHAGKGIAISVGANGRYCF LDPHLGAQHAVA  
ECARNIACVGGEP IAVTDCLNFGNPEKPEIMWQFAECV RIGDACRALGTPV VSGNVSLY  
NETEGQGILPTPTIGMVGLLPDVEKTCTSAFKNAGDVIALVGT LQGEVGGSEYLSAEHGR  
EAGHPPALDLAKEKAVQETVRRAVREGLLSSAHDCSDGGLAVALAECCMMHGVPAGAEKA  
PWIGAAVRVFP PARKDFVLFGEDASRILV SMPKESAA RFVALAQECGAPVIRLGAVGGDT  
LEIQGALSVPVAELAKAWRDGVPVAVLRRDVG HAAASGIAREPQEPLP

>Q8YR06

MTATSPFSPQEI AAEGIKPEEYAEIVRRLGRHPNKAELGMFGVMWSEHCCYKNSRPLLKQ  
FPTTGPRILVGPGENAGVVDLGEGLQLAFKIESHNHPSAVEPFGAATGVGGI LRDIFTM  
GARP IALLNSLRFSGLEDPKTQRLFSGVVAGISHYGNCVGPVTVGGEVYFDPAYSGNPLV  
NVMALGLMETPEIVKSGAAGIGNPVLYVGSTTGRDGMGGASFASAE LSDESIDDRPAVQV  
GDPFLEKSLIEACLEAFKTGAVVAAQDMGAAGITCSTSEMAAKGGVGI ELDL DKIPVRET  
RMVPY EYLLSESQERMLFVAHQGREQELIDIFHRWGLQAVVAGTVIAEPIVRIF FQGAIA  
AEIPADALAENTPLYERELLAEPPEYARLAWESSEALPTGTTAGIEIQGNLH SWQDILL  
TLLNTPTIASKNWVYRQYDHQVQNNTVFLPGGADAAVRLRPLEGGQSRGAGEQGGVNSL  
SGVAATVDCNPRYVYLDPEYEGAKAVVAEAARNLSCVGAEP LAVTDNLNFGSPEKPIGYWQ  
LSEACRGLAEGCRELATPVTGGNVSLYNETFDTQGNPQPI YPTPVGMVGLIADLTKICG  
QG WQGVGDVIYLLGASITTLGASEYLATIHNTVAGRPPRVDFDLERRVQKVCREGIHAGS  
VRS AHDCAEGGLAVALAE SCLAGNLGAEIHLEVSPTQLQRLDEVLFGE GGARILVSVVST  
QQATWESYLQEH LGQNWQKLGIVGNTD TD LAVLTTDNQTLIRVSI EEMNDRYQNAIARRL  
AL

>O67691

MERVWEAYGLTEEEYRKILKTLKREP NHVELGVLGALWSEHCSYKSSKHLKFPPTKAEW  
VVQPGGENAGVVKIDEKVWVAFKVESHNHPSYIEPFHGAATGVGGIIRDVLSMGARPIAL  
ADSLRFGEFNYHETKRLVKGVVSGISFYGNCIGVPTVAGETVFEPSYKTNPLVNAFCLGV  
IPAGRMYPARATREGQLLFLIGSSTGRDGI FGAVMASGEFSEDVEEKRPNVQIGDPYFGK  
KLVEAIMEIVEKD LIVGMQDLGAAGLAGSASEIAAKSEKGVELYLENVPLREKDMNPYEI  
LLSESQERMLLVVEEENVEKVKEIANKWHLEGAVVGKITDDDTFRAYYK GELVAELPVSL  
IVDEAPVYDRPYKEPEYMKVEVRNFNQEELPQTDVKEALKKLLSSPNISCKEWWYTQYDYQ  
VGTNTLLIPGHDAAVLRRLKWLRLPELTTEKGI AISSEGNRMVYLNYPYEGGK FVVAEVC R  
NLACVGA KPLAITDCLNFGNPERPEIMWQFVKAVEGMAEACEELGIPVVS GNVSLYNETV  
EKNEIRNVFPTPIVVG VGVLEKAEKYTPSKVEKESELYLVGNLEENLRLDGSEYLVKVIHG  
LIKGDVPPVDLEKEKILINLLISFNKELITCAHDVSVGGLLIALLEMVFRTPYGLEVEV  
YTDERPDVFFFSENPT RVIIGVESDKAEVKNAVEKAGLEWMI GKTTEEKIKVTFNGD  
TLLEDELEEEYK LWRTSLEKLLGST

>O28339

MYRKVDVPFELYEVEILDASEEELAKISEEMGLALSVD E MKRIQDYFRQKGRNPYDIELQ  
SLAQAWSEHCCYKSSKYYLRQYLLEASKADYVISAI EEDAGVVEFDDEYAYVTAFESHNH  
PSAIEPYGGAATGIGGILRDVLCMGAQPIALIDPLFFGNLDTPYEKLP RGTKHPLYLLKG  
VVAGIRDYGNRVGIPTVAGMVFFDNSYLTNCLVNVGCVGIVRKDR IHSRAGGAGDLFVL  
AGGKTGRDGIHGVT FASAELDEKSEEEARGAVQLGNPIMKEPLIHACLEVVEKGLLTGMK  
DLGGGGLSCVIGEMALAAGFGAEVYLDK VPLKEEGMAPWEI WISESQERMMLTVRPEHID  
EVLYIFQKWDVPATVVGKVIPEKITRIYYKGYKIYEMDTEFVTS GP EYCRPYVARKPEKE  
LHEEVEPPADYVKT FMKMLSHPNAAFKEWIVRQYDHEVRASTVLKPLQ GK MNFETHGDAA  
VIKPTRSFRGLAITADVNPWMCKVDPYWGAASSFDEMV RNLVAVNAVPHSFNDCLNFGNP  
EKPERMGEFVEAVKALGWMAGVGVPCVSGNV SFYNETPYGAVAPTPSLLGVGIVEDVRK  
AITSEFKGRGAVILVGETHNEFGGSLYSAVMGQRCHKVPRTSPERLKTYS DAMLESFRKF  
EVKACHDVSMGGLAVCIAEMSFGRGLGF EAARELSFVELFSESNTRWVVEVPESVAEGYA  
EFFRAKELKAEVIGYS GGERLDFGAFSVELGEADKSWREGLTKFL

>Q9KF57

MSLHREPTATEVKEQKIYREMGLTDEEFALVESILGRLPNYTETGLFSVMWSEHCSYKNS  
KVLLKKFPIDGDKVLQGPGE GAGIIDIGDEQAVVFKIESHNHPSAIEPYQGAATGVGGIL  
RDVFSMGARPI SLLNLSLRFGELTSPKVRYLFE E EVVAGIAGYGNCVGVPTVGGEVQFDPCY  
EGNPLV NAMCVGLIDHKDIQKGQAKGVGNTVMYV GASTGRDGIHGAT FASEELSEASEEK  
RPAVQVGD PFMEKLLLEACLELIKSDALVGIQDMGAAGLTSSSAEMASKAGSGIEMNLDH  
VPQREKGMTPYEMMLSESQERMLIVVKKGREQEIKDIVAHWGLHAVEVGQVTD DKKLRL  
HKGEVVADVPVDALAE DAPVYHKPSKVPAYYEA FQSEKTQWIPTIANVKDTLLSLLQQPT  
IASKEWVYEQYDYMVQTNTVSPGSDAAVVRIRGTTKALAMTTDCNSRYLFLDPEVGGKI  
AIAEAARNIVCSGGVPLGVTDCLN YGNPEKPEIFWQLEKST DGMSEACRELGTPVIGGNV  
SLYNETNGVAVYPTPVIGMVGLIEDVGHIT TQAFKKAGDLIYVIGEAKAEFGGSELQKLV  
NGEISGKAPAI DLAVEKKRQEQLLEAIRAGAVASAH DIAEGGLAVALAESMMGEAVGADV  
VIDGEWTTTELFAESQSRFLVSVPEKQAI FESLVEDAIHLGQVTDHPQLNIQDVNGAQVL  
QASVNEMLEAWKGAIPCLLKS KA

>Q3AD64

MAKWREMGLTDEEYRRIVEYLGREPNEVELGMCAVMWSEHCSYKSSKIHLKLPTRGPAV  
VQGPGENAGVVDIGDGLGIAFKIESHNHPSAIEPYQGAATGVGGIIRDIFAMGARPIALL  
DSLRFGLHSPRVRHLFTGVVAGIAGYGNCIGIPTVAGDVYFQESYEENPLV NAMCVGIV



ELSKLKKGVATGVGNPVLVGGATTGRDGIHGATFASEELSQDGEDKRPSVQVGDPPFMEKL  
LLEACLEALEYGHIVGMQDLGAAGLTSSSEMAARGKSGIRLYLDRVPLREEGMTPYEIM  
LSESQERMLLVVEKGYEDEI I K I F K K W D L N A V V V G E I T D G E E I E V F F D G E C V A K L P Y R L L  
TEEAPVYDRPYRIPEIKNLQSINPAGVDCGEALRRLQLSPNIARKSYVVEQYDHQVGVNT  
VVKPGYSDAAVLR I K G T K K G I A V K T D G N G R Y V Y H N P R E G A K R A V L E T A L N L A V T G A K P L G  
LTNCLNFGNPEKPEIMGQFVEVIAGMKEACEILNIPVTGGNVSFYNETGEKAIYPTPVIG  
MVGLIDDLETGLIPMAFQTEGDLIYLLGEPTGELGQSEFLKEFFGDVLPVPPVLDLQEGR  
RIIEELLPLKKQGLINSAHDVSDGGLAVSLCEAAFAGELGVNIDFTTSLLPQEFLLFSEKV  
GLVIVSVSPEKEEEFIKSVKNAGVFVVLKLRVNGKDEIEICLNGQRVIQEKLSSELKALYE  
GGLSWALK

>Q3ARU4

MKHTDIEVTLTHAEHGLSAEEFSQICTILGRTPITELGIFSVMWSEHCSYKNSIAVLK  
TLPREGGALLTSAGEENAGLVDIGDNLAVAFKIESHNHPSAVEPYQGAATGVGGIHRDIF  
TMGARPVASLNSLRFGSPKDPVRVYLVGDVVRGIGDYGNSFGVPTVAGDIYFEEGYTGNP  
LVNAMSVGIVEHHTVTSATAYGTGNPVLIVGSSTGRDGIHGATFASEDLSEASEEKRPSV  
QVGDPPFAEKLLLEATLEAIETGYVVGLQDMGAAGITSSTSEMSARGIEKYGVGGIEIDL  
LVPIREAGMSAYEIMLSESQERMLIVAAGKGFEDKIEEVYQKWDVQAVVIGEVTDDNHVRV  
KHQGQVVANIPAI SLVLGGGAPVYKREAKEKKPETPLANMVADSTLNFNELGLALLSRPN  
IASKQWVYRQYDSMVQTNTLTPTGQTDAAVIRIKGTNKGVMKTD CNARYVYLNPLAGGK  
IAVAECARNI ACTGARPLAITNCLNFGNPLKPEVYFQFKESVRGMGEACRTFNTPVTGGN  
VSFYNETFIAGQRTAIYPTPMIGMIGLLDN IENLVGSTFTASGDRILLGNPQLTLDGSE  
YLVMQYGT PGQDAPAVDLEHEAQLQRL LVALAEQKLLHSAHDVSDGGLLVALAEKAMMNQ  
EMPLSFRVHLSNNDKSETAIQQQLFSEAQGRVLSAAPEAVAAIMALANDYNLP IQDIGE  
VVNQQTISLSINEQEVVNLPLSNVAHAYYHALEHALHLDL

>Q4JXF0

MIHNDTVADAKANPDLEQPYHELGLKDDYARIKELLGRRPTDAELAMYSVMWSEHCSYK  
SSKTHLRYFGETTTTEEMKSKMLAGIGENAGVIDIGDGHAVTFKVESHNHP SYVEPYQGAA  
TGVGGIVRDIMAMGARPVAVMDQLRFGPADLPDTQRVLPGVVAGVGGYGNLGLPNIGGE  
TVFDATYAGNPLVNALCVGTLKTEDLKLAFASGKGNRVILFGSRTGLDGIGGVSVLASDT  
FEEGAERKLPVAVQVGDPPFAEKVLI ECCLDLYRANVVVG IQDLGGAGLSCATAELASAGDG  
GMHINLNDNVHLRAEGMTAAEILSSESQERMCAVVEPENVD AFMEICRKWDV LASDIGCVT  
DGEHLVIEHCGEIVVDASAHTMAEEGPVYERPYERPAEQDELNEPRGVLPETSQEVRRQ  
ILDLAASPALCSREFITEQYDRYVRGNTVAAKDADAGVLRIDEETGRGIAVSTDASGRYA  
RLDPRTGAQLALAEAYRNVSVTGATPVAVSNCLNFGSPEDPGVMWQFREA VHG LADGCKE  
MGIPVTGGNVSFYNQTDGDTAILPTPVI AVLGTIDDCARRIPQQLPKQAGAEAGADESQQ  
YHLVLVGAETREELGGSIWQQVVHDELAGLPPQVDLSVEQRLGAFITDQRDKIVAAHDL  
EGGLSQAVVELAIQSGRGMVNPMLSQHESAVAQGRTLAQQAAVGLFSETASRVLLAVRS  
EDYGDLMRD LAETGLTGGWIGLTGVSDAAGQPVIRFGSGVYPVLPFGGIEILDPAKQHDD  
DFDIVISLDEAETA WKSTLPALF SHAAGNNSVI

>Q9RXT4

MTSQSLRDQAATFGLTTEEYDLFVSQLGREPNAL EAAIVGAMWSEHCGYKNSRPLFRAFP  
TTGPQVLQGPGENAGVVDIGDGGWVAFKME SHNHP SAVEPVQGAATGVGGILRDIFAMGA  
RPFVAVLDSLRFGNPDSRTRFLVNGVVDGIAHYGNAIGVPTVGGEVTFHPSYQENPLVNV  
MALGLLRHEDLATGTMGEVGNQIVYVGSKTGRDGLGGAVFSSADLSAASQADRPVAVQVGD  
PFMEKLLLEATLEAIQAGLVAGVQDMGAAGLVSSSTCEMAYRASLGITMDLDKVP TREEGM  
VPMELCLSESQERMILVPVPGKEQALHDL LAKWELDVVTIGEVEAHDRYRLTWKGEVVC  
LPVALLNEAPKYTREGVESADIRAARERDLSGVPLPGDLGAVLLELLSHPTIASKRPIFE

RYDHQVMTNTVVVPGAADAAVLRVKGSPMGVAATSDCNPRFVQLDPYAGAAAAVAEAARN  
LACVGATPLAITDNLNFGNPHRPEVYYQLQQAVQGIADACRALNTPVTGGNVSLYNQYTE  
GDHKVAIHPTPTIGMVGVLDPDVTVRASLNLKAAGQTLLELLGHRAEKGWSDSIGASQYLET  
VHGLEAGQVPPVDLDAQKVVDGTLALIRAGLTDTAHDCAEGGLAVALAEMA IAGGLGLN  
VSLDAPASVRADALLFGEAHSRVIVAVEDAAAAGAKLDELGLPYAVLGETVEAPKVTIAA  
PAQHVHLSVNLESLKTAWEEPLKGILG

>Q2NAT8

MSEITPEVVESHGLSSEEDVILKALGREPNLVELGIFSVMWSEHCSYKSSRLHLKLLPT  
EAPWVICGPGENAGVIDIDGHA AIFKMESHNHP SYIEPYQGAATGVGGILRDVFTMGAR  
PVANANALRFGRPEHPKMKHLVQGVVAGIGGYGNCVGVPTVCGETNFHPAYDGNILVNAM  
TVGVADTDKIFYS AATGVGNPIVYVGSKTGRDGIHGATMASTDFEEDSDAKRPTVQVGD  
FTEKLLIEACLELMATDAI VAIQDMGAAGLTSSSVEMATNGKTGIRLDMDKVPCEEGMT  
PYEMMLSESQERMLMVLKPGKEEMAAE I FKKWELDFAVIGEVTD TQRMVLEFGGEVCDI  
PLGPLADEAPLYDRPTI SLEEYKAWAKI APITDAPDSADPGADLLKLMASPNLASRAWIA  
EQYDSQVGADTLQ TGGDAGVVRVHGTTKALAI STDCTPRYCYADPYEGGKQAI AEA YRNL  
CAVGARPLAVTNCLNFANPQRPEIMTQLVEALRGMGDACRMLDFP IVSGNVSLYNESKAT  
GGGSAILPTPAIGGVGI IDDYERM MTMGFKNAGDTI YLVGPEFWATPDPTRSHL GKSLWL  
DVVHGRDEGRTPPTDLVVERNAGKI I HELIDDGLVNAVHDVSDGGLAVALAEMALSGGTG  
ADVEQNSEYTA AQWFGEDQGRYVVTVPDTEALNEALSKGTENAETAQIGFRRI GTVGGD  
GLLGVS LADLREAHASFFREWMEV

>Q2J4M9

MTGNPAAPAATS SVSPPAEQPYQELGLTDDEYARI IATLGRRPSDAELAMYSVMWSEHCSY  
KSSKVHLRQFRDTP LDRLLVGMGENAGVVDVGEGLAVTFK IESHNHP SFVEPYQGAATG  
VGGIVRDIL TMGARP IGVLDPLRFGEADAADTARVLPVGVVAGIGGYGNCLGLPTIGGEVV  
FDPTYAGNPLVNALCVGVMPVDRVQ TSAATGVGN AVVLLGAKTGRDGI GGVSILASATFD  
EGGGPARRPSVQVGD PFTEKIL IETCLELFD RKLVTGI QDLGGAGLTCAL TETTAAGIAT  
GQPGGMEVDL DLVPLREASMAAHEVLASESQERMLAIVTPEALPEVLALAEERWGLATRI  
GTVTNSGRLTVRWHGEVVVDVPPGSLADDGPVYERPLRRPVDFDLVRADAPTPARLARPR  
TGPELRETLRLV ASPNLCSRAWVTDQYDRYVQAGTVLAQPEDAGVLRRLS AATGLGIALA  
TDGNGRYARLD PFAGTQLALAEACRNVA AAGSVP IAVTNCLNFGSPEDPEVMWQFAQACA  
GLAEGCRRLLGLPVTGGNV SFYNQTGSTP IHPTPVIGVLGLFDDVTRRTP IGF AEEGDVLI  
LLGETADEFGGSEWAWVTHRHLGGEP PAVDFAREKLLGE I LVAGSRDGMLTAAHDLSDGG  
LAQALVESCLRGHGARI I LPAGSDPFVELFSESAGRAVVAVPRAEELRF TDMCEVRGLP  
WRRVGVVDGDTLDVQDAFTVGLDELRAAHEGTLPALFGRLT

>Q0BRI4

MTRDVTLSLAQEFGLDAAEYQRVLDIMGRTPSFTTELGIFSVMWSEHCSYKSSRHWLKQLP  
TKAPWVIHGPGENAGVVDIDGGLAAI FKMESHNHP SFIEPYQGAATGVGGILRDVFTMGA  
RPVANLNALRF GSPDHPATKRI IDGVVRGIGGYGNCVGVPTVGGEVNFHPSYNGNPLVNA  
MTVGIAPKDRIFLSAAAGVGNPVIYVGSKTGRDGIHGATMAST EFGADSEKRP TVQVGD  
PFTEKLLIEACLELMATDAI IAIQDMGAAGLTSSSVEMAGKGGVGI ELDLDAVPQREEGM  
NAYEMMLSESQERMLMILRPDRQDVARAI FEKWELDFAVIGHLTD TGHIVVKHQGVVEAD  
IPLDPLAEQAPLYQRPTVETPKRAPLGEVADPVG IASALLTLIGSPDIASRRWIWDQYDS  
TVGGQTVRRPGAADAAVRLDGTERALALTTDCTPRYCFADPEVGGQAQVAETWRNLTA V  
GAHPLAITDNMNFGNPQKPEIMGQFAAAIRGMREACTLDFPVVSGNVSLYNETEGTGIL  
PTPAIGGLGVL DNAETATGLSLRPLGLDLVLIGTGGTTLGQSLWLREIAGREDGPPPAVDL  
AAERRHGDLVRS LIHQKVAACHDLSDGGLLVAIAEMA IAGHTGAVLSGEGDHVFWYGED  
QARYIIATTYSAAVLDAAKAANVPASLI GRAEGTDLQVPGCTPISVATL RERHEAFLPAL

MAQR

>Q18JI5

MTLSDSDLELITTELGRELTPAEAAALFENLWSEHCAYRSSRPLLQSFTTGDDSANDEGAE  
HVVI GPGDDAAVVRLPRVDEASETP IYITMGIESHNHPSYVDPYDGAATGVGGIVRDTLS  
MGAYPIALADSLYFGSFDRETRQYLLDGVVEGIADYGNAIGVPTVAGSVEFHNKYTG NPL  
VNVACIGLLTDERLVTAEAQSPGNKLVLVGNATGRDGLGGASFASEDLSEDAETEDRPAV  
QVGDOPYTEKRLIEANEELITAELIQSARDLGAAGLGGASSELVAKGGLGARINLERVHQR  
EPAMNAMEILLAESQERM CYEVHPDDVETVGDIAAKYDLGYAVIGEIRDGNVCTFGDET  
VVDVPAGFLADGAPMNDLSATEPPTPEESTFPAIDAATAFN TIIISTPNTASKRWIYRQYD  
HEVGLRTAMRPGDDAALIAIREAGVGLALSSGAVPAWTESNPYKGAQVALENATNVAAK  
GATPIAAVDCLNGGNPEKPAVYGAFKDIVQGLADMCHTSLIPVVGGNVSLYNDSTSGPIP  
PTPTLALVGTKKTDFDAPPAALTGDGTL LLLVGHQSNLGGSELLAQIGGTDKFPALPSNPT  
AVVDSLARVANHPSTLATHDVSTGGLAVTLAELITSDAGARVTVQNKTSLFTETPGRAVI  
ETTDPAVRHIFEGVAPVVSLGDTTTDGTTLTINIDDEDTANESPAVTTDAATVAKQRRIL  
EDALE

>Q7VF52

MTNITHLLGEIKDIDETLKVHKL SKQDYEEILKILKRPPNLIELGIFAAMWSEHCSYKSS  
KKYLN GFPTKAPVWVQGPGENAGIIDIGENLCAVFKIESHNHPSFIEPHAGAATGVGGIM  
RDI FTMGARPVASLNSIRFGDISDN GTLGKKHRYLLRGVVEGIGSYGN CMGVPTIGGEMS  
FESCYN GNILVNAFCLGLVKKDEIFYGKAEGIGNPVIYVGSKTGRDGLGGAVMSSDSFSS  
TSKAVRS AVQVGD PF AEKLLLEACLEL FQDLIVGIQDMGAAGLTSSSFEMAGRSGSGMT  
LYLDKVP MREEGMN PYELMLSESQERMLI CAKKGCEQQVLDIFAKWEVDAAI IGEVTKSG  
IMELFWYGEKCAEIP IAQLSENAPMLDMPLRPVAVQTHKANQLKTSQSAQE I F I TLLGSV  
EVANKRWVYSQYDSSVQSNTITPAGSGDASMI RIKGTNSALSMSVDCNMRYCYLDPKNGA  
KIAVATSGRNSIVNGAKPLAISDCLNFGSPHNPEVMWAFKEVCQGIKESCKVLNTPVVS  
NVSLHNQSDGVDIYPTPSIVSVGLIDDVSKVVSSTFQTQGNMLVLLGEIKA EFGGSLAQK  
ILEGHIY GQIPSIDLTQEFALWNLMLEASDECMLSAAKDIGEGGLAITLAKMALGN GECQ  
PIGCNVHTHLP SQLLFAPSQSCII VEVAGEHLN TLKQKAKQHKIAFTEIGCVGGDIFCVD  
EINISLEEMKKLYFESFEKLI AQDL

>A8ABX6

MPLTEEELKLI EETLGRKPNQVELAMFEAQWSEHCSYKSSRKHLRKLKMDSPWVVKGGDA  
AVVDFGSVYVAFRIESHNHPSAVDPYNGAATGVGGIIRDILSSGAKPIALLDDLIFGDL  
ENLVKWHVKG VVKGISDYGNRVGVPTVGGETWFDPDFTRNPMVSVACVGC PKDKLINGT  
PRPGDLIVIAGNYTGKDGLLGSSFASKNLEEGVEEYAAIQVPDPLMEKLLIDSILEMRD  
ERLLVFVKDLGGGLATALSEVAASFGLGVEARLDALHLREPMEAW EIVVSESQERMMLV  
IRPEDLERAKKVLEKYDVPYSVIGKFTDTGRVVLYN GEKVADLPAKFLAEGPELDRPYE  
RPKWHLELELLPPLPEVDLGD AIRKVLSSPNVASKRWIYEQYDHEVQIRTVVKPGE GDA  
VLRLLEDPPKGI AVATDSNPRYTFDPLWGAADVFL EAYRN VVASGARPLAAVDQVDAGS  
PERPDRFWFFVRMIDGLAWVEREVDVPIVGGKVSFY NEDDVTGKQIKPTVMI TMIGKVEN  
VYNAKRARAEEDLLVLVGETFP ELGGSEFLWSVHKLVRGKPPVPRPSTEARVAERILKA  
IKVSGVTGVHDVSVGG LA AAVAELAKGF GATLELDKVKGPWKRPEEALFSES GARYLLAV  
KPEAAEEVLKVTGGTVVGKVG GGPLRVLLNGKEVASVDDFEDLLENGMTSRLV

>P35852

MYVVHVEMSPEAIATQKPYLDLGLTEAEYDRFAELIGHQPNDTEIGLASGMWSEHCAYKY  
SKPVL RQFWTKNERVLMGPGEGAGVIDIGEGKAVVFKAESHNHPSAVEPYEGAATGVGGI  
IRDIFSIGAKPVAMLD SLAFGDIEQPHTQHLVDRIVAGIGGYGNAIGIPTVGGETNFDGS

YTRNPLVNAMCVGIMDKDQIQKGKAAGVGNALIYVGAKTGRDGINGASFASGDFSDEEAA  
DRSAVQVGDPPFMEKLLMDACLEITGHHQEALVGIQDMGAAGLVSSSVEMAGKANSGMVLD  
LDLIPQREAEMTPFEIMLSESQERMLLCVRAGFEQEVLAVFADYDLDAIVGHVIAGHQY  
QLYHHGKLVCDVPVSSLTDDAPIYHQQKMPKRLAQPAADFDP IITDPVQIWTDMAMP  
IADKSSLYKRYDAQVQNTVVLPGSDAAVIRIRGTHRALAMTTDSKDVTCIL IAGGCGNE  
CWLKRARNLVASGAELGITDCLNFGDPTKPEAFYELAEAAKGI IAAATKAFNAPVISGNV  
SLYNETNGEAIYPTPMIGMVGLIEDLSTITTAAFKQADDLIYLVGETHGDFNGSELQKLQ  
TGEVTGKLFDFDLEAEKQHQHFLKAIREHLITAAHDLSDGGLLVALAEMGFDAQLGAQI  
NVTLPATAWGFSSETQGRFLLTVSPENQAAFEALHGPAQLIGRVQAPPEFEVTTVNQHF SAS  
LQQLQTAFAEEALPCHMNQKA

>A8YW85

MKQAMTPPEEIKEKKPYLDWLSLTHEFYDYICDKLLKRLPNYTEIGLFSAMWSEHCSYKKS  
PVLRLFPPTKGRVVOGPGEGAGVVDIDDGQAVVFKAESHNHPTTVEPYQGAATGVGGILR  
DVFSMGARPVAILDSLHFGELKNNPTMRYKMEETIRGVGDYGNICIGIPNLGGETTFDSCY  
NGNILLNAMCVGLMNIKMEHGKAVGLGNSIMYVGAKTGRDGIHGATFASADFSKEHETQ  
RSAVQVGDPPFMEKLLMEACLELILKHRDWLVGIQDMGAAGIVSSSAEMATEGNAGMELNL  
DLVPQREPNSAYEIMLSESQERMLLCVKKGHEEDVKKIFKDYNLDAVTIGRVIEGENYV  
LYHEGEKVCDIPVRSLTEDVLEEPSKEIKPQYIIDAEMPAWRPSFESSGEILKRLLNQP  
TIANDQFITQYDSQVRSNTIVKPGSDAGVLRIRHTKKAIAMCTDTNGRFVYLNPKIGGQ  
RSVIESVCNIVASGAKPLAITDCLNYGDPNDPEIFWLSLRESCQGIADACRIFETPVVSGN  
VSLYNENDGQAIYPSPMIGMVGLIKNTDYVIPMHVQEADDIVYLVGKTTADFAGSEVQKM  
LQGKISGLPEAPNLELIHDYLNKLNHKAMTQGLVTSAHDLSEGGLAVSLAESVFDTEFGLN  
INLSEFDKTLFSETPGRLIVSVKPENKSAFESLLGSAVQEI GRVTDQRKLSIKLANDEL  
NTDVASLEKIWKESIPCLMKSKA

>Q6ACC3

MTDTTAQHVVDTVANAAATPEREQPFAALGLKPDEYASIREILGRRPTNGELAMYSVMWS  
EHCSYKSSKIYLRQFGQKVTTPAMKKNLMVGMGENAGVVDIGEGWAVTFKVESHNHP SYIE  
PFQGAATGVGGIVRDIISMGARPVAVMDQLRFGAIDEPDTAHVHVGVVSGISFYGNCLGL  
PNIGGETYFDPVYQGNPLVNALSVGVLRHEDLHLANASGVGNKVVLFGARTGGDGIGGAS  
ILASDTFSEGGPTKRPAVQVGDPPFAEKVLIIECCLELYRDKLVEGIQDLGAAGISCATSEL  
ASNGDGGMFIELDVLLRDPSTLTAEEILMSESQERMMAVVKPELLDQFLAVTAKWDVETS  
VLGEVTGTGRLVINWHGEEIANVDPRTVADGPVYERPVAYP SWIDALRADSASALALPV  
SGDALREQALALLGSANLADKSWITDQYDYFVGGNTALAFPDDAGMIRVDEESGLGFAIA  
TDANGRYCQLDPKEGAKLALAEAYRNVAASGAVPAAVTDCLNFGSPENPEVMWQFSQAVE  
GLSDACLELGIPVTGGNVSFYNQTDGVP IFFPTPVVGLGVIDDVARRIPAGWQDEGENIY  
LLGITREELDGSAAATVHGHGGRPPAVDLAAERRLAETLHAASQQGLISSAHDLADGG  
LAQALTESVLRFGVGARVWLGDIAERDGVDAASALFSESTARAI VSVPREDDVKFRGLCD  
GRGVPALRIGVTDAGAGTEPVLEIQDLFAIEVAELRSVHRSTLAERFGPVVG

>Q04QS4

MEKDVVSLQDALEHGLTAEFFQKIQEILGRIPNSTELGIFSAMWSEHCSYKNSVLKLT  
PTSSDKLLAKAGEENAGAMDIGDGLAVVFKIESHNHPTAVEPYQGAATGVGGIMRDI FTM  
GARPIVSLNSLRFNGPDEPRNKYLLSRAVKGIGDYGNLSGIAVSGGELFIDEFCFSKNPLV  
NAMTVGIVRHDQMASATTGGQVNAVYIVGATTGRDGIHGASFASKDLSKESKRSVQ  
VGDPPFMEKLLMEASLEAIQKGLLIGIQDMGAAGISCATSEMSAKGKTGMKIDLVLVPFRE  
TGMNAYEVMLSESQERMLVVPKKGKESSELVSI FEKWNLNAVRIGEV TADGFIEIYMGGKL  
KAHIPAESLVLGGGAPRYERETKRPSYLDVAVKTKWPNISILDITPGANTKDVLNLSLSSWN  
VCSRKPITEQYDSEVGLVKLIGPGLDGGLSIPDITNKALATATDCNSRYTYLDPYKGAQF

AVCEAARNVYVTGATPYGVTNNLNFANPYIPENYYMFSECIRGMGDACRFLGLPVTGGNV  
SFYNESPEGP I F P T P T I G M V G I L Q D K K K F L S N F P K E V G I E L A V L G N F R P S L G G S E Y L K K I  
H G Q V N G S I P E I D I K E E L E L C K L I L S L N E K G A L K S A R D L S L G G I G I A L S K T I L F S G L G I D A  
E L I A F K Q S R L D L T L F G E S T T V L V G F D S S W K E K I R E Q T E E K G L K F Y P V G K T T S S E L L K L K  
D I G V E V S F S E L N G P Y E K G L E V V F A L

>Q03Y89

MTTNELSPEEVRDSKIYIEWGLTEQEYDLIVKELKRLPNFTETGIFSGMWSEHVSYKKS  
PILRKFWSSNERVLQGPGEAGILDIGDNQAVVFKAESHNHPSFVEPYEGAATGVGGILR  
DIFSMGAQPIAVLDSLRFGELDNAHTKHIVDGVIAGIAGYGNAGIPTVGGEGIFDGVYA  
GNPLVNVMAVGLMDQNAVQVQAKGIGNSIYVYVGAKTGRDGINGASFASAEFSSAEKSDR  
SAVQVGDPFLEKLVMDATLQAIREHSDIIVGIQDMGAAGLLSSSSEMAAKAGMGIHLNLD  
MVPQRETGMTPELMLSESQERMVLVVKKGEEQAIIDLQFQADLDAVIIGQVTDGGRYRL  
NFKNEVVADVVDLTHAPKQDLPMIEPARLANFTDEQFEPDMGNVKETILTLLAQPTIA  
SKASLFRHFDSQVRADTAIKPGGDAALIRIRDTQKALAMTTDVNARYLYLNPRVGA  
MAV AEAARNIVSTGAKPIGITDGLNFGSPDNPEVYYELDQAVAGINDVAKQLDTP I ISGNVSL  
YNETDQQAIIYPTPMIGMVGLLEDITKATRFAQKAGDNIYLVGRTKDSFNGSEIQKMQTG  
HIAGQLFDFNDEDELAQQVILDVTDQRLLSAHDLSEGLIVGLLESFAFAGNLGFDISV  
DLADKYLFSSETPSRFVVSVPENRTTFFESLAGDRVIKLGVTADD TINITTTTSDIQLSL  
IETKKIYQESIAWKLNAE

>Q58660

MDENDLKYIEKVLGRKPNHIELAMFENLWSEHCAYRTSKKLLRMFAKTVNEKTSKNIVVG  
IGDDAAVIRLKN DIC LAI AME SHNHP SY ID PYNGAATGVGGIVRDVLSMGAKPIALLDPL  
RFGDIFGKEGDKVRWLIIEGVVKGIGDYGNRIGVPTVGGEGEFDSSFDYNNLVNVVCGVLV  
KENEIITGKAKEPGLSLILIGSTGRDGIGGASFASKDLTEESEERPSVQVGDADFSEKCL  
IDAVLEAVKTGKVKAMKDLGAAGLSGASSEM CYGGVGC ELYLENVVLREPLTPYEIMVS  
ESQERMLLAVEPGSEEEIEIFKKYELPASVIGKTIPEKRIIAKYKGEVVVDLPLDLLCE  
APLYDREGKEDLKEKEDDKEKIKMPEDLNAVLLKLLLESPNICSKEWIYQQYDHEVQIRTV  
VKPGKDAAVLRINEVYPMGIALTTDCNSRYCKLNPNYVGA VNAVAEAVRNLATVGAEP IAM  
LDNLNFGNPERPERFWQLAECIKGLADAAEFFEIPVVGGNVSLYNETVIEGKEHPINPTP  
AIFVLGKVEDVEKVPVGLDNKIKEGDILIIITNETKDEMGGSEYYKVIHNTTEGRVPRVDL  
EKEKKIYEEVREVVEGLVSEAVDCSRGGLAVALAKMAVLN NIGLEVDLTEYNKNNLRDD  
ILLFSETSGRIILAVRDENKDKVLSKLS SAYIIGKVGGSRKIKINEKDVVNL DVEEMKK  
RYYEAFPKMMGEL

>Q8TY09

MTLDERDLELIREELGRDPNATERAMFENMWSEHCAYRSTRHLLRQLPSEADHIVGPGD  
DAAVVAIDDEWAVVVGIESHNHPSYVDPYNGAATGVGGIVRDVLSMGAFP IALLDPLRFG  
PLDGERVPYLV DGVVRG I S D Y G N R I G V P T V G G E L E F D P S Y E R N P L V N V M C V G I V R R S E I V  
RGRADRPGDVLVLVGARTGRDGIGGA AFASEELGEESEEDRPAVQIGDPF TERQLIIAI  
REAVERGLVKCKDLGAAGLTCAATEMAADGGTGVEIDVFKVPLREEGMEPWEIMLSESQ  
ERMLLVVAPEDVDEVIEICRKYGLEASVVGRTDDGYLTVKDGDDVIARVPAEF LADGAP  
EVEWEEEPYSYPENVDVPEPDPEDLVR SVLSSPNVSPALREWVYRQYDHEVQGR TVVKPG  
HDAAVMWLQHEGLE DVALALTTDSNPRHVLIDPKTGTEGCVAEALRNLATVGAEP LCLVD  
CLNFGSPENPRVYYQLRRSIEGLGKAAREFEVPPVGGNVSLYNEHEVDGPNPTPVIGAV  
GVIRGLDYLED FPREPEEGEAVIVLGETREELGGS LYLI EYHG IKGKGVPRVRYREERAL  
HDLRLRIARKNMVSSVTDVSTGGLLAAVAELLGPV GASLSLSEVPNSVSRWDF LLLSESH  
GRAIVTTDRPDDV LGAAEEAGVPAQVVG EVTGDGVL R I S V G P V D V S L D R E E L E E L W R S P L  
HYLE

>Q8PYK1

MLPEEDLKI IKKELGREPTLVEQGCFLNLWSEHCSYRSSAPLLKTF'TTTGENVI IIGPGDD  
AAI IKFEDGYVLAIGMESHNHPSYVDPYNGAATGVGGIVRDI ISMGARPIALMDPLYFGP  
LDTPKNLFLFEQI IKGIAGYGNICIGVPVWVNETFFDRRYSGNPLVNVVAVGLCKEEKVMT  
SRSQKAGNKLILAGSSTGKDGLGGASFASRDLSESAEDAEDRPSVQVGDOPYTEKLVEMMTL  
EAIDKGYIKSCKDLGAAGLGGASSELAAGGLGAYI IADAVPQREPEMNAYE ILLAESQE  
RMVFEVAPEDVDAVLALVQKYDLNGAVIGHLTEKPNYTFEFRGEIVADIPIGFLTGGAPT  
CEKPSEAPIHREEGKKPETPEDLKA AFMKVLSSSHNIASKEWIYRQYDHEVQLR'TVVKPGE  
DSGVLRIITDKKGI ALSCGCQPRATLLDPYTGGRTAI IENAMNLAVKGAEGLAIVNCLNFG  
NPENPETYWQFKNVAVLGLGDAARELSIPVVGGNVSLYNESDEFRTAIPPTPSIGMIGKVD  
LETPLPSGFFAKTGDSEI IILVGETVPEMGGSEYYSCMGAGNAGKVPEVPKNAPEI IKAVIE  
AVKSGKLN SAHDI SLGGIGAGLARMCKNMGGKVDVSEIAGGMKEDEF'L'FSEAPARALLAT  
AEPEAVQELLKGVPHAVIGTVGGDALEIKGKDFELFISLEEIKNAHESLTKFMMMG

>A5UMW9

MTLTDSEMEYIEGILGRKMNELEEGMLDVMFSEHCSYKSSRPILGTFPTEGENI IILPGD  
DAGLVSVTDKYALAVGMESHNHPSAIEPYGGAGTGIGGILRDI ISMGARPIALLDSLRF  
SLDDEKSKYLFHEHVVEGIDSYGNRVGVPTVAGEVEFDDSFRTNPLVNVVMCVGLVEKDKIV  
RGKAPYVGDVFLLMGGTTGRDGIHGVTFASEELTSDSETEDRPAVQVADPF'TKKRVLEAS  
LEILDEINVSQVLDLGGGGLTCCISELVDESNNGARVDLRNIPLETGMPYEIMLSESQ  
ERMVFINPKDVKKAQEI CDKHEIVSAVIGEVIDGNMI IDDEGSSLADLPTILLADPPS  
LNRELKEIAEDTSKVEVDHPPVRQSLLELLSSPNIASKQWVYKQYDHEVQV'TVVKPGDD  
AAVLRIDDDTAIALTTDANTIHTKLSPFDDGGAGCVAEAIRNVISMGATPYAVVDCLNFGN  
PETPEILWQFKRTIEGMSLVAENFNAPVISGNVSFYNETEGIKINPTPAVGVIGVENIEN  
IRTMDFKNSGDKILLIGTTYDEVTGSEYHRTIHNIIEKGMAPRIRIEDELANGKTILKLLD  
EDSSKNITAVHVDVSHGGLAVALSEMVMKGNIGCEIDLDSIITSEDL'EESD'LIYSESHGRY  
IITVNADAVDEILNKIDVPVAIIGEVKGAVLKLGDNEFTIDELNDSYHGVIEKYMA

>Q2NEB6

MVLTDDELKYIEEVLGRKPNELELGMMDVMFSEHCSYKSSKPI LRNFPTDGPDVILPGD  
DAGIVSLTDEYALAI GMESHNHPSAVEPYGGAGTGIGGIVRDI ISMGAKPVVLLDALRFG  
HMSNQRSKYIFDYVVKGISDYGNRIGVPTVGGIEFDDNFQYNPMVNVVCAGLVKKDEIV  
YGSAPIVGDVYLLMGTTGRDGIHGVTFASEELTSNSEVEDRPAVQVADPF'TKKRVMEAT  
YELLETLDIHGVKDLGGGGLTCCLESEMADKGGNGSLIDLNKIPLREENMTPYEIMLSESQ  
ERMVFAIDSSDVEKAFEICKKHDLAHAIGNIIDKREFI IKDDEEIEI CHAPNILFTEAPI  
IEREAKEPEKIIEDVEIPEVDVEEALYKLLSSENITSKEWVYSQYDHEVQLR'TIVKPGDD  
AAVIKVDDETSFTIGTDCNSTHVLLNPNYDGAASAVLESINNAISMGARPIALVDCLNFGN  
PEKPEVFWQFKEAVSGMSDVAGKFNTPFISGNVSFYNETEGVTVNPSPIVGTVGVVENTK  
IKTMTLKDDGDVILVVGNTYPELDGSQYKHIHNVVQGYPPKIRLEENYNVSTTIEKLIPI  
KYNDNITSVHDI SKGLI IALALMSIKSKKGVNVNINSIPSTTELSQDDKLYSESNRFI  
ITVKEDALTTIEEALSKNNVAYSVIGSVCSDFKISNDNDVLVDCSVEKITKENTTTIEK  
QMA

>A0B5C7

MKVI GLADSELESSLRKAGIGMSASEARSIASILGRDPTLAELFCYDAMWSEHCSYKSSR  
AVLREFLPTEGPNVVLGPVEDAGIVSIDDEWCVVISHESHNHPSQILPNEGAAATGIGGIV  
RDVNCMGARVVATADPLRFGDPYGRESSRVRWVAEGVVDGIWQYGNALGVPVIA GDVVF'S  
RCFDYNCLVNVVAIGVVRDEI IRSRAPPGSGEKGYDVILIGKPTDSSGLGGVIFASDTL  
REEEEEANRGAVQIPDPFLKNVLFKANEDLFR'LVREK'GVEIGFKDLGGGGLTCASSEMGA

AGGYGMEIDLDRHLHVAGEFPPEVLCAIETQERFLIIAPRELRRERILKIYNEDWDLPNVYE  
GARASVIGRVTTTHDRYIVRRHGEVNVNPKHLTGGIRYERVWRPRIRNLVEPDVRMPED  
LNRVMLDMLASPNIASREHIYRYDYTEVQGNVTVIRPGEADAGLLAPIRERDFGIALSVDS  
NPFYGRISPYWGGATAVAEAMRNVAAGATPSTLTDCLNFGNPEKPEAFWEFRESVRGLA  
DAARNLWLKGHNPQVPVIVSGNVSFYNESPEGAVDPSPIACVIMRDISRAITMSLKEA  
GDGLYLLGPRFDELGGSEYYRLIWGVGTANVPVVRFPPLERSMIYTVIDAVDREILRAAHD  
ISNGGMAITAAEMCMLSDHGISIDISDLGDMRSDKLLFSESSGFVVEVADGAEQEFVSI  
RSYDLNPVRLGVSSTGDIEMARDGKMLVRLDPEEAREAWSSGLREAMR

>Q2RGU5

MEPEIYRRMGLTDAEFKVKAILGREPNYVELGMFAVMWSEHCGYKSSRSVLKLFPTKAP  
WVLQGGGENAGIVDIGDQAVVFKIESHNHPSAIEPFQGAATGVGGIVRDI FAMGARPIA  
VLNSLRFGPLDDSRTRYLMGGVVGIIAFYGNCLGLPTVAGEVYFEPYACNPLVNVMAVG  
LIEQKNIRRGTAAGVGNVMLIGARTGRDGIHGATFASEELSEASEERRPSVQVGDPFRE  
KLLIEACLEIINEDLIIGMQDMGAAGITSSSCEMAARAGTGMEIDIALVPRREEGMTPYE  
VMLSESQERMLLVPKKGAERIRAI CRRWGLEAVIIGRVTGDGLMRIMENGRVVAEVPK  
ALTDQCPVYERERRRPPAYLDEVQRDL SRLPEPEDYGRVLLGLLAAPNLASKEWVYRQYD  
YMVRTDTVAGPGDAAILRVKGT SKGLALTVDGNGRYCYLDPERGGAI AVAEAAARNLACV  
GARPLAITDCLNFGNPEKPEVAWQFYQAVSGMSRACEVLRTPVTGGNVSFYNETESGAIY  
PTPVVMVGLLPDIEKRCGIGFRREGDLLILMGETYPEIGGSEYLATFHGLVAGEPPALD  
LEREKAVQALVREVI AAGLATAAHDCAEGGLAVALAESALAGGLGAEVELASDLRPDFLL  
FSESQSRI LLAVAPEARDRVL DLAREKGVRSVIGRCGGHSLVVR INGRTLFNLSLEEMG  
KQWRESIPVLMAR

>Q4FLJ4

MIVNEQLAIDHGLKKDEYKICDLLKRVPNITELGIFSAMWNEHCSYKSSRFHLKLNLPK  
GKNVIQGGGENAGVIDIGDDAIVFKIESHNHPSFIEPYQGAATGVGGIMRDVFTMGARP  
IANLNSIHFGSPQHKKTKNLLRGVVHIGIGGYGNMCMGVP T IAGQTSFDES YNGN I LVNAMT  
LGHVKKDKIFYSKAAGLGKPVIIYVGSKTGRDGIHGASMASASFDDKIEEKKPTVQVGDPF  
TEKLLLEACLELMAGDSIIA IQDMGAAGLTSSSIEMASKGNLGI E INLSKVP CREANMSP  
YEIMLSESQERMLIVLENGKEEMAKKIFDKWNLDFAVIGQTTKSKKIELYFNEEKVADIP  
VNTLVENSMPYDRKWKKAKLPKR I KV DKEQFKTLKVKNVNLNKL SNPNVCSKEWIWQQYD  
HTVMGDTIQKPGGDAGVVRVHGTNKAVAASVDSSAVYCWAHPLSGGKQIVCESWRNLISV  
GAKPIAITNCLNFGSPENEENMGEFVECVQGLGEASAYLEFPVVS GNV SFYNQTKDIGIK  
PTPAIGGVGLIKDYQNMVMTDLKEADNILLVIGKTEGHLDQSLFARDILNEKNGPPPEIN  
LFNEKNNGETILKLINKKFIKSAHDVSLGGIITALS KMCIKGKKGATLKKSNYLINQFEY  
LFGEDQGRYIIEISKDDLENATKILQENSVHFDELGLVNEDGLI IDDKTKVS IDDLIKSH  
TNWLTNYMEN

>Q6KZR2

MDIINCSNDL DLIGKSLALSHDEMILLIKKYFTEIKRNPSDVELQAI AQSWSEHSCYKSS  
KFYLKKYLSNLRNERTILAMEDDAGVVKFNDDYVYVVKMESHNHPSAVEPYGGAATGVGG  
IIRDVLCMGAQPVALVDSLYFGDPDNKSGFLSERFIINGVVS GIRDYGNRLGIPNVAGSI  
YFHEGYNTSPIVNAGCIGISRKDKIVRSRVQKARDILILCGGRTGRDGIHG VNFASRVLD  
LKNGENRNAVQLGNPIVEEPLIHAILELNDLGLITGMKDLGGGLSSAVTEMLYAGNLGG  
TINLDSVLLKDDNMLPWEIWISESQERMLISSDERNLPOIKDVLDKWNIEFSVIGRAEEK  
KNLEIYYKNEKVFDLPLEFISKTPVYQRPYKPRNRCKSEPFRRDDINKSIIISLISSINV  
CSRAPVIRQYDHTVRGATIVRPLTGLPNNETHSDAAVIKPVDDSFAGIAVTS GSKPMLCT  
IDPYGGALES LI EAYKNIIVTGAEPDAIVDSL NFGN PENEETMYSFVETLKAIRDFTLKF  
KLQLVSGNVSFYNKNVSDIMPTPNIMMTGI IDDV RKAITTEFKNKNSLIYLI GSI NGSLA

GTVYSKLDIKCYDYHNSNINDLCNVYNI IKENKEKILAAHDVSDGGI IAALIEMSFGKN  
IGFNVNLKDIKMNLENKLFSEHGTAIVIEVPLESEIVFNNLGIKLGYTCDITVMDGENM  
VFNARISELKNLWDSGLGKYL

>A2BZA6

MTVSFENKDFNQFINSSKFLVEYDVMSALKQEGKQSDYVEICRRLNRGPNRNELGMFV  
MWSEHCYRNSRPLLNKLPPTGSRILVGPGENAGVVDIGFGQRLVFKIESHNHPSAVEPF  
QGAATGVGGILRDIFTMGARPIALLNALRFGLDDEKNISLLEGVVAGISHYGNCVGVPT  
IGGEVGFDSYSGNPLVNVMLGLMETEEIVCSGASGIDFPVLYVGNNTGRDGMGGASFA  
SSELSKTSIDDRPAVQVGDFFLEKGLIEACLEAFKTYVIAAQDMGAAGLTCSCSEMASK  
GEVGIELNLDLVPAREKGMTAYEFLLESQERMLFVVKPGSEEEELRELFIRWGLYVEVVG  
KVLKEKVVVRIHKGEVVANLPASALADDTPIEEHLLINSTPEYQLQEHKWTEDDLPKTLD  
NGIINIKNNLFI SWNNVLLDLLSMPISIASKNWIYKQYDYQVQSNTVVSPEADA VIRIR  
SQNDFLTKPKKDRGIASVVD CNDRWVYLDPLRGSMASAVAEARNLSSVGAEP IAITNNLN  
FSSPDKPVGFQQLSMSCEGITKACLALSTPVTGGNVSLYNDTKLQNNTVLP IHPPTVIGM  
VGLIEDINKICKKSWKAEDQIWMIGLPLENNINQDERISLSASSFLEYIHGLKTGRPPE  
IDLNLEKQVHAFLEVIKQGIVNSAHDLDGDDLAVAI AECCISSGYGANI ILPPSQSRLD  
RLLEAEGGARVLVSCSTDQSEELKKYKNI SLQGSNLF SISHLGNVNNQKLLVVSQSNNT  
IIDVNILDLDKDYTKDAIHKKITK

>Q8ZZJ7

MALSPGELELIRSALGREPTEVEYALFRSHWSEHCSYKSTRMWLRRLP SKAPWVVRGP  
DAPLVEIAEGLYATFKIESHNHPSAVDPYNGAATGVGGI IRDILTVGARP IALLVNLHFG  
PPSHPHARWIAVNVIRGISDYGNRVGVPVVGGETWFHEDFTYTP IVLATCVGIVEKDGVP  
PGGAEPGLDIIVAGLGADKSGLGGSAFASKTLSEEAEDLGAVQVADPLMGKKLIDL VRE  
ARSCVKFIKDLGGGLATALAEAEWFQLGVVAELDK IHMADREMGPAEVL TSETQERMV  
FVTSPSKLECLERLLEKFEVPYSIVGRFTAEGRVVLKWRGEVVDLPLSLVAKAPETPWP  
QEPYAPPPLPHVPEPIEKAIDAVLSSPNVAFKQAIYERFDFDVGVRTVLKPGEGDAAVL  
KIYERGNLGLAVKGDANPRFTYLNPRLGAANAF IKAYRNVAVVGGRP LAAVDSINVGSPS  
RPSAYWQFVEAVEGLREAAEALGVP IVGGKVS LYNEYKGPVAPTVA VVVLGVVEDVSKV  
NKAVWKEGDGVYVWGVTKDEVEGSEYLHRVHGLVAGQPPSIDYSVEKELAAVVRKWAGRL  
TGAKDVGLGGLAAALAKMAAASGIGADIDICKAPSTTARLDYLLFSESNGRF IAAGEEGP  
GTRVGAAGGDYFTLRGCGSTIVYKRKVEELAEMLSLKI

>Q5JFL7

MFPHEEKLIRERL GREPNEVEKAMLEVMWSEHASYKSSRPFLKLLPTENEHVVLGPGEDA  
GIVKFDDETWIAVGIESHNHPSAVEPYGGAATGVGGI VRDILCMGARP IALLDPIRFGPL  
EKERNRYLLQGVVKG IADYGNRIGVPTVGGETE FDES LDNYTLVNVACV GIMRPEHFVHS  
YVEEAGLKLVLVGNRTGRDGIHGVTFA SEELSENAEEEDRS AVQIPDPFTEKLLIEATLE  
AVYTGKVRALKDLGGGLTCASSEMAGKKGF GAVIYADRVPLREPNTPTPEVMISESQER  
MLFAVREEDVEEIGKIFEKYGLEWTVVGEI I KEPRYIVYWKGEKVADLP IDLLTEVPTIE  
WETRPYSLERDVETPKISFSDA FELVWSSPNV LNKRWWEQYDHEVQGR TVVKPGRDAAV  
LKINERYGLAFVADGNPNHSHLNPHYGAMGAVAEVVRNLVSVGAEP LALVDNLNFASPER  
PEVYWSFAETVRGLADAARAFGLAYVSGNV SFYNEVVDRP IKPTPVVAGLGKVELEKIPG  
FGLEEGLLIGVVGSTKRELGGSELYVRLGLKGGIAPRVNLEEEKANAEGILEAIRRGLLK  
AVHDVSKGGIAVALAEMAVLGNTGFTADLSKVP AETS NPLEVAFSESHGRYIVVFPEERL  
EELKALFRHFAVIGRAGGSGAVFLWNGDEL LRKPI TKLREVHESFPKLLGEEE

>Q2RZ77

MPDTLPQPPEVDRDLALDHGLTDDEYDEILDRLGRTPFTTELGIYSVMWSEHCSYKNSTA



LLKTLPTEGDQLLAEVGEEENAGLVDVGDGKAVAFKIESHNHPSAVEPYEGAATGVGGIHR  
DIFTMGARPIICALDSLRFSGLEESRVRYLFDGVVIRIGDYGNSFGVPTVGGEVYFEDAYE  
GNPLVNAMSVGVVDTDQTARAAAETPGHHVILVGAATGRDGIHGATFASAEIDEDSEEDR  
PSVQVGDPFTEKLLLEATLEAIREGVVGSIQDMGAAGITSSAFEMSASGGTGMDLHLDRV  
PTRETGMTPEYIIMLSSESQERMLLVVCEPGDEEALAEIYGKWDLNAQRIGTVTDTGRVRYW  
DDEEVATLDPAHVAGDDVPVYERDTERPAYLEETRAFNTDDVVDLAPAEVEDTLTLLGS  
PNIASKRWVHEQYDTMVRTNTVVVPGASDAAVVRLKGTGKGLAVKTDNCRVYVYLNPRRG  
AQIAVAEAARNVTCAGGTPVALTNCNCFGNPHNPEAYWAFKAVEGMGDAGRALDTPVTG  
GNVSLYNEHPEGAIFFPTPTIGMLGVVDDIDTQPTAAALQNEGDALFLLTPRDWCHPERTD  
GSEYLSVHVRTAGDAPHLDLDEEVAVQSATQALIREGLVQHADVSDGGLAVCLAESVI  
HSDGLGLEATLPAADRLDAALFGEAQSRVVVSRPDDALALDAALTDHNGVRARRLGAVT  
TGPLRLTVGDEPVLDA SPAALTAPYEALPDAVT

>A7X0W1

MSKFIEPSVVEEIKLEKVVYQDMGLSDQYEQYKVCIDLGRQPNFTETGIFSVMWSEHCSYKHS  
KPFLKQFPPTSGEHVLMPGEGAGVVDIGDNQAVVFKVESHNHP SAI EPYQGAATGVGGII  
RDIVSIGARPINLLNSLRFGELDNKQNRLLKGVVKGIGGYGNCIGIPTTAGEIEFDERY  
DGNPLVNAMCVGVINHDMIQKGTAKGVGNSVIYVGLKTGRDGIHGATF ASEELTEESEK  
RPSVQIGDPFVGGKLM EATLEAITFDELVGIQDMGAAGLTSSSSEMAAKGSGLHLRLEQ  
VPTREPGISPYEMMLSETQERMLLVVEKGNQKFLDLDFDKHELDSAVIGEVTDTNRFVLT  
YDDEVYADIPVEPLADEAPVYILEGEEKDYNTSKNDYTHIDVKDTFFKLLKHPTIASKHY  
LYDQYDQQVGANTI IKPGLQASVVRVEGTNKAIASTIDGEARYVYNNPYEGGKMVVAEAY  
RNLIAVGATPLAMTDCLNYGSPEKKEIYQQLIDSTKMAEACDILKTPVVS GNVSLYNET  
KGT SIFPTPVVGMVGLIENVNYLND FEPQVGDKLYLIGDTKDDFGGSQLEKLIYGVNHE  
FESLDLSSEVEKGESIKTAIREGLLSHVQTVGKGGLLITLAKLSAHYGLGLKSSIDITNA  
QLFSETQGRYVVSVKSGKTLNIDNAIEIGLLTSDNFKVTTPYTEISENVSDIKQIWEGA  
IAQCLTTQD

>Q4J8F8

MRLSLSSQEMELVRKFLGREPK EEEWLVDALWSEHCSYKSSKIFLRSFPSEGERVVMGI  
EDWQDAGALDVG DGWAVVLKLESHNHP SAIDPFNGAATGIGGIIRDII SKGARP IALLDM  
IRVGNLNNRNRWLLKNI IAGIGFYGNSIGVPPVAGELAFDETYNDNPLVDVAGLVVKK  
DKIVPSVVKEAGLKI VLVGLTGLDGLGGASFASRKLSGEDEIGAVQIADPFAGKIVLDVT  
LQIADKVEAIKDLGGGGLVVGITEMANGLGVEVELDKIPLRVKDLTPGEILVSETQERMV  
FAVKPERVKEVCEAFEYFEYPCAVIGEFTNDTSIRFLYKKEV VNLPS SLLLNP RYKWG  
VKKTKYSVYYEKPNINLEVAVKEILSYPDLVSKFWAYSQFDYEVGTSTVLKPG EADSGLI  
SLPNGKLLAIKGDANPDLCAEDSYECGRYIVAEAYRNLATV GAKGIGVVDHLQFGDPKKP  
EVYYQFVEAVRGIAEASKYFGTPIVGGKVSFYNNENKEGKPIKPTPLVVMAGLVQDKFLRP  
KITEGASIIIMIGFTREEMGSSLLAKIFGNYGDVPKTRLNEELLSSELVIKAINDGKIFFA  
KDISKGLLVGALLPILVRGFVSDITNLI PSDTDDVISKLFSENGGRFIVL SEREDDINW  
LESQSRGIYVSKIGEV TREQYVMWLREGKKIDLTKEVN NYHRYLEEVTS D

>Q30T55

MSQQLQEIEKVLSSHKLSGDDYAHIKQILGREPNLVEIGIF SAMWSEHCSYKSSKVHLSG  
FPTKAPWVIQGPGENAGVIDIGGGYAAVFKMESHNHP SFI EPYQGAATGVGGIMRDVFTM  
GARPIANLNALRFGDVLKDNKTSAHQRYLVRGVVAGIGGYGNCMGVPTIGGETSFDECYN  
GNILVNAFTLGLAKSDEIFYGRADGIGNPVIYVGAKTGRDGLGGAVMSSDSFTEESKSLR  
PTVQVGDPFTEKLLLEACLEL FKT DHVVGIQDMGAAGLTSSSFEMAGRS GSGMIMHLDRV  
PAREEGMTPYDFMLSESQERMLLCAKKGSEAEIKIFEKWDLDAAVIGEV TATGNMELFW  
HGDKVAEVPVNPVSEEPVLRNRPMSRPAYLDKIASVTIDDFARVPNQEA FERLTKSMEVV

DKSWIYTQYDSMVQTNTIKKGGMLDASVVRVKENGKALAMSADCNVRYCYIDPKGGAAAA  
VIESGRNVAMSGARPLAITDCLNFGNPNPEVMMWQFGQSCLGIKEACALSALTPVIGGNVS  
LYNETNGVSVFPTPSIATVGVNDDQNKVLMSSFQEGENTLYLVGESNSEFGGSLYMKEIC  
GVVAGVLPEIDYEKELTLWDLVIEANKKGILECAKDASSGGVAIALAKMAAVSGLGCSAR  
MLVNDERDIFAESMSRAIIEVKQENSASFESMAGVLQCQKLGTVGGDIVKINNVSMSMKE  
LQDNYFNTFKRVIERDI

>Q67KF8

MSEMQQPWSLVGLTEAEYRRVVEILGREPNPTTELHMFVGMWSEHCAYKHSKAALRRLPTR  
GEHVLQGPGENAGVVRIDDDLAVAFKLESHNHP SFVDPFNGAATGVGGILRDVFTMGARP  
VATLNSLRFGLDEPKQRELLRGVVAGIGHYGNTVGVPCIGGEVYFDES YRGNCCLVNAMC  
IGILRPDRIHRGIAAGPGNAIMVVGNPTGRDGIHAASLLASAEFSGSEAEALPTVPVGD  
PFAEKMLMEACLELFFETDAVVGIQDMGAAGLISSSSEMAARGGVGVELDVRKVPAREEGM  
EPWEFLLESQERMLVCVKKGREAEVEAICRKWVGCAVIGRVTDDGMVRVLD DGRVVAE  
VPARALAEAPVYHPAKAEPAYLAELRAFWDWSRLPEPEDWNETLLRLLGSPNIGARAWIYE  
QFDHMVQAGTVLGPGGDAGVIRLGAAVAPGAHGLTRQPPGEGLPGRSGQAGPPKGI AASV  
DCNGRYVYLNPRRGTAIAVAEAAARNCVVTGARPVAITNNCNFGNPEKPEIFWTFDEAITG  
MAEACEALGTPVTGGNVSYFNETSGEAIHPTPTIGMIAVHENLDRLTTPGFKQVGDVILL  
LGETRDELGGSEYARLIHGVLAGDAPALDLAFEKRLQDVVLRRAIHEGLVTA AHDVAEGGL  
AVALAEMAIAAAEPSLGCQVSI FLGEGRVDGQLFGESQSRILVTATREQVGR LQALLMVE  
QIPFRVLGDVTADGRFRLAALAPGSGSAHVYRRQELIDL PVADLVRAHKEAIPRWMDA

>Q8DIA7

MSQTPLVTEAEITA EGLKPKQEYTEIVRRLGRHPNRAELGMFVGMWSEHC CYKNSRLLLLKQ  
FPTQGPVRLVGPGENAGVVDLGDGLRLAFKIESHNHPSAIEPFQGAATGVGGILRDIF TM  
GARP IALLNLRFGDLKEAKTQQLVKGVVAGIAHYGNVCVGVPTVGGEVYFDPCYAGNPLV  
NAMALGLMETPEIVKSAASGIGNPVLYVGSTTGRDGMGGASFASAELTDESMSDRPAVQV  
GDPFVEKCLIEACLEAFQTGAVVAAQDMGAAGLTCSTSEMAAKGGVGI ELDLDDKVPVREQ  
GMVPYEFLLSESQERMLFVAAQGREAEELIEIFQRWGLQAVVGRVIAEPLVRVLYRGEVA  
AEVPARALAEETPLYERECPKPEPPAYVQARQWSVDQLPLPARSPA EILLTLLATPSIAS  
KAWVYRQYDHEVQNNTLVFPDGDAAVIRLRGTAKGIAATVDCPSRYVYLDPYEGGKAAV  
AEAARNLSCVGAEP LAVTDNLNFGSPETPVGYWQLANACRGLAEACRALQTPVTGGNVSL  
YNETIDSNGQPQPIYPTPVVGMVGLIADLQRVVVGQWRATGDAIYLLGLPLTTPLSDPRL  
SLGGSEYLAQIHGLVAGCPPQIDL DLEQRVQAVCRYGIQQGWIASAHDLSEGGLAVALAE  
SCLSGQRGATIQLPEGTYPRWDALLFAEGGARILVSVPPREQVAWEAYAQAQLPNAWTRL  
GVVNGEDTELCIDSCNNSPLIRVTIKELDLAWRSPLPKYLD

>Q9HJA4

MIFRTIRIRDADDARLKAI SKRLGLALSLEDEMKA VRSYFERLGRDPIDAEIHAVAQSWSE  
HCSYKSKYYLKKYLGSLKTDYTI LAMEDDAGVDFDGEYAYVLK MESHNHPSAVEPYGG  
AATGIGGIVRDVLCMGAQPVALIDSLFLGDVSSDRYEGLLSPRYIFGGVVG GIRDYGNRI  
GIPNVAGSLYFDKLYNSNPLVNAGCVGIVRRDRIVRSKSYKPGDVLVLMG GKTGRDGIHG  
VNFASSTLKGVTKSSRLAIQLGNPIVEQPMIKAVLEANDAGLIRAMKDLGGGGLSSAATE  
MVYAGGF GAEITLDDIKLKE SNMSGWEIWI SESQERMLMECYPEDVEKIRQIAEKWNLDF  
SVIGQVTADRRIRVYKRRKIIDMDIEFLDDSPVYQRPYRIKEVEKSVTPVQEPEDLNSF  
VRDFMARLNTCARFNVVRQYDHTVRGSTIVTVPFVGRPNKETHADATVIKPLENSMRGLVL  
TSGSRPNMVSVDPYAGTLLTLAEAYKNILSTGGRPHSVVDALNFGNPEREEIMGQFVESV  
RAIGDFCRKMGLPVVAGNVSYFNEYRKT DIMPPTIMMVGLIDDVRRSRTTYMKGSGNAI  
YLIGPCDNLTGSEYSRMHGYTDGFLPAPDLDELTRIRDFLSSKADMILSSH DVSSGGLF  
AALSEMSFGSIGFHVDISNVSAA RPTVKLFSECGNGLVLEIAKDKEEQFVDGSNGLAIK

RLGETGGDRIIVDEAGLNIIDVAVDDLRGAWEHGLDRYI

>A8F8I3

MLSHRDLGLTDKEYEKIVELLHREPNEVELGMFMSVMWSEHCSYKHTKHLRLDLP TSGERV  
IQGPGENAGVVDIGDNLVIVFKMESHNHPSAIEPFQGAATGIGGIVRDI FAMGARP IALL  
DSLRFGLKSAKVYLFSGVSGIAHYGNCIGVPTVAGEIYFDDCYTDNP IVNVMCVGIA  
KKDEIKFARAQFSGASVMLVGAMTGRDGIHGASFASENLSEKSQEKRPSVQVGD PFM EKL  
LIEACLEAIIKIEGLAVQDLGAAGLTSACSEIASRGNKGIEIDLAFVPQREKGMTPYEIV  
LSESQERMLLVVKPEYEDEVKQIFQRWDLYSQKIGVITDDGLFTVKMNGKIVAQVPTKAL  
TEKVPVVEMSFEKRVNSGNADVPEPENLQETFLKLLSSENICSRRSVYERYDHRVGIN TV  
VLPGSDAAVLRIGKSSKAI AVTTDCNGFYCF LDPYEGAKI AVAEAAARNLVATGAMPV GIT  
DCLNFASPD DPKVAYQLKRAVEGM AEARFLRIPIVSGNVSLYNE SKKRKIYPTPVIGMV  
GLIEDISYICDAAFKN EGD LVVLIGENFSESACEYTKVIW GIDYGVPSIDLEVEKRVQQ  
VCLKAIREKIVSSAHD LSEGGLAVSLAESSILGNIGVICDLRANIR RDFVLFGEQQSRMI  
VTIKKENLPL LKKAIEDNNISICVIGRVAGKKFII SVNGEKVIDL NIDEIREVYYT SLEK  
WVNE

>Q9X0X3

MKLRYLNILKEKLGREPTFVELQAFSVMWSEHCGYSHTKKYIRRLPKTGFE GNAGVVNLD  
DYYSVAFKIESHNHPSAIEPYNGAATGVGGIIRDVLAMGARPTAIFDSLHMSRIIDGII E  
GIADYGNSIGVPTVGGELRISSLYAHNPLVNVLAAGVVRNDMLVDSKASRPGQVIVIFGG  
ATGRDGIHGASFASEDLTGDKATKLSIQVGD PFAEKMLIEAFLEMVEEGLVEGAQDLGAG  
GVL SATSELVAKGNLGAIVHLDRVPLREPDMEPWEILISESQERMAVVTSPQKASRI LEI  
ARKHLLFGDVVAEVIIEEPVYRVMYRNDLVMEVPVQLLANAPEEDIVEYTPGKIPEFKRVE  
FEEVNAREVFEQYDHMVGTDTVVPPGFGAAMRIKRDGGYSLVTHSRADLALQDTYWGTL  
IAVLESVRKTL SVGAEPLAITNCVNYGDPDVPVGLSAMMTALKNACEFSGVPVASGNAS  
LYNTYQGKPI PPTLVVGM LGKVN PQKVAKPKPSKVF AVGW NDFELEREKELWR A IRKLSE  
EGAFILSSSQLLTRTHVETFREYGLKIEVKLPEVRPAHQMV L VFSERTPVVDVPVKEIGT  
LSR

>Q72IH7

MEALAKEIGIPEGEYREIVQRLGREPNRV ELLLFKVMWSEHCAYKNSRPLLKALPKEGEA  
VLQGPGENAGVVRVGE GWAVAFKIESHNHPSAVEPFQGAATGVGGILRDIMSMGARP IAL  
LDSLRFGPPEEARSRYL LKGVVSGIAFYGN AIGVPTVGGDLYFH EGYRENPLVNAMCLGL  
LREEHLKRSRASLGRPIIYAGAKTGRDGI GGAAAFASRELKEEKAEDRPAVQVGD PFLGKL  
LMEATLEAIELDLVEGVQDMGAAGLTS SLS SELAHKSGLGVELHLDLVP TREEGMTPEELL  
LSESQERMVLPKEGKEKALEEVFGRWGLDCVPVARTIPERVFRVLFRGEVVAEVPTEAL  
AEAPTYVRVGREDEVRRLRETPIPPLEADPQEVLRRL LASPNLASREAVYERYDHQVGT  
RTALLPGKGDAAVLWIKGTR LGVAAKVDQNP RYSRLHPRLGAMHALAEACRNVS VVGAKP  
LAYTDGLNLGSPETPEGYHELAETIAGLKEASEALGVPV VSGNVSLYNE SGGKRIPPTAM  
VGVVGVLEVDKRAEMGFRRPGEVLLL IGEERGELGASEVLYLLTGKEFGHPRLDLGREK  
AVQEAIRD LIQRGLTRTAHDVAEG LLLALAE MTFPYGVGATVEVREEGLEALFGEAPSR  
VLFTVEKTRLQEATLLLEERGLPYRVLGETGGKSLTVLTPGGVLEWSLEELLSAWKAPLR  
EVL DG

>Q8RBK5

MNKI WRELGLTDEEYEKIISILGREPNITELGMY SVMWSEHCSYKNSKPLLKYLPTKGER  
VIQGPGENAGVLDIGDNLAVVMKIESHNHPSAIEPYQGAATGVGGIIRDIFTMGARPIAL  
LDSLRFGIPDDKRTKYL IENVVAGIADYGN CIGIPTVGGD TYFEESYKGNPLVNAMCVGI  
VEKDKIKKGI AKGIGNPVMVVGATTGRDGI GGASFASQELSESESEK RPSVQVGD PFM EKL

LLLEACLELFETDAVVAIQDMGAAGLTSSSSCEMASRGGVGMEDLDKVP LREEGMPYEI  
MLSESQERMLVVVKKGKEEDVQKIFKKWGLNAATIGKITDDGMIRVIKDGKIVA  
EVPKSLTEDAPQYVREEEVPKWQEEVKKLDINEVKPPEDMNKVLKDVIS  
SLNIASKEWIYSQYDYMVRTDTVITPGMDAAVVRIGKTRKAIALTTCNGRYCY  
LDPYIGSQI AVAE AARNLCMVGAKPIGVTDCLNFGNPEKKEIYWQLKNSIFGI  
AKACETFQIPVVSGNVSLYNENEGEAIYPTPVI  
GMAGLIEDVSKICTMDFKKERDVIIILGENKGEIGGSEYLKVCFGMVKGQPPQID  
LEKEKRLQELVLKLIDEGLINSSHDI SEGGFAAALVESAIAGKKGAKISLQTS  
LRADIELFSESQSRALITVSPEKVDEVLKIAAYEHQVPAQKVGVEGKDIDVNG  
KRIIDLPLEVLEE SWRGRIKWEMERN

>Q83H66

MNMSLPADRDTAKKPSAQKPSAHAQNATAAVDVTALGLTESEYTQICSL  
LKRSPTKSELA IYSVLWSEHCSYKSSRRHLRQLADL TEVTKKHL LVLVGI  
GQNA GVV DIGGGWAAAFKIESHNHPSFIEPFQGAATGIGGIVRDI  
IAMGAKPVALMDSLRFGAASDPDTQRVADGVVSGISFYGNCLGVPNI  
GGETAFDPVYQGNPLVNVLCVGVMRRENIRLANASGPGNLVVLFGAPTGRD  
GIGGASVLASDSFTSDAKANPAVQIGDPFVEKLLTECCLELYAADLVVAIQ  
DLGAAGISCAASELAHN GRV GIRL DL SAVPLRDTTLAPDEILVSESQER  
MMAIVHPDNLEAFFEITNRWGISGAVIGEVDNSQYLTVVHEGKTLVRLNPK  
TLTGPSYNRPVKKPAYLIRRSAANRLPVTNDP  
HLLREDILQVISC PNLSDKSVITNQYDRYVQNTALCHPDDAGVIRMYKNTG  
VALSCDGNRSYSLDPHAGAQLAVAEAYRNVSVVGATPLAVTNCLNFGNPE  
NPEVMWQFRETCRGLSDACKRLEIPITGGNVSFYNQTDGKIDIFPTPVVGI  
LGIVDNL TQTLTSGWNPDLFIYLLGVTRPEFFGGSVWADTMYGHI  
GGVPPKLDLARESRLSNLLVAGAKKRVFESAHDLSEGGLIQAI  
VESCLRHGFGADIALDTIRATSLTEALFSESASRVLVSCRSQEDLRDL  
CRRNSYETTLIGTTRHTGELTISEIGKFTLNELSDARQKVTRVLF  
FRG

>Q1IPG4

MKFGVLIFPGSNCDHDAHVVLGQVAKQPVTFLWHESHDL ENCD  
AIVVPGGFAYGDYLR TGAIAKAFSPVMEAVRK FADKGLVIGICNGFQIL  
TESGLLPGALLRNEGLKYICKPVNIRVETTDAPFTQGLKKGEVLQVP  
IGHMEGNYVCDATLAE LKKQDRIVFRYATPDGQITREANPNGS  
IENIAGICNEGRNVLGMMPHPERASENELGMTDGFRI FESMVGAMAKR

>O29008

MDREEIKVAVLRMEGTNCEDET VKAFRSLGVEAEAVHIKQFYSDMIR  
FEEQRSVFDYQCLVFPGGFSAGDYIRAGAI FSARVKS VLRKDI EEF  
IKMGYPILGICNGFQVLVELGALPGFD EDKPLAEKPEMAMNDSSR  
FECRPTLLKKESEKCIFVKNLKKDVVMFPVAHAEGKVVPFSGKE  
DEYLERLTSNDQIVFRYVDEKGDYAGYPWNPNGSFYNIAGICNATH  
TVFGLMPHPERAFFGYQVGRREGYGDGYCIFRSVVDYLEKL

>Q6G336

MKTAIIQLPGLNRDRDMVAALHHITGVEPLKIWQTESTIPD  
VDVIVIPGGFSYGDYLRCAIGARTPVLQAVREKAQKGVTVIGICNGFQ  
ILLEAGLLPGTLMRNTSLKFVCREIKLEVNVNNTKFSRYYSKQ  
QIICCPVAHHDGNFYVDSETLKQMEENEQIIFRYAENTNPNGSVNDI  
AGIINKAGNILGMMHPENFIEPAHGGTDGRLFFQSALELAKG

>Q89IB6

MKAAAILVFPGINRDRDMARALRLISGSEPAMVWHAETSLPAGTDL  
VVVPGGFSYGDYLRCAIAARAPVMDAVRDYAAKGLVLGVCNGFQIL  
CESGLLPGLMRNAQLKFCRDVHLRVERSDTPFTRGYNAGQVIRVP  
VAHGEAGNYEAEDEETIQRL EGEGRVLYRYCSAEGV VDEAAN  
INGAAHSIAGIVNDKGNVLGMMHPENHVEDIMGCTDGRGLFAGLAQH  
LEKAA

>Q3Z9H5

MSKVKTLILRTPGTNCDIETSYAFELAGSETEMVHINELLAKPSRLAEFQIMAFPGGFY  
GDDLGAAGRVLANEVRLKLGKINRFHESGGLIIGICNGFQALVKTGILPGPMKDGQKITL  
TENNSGRFECRWTYLAVNPFSTCVFTQGIDRLYLVAHGEGKLLGSPEVINKLNSVVYYT  
DKDGKRNSPYPANPAGTLMIDIAGIADSGRIFALMPHPERFVVRGSQHPRWPAEGLKEEGD  
GLKIFTNAVKKWARQV

>Q18FM4

MTVVVVQFGGSNCDRDAVRALQIHIGIDATRWHEDGLNDSVENLDGIILPGGFSYGDYLR  
AGAMAAHSPIVNDIQAAAERGIPVLGVCNGAQVGCESGLTPGAF'TNDRARFQCETVHLR  
VENATTPWTEAYEAGTVIEIPIAHGEGRFEITENEYEMLKNDNQILFRYCDASGNITDDA  
NPNGSRGNVAGITGNYDTPAVLMPHPERATLPELGRSTDGKGLQAFG

>P35851

MHDIAGVTNETGNVLGMPHPERAVEALLGGTDGLGVFQSLINQTEGADVRRGAR

>Q72UH6

MKIAVITFPGSNCDSDIYRVLKDQYNAEVDRIWHRDGLDKKYELVILPGGFSYGDYLRSG  
AMAGFSPVMKSVKEHVDKGGKLFVICNGFQILTEAEYLPGALIRNKTLKYICKTVILTCK  
SAGNPVTASMDVRKELKIPIAHADGCYYATSDVLKQLEDEDRILFRYSGENPNGLSDSIA  
GITSKNFKIVGMPHPERAMNPITGEMDGKVVLDLILGS

>Q8TPF0

MKIAIIQFGGTNCDMDVLHVLKDVVGVDAETVWYKEENLTGFDGVVVPGGFSYGDYLRAG  
AIAARTPIMDSVKKIAAEGKPVLGICNGFQVLTPEARLLAGALTTNEYPKFRCHWTNLRVE  
TADTPFTSKFRKGEVIRMPIAHMEGKFYAEESTLAELDENEQVVFYVDEKGRVTDEANP  
NGSLENIAGILNASRNILGLMPHPERASESILGSDDGRKVFESMADYITENF

>Q59042

MKIAVTKFLGTNCDLDVCHAVKLAGGEPVLFVFTQENLDSYKGAVIPGGFSYGDYLRAGA  
ISARTPIIKGLKKMVEEGKPVLGICNGAQIGLEAGFSKGTLTNNLNAKFICKWVYIRVEN  
NKTPFTQYYKKGEVLKIPIAHAEGRFYADDETLDYMYKNNMIVFKYCDDETGEVTEEANPN  
GSIDNIAGVCNENQNCVLLMPHPERASEKILGSDDGLKMFKGMIDYAKRI

>Q6M0U0

MIKVVVKVLVMSGYGINCETETATAHAFQKAGAETDIVHINDLIAGKKKMADYEIIMFPGGF  
SYGDDTGSNAFANKIKNNLFDLTFEINSGLKILGICNGFQVMTNLGLFALPSTDYGER  
ISALESNTNRYEYCRWVHIKENDSVCVFTKGINVTHVPIAHGEGRFYCDEKTYHELKENK  
QIVFSYCDSEGNPANGEYPLNPNGAYQDIAGICDKTGRIFGLMPHPERSLYSISEPEYQL  
KKEIAKRNGDIIPEFIEENLQIFKNAVEYFNK

>Q2NF29

MTDVADVNVGIIIRFPGTNCDRDIYAVNLVGANSHYIYWNETDLSQMDVVIIPGGFSYGD  
YLRAGSIAGITPIIDAIAKDFAKKENPVLGICNGAQILGEIDLVPGVFIENENAKFICKSK  
KLKVNTRTRPFTKLYKKNEVIDLPIAHKEGRYYTDNLETLYDNNQIVLTFEDGNPNGLSD  
NITGVCNVDGNVAVMPHPERAVEKLLRSEDGLKFFKSFLD

>O26270

MRVGVIIRFPGSNCDRDVHVVLELAGAEPEYVWWNQNRNLDHLDVAVVIPGGFSYGDYLRAGA  
IAAITPVMDAVRELVREEKPVLGICNGAQILAIEVGLVPGVFTVNEHPKFNQCWTELVRVKT

TRTPFTGLFKKDEVIRMPVAHAEGRYYHDNISEVWENDQVVLQFHGENPNGLDGLITGVC  
DESGLVCAVMPHPPERASEEILGSVDGFKFFFRGILKFRG

>O05756

MNARIGVITFPGLDDVDAARAARHVGAEAVSLWHADADLKGVDVAVVPPGGFSYGDYLR  
GAIARLSPIMTEVVDVAVQRGMPVLGICNGFQVLCVGLLPGALIRNVGLHFICRDVWLRV  
ISTSTAWTSRFEPEPDLVSLKSGEGRYVASENVLDELDEGGRVVFVRYHDNINGSRLDIA  
GISSANGRVVGMMPHEHAIEVLTGSPDDGLGLFYALSVDL

>Q6L0V9

MDSKRAMVLRMEGTNNEEAFLSLKRAEFEPYVHINDLARKRKFIDYDNLMPGGFSA  
GDYIRAGAIFAARLRPFLSDINKFIDSGRFIIGVCNGFQVLTGLFFNGDRKIALTVNE  
SNRFECRFTYIRLSTKKVLSGLGNRPFQVPAHLEGRVYCDNKTLELDELINDQIIFRYVD  
NNGNYSYGPWNPNGSIMNIAGITNDSGNVIGMMPHPERVYYPYQMSGNERNNSDKGTGEIF  
FRILYNST

>Q8ZZJ9

MRIAVLKFPPTNGDYDVLRALELAGARGELVWYRDYAAKDYAVVLAGGFSYGDRLRAGA  
IAAATKAMDHVREDAERGVPVLGICNGFQILTEAGLLPGALIPNDPPGFSRWWAVRVVD  
TRTPFTYLYEEGEVYMPVIAHGEGRYVPAGEYKAAFKYVDNPNNGSYDNVAGVYEKNVGL  
MPPHPERAVDPHVSRRGAGGLKLWLGLISWLR

>Q2FI10

MKFAVLVFPVSNCDRDMFNAAIKSGVEAEYVDYRETSLSGFDGVLIPGGFSYGDYLRSGA  
MASVAPIISEVKRLAAEGKPVLGVCNGFQILTEIGLLPGALLHNDLHFLSRNEELEIVN  
NQTAFTNLYEQGEKVIYPVAHGEHGYCTDEIYQQLKANNQIILKYVNNPNNGSYDDIAGI  
VNEKGNVCGMMPHPERALETLTGTDGSKLFEAMVKSWAREQHV

>Q30TB2

MKVTILQFPPTNCEYDAQHAFKSLGAETEILWHKSDTIPSDTDLIVAGGFSYGDYLRSG  
AIAKFSVPMKAVIKYADDGGKVLGICNGFQVLTESGLLPGALKRNEHLHFLSKHHHLKVI  
NNENIFLEKLDKGDIVNPIIAHHDGNYYIDDSGLKELYANNQVLLKYCDENGNDKPNNGS  
IDSIAGICNKERNVFLMPPHPERAMEAILGSDDGIKMLQGFRLA

>Q97C36

MKQSPKIGILLMEGTNNETEVYYSVKRSGGSPDFIHINDLSAGRKRVSVDYDGLIIPGGFS  
AGDYIRAGVIFAARLGAVAGKEIREFVDDGKPLIGICNGFQVLMEMGLIYDRSKITLTNN  
ESNRFECRYTYMKMTRSRNIFQSGFYGKGVFQVPAHAEGRVAVSERSVLKLYENDQVV  
FKYSNENDVTDEYPWNPNGSIDSVASLSNEAGNVIGLMPHPERIYRYQAMYLETEKDEV  
AGKIFYDSLNVYARDRNG

>P25996

MLEVKLPLDLKNPIIPASGCFGFGKEFSRFYDLSCLGAIMIKATTKPRFGNPTPRVAE  
TGAGMLNAIGLQNPGLDSVLHHELPLWLEQFDTPIIANVAGSQVDDYVEVAEHIKAPNVH  
ALELNISCPNVKTGGIAFGTNPMAADLTKAVKEVSDVPVYVYKLSPNVANITEIALAIEE  
AGADGLTMINTLIGMRLDLKTGKPIILANKTGGLSGPAVKPVAIRMVYEVSMQVNIPIIGM  
GGVQTAEDALEFLLAGASAVAVGTANFVNPFACPEIIEQLPSVLLQYGYQSIIEECIGRSW  
NHEKQPAHRA

>P25983

MKKAYLTVCSNQQIADRVFQMVLKQELVQGF'TTPGQFLHLKVSEAVTPLLRRIISIADVNI  
FEKNEVTIIYRVDGEGTRLLSLKQQGELVDVGLGPLGNGFPVNEVQPGKTALLVGGGVGVP  
PLQELSKRLIEKGVNVIHVLGFSQAKDVFYEEECRQYGDYVATADGSYGETGFVTDVIK  
RKKLEFDILLSCGPTPMLKALKQYEAHKEVYLSMEERMGCGIGACFACVCHTNESETSYV  
KVCLDGPVFKAQEVAL

>P56967

MQRKQEMMTIVAQKQLAPRIYQLDLQGELVKEMTRPGQFVHIKVPRADLLLRRIISINQI  
DHSNETCRILIYRVEGAGTEVFATMKAGEQLDILGPLGNGFDIT'TVAAGQTAFIVGGGIGI  
PPLYELSKQLNEKGVKVIHFLGYASKEVAYYQQEFMALGETHFATDDGSFGAHGNVGRLL  
SEALAKGRIPDAVYACGANMLKAIDSLFPTHVYLSLEERMACGIGACYACVCHKKGD  
TTGAKSVKVCDEGPIFKASEVIL

>P56968

MSQLQEMMTVVSQREVAYNIFEMVLKGTLDVDEMDLPGQFLHLAVPNGAMLLLRRIISISSW  
DKRAKTCTILYRIGDETTGTYKLSKLESGAKVDVMGPLGNGFPVAEVTSTDKILIGGGI  
GVPPLYELAKQLEKTGCQMTILLGFASENVKILENEFSNLKNVTLKIATDDGSYGTKGHV  
GMLMNEIDFEVDALYTCGAPAMLKAVAKKYDQLERLYISMESRMACGIGACYACVEHDKE  
DESHALKVCEDEGPFVFLGKQLSL

>P80524

MKNEGEKEGLNISRCRVCKPGSTLINKTGGWRNFRPVYIYEKCTKCGICHIVCPDMSVKP  
RENGFFEYDYDYCKGCGICANECPADAIEMILEEK

>Q8VUS8

MNALVGCTTSFDPGWEVDAFGAVSNLCQPMEADLYGCADPCWHPAQVADTLNTYPNWSAG  
ADDVMQDWRKLLQSVFPETKGSS

>P22007

MRQVRGRSIARAKFINTALLGRKRPVMERVVDDIAHVDSKAIQPLMKELETDTTEARYKV  
LQSVLEIYDDEKNIEPALTKEFHKMYLDVAFEISLPPQMTALDASQPWMLYWIANSKVM  
DRDWLSDDTKRKIVDKLFTIISPSGGPFPGGGPGQLSHLASTYAAINALSLCDNIDGCWDR  
DRKGIYQWLISLKEPNGGFKTCLEVEGVDTRGIYCALSIATLLNILTEELTEGLNLYLKN  
CQNYEGGFSGCPHVDEAHGGYTFCATASLAILRSMDQINVEKLEWSSARQLQEERGFSG  
RSNKLVDGCYSFVWVGSAAILEAFGYGQCFNKHALRDYILYCCQEKEQPGLRDKPGAHS  
FYHTNYCLLGLAVAESSYSCTPNDSPHNIKCTPDRLIGSSKLT'DVNPVYGLPIENVRKII  
HYFKSNLSSPS

>P69735

MAADSEPESEVGCPLTPLPPVSIARFTYVLQDWQQYFWPQQPPDIDALVGGEVGGLEFG  
KLPFGACEDPISELHLATTWPHLTEGIIVDNDVYSDLDPVQAPHWSVRVRKADNPQCLLG  
DFVTEFLKICRRKESTDEILGRSTFEEEGRVADITHALSKLTEPAPVPIHKLVSNMVHT  
AKKKIRKHRGEESPLNNDVLTNTILLFLFPDAASEKPLDGTTSVDNSNPAAEAGDYTLYNQ  
FKSAPSDSLTYKLALCLCMINFYHGGKGVVAHLWQEFVLEMRFRWENNFLIPGLASGPPD  
LRCLLHQKLQMLNCCIERKKARDEGKKTSPSDSMTKAYPADAGKAGGQLGLDHLRDTEK  
EKGEAGKSWDSWSDSEEEFFECLSDAEDLRNGQESTTKGGPKDMAPLKPEGRLHQHGKL  
TLLRNGEPLYIPVTQEPAPMTEDLLEEQSEVLAKLGTSAEGAHLRARMQSACLLSDMESF  
KAANPGCCLEDFVRWYSPRDYIEEEVTDEKGNVVLKGEISARMKIPSNMWVEAWETAKPV  
PARRQRRLFDDTREAQKVLHYLAMQKPADLARHLLPCVIAAVLKVKEEESLENIPSVKK  
IIKQIIAHSSKVLRFPSPEKDLLEEIIILQIT'TVEAIIARARSLKAKFGTEKCEHEEEKED

LERFVSCLEEQPEVAVTGAGRGHAGRI IHKLFVNAQRAAAVALPEEELKRS GCPEERRQT  
LVSDFP PPAGRELILRATVPRPAPYSKALPQRMYSVLTKE DFRLAGAFSSDTSFF

>Q5U1Z0

MACSIVQFC SFQDLQSARDFLFPQLREETPGALRRDP SKTSNWEDDSWGAWEEETEPQEPE  
EEGNTSKTQKHSWLQECVLSLSP TSDLMVIAREQKAAFLVRKWKHSDKGKEEMQFAVGWS  
GSVSAEEGEYVTSALCIPLASQKRSSTGRPDWTCIVVGFTSGYVRFYTEGVLLLAQLLNE  
DRVLQLKCRTYEIPRHPGVTEQNEELSILYPAAIVTIDGFSLFQSLRACRNQVAKAAASG  
NENIQPPPLAYKKWGLQDIDTII DHASIGIMT LSPFDQMKTASNIGGFNAAIKNSPPAMS  
QYITVGSSPFTGFFYALEGSTQPLLSHVALAVASKLTSALFSAASGWLGWKSKHEEETVQ  
KQKPKMEPATPLAVRFGLPDSRRHGESI CLSPCNTLAAVTDDFGRVILLDVARGIAIRMW  
KGYRDAQIGWIIQIVEDLHERVPEKGFDFSPFGNTQGPSRVAQFLVIYAPRRGILEVWSTQQ  
GPRVGAFNVGKHCRLLYPGYKIMGLNNVTSQSWQPQTYQICLVDPVSASVKAVNVPFHLA  
LSDKKSERAKDLHLVKKLAALLRAKSPRPDSFEAEIKELILDIKYPATKKQALESILASD  
RVFSFCLRNVTQTSMDTLKNQELESVDEGLLQFCASKLKLHLHYESVSQ LNTLDFHSDTP  
FSDNDLAVLLRLDDKELLKLRALLEKYKQENTKATVRFSEADGVLPVKTFFLEYLDYEKD  
ALSIRKTSEEECV ALGSFFFWKCLHGESS TEDMCHTLESAGLSPQQLSLLLSVWLSKEK  
DILDK PQSVCC LHTMLSLLSKMKVAIDETWDSQSVSPWQQMRMACIQSENNGAALLSAH  
VGHSVAAQMSSSATDKKFSQMVLDADAEAL TDSWEALSLDTEYWKLLLRQLEDCLILQTL  
LHSRASPPAAKASSPQTEPLRRLSVKLLLEGGKGGIADSVAKWIFKQDLSP ELLKCANRE  
KDVENPDEPREGIARSPPEVSEVETDLGAVPDLRLRLAYEQFPCSLELDV LHAHCCWEYVV  
QWNKDPEEARFLVRSIEHLRHILNPHVQNGISLMMWNTFLVKRFS AATYLMDKVGKSPKD  
RLCRRDVGMSDTALTSFLGSCDLLQTSLEADISRDEVQVPVLDTE DAWLSVEGPTSIVE  
LAL EQPIHYPLVEHHSILCSILYAAMSFS LKSVKPLALFDSKGKNAFFKDLT SIQLLPS  
GEMDPNFI SVRQQFL LKVVSAAVQAQHSKDKDP SARAADTHGQDLNWTALAVDLAHLQV  
SEDVIRRHYVGELYSYGADLLGEEAILQVQDKEVLASQLLVLTGQRLAHALFHTQTKEGM  
ELLARLPPTLCTWLKAMNPQDLQNTGVPVAATAKLVHKVMELLPEKHGQYSLALHLIEAV  
EAMATL

>Q9V535

MADVLDIDNAEEFEVDEDEDGQGIVRLKEKAKHRKGRGFGSDSNTREAIHSYERVRNEDDD  
ELEPGPQRSVEGWILFVTSIHEEAQEDEIQEKFCDYGEIKNIHLNLD RRTGFSKGYALVE  
YETHKQALAAKEALNGAEIMGQTIQVDWCFVKGPKRKVKKSEKRRR

>Q54BN3

MLWIDKYKPTSLDKMDYHNDISINLKNMIKSGDFPHLLVYGPSGAGKKTRILAVLQEIYG  
PNALKL KIDHRTFKHPTSSKNIQITTISSHYHIEINPGEAGSYDRVVIQTI I KEIAQSP  
IDSGSLGAFKIVILNEVDKLSKDAQHALRR TMEKYATFCRLILCCDSTAKVIDP IKSRL  
GIRVPAPSQEEIEKVLAKVATAEKFDLP SKLAVNVAKQSGGNLRYALMLLESQKAKQYPF  
QSTELPLLDWENYISQIVKDCFEEQSPARLSIVRGKLYELLGHCIPPELIFKTL LLEIFK  
KLDHNMKFEI IHWASYEHRSQIGSKPIFHLEAFIAKFMSVYKKNQ

>P40938

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELY  
GVGVEKLR IEHQTTITTPSKKKIEIESTIASNYHLEVNP SDAGNSDRVVIQEMLKTVAQSQQ  
LETNSQRDFKVVLLTEVDKLT KDAQHALRR TMEKYMSTCR LILCCNSTSKVIPP IRSRL  
AVRVPAPSI EDICHVLSTVCKKEGLNLP SQAHLRLAEKSCRNL RKALLMCEACRVQYYPF  
TADQEI PETDWEVYLRETANAIVSQQTPQRLL EVRGRLYELLTHCIPPEIIMKGLLSELL  
HNC DGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYK KFME DGLGEMMF



>O94697

MLWLDQYRPKTLASLDYHKQLSERLISLSSTNEFPHLLVYGPSGAGKKTRVVAIILRELYG  
PGSEKLIKIDQRTFLTPSSKKLQINIVSSLHHEITP SDVGNVDRVIMQELLKDVSAQV  
DLQAKKIFKVVVINVADELTRDAQAALRRRTMEKYSNNIRLILIANSTSKIIEPIRSRTLM  
VRVAAPTPEEIIILVMSKILTAQGLEAPDSSLNNIANNCDRNLKAILLLETVHAKSPGNK  
QLIDTGAQLPLPDWQTFIQQVGDMSMLQEQSPARILAVRSMLYDLLSHCIPPTTILKELLS  
FFLSKVDTKLHPYLIQAAANYEHRTRMGNKSI FHLEAFVAYFMKVYAMLQLGMELPSY

>P38251

MSLWVDKYRPKSLNALSHNEELTNFLKSLSDQPRDLPHLLLYGPNGTGKKTRCMALLESI  
FGPGVYRLKIDVRQFVTASNRKLELNVVSSPYHLEITP SDMGNNDRIVIQELLKEVAQME  
QVDFQDSKDGLAHRYKCVIINEANSLTKDAQAALRRRTMEKYSKNIRLIMVCDMSPIIAP  
IKSRCLLIRCPAPSDSEISTILSDVVTNERIQLETKDILKRIAQASNGNLRVSLLMLESM  
ALNNELALKSSSPIIKPDWIIVIHKLTRKIVKERSVNSLIECRAVLYDLLAHCIPANIIL  
KELTFSLLDVETLNTTNKSSII EYSSVFDERLSLGNKAI FHLEGFIAKVMCCLD

>O29072

MLWVEKYRPKTLEEVVADKSIITRVIKWAWSKWRGSKPLLLAGPPGVGKTSALALANTM  
GWEAVELNASDQRSWRVIERIVGEGAFNETISDEGEFLSSRIGKLLKLIILDEVDNIHKKE  
DVGGEAALIRLIKRPKPAQPLILIANDPYKLSPELRNLCEMINFKRLTKQQVARVLERIAL  
KEGIKVDKSVLLKIAENAGGDLRAAINDFQALAEKKEELKPEDVFLTKRTQEKDIFRVMQ  
MIFKTKNPAVYNEAMLLESPEDVIHWVDENLPLEYSGVELVNAYEALS RADIFLGRVRR  
RQFYRLWKYASYLMTVGVQOMKEEPPKGFTRYRRPAVWQMLFQLRQKREMTRKILEKIGK  
YSHLSMRKARTEMFPVIKLLKELDVDKAATIAAFYEFTKEELEFLVGEKGDEIWKYVEK  
HGMHRIEDETFLLESFVKAEEEEKEESVEEVAEEKPEEEREERPRARKKAGKNLTLDSFFS

>O26342

MSWTEKYRPGSFDEVVGNQKVIAEIKEWIKAWKAGKPQKPLLLVGPPTGKTTLAHIIGK  
EFSDTLELNASDRRSQDALMRSAGEASATRS LFNHDLKLIILDEVDGIHGNE DRGGVQAI  
NRIIKESRHPMVL TANDPYSKRLQS I KPRCRVNLNRKVHTSSIAAALRRICRAEGIECPD  
DVLRELAKRSRGLR SAINDLEAMAEGEERIGEELLKMGEKDATSNLFD AVRAVLKSRDV  
SKVREAMRVDDDP TLVLEFIAENVPREYEKPN EISRAYDMLSRADIFFGRAVRTRNYTYW  
RYASELMGPGVALAKDKTYRKFVRYTGSSSFRILGKTRKQ RSLRDSVAAKMAGKMHISPK  
VAISMFPYMEILFENDEMAYDI SEFLELRDEEIKLFRKRKIKAPKRKKT'PRKAEIKVGPL  
YSQKDKGADKSINDKATDKSAKTP IKSSKKDDRPRDESSSSSDDKKPKEKQTS L FQFS

>Q9UXF6

MIQWFLKYRPRSLKDVENQDDAKKQLQEWIESWLNNGNSNVKAVLLHGPPGVGKTVLAEAL  
AHDYNFELLEMNASDSRKLQDIKSIAEKAAVYGSIFGTGKGLILLDEVDGINVREDTGAI  
QGILELIEKTKYPIIMTANDPWNPG LRELNRNKA KMIELSKLGKYPLRRILKKICQAEKII  
CDDEALNYIIDSSEGDARYAINILOGIGEGYGKVTNLNLVESLAKRKERELDPFETLRDIF  
WARYAWQAKNAATSAQIDYDMLIRWISENIP IQYDNIEDIWRAF DALSRASIFLKRKASG  
DWDLLSYAYDMMSSGVAF AEPEKKKPNWPKWKYQFP SYIQLLSKSKDIRDTRDEI IKK  
LAIHSSFNKALNDTYPFFLLFYKKYDKHLNLNLTKEKEYLSSISKS

>Q02094

MRFTFPLMAIVLEIAMIVLFG L FVEYETDQTVLEQLNITKPTDMGIFFE LYPLFQDVHVM  
IFVGFGLMTFLKKYGFSSVGINLLVAALGLQWGTIVQGILQSQGQKFNIGIKNMINADF  
SAATVLI SFGAVLGKTSPTQMLIMTILEIVFFAHNEYLVSEIFKASDIGASMTIHAFGAY  
FGLAVAGILYRSGLRKGHENEESAYYSDLFAMIGTLFLWFMFWSFNSAIAEPGDKQCRAI

VDTYFSLAACVLTAFAFSSLVEHRGKLNMVHIQNATLAGGVAVGTCADMAIHPFGSMIIG  
SIAGMVSVLGYKFLTPLFTTKLRIHDTCGVHNLHGLPGVVGGLAGIVAVAMGASNTSMAM  
QAAALGSSIGTAVVGLMTGLILKLPLWGQPSPDQNCYDDSVYWKVPKTR

>P81397

DCPDGWSSTKSYCYRPFKEKKTWEAAERFCTEQEKEAHLVSMENRLEAVFVDMVMENNFE  
NKIYRSWIGLKIENKQGORSNLEWSDGSSISYENLYEPYMEKCFLMDHQSGLPKWHTADCE  
EKNVFMCKFQLPR

>P81398

DFRCPTTWSASKLYCYKPFKEKKTWIEAERFCAKQAENGLVLSIGSAAEADFLDLVIVVN  
FDKQRYRAWTGLTERNLKWINGASVSYENLYEPYIRKCFVVQPWEGKSKWYKADCEEKNA  
FLCKFPKPH

>Q51559

MRRESLLVSVCKGLRVHVERVGGQDPGRSTVMLVNGAMATTASFARTCKCLAEHFNVLFD  
LPFAGQSRQHNPQRGLITKDDEVEILLALIERFEVNHLSASWGGISTLLALSRNPRGIR  
SSVVMFAFAPGLNQAMLDYVGRAQALIELDDKSAIGHLLNETVGKYLQRLKASNHQHMAS  
LATGEYEQARFHIDQVLALNDRGYLACLERIQSHVHFINGSWDEYTTAEDARQFRDYLPH  
CSFSRVEGTGHFLDLESKLAAVRVHRALLEHLLKQPEPQRAERAAGFHEMAIGYA

>P32282

MQLINVIKSSGVSQSFDPQKIIKVLSWAAEGTSVDPYELYENIKSYLRDGMTTDDIQTIV  
IKAAANSISVEEPDYQYVAARCLMFALRKHVYGYEPRSFIDHISYCVNAGKYDPELLSK  
YSAEEITFLESKIKHERDMEFTYSGAMQLKEKYLKDKTTGQIYETPQFAFMTIGMALHQ  
DEPVDRLKHVIRFYEAVSTRQISLPTPIMAGCRTPTRFSSCVVIEAGDSLKSINKASAS  
IVEYISKRAGIGINVMIRAEGSKIGMGEVRHTGVIPFWKHFQTAVKSCSQGGIRGGAAT  
AYYPIWHLEVENLLVLKNNKGVENRIRHMDYGVQLNDLMMERFGKNDYITLFSPEMGG  
ELYYSYFKDQDRFRELYEAAEKDPNIRKKRIKARELFELLMTERSGTARIYVQFIDNTNN  
YTPFIREKAPIRQSNLCEIAIPTNDVNSPDAEIGLCTLSAFVLDNFDWQDQKINELAE  
VQVRALDNLDDYQGYPVPEAEKAKKRRNLGVGVTNYAAWLASNFASYEDANDLTHELFER  
LQYGLIKASIKLAKEKGPSEYYSCTRWSRGELPIDWYNKIDQIAAPKYVCDWSALREDL  
KLFGIRNSTLSALMPCESSQVSNSTNGYEPGRGPVSVKESKEGSFNQVVPNIEHNIDLY  
DYTWKLAKKGNKPYLTQVAIMLKWVCQSASANTYYDPQIFPKGKVPMSIMIDDMLYGWYY  
GIKNFYHNRDGSGETDDYEIETPKADDAACKL

>P50647

MYVLNRKGEEDISFDQILKRIQRLSYGLHKLGEYPACVTQGVINGMYSSIKTCELDELA  
AQTCAYMATTHPDFSILARITTDNLHKNTSDDVAEVAEALYTYKDGRGRPASLISKEVY  
DFILLHKVRLNKEIDYTTHFNYDYFGFKTLERSYLLRINNKIIERPQHLLMRVSIHID  
DIDKALETYHLMSQKYFTHATPTLFSNGTTPRPMSSCFLLSMKADSIEGIFETLKQCALI  
SKTAGGIGVAVQDIRGQNSYIRGTNGISNGLVPMLRVFNDTARYVDQGGGKRKGSYAVYI  
EPWHSIDIFEFLDLRKNHGKEELRARDLFYAVWVPDLFMKRVKENKNWTLMCPNECPGLSE  
TWGEEFEKLYTKYEEENMGKKTVLAQDLWFAILQSQIETGVPYLYKDSNAKPIKNLGT  
IKCSNLCEIEIETSPDEAVCNLASIALCKFVDLEKKEFNFKKLYEITKIIITRNLDKII  
ERNYYPVKEAKTSNTRHRPIGIGVQGLADTFMLLRILYESDAAKELNKR IYETMYAALE  
MSVDWLQSGPYESYQSGPGSQGILQFDMWNAKVDNKYWDWDELKLIKIAKTGLRNLLLLLAP  
MPTASTSQILGNNESEFEPYTSNIYRRVLSGFEFFVVPNPHLLKDLFDRGLWDEDMKQQLIA  
HNGSIQYISEIPDDLKELYKTVWEIKQKNIIDMAADRGYFIDQSQSLNIYIQKPTFAKLS  
SMHFYGWKGLKTGAYYLRTQAATDAIKFTVDTHVAKNAVKLKNADGVQITREVSRETIQ

LNQRYSKCVSFKSNNDQCLMCSG

>O15909

MLETVKLVTKRDGSVEPYDEKVVRSRIVNLMMSGIDSYYVDVDDLVRVVGEGVREGMSTSM  
LDELLAETAAYCVTKHPDYGLLAGRLAVTALHKT'TTESVLD SFRVLHEHVSQATKRHAPL  
ISEELWDIANKHSAALQQI INYERDFDFEYFGYKTLERSYLLRVHKGRGVMEVVERPQQM  
FLRVALGIHGEDLERVKETYDYMSQGFTHATPTLFNAGT'PFPQMSSCFLVAMREDSIDG  
IYDTLKQCAI I SKSAGGIGIHMHNIRAAGSYIAGTNGT'SNGLVPM LRVWNNTARYVDQGG  
GKRKGAFAIYLEPWHADIFGFLLLKKN'TGKEDQRARDLFYGLWIPDLFMERVESHGTWTL  
MDPNTAPFLSDCYGQEF'TDLYERYEREGRGVRTIQAQELWFLILESQVETGVPF'MLYKDA  
CNFKSNQKNLGTIKCSNLCTEIVEYTSRDEVAVCNLASIALPRFVKDGAFDYVALKEVTK  
VVTRNLNRVIDRNHYPVCEARYSNLRHRPVGIGVQGLADAFALLSLPFAHPEAKKLN'RQI  
FETIYIAAVEASTE LAEKDGPYET'FKGSPASEGKLQFDLWDEERRIRGMNEDSVHSHCGL  
WDWDSLKERVVKVGMRNSLLIAPMPTASTSQILGNNECIEPFT'SNIYVRRVLSGEFPVVN  
KHLVKELIRLRLWDDMRRI IALNGSVSGIKEIPERIRELYKVVWEIRQKDLIDMAADR  
GRYIDQSQSLNLF'LATPTSSQLTSMHFYSWKKGLKTGMYYLRSQPAADA I KFTLDPKAMK  
ELPKPKQSKKEEVHGSVGRGKRKR'VGEKPTANHSNAGAPNLNGP'PDTDGDGGCLNCGS

>P42492

MLIFISNMEELLIENSQRFTIFPIQHPECWNWYKKLES'LTWTAQ'EVDMCKDIDDWEAMPK  
PQREFYKQILAFFVVADEIV'IENTLNTFMREIKVKEVLYFYTMQAAQECVHSEAYS IQVK  
TLIPDEKEQQRIFSGIEKHP I IKKMAQWVRQWMDPDRNTLGERLVGF'AAVEGILFQNHFV  
AIQFLKEQNIMPGLVSYNEFISRDEGVHCSFACFLISNYVYNIPEEK I IHKILKEAVELV  
DEFINYAFDKARGRVP'GFSKEMLFQYIRYFTDNL'CFMMQCKSIYKVG'NPF'PQMTKFFLNE  
VEKTNFFELRPTQYQNCVKDDAFAFKLFLNDDDF

>P11156

MSTVFNTNPVDV'LNEPMFFGSGLGLARYDIQRHRVFEELIERQISFFWRPEE'VNLMMDAA  
QFNKLPQYQONIF'TNNLKYQSLDSIQGRAPSAV'LMSLISDP'SLDTWVATWTFSETIHSR  
SYTHIMRNLYTDP'SKV'FDEIVLDEAIMKRAESIGRYDDV'LVKTREWENAKDMVEY'YKDQ  
GLILADKDVEQRAKRDLMKSLYLCLHVINALEAIRFYV'SFACTFNFHKNMEIMEGNAKIM  
KFIARDEQLHLKGTQYIIRQLQSGTDGDEWVKIAQ'ECEQEAVDIFMEVNRQEKDWA'VHLF  
KGDVPG'LN'TNSMWSFIDYLT'VSRMKQCGLPCPITDAPVKHPYPWIREYLN'SDNVQSAPQ  
EVELSSYLVAQIDNDVDDKVMMSFKKYF

>P48592

MASKENIADNMEKFS'LKSPSKILTDSTNNVRKMSIGHEANGQLAKESSTVNGIGKSANS  
LMEKSVTPFDPSLEPLLRENPRRFVIFPIQYHDIWQMYKKA'EASFWTV'VEEVDLSKDLTDW  
HRLKDDERHFI SHVLAFFAASDGI'VNENLVERFSQEVQIT'EARCFYGFQIAMENVHSEMY  
SVLIDTYIRDPHQREYLFNAIETMPAVKRKADWALS'WISSKSANFGERI IAFAAVEGIF  
SGSFASIFWLK'KRGLMPGLTFSNELISRDEGLHCDFAVLMFQHLVQRPKRER I IEIIRDA  
VAIEQEFLTDALPVNLI'GMNCDLMSQYIEFVADRLLV'ELGVGKIYNTKNP'FNFMEMISLD  
GKTNFFEKVGEYQRMGVVSNPLDNVFTLDADF

>P10224

MDSAAPALSPALTALTDQSATADLAIQIPKCPDPERYFYTSQCPDINHLSLSILNRWLE  
TELVFVGDEEDVSKLSEGELSFYRFLFAFLSAADDLVTENL'GGLSGLFEQKDILHY'VEQ  
ECIEVVHSRVYNI IQLVLFH'NNDQARREYVAGTINHPAIRAKVDWLEARVRECASVPEKF  
ILMILIEGIFFAASFAAIAYLR'TNNLLRVTCQSNDLISRDEAVHTTASCYIYNNYLGGHA  
KPPPDRVYGLFRQAVEIEIGFIRSQAPTDSHILSPAALAAIENYVRF'SADRLLGLIHMKP

LFSAPPPDASFPLSLMSTDKHTNFFECRSTSYAGAVVNDL

>P50650

MADVINISRIPIFSKQEREFSDLQKGKEINEKILNKESDRFTLYPILYDPVWDFYKKAEA  
SFWTAEEIDLSSDLKDFEKLNENEKHFIKHVLAFFAASDGIVLENLASKFLREVQITEAK  
KFYSFQIAVENIHSETYSLLIDNYIKDEKERLNLFHAIENIPAVKNKALWAAKWINDTNS  
FAERIVANACVEGILFSGSFCAIFWFKKQNKHLGLTFSNELISRDEGLHTDFNCLIYSL  
DNKLPEQIIQINIVKEAVEEVERSFICESLPCDLIGMNSRLMSQYIEFVADRILLECLGCSKI  
FHSKNPFNWMDLISLQGKTNFFEKRVADYQKSGVMAQRKDQVFCLNTEF

>Q01038

MDSVKKYLYTCDHVGFLELTKETWKNRWFPSPVPLQGDVCCVMDLNERDLEFYKFLFTFL  
GMAEKLVNINIEDLLSQFDSHDISHYYAEQMAMENIHGKVYANILNMLFKNNITEVYSYA  
CDIMNDSALQEKLRLWNGRVTEASDKAEKILLFLLVEGIFFISSFFSIGLFRVRGIMNGI  
CLANDYIARDEMLHTSAAALLYNTMTKSSERPSEDWIYKLFREAVEVEFKFIAAKGYGVS  
LVNVHEIRQFLQATADRILESINLNPYGLSPPENCPLAYTSSTKSVNFFERDNSDYTGT  
LTNDL

>O75792

MDLSELERDNTGRCLSSPVPVAVCRKEPCVLGVDEAGRGPVLGPMVYAICYCPLPRLADL  
EALKVADSKTLLSERERLFAKMEDTDFVGVWALDVLSPNLISTSMGRVKYNLNSLSHDT  
ATGLIQYALDQGVNVTQVFVDTVGMPEYQARLQQSFPGIEVTVKAKADALYPVSAASI  
CAKVARDAQVKKQFVEKLDLTDYGSYPNDPKTKAWLKEHVEPVFGFPQFVRFVSWRT  
AQTILEKEAEDVIWEDSASENQEGLRKITSYFLNEGSQARPRSSHRYFLERGLESATSL

>P53942

MVPPTVEASLESPYTKSYFSPVPSALLEQNDSPIMGIDEAGRGPVLGPMVYAVAYSTQK  
YQDETIIPNYEFDDSKKLTDPIRRMLFSKIYQDNEELTQIGYATTCITPLDISRGMKFP  
PTRNYNLNEQAHDVTMALIDGVIKQNVKLSHVYVDTVGPPASYQKKLEQRFPGVKFTVAK  
KADSLYCMVSVASVAVKVRDILVESLKRDPDEILGSGYSPDKTVAWLKRNQTSLMGWP  
ANMVRFSWQTCQTLDDASKNSIPKWEQYMDSRKNAAQKTKQLQLQMVAKPVRKRRLR  
TLDNWYR

>Q9NQL2

MSQVLGKQPQDEDDAEDEEEDELVGLADYGDGPDSSDADPDSGTEEGVLDFSDPFSTE  
VKPRILLMGLRRSGKSSIQKVVFHKMSPNETLFLSTNKICREDVSNSFVNFQIWDFFPG  
QIDFFDPTFDYEMIFRGTGALIFVIDSQDDYMEALARLHLTVTRAYKVNTDINFVFIHK  
VDGLSDDHKIETQRDIHQRANDDLADAGLEKIHLISFYLTISIYDHSIFEAFSKVVQKLIPQ  
LPTLENLLNIFISNSGIEKAFLFDVVSKIYIATDSTPVDMQTYELCCDMIDVVIDISCIY  
GLKEDGAGTPYDKESTAIKLNNTTVLYLKEVTKFLALVCFVREESFERKGLIDYNFHF  
RKAIHEVFEVRMKVVKSARKVQNRLOKQKRRATPNGTPRVLL

>P32786

MSEGQIPSSDVLGSQLGVGVQASLYCPQENYTTKKQENPQWLRPVDDTLAEDALDLHIV  
VKSLLCDTAIRYISDDKVLQESDADDDLITSDIDEDTDNQGDTSI VVNPIVVPKDVHF  
FKKVDVGNDSMFGVNCDPVFSFQDIYPSDLLRNLDLTLQESTNSSRPMQDAFFWDPTVAN  
RLDSQYIQTASDLRNYRDGTEIIAYASGKTGSVLNIAVLTRQNTLHLNRHNNVTSIELHS  
PIKSIKIPGASESIGRRSNLVGIIITENSFQIFRIESVHSRSCDVMVSSSEPLYFVEIDDL  
QVVDFAFNPWDLQQFAIIDIKGNWSIGRIPKNFNNNNKRKLQLIDNLHGTIFDPEELSSW  
KRIEWFSHFQKILVDRSKMIEIDFMNNWQTEVVQAKAWSNIRDYKRIDDKNGILLTSRE

IIIVGASESNPVRRIISWKHDLDPDDTTLRITVQKVKKPDHILLVAFVYSMRHKRIYMHV  
FSHRKANLFQSLGCSTVLEIPGGTPTGIETILTLDHIDDESRRREEDADENFELVVDLFLVK  
LRNSSEVYYYYALSNTQNSEPNKQETPIIVDHPWASLFFNNADEREKESIGALVSQIKLKE  
RERISRVQNLIEHENSHDEDKYLDLGYRLSIATNELLESWQKTDESILSGSLSHSKLK  
NLLSENSDFASIFEFSLLDQFFQYYQDQDVTFIGFEKLLHLFLHEDVPGLDIFYNKLLQ  
CWVLVSPQAEELLTKEIVKDIIWSLARLEKPSLFEPIONEISRSLSGPYQDISSWDMDDI  
NEEDESNEFNFDQSFSAPFNRPFFNLNSQSQIPTIKSSQSSGLARRKRILKTQSQKATP  
LSQSTQNLVLPDSMTPAFTLMQPPSSQISFVNDSQPRNSQKAKKKKKRIRGFG

>P40992

MSTFIRGPICGTDNCP SRLWRIIDGRRTCQYGHVMEGDVEFNDEDDLNLGLGAGVITRRL  
NLTTNATGSFQSSQLTNSQLLQQQQRQSHKKFKKLI GHEAKLLFLKSFQFILKRQIRWLI  
TEMRFPKFEFEHVAKI IWLKILKTINDQPQEELKLQLHMTSTISILYLASTHLSLPVYTC  
YIKWICTAKMPYFQASEILPKSWRIQLPNYYVSILEGSI SPFNGQLYNKIALTCGMIHFK  
EFFNSEISCOGLLLKLV MQCALPPEFYFYTKQVIEFEETDIRNLT LWERTDERHTGRVSN  
HAELRVLSYFMLTINWMLSFD RDRQYPLKWILSLTESLTQRTTTSSESIGRNIVKVVPDK  
PTSSDYFQWSEEEETLEFLKWMEKQFLPTQTKSLHNENGS MEMTIDQKIARRKLYKIFPLD  
REANHDGEFNDSTHQLTFIEDLQERYAKQTPFFESNKIRDSLNYQEANPPARKEAIGRLL  
THIASQLLVDF AISKEQLKDCISR IKNACLHRMN

>Q5SLP8

MRRYEVNIVLNPNDQSQLALEKEI IQRALENYGARVEKVEELGLRRLAYPIAKDPQGYF  
LWYQVEMPEDRVNDLARELRIRDNVRRVMVVKSQEPFLANA

>P32607

MSSIPAGTDPGSCGANFKNDRKRRDKINDRIQELLSIIPKDFFRDYGN SGNSTLSEST  
PGALGLSSKAKGTGTDGKPNKGQILTQAVEYI SHLQNVDTQNRREEVELMVKATQLAKQ  
TGTIVNDINLENTSAEVALSRIGVGLAATNDDSVRPPAKRLSSFEYGGYGEYGN

>P38165

MMNNNESEAENQRLLEDLMNQTKVLQETLDFSLVTPTPHHNDYKIHGSAYPGGETPAQQ  
HEKLSYINTHNSNDNNLMG SQARSNSQTPTASTIYEEAESQSSYLDDMFRTSQGGRPVT  
QNSISSIGQGPLRSSYSMAYDSPVDRAMNTPLQQQEGLKAELPHDFLFQHGTDDTMYNLT  
DDLSSSLSSSINSMMTPNTYSSSF SYNQSLGPASVSSTYSPKVRSPSSFRAGSFLSS  
SFRHGSINTPRTRHTS ISSNM TENIGPGSVPKILGGLTSDEKLRRKREFHNAVERRRREL  
IKQKIKELGQLVPPSLNYYDDL GKQIKPNKGIILDRTVEYLQYLAEILEIQARKKKALLA  
KIKELEEKSSVAALSPFTNNHHASSGQNNSENSEERI IDIRSVPNALMNEQNSKAELHN  
WEPPLYDSVGNH NHAGTMESH PHTNIHEELKEFLSGDLIEAEDNAKLMFGDDNSNPADYL  
LEFGSG

>Q7T046

MMQVLLVTI SLAVFPYQSSII ILESGNVNDYEVVYPQKITALPEEAVQQPEQKYEDTMQY  
EFEVNGEPVVLHLEKNKDLFSEDYSETRYSPDGRETTTKPPVQDHCYYHGRIQNDAYSSA  
SISACNGLKGHFKLQGETYLI EPLKIPDSEAHAVYKYENIEKEDEAPKMGVTQTNWESD  
EPIKKASQLVATS AKRKFHKT FIELVIVVDHRVVKYDS AATNTKIYEIVNTVNEIF IPL  
NIRLTLIGVEFWCNRDLINVTSSADDTLDSFGEWGRS DLLNRKRHDNAQLFTDMKFDLST  
LGITFLDGMCA YRSVGI VQEHGNKNFKTAVIMAHELGHNLMYHDRKNCICNDSSCIMS  
AVLSSQPSKLF SNCSNHDYRRYLTTYKPKC I LNPPLRKDIASPPICGNEI WEEGEECDCG  
SPKDCQNPCCDAATCKLTPGAECGNLCCEKCKIKTAGTV CRRARDECDVPEHCTGQSAE  
CPADGFHANGQPCQNNNGYCYNGDCPIMTKQCISLFGSRATVAEDSCFQENQKGSYYGYC

RKENGRKIPCAPQDIKCGRLYCLDNSPGNKNPCKMHYRCRDQHKGMVEPGTKCEDGKVCN  
NKRQCVDVNTAY

>P28782

MLTDLECAINSLIDVYHKYSLKKGNYHAVYRDDLKQLLETECPKFMKKKDADTWFKELDI  
NQDGGINFEEFLVLVIKVGLEAHEEIHKE

>P28783

MEDKMSQMESSIETIINIFHQYSVRLGHYDTLIQKEFKQLVQKELPNFLKKQKKNEAAIN  
EIMEDLDTNVDKQLSFEEFIMLVARLTVASHEEMHNTAPPQGHRHGPGYGKGGSGSCSG  
QGSPDQGSDDLGSFHGHGHSHGGHGHSHGGHGHSH

>Q17820

MEVSKAEQAIYDRQIRLWGMQAQNKIRNSKVLIIIGGKQLGAEVAKTLSLAGVDEMHLVDH  
RLVDTEEIGMNFYDASVDNSKMTKWAASYNFLYLNLRNVKLFIVEEDVLSKNDSEIEEY  
LTKFTLVVVLDESERTAKVNNICRKHHRFISGAIYGWIGYAFFDFDGHAYLVKAKSPD  
CLNEEESSETGKTSTVVTVDEEFVLETFSYPSFVETLNSDF'TAKKIVRKCKRIVPTSIFLV  
KSMLRASSENKLTGVTENDIEKLIPIWNEEVAAGNHTIDMQPVQPDRFDHLFGPNFGPTA  
ACVGGVIGQEAIKSISEGKNPLRNLFIYTGFEESTGFMCNFPPV

>Q9UBE0

MVEKEEAGGGISEEEAAQYDRQIRLWGLEAQKRLRASRVLLVGLKGLGAEIAKNLILAGV  
KGLTMLDHEQVTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNPMVDVKVDTEDEIEKKPE  
SFFTQFQDAVCLTCCSRDVIKVDQICHKNSIKFFTGDVFGYHGYTFANLGEHEFVEEKT  
VAKVSQGVEDGPDTRAKLDSSETTMVKKKVVFCPVKEALEVDWSSEKAKAALKRRTSDY  
FLLQVLLKFRTDKGRDPSSDTYPEEDSELLLQIRNDVLDLGLISPDLLEDFVRYCFSEMA  
PVCVVGGILAQEIVKALSQRDPPHNFFFDGMKNGGIVECLGPK

>P0AG76

MRILHTSDWHLGQNFYKSRQAEHQAFLDWLLLETAQTHQVDAIIVAGDVFDTGSPPSYAR  
TLYNRFVNLQQTGCHLVVLAGNHDSVATLNESTRDIMAFLN'TTVASAGHAPQILPRRDG  
TPGAVLCPPIFLRPRDIITSQAGLNGIEKQQHLLAAITDYQQHYADACKLRGDQPLPII  
ATGHLTTVGASKSDAVRDIYIGTLDAFPAQNFPPADYIALGHIHRAQIIGGMEHVRYCGS  
PIPLSFDECGKSKYVHLVTFSSNGKLESVENLNVPVTQPMVAVLKGDLASITAQLEQWRDVS  
QEPPVWLDIEITTEYLDHIQRKIQALTESLPVEVLLVRRSREQRERVLASQQRETLSEL  
SVEEVFNRRLLALEELDESQQORLQHLFTTTTLHTLAGEHEA

>Q9ZLE3

MNKVITDLKALSGLKDGDTILVGGFGLCGIPEYAIIDYIYKKGIKDLIVVSNNCGVDDFG  
LGILLEKKQIKKIIASYVGENKIFESQMLNGEIEVVLTTPQGTLAENLRAGGAGIPAYYTP  
TGVGTLIAQKESREFNGKEYILERAITGDYGLIKAYKSDTLGNLVFRKTARNFNPLCAM  
AAKICVAEVEEIVPAGELDPDEIHLPGIYVQHIYKGEKFEKRIEKT'TTRSAK

>Q9ZLE4

MREAIKRAAKELKEGMYVNLGIGLPTLVANEVSGMNIVFQSENGLLGIGAYPLEGGVDA  
DLINAGKETITVVPGASFFNSADSFAMIRGGHIDLAILGGMEVSQNGDLANWMI PKKLIK  
GMGGAMDLVHGAKKVIVIMEHCNKYGESKVKKECSLPLTGKGVVHQLITDLAVFEFSNNA  
MELVELQEGVSLDQVKEKTEAEFEVHL

>P45843

MSDSDSKRIDVEAPERVEQHELQVMPVVGSTIEVPSLDSTPKLSKRNSSERSLPLRSYSKW  
SPTEQGATLVWRDLVYTNVGGSGQRMKRIINNSTGAIQPGTLMALMGSSGSGKTTL MST  
LAFRQPAGTVVQGDILINGRRIGPFMHRISGYVYQDDLFLGSLTVLEHLNFMHLRLDRR  
VSKEERLIIKELLERTGLLSAAQTRIGSGDDKKVLSGGERKRLAFAVE LLNPNVILFCD  
EPTTGLDSYSAQQLVATLYELAQKGT TILCTIHQPSSQLFDNFNNVMLLADGRVAFTGSP  
QHALLFFANHGYYCPEAYNPADFLIGVLATDPGYEQASQRSAQHLCDFAVSSAAKQRDM  
LVNLEIHMAQSGNFPFDTEVESFRGVAVYKRFHVWVLRASLTLLRDP TIQWLRFIQKIAM  
AFIIGACFAGTTEPSQLGVQAVQGALFIMISENTYHPMYSVLNLF PQGFPLFMRETRSGL  
YSTGQYYAANILALLPGMIEPLIFV IICYWLTGLRSTFYAFGVTAMCVVLMNVATACG  
CFFSTAFNSVPLAMAYLVPLDYIFMITSGIFIQVNSLPVAFWWTQFLSWMLYANEAMTAA  
QWSGVQNITCFQESADLPCFHTGQDVLDKYSFNESNVYRNLLAMVGLYFGFHLLGYCLW  
RRARKL

>Q7WY62

MNVWPSMRKLSDELLIESYFKATEMNLNRDFIELIENEIKRRSLGHIISVSS

>P33073

MLNTAREIIDVCNERGIKIYDLVLEEEIKNSHTTEEEIRKKLDAVIDVMHASATKNLTQS  
DVTEYK MIDGFAKRTY EYANSGKSIVGDFLAKAMAMAFSTSEVNASMGKIVAAPTAGSSG  
IMPAMLVAATEKYNFDRTTIQNGFLTSIGIGQVITKYATFAGAEGGCQAECGSASAMAAA  
ALVEMLGGTVEQALHAASIT IINVLGLVCDPIAGLVQYPCFRNASGVINAFISADLALA  
GVESLVPFDEVVIAMGEVGNMIEALRETGLGGLAGSKTGQKIRRDFLKEGD

>P60460

MSKREETGLATSAGLIRYMDETF SKIRVKPEHVIGVTVAFV IIEAILTYGRFL

>Q8WW01

MEERGDSEPTPGCSGLGPGGVRGFGDGGGAPSWAPEDAWMGTHPKYLEMMELDIGDATQV  
YVAVFLVYLDLMESSKSWHEVNCVGLPELQLICLVGTEIEGEGLQTVVPTPITASLSHNRIR  
EILKASRKLQGD PDL PMSFTLAIVESDSTIVYYKLT DGFMLPDPQNISLRR

>Q04675

MATTDIIISLVKNNLLYFQM WTEVEILQDDLSWKGNLRLRLRGRPPHKLSNDVDTEHENS  
SSPRPLEFILPINMSQYKENFLTLECLSQTFFTHLCSPSTERILLAI INDDGTIVYYFVYK  
GVRKPKRN

>Q8NCE0

MAEAVFHAPKRKR RVYETYESPLPIPFGQDHGPLKEFKIFRAEMINNNVIVRNAEDIEQL  
YGKGYFGKGILSRSRPSFTISDPKLVAKWKDMKTNMP IITSKRYQHSVEWAAELMRRQGQ  
DESTVRRILKDYTKPLEHPPVKRNEEAQVHDKLNSGMVSNMEGTAGGERPSV VNGDSGKS  
GGVGDPREPLGCLQEGSGCHPTTESFEKSVREDASPLPHVCCCKQDALIILQRGLHHEDGS  
QHIGLLHPGDRGPDHEYVLVEEAECAMSEREAAPNEELVQRNRLICRRNPYRIF EYLQLS  
LEEAFFLVYALGCLSIYYEKEPLTIVKLWKAFTVVQPTFRRTTYMAYHYFRSKGWVPKVL  
KYGTDLLL YRKGPFFYHASYSV IIELVDDHFEGLRRPLSWKSLAALS RVS VNVSKELML  
CYLIKPSTMTDKEMESPECMKRIKVQEVILSRWVSSRERSDQDDL

>P16658

MSKGRVNQKRYKYPLPIHPVDDLPELILHNPLSWLYWAYRYKSTNALNDKVHVDFIGDT  
TLHITVQDDKQMLYLWNNGFFGTGQFSRSEPTWKARTEARLGLNDTPLHNRGGTKSNTET  
EMTLEKVTQORRLQRLEFKKERAKLERELLELRKKGGHIDEENILLEKQRESLRKFKLKQ

TEDVGIVAQQQDISESNLRDEDNLLDENGDLLPLESLELMPVEAMFLTFALPVLDISPA  
CLAGKLFQFDACYKDIHSFVRSYVIYHHYRSHGWCVRSGIKFGCDYLLYKRGPFFQHAEF  
CVMGLDHDVSKDYTWYSSIARVVGGAKKTFVLCYVERLISEQEAIALWKSNNFTKLFNSF  
QVGEVLYKRWVPGRNRD

>Q9BSV6

MLVVEVANGRSLVWGAEAVQALRERLGVGGRTV GALPRGPRQNSRLGLPLLLMPEEARLL  
AEIGAVTLVSAPRPDSRHSLALTSFKRQQEESFQEQSALAAEARETRRQELLEKITEGQ  
AAKKQKLEQASGASSSQEAGSSQAAKEDETS DGQASGEQEEAGPSSSQAGPSNGVAPLPR  
SALLVQLATARPRPVKARPLDWRVQSKDWP HAGRPAHELRYSIYRDLWERGFFLSAAGKF  
GGDFLVYPGDPLRFHAHYIAQCWAPEDTIPLQDLVAAGRLGTSVRKTL LLLCSPQPDGKVV  
YTSLQWASLQ

>P39707

MPPLVFDIDHIKLLRKWIGCVLSGTLPTAAQQNVFLSVPLRLMLEDVLWLHLNLLADVK  
LIRQEGDEIMEGITLERGAKLSKIVNDRLNKSF EYQRKFKKDEHIAK LKKIGRINDKTTA  
EELQRLDKSSNNDQLIESSLFIDIANTSMILRDIRSDSDSLSRDDISDLLFKYRQAGKM  
QTYFLYKALRDQGYVLSPPGGRFGGKFIAYPGDPLRFHSHLTIQDAIDYHNEPIDLISMIS  
GARLGTTVKKLWVIGGVAEETKETHFFSIEWAGFG

>Q7Z6J9

MEPDPEPAAVEVPAGRVLSARELFAARSRSQKLPQRSHGPKDFLPDGSAAQAERLRRCRE  
ELWQLLAEQRVERLGLSLVAAEWRPEEGFVELKSPAGKFWQTMGFSEQGRQLHPPEALYL  
LECGSIHLFHQDLPLSIEQAYQLLLTDHTVTFLQYQVFSHLKRLGYVRRFQPSSVLSPY  
ERQLNLDASVQHLEDGDGKRKRSSSSSPRSINKKAKALDNSLQPKSLAASSPPPCSQPSQC  
PEEKQOESSPMKGGPGPFQLLGSLGSPGPAREGVGCSWESGRAENGV TGAGKRRWNFEQ  
ISFPNMASDSRHTLLRAPAPELLPANVAGRETDAESWCQKLNQRKENLSRREREHHAEEA  
QFQEDVNADPEVQRCSWREYKELLQRRQVQRSQRRAPHLWGQPVTPLLSPGQASSPAVV  
LQHISVLQTTHLPDGGVRLLEKSGGLEIIFDVYQADAVATFRKNNPGKPYARMCISGFDE  
PVPDLCSLKRLSYQSGDVPLIFALVDHGDISFY SFRDFTL PQDVGH

>Q02825

MQFAGKKTQVTTSNPGFEEEEEEEEELQQDWSQLASLVSKNAALSLPKRGEKDYEPDGT  
NLQDLLLYNASKAMFDTISDSIRGTTVKSEVRGYVPHKHQAVLLKPKGSFMQTMGRADS  
TGELWLDHFHEFVYLAERGTILPYRLEAGSNKSSKHETEILLSMEDLYSLFSSQQEMDQY  
FVFAHLKRLGFILKPSNQEA AVKTSFFPLKKQRSNLQAITWRLLSLFKIQELSLFSGFFY  
SKWNFFFRKYTTSPQLYQGLNRLVRSVAVPKNKKELLD AQSDREFQKVKDIPLTFKWKPK  
HSNFKKRDPGLPDFQV FVYNKNDLQHFPTYKELRSMFSSLDYKFEFLSEIEDDDDWETN  
SYVEDIPRKEYIHKRSKSSQTEKSESSMKASFQKKT AQSSTKKKRKAYPPIHQNRRLKT  
GYRSFIIAIMDNGLISFVKMSEADFGSESVWYTPNTQKKVDQRWKKH

>P29382

MGRGRVELKRIENKINRQVTFAKRRNGLLKKAYELSVLCAEVALIIFSNRGKLYEFCSS  
SNMLKTLDRYQKCSYGSIEVNNKPAKELENSYREYLKLGRYENLQRQQRNLLGEDLGPL  
NSKELEQLERQLDGLKQVRSIKTQYMLDQLSDLQNK EQMLLETNRALAMKLLDDMIGVRS  
HHMGGGGGWEGGEQNVTYAHHQAQSQGLYQPLECNPTLQMGYDNPVCSEQITATTQAQAQ  
QGNGYIPGWML

>Q9S1H0

MRKVMNSPDDGNRRRFLQFSMAALASAAAAPSSVWAFSKIQPIEDPLKSYPYRDWEDLYR



KEWTWDSTGFITHSNGCVAGCAWRVFKNGVPMREEQVSEYPQLPGVPMNPRGCQKGA  
YCSWSKQPDFLKYPLKRVGERGERKWKRI SWDEAFTEIADKI IDTTVKRGPGNVCMKRP  
FAVITSAGYSRLANLIGAIPDVSSMTGDLYPGIQTVRMPARTVSTFDDWFTSDLILMWH  
KNPIVTRIPDAHFLTEARYNGARLVNISPDPNPSSVHADLHLPVTTGTDSHLAAAIVNVL  
IADKKYKADYLKEQTDL PFLVVRTDNGKFLREKDFNKDGSDEVFYI WDSKSGKAVLAPGSM  
GSKDKTLKLGAVEPALEGTDFDANGIEVTTVFARLKAEIAPYTP EATHKTTGIHPSVVRQL  
AGWIGDCKALRILDGYNNQKHFDGFCGR LKILILTLIGHHGTGSDITTYEGWVLEGNK  
ALGGVKGRPGRSVSMVLAQVWVWGEQYRRSKAYFDDTELREQIGFGVDEMEALRKESEANG  
WMPNWQSIKDPVVYINAGINTFATSTGYQHLRENFLKRCELYVVVDFRLNSGAMYADIVL  
PAATNLEKLDIRETSSTRFIHAFGQPIKPMYDRRTDWQISVGLARKIQERARARGITRVD  
DPEIKSFIDFDKVVYDEFTMNGAVEKDEDALRFVMEKSKALGPGSYEEVLKRGFVGVGPSA  
GKTGPVPADKPYRPFVTVNVSEKVPYKTLTGRLQFYIDHDWYQRFGATVPKPQYGGGVLGP  
KKYPFVYNTPHTRWGVHVSFARTDQWMLRHQRGEPDVRLNPAAMARKGIKDGQVRIFNSS  
GEFFAMAKAWPGLPENMLFSEHGWEQYLYKNMTHYNSVNAELINPLELVGGYGHVKFAAG  
GFNPNRI FHETTVDVEKA

>P82450

IPFPFASYIDNYMVLQKEPSGAVILGFLGPATHSVLWNAMIPLQTMRLKGVVWYQGEN

>P40485

MSKNNTMTSAVSDMLSQQQLNLQHLHNLQQHTRSMTSADHANVLQQQQQQQQQQQQQQQ  
QQQSASFQNGSLTSDINQQSYLNGQPVPSTSNSTFQNNRRTLTMNSGGLQGIISNGSPNID  
SNTNVTIAVPDPNANNNGKQLQGKNSLTNTSILSRARSSLQRQLAQQQQQQDPRSPLVI  
LVPTAAQPTDILAAARFSAWRNVIKSVIVYLTEIASIQDEIVRQQLRLSHAVQFPFFSIEN  
QYQPSSQEDKSVQKFFLPLGNGSIQDLPTILNQYHESLASSASKASRELTNDVI PRLEDL  
RRDLIVKIKEIKSLQSDFKNSCSKELQQTQAMKQFQESLKDARYSVPKQDPFLTKLALD  
RQIKKQLQEENFLHEAFDNL ETSGAELEKIVVMEIQNSLTIYARLLGQEAQLVFDILISK  
LDSGFFNVDPQFEWDFNISRDPNFLLPNLPMRTFKEIVYKYQFDPLTYEIKSGFLERRSK  
FLKSYSKGYVLTTPNFLHEFKTADRKKDLVPVMSLALSECTVTEHSRKNSTSSPNSTGSD  
AKFVLHAKQNGIIRRGHNWVFKADSYESMMSWFDNLKILTSTSNIQDKYKFITQKLNLS  
DGKPKLTNNHTSINKYQLSNANSTMVENDENDDINSNYVGSTVTPKLDNQTNTNTSMSSL  
PDTNDSELQDQVPNIYIQTPINDFKS

>P53955

MSYQRNSARASLDLRSQYQQL EGRMRSEHFNPAYQQQQQKQNIPLSLPSSLAQRNP  
PIDAVTSDPTIPAQLNVYDHRQNSIVDAAAGTNTTHSLNSNNIPSSQNNNINNNNINNV  
GSFTDPSMLTLPKMSLHSHQKQYDSNQNDPRSPAILIPTSAQPTDVL SARFSAWRNVIR  
AILVYLSETASIQDEIVRQQLRLSHAVQFPFFSIENQYQPVSNEDKSMQKFFLPLGSGSV  
QDLPTMLTKYHDNLASLASKSSKELTSEIIPRLEDLRRDLLV KIKEIKALQSDFKNSCNK  
ELQQTKHLMKLFNESLKECKLGT PKSDPFLIKLQLEKQIKRQLVEENYLHEAFDNLQNSG  
AQLESVIVMEIQNGLTSYARILGKEAQVVFDSVISKLDSTILNKNTNLEWDSFILRNISN  
FVPPNLP MRRFKEISYSNQNDPFTFEVKSGFLEKRSKFLKSYSRGFYVLTTPSFLHEFKTP  
DKHKFSTPLMSIPLVECTVTEHSSKKTNSNSEQGNKFI LRNTSNGLIHRGHNWVFKVDSY  
DDMIEWFGNIKALSSLPNYDDKCKYVSKVAKLSKEKAKSNENTTESVTPQVTNEQHTRYD  
DVSSSNFPLNSIPKLDNLTITNTTSSIPETNDSQIQNRVPEFYIENVDSRKSQNL

>Q96GM5

MGPAPGQGLYRSPMPGAAAYPRPGMLPGSRMTPQGPSMGPPGYGGNPSVRPGLAQSGMDQS  
RKRPAQQIQVQVQAVQNRNHNKAKKKK MADKILPQRI RELVPE SQAYMDLLAFERKLDQ  
TIMRKRLDIQEALKRPIKQRKLRIFISNTFNPAKSDAEDGE TVASWELRVEGRLL EDS

ALSKYDATKQKRKFSSFFKSLVIELDKDLYGPDNHLVEWHRTATTQETDGFQVKRPGDVN  
VRCTVLLMLDYQPPQFKLDPRLARLLGIHTQTRPVIIQALWQYIKTHKLQDPHEREFVIC  
DKYLQQIFESQRMKFSEIPQRLHALLMPPEPIIINHVISVDPNDQKKTACYDIDVEVDDT  
LKTQMNSFLLSTASQQEIATLDNKIHETIETINQLKTQREFMLSFAARDPQGFINDWLQSQ  
CRDLKTMTDVGNGPEEERRAEFYFQPWAQEAUCRYFYFSKVQQRRQEELEQALGIRNT

>P54991

MTAPRRRITLAGIIDGPGGHVAAWRHPATKADAQLDFEFHRDNARTLERGLFDAVFIADI  
VAVWGTRLDSL CRTSRTEHFEP LTLAAYAAVTEHIGLCATATTTYNEPAHIAARFASLD  
HLSGGRAGWNVV TSAAPWESANFGFPEHLEHGKRYERAE EEFIDVVKKLWSDGRPVDHRG  
THFEAPGPLGIARPPQGRPVIIQAGSSPVGREFAARHAEVIFTRHNRLSDAQDFYGD LKA  
RVARHGRDPEKVLVWPTLAPIVAATDTEAKQRLQELQDLTHDHVALRTLQDHLGDV DLSA  
YPIDGPVPDIPYTNQSQSTTERLIGLARRENLSIRELALRLMGDIVVGTPEQLADHMESW  
FTGRGADGFNIDFPYLPGSADDFVDHVPELQRRGLYRSGYEGTTLRANL GIDAPRKAGA  
AA

>P54993

MTAPILVATLDTRGPAATLGTITRAVRAAEAAAGFDAVLIDDRAAAAGVQGRFETTTLTAAL  
AAVTEHIGLITAPLPADQAPYHVS RITASLDHLAHGRTGWLASTDTTDPEGRTGELIDVV  
RGLWDSFDDDAFVHADRADGLYWRLPAVHQLDHQGRHFDVAGPLNVARPPQGHVVAVTGP  
ALAAAADLVLLDEAADAASVKQQAPHAKILLPLPGPAAELPADSPADGFTVALTGSDDPV  
LAALAARPGRPDRTAATTLRERLGLARPE SRHALTTA

>P13926

MVKAVCVLAGSGDVKGVVRFEQDDGDVTVEGKIEGLTDGNHGFH IHVFGDNTNGCLSAG  
PHFNPQKNKHGSPKDADRHVGLGNVTAEGGVAQFKFTDPQISLKGERSIIGRTAVVHEK  
QDDLKGGGDES LKTGNAGGRLACGVIGFCP

>P00445

MVQAVAVLKG DAGVSGVVKFEQASESEPTTVSYE IAGNSPNAERGFHIHEFGDATNGCVS  
AGPHFNPFKKTHGAPTDEVRHVGDGMNVKTDENGVAKGSFKDSL IKLIGPTS SVVGRSVVI  
HAGQDDLKGGDTEESLKTGNAGPRPACGVIGL TN

>P0A0J3

MAFELPKLPYAFDALEPHFDKETMEIHHDRHHNTYVTKLNAAVEGTDLESKSIEEIVANL  
DSVPANIQTAVRNNGGHLNHSLSFWELLSPNSEKGTVVEKIKEQWGSLEEFKKEFADKA  
AARFGSGWAWLVVNNNGQLEIVTTPNQDNPLTEGKTPILGLDVWEHAYYLKYQNKRPDYIG  
AFWNVVNWEKVDELYNATK

>P54995

MTQQRQMHLAGFFSAGNVTHAHGAWRHTDASNDFLSGKYYQHIARTLERGKFDLLFLPDG  
LAVEDSYGDNLDTGVLGGQGAVALEPASVVATMAAVTEHLGLGATISATYPPYHVARV  
FATLDQLSGGRVSWNVVTS LNDAEARNFGINQHLEHDARYDRADEFLEAVKKLWNSWDED  
ALVLDKAAGVFADPAKVHYVDHHEWLNVRGPLQVPRSPQGEVILQAGLSPRGRRFAGK  
WAEAVFSLAPNLEVMQATYQG IKAEVDAAGRDPDQTKIFTAVMPVLGESQAVAQERLEYL  
NSLVHPEVGLSTLSSHTGINLAAYPLDTP IKDILRDLQDRNVPTQLHMF AAATHSEELTL  
AEMGRRYGTNVGFVPQWAGTGEQI ADELIRHFEGGAADGFIISPAFLPGSYDEFVDQVVP  
VLQDRGYFRTEYQGNTLRDHLGLRVPQLQGQPS

>P54997

MTSRVDPANPGSELDSAIRDTLTYSNCPVPNALLTASESGFLDAAGIELDVLVSGQQGTVH  
FTYDQPAYTRFRGGEIPPLLESEGLRAPGRTRLLGITPLLGRQGFVRRDDSPITAAADLAGR  
RIGVSASAIRILRGQLGDYLELDPWRQTLVALGSWEARALLHTLEHGELGVDDVELVPI  
SPGVDPVPAEQLEESATVKGADLFPDVARGQAAVLASGDVDALYSWLPWAGELQATGARPV  
VDLGLDERNAYASVWTVSSGLVVRQRPGLVQRLVDAAVDAGLWARDHSDAVTSLHAANLGV  
STGAVGQGFQADFGQRLVPRLDHDALALLERTQQFLLTNLLQEPVALDQWAAPEFLNNS  
LNRHR

>Q46336

MMLIECPNCGPRNETEFSSYGGQAHVAYPEDPNALSDKEWSRYLFYRENSKGI FAERWVHS  
GGCRKWFNALRDTATYEFKAVYRAGEPRPELNTQGGSR

>Q46338

MASNTLIESTSVRRSPAHEHLAEAMAQGSTAGTVQLREIAFATQVGVRAVPGSGGFAALAE  
AVGTGLPQQVGVVAGSVEGTAVLWLGPEFLAIAPEGAELAAELVAALGDEPGQVLDLSA  
NRSVLELSPAAPLVLRLKSCPADLHPRAFGVNLAITTTLANIPVLLWRTGEQSWYILPRA  
SFTEHTVHWLIDAMSEFASEPVA

>P45434

MMNLRVLFALLLLASPLLQVARCQSDAEDHSSLVDDVVGENTDDAVEEDDHDLDMNLSS  
FPGVETVCVFPKNSAKLVPAGEETEELLVGLKNEGKTRVGMGIRASVHLPYDHKLLVQNL  
TMLRLNNASIPTSLQATFPYIFAVSQYLQPGAFDLVGYI IYDVEGKPYQSVFYNGTIEVV  
ESGGLLSGESVFLTLGLIGLLLLLGLWAYSQVQRLTKKTKKVKVEVGTRSTEASLDEWL  
EGTTLAKTSSGKTKNKKK

>O19069

MASGSSGLAAARLLSRSFLLQQNGIRHCSYTASRKHLYVDKNTKVICQGF'TGKQGT'FHSQ  
QALEYGTNLVGGTTPGKGGKTHLGLPVFNTVKEAKEQTGATASVIYVPPPFAAAAINEAI  
DAEVPLVVCITEGIPQQDMVRVKHRLLRQKTRILIGPNCPGVINRFLRFVYITSRVFTC  
TQQEYRKIPLLFGTRSIHMGIVSRSGTLTYEAVHQTTQVGLGQSLCVGIGGDPFNGTDF  
TDCLEIFLNDPATEGIILIGEIGGNAEENAAEFLKQHNSGPKSKPVVSFIAGLTAPPGRR  
MGHAGAI IAGGKGGAKEKITALQSAGVVVSMSPAQLGTTIYKEFEKRMKML

>P0AGE9

MSILIDKNTKVICQGF'TGSQGT'FHSEQAIAYGTKMVGGVTPGKGGT'THLGLPVFNTVREA  
VAATGATASVIYVPAPFCKDSILEAIDAGIKLIITITEGIP'TLDM'LVKVLDEAGVRMI  
GPNCPGVITPGECKIGIQPGHIHKPGKVGIVSRSGTLTYEAVKQTTDYGFGQSTCVGIGG  
DPIPGSNFIDILEMFEKDPQTEAIVMIGEIGGSAEEEEAAAYIKEHVTKPVVGYIAGVTAP  
KGKRMGHAGAI IAGGKGTADKFAALEAAGVKTVRSLADIGEALK'TVLK

>P09143

MILVNRETRVLVQGITGREGQFHKTQMLDYGTKIVAGVTPGKGGTEVLGVPVYDTVKEAV  
AHHEVDASIIIFVPAPAAADAALAAHAGIPLIVLITEGIP'TLDM'VRAVEEIKALGSRLIG  
GNCPGII SAEETKIGIMP'GHVFKRGRVGIISRS'GTLTYEAAAALSQAGLGT'TTTV'GIGGD  
PVI'GTTFKDLLPL'FNEDPETEAVV'LIGEIGGSDEEEEEAAWVKDHMKKPVVGF'IGGRSAPK  
GKRMGHAGAI IMG'NVGTPE'SKLRAFAEAGIPVADTIDEIVELVKKALG

>P40688

MSLQDESFP'TDEL'FDQLNNLSSSGARNTWFAEHHPAVFERDTAP'FLEICYADP'DFDADG  
DVANKSAKTCVSDPVGRDQE'EDDYDEDVDGDDHKLGC'EKAPLGSGRSSKAVSYQDIHSA

YTKRRFQHVTSKVGQYIAEIQAQDQKRRNVKFAGFQRVNSMPESLTPTLQQVYVHDGDFK  
VDKNCQTHSNSDSNYNSNSNNSSSSFDRLLAENESLQQKINSLRVEAKRLQGFNEYVQER  
LDRKTDDFVKMKCNFETLRLTELSECQQKLRQDQNSQHFMHYHIRSATSAKATQTDFLVD  
TIPASGNVLVTPHPLGDLTYNSSKGSIELALLSVAPSARVAQNPVQVQRAIHPQSLDFSS  
VSTEADGSGSGEHRVETSSRALVRRTPAPNNSETSQQSSNDSIAIEVEAHEEERPSRRQW  
EQQGELISPRQWQHEGMYYFDKRNNRVIEVMGFNISQGRNQSHDTIHNQSINDSQTRLL  
VHSMSHLEAHDHFRSKRTTLGSRMLRFLGPCVRCRNGDPLNRSNVTYKDGLPAMPEEE  
FVDQRNQR

>O70608

MPVVRPDPQQLEKCIDDALRKNDFKPLVTLQIDICEDVKIKCSKQFLRKLDDLI CRELHK  
KDIQTISNILISIGRCSKNIFILGQTGLQTMIKQGLVQKMVSWFENSKEIILSQRQSKDE  
AVMMNIEDLFDLLMVVYDVNDEGKNQVLESFIPHICALVIDSRVNFICIQQEALKKMNLM  
DRIPQDANKILCNQEILTLMSNMGERILDVGDYELQVGIVEALCRMTEKRRQELAYEWF  
SMDFIANAFKKIKDCEFETDCRIFLNLVNGMLGDRRRVFTFPCLSAFLGKYELQIPSEK  
LEEFWIDFNLGSHTLSFYIAGDDDDHQWEAVTVPEEKVDMYNI EVRESKLLTLTLKNIV  
KISKKEGKELLYFDAALEITNVTKKLFGGNKYKEFTRKQDISVAKTSHVLF DASGSQI  
LVPESQSPVKENLIHLKEKSNLQKKLTPLEPDNSSSQDRKNSQDEITTPSRKKMSEA  
SMIVPDTDRYTVRSPILLINTSTPRRSRAPLQAIHSAEKAVSKTSESGVDYAVSLKSRQS  
DGRNRGNRRANHNKTATVQNGGHEHHESPDQTFNEIEETLSDAYAVEKVDKPVLPGLDI  
SKNKAHSRWACWTPVTTIKLCMNQRSCALPGDTFTQDTGVNKKCTKQKSVSDDDSEETQR  
VKYSKDVIKCNKSEEA EVCERNIQEQNHPKYSQKKN TANAKKNDWHIESETTYKSVLLNK  
TTEESLIYKKT CVLSKDVNTTICDKSPSRKSMRSHTKSRKELMSEVTSCELDEIPVRENS  
KGKRF TGTAESLINLINKRYNSSDDMISTRKLKEPRDGGFSKPELQFNKVQRKSYRKL  
KTVVNV TSECPLNDVYNFSLNGADEPVIKLGIQEFQATTREASMDNSIKLVDVRNRDERD  
LSLTKTKDERILSHERKTLFSDTETETECGWDDSKTDISWLRKPKSKRLMDYSRNKNTKKCKS  
IKSRSSTEKQPRSTVVLSKNIAKNDYEVIVDGRTRLPRRATKTKKNYKDLSTSGSESES  
EKEISYLFKDKLPTKEETVHSSAQTKKLPKKQKVFNTEALKGQPSEEQKNSSTLRNGRE  
DSL YLSSASVSGSSSSVEVMRCTEKITERDFTQDYDYITKSLSPYKAA SPEFLNRSNRV  
VGHGKSPRISETSAVCVRKSCSPASGLPFSRHTTKNNSVMNIKN TNSVINNQRTOHCNS  
YSDVSSNSSEKLYMEPESPDSCENHVQSKREENHAASPFSLSSEKIEKIWFDMPNDNTHV  
SGPSQRGSKRRMYLEEDEL SNPSEAEVQEAEREHLVSKKLCQREHFDQHTSETSLSTPE  
FSVPKDWQQLQAGMFDYDNINSYKRKTDQHKIMDDFTTKTLKLTQQHLLAMACQARG  
HRDENIDKFQVTLLELEKVEKDSQTLRDLEKEFVDIEEKIVHKMRAFHQSERERFRALK  
TSLDKSLLVYNSVYEEENVLTSEMCLMKANMKMLQDKLLKEMHEEELNIRRGLES LFKDH  
EGNNA

>Q9LAI1

MERQLKSIAYAFVANDIDVYIPDGESNCIVVTKLVCKDCGQYWH TSLSECYFCGTLNFYL  
YECNSCGKKYSLTSSSKCDTDGCNGKLIKRC SNPECISRTNEEIQRATDEQGGVFDLNS  
SFNVSLNHCVT CGSKENYKYTYRIYSYRTEVEPNIEALREFANNNKLN SDEDV I I KHLV  
DNVIHYGYIPYSKLDETTEITTTFSRFSDLVSELFPVNVPPNVTE

>Q9LAI0

MEQQKFPNPRIFEDIDATDFSKHNKKHVTEDFVAENFKDVGWRVYRPFNDTGIDLIAKKF  
VCPDGHTKWNQNLTKEMTCECGKSLIEITRFIQVKTREVKQVKTREAKGEKFFFGYTLK  
SKDFRTDPRHVFLLYSDFTMDFIILPMYDYLNLFYTNQSLGSTHFTSTPSFRQGNNKLNGL  
SKDKNDNWVWVGVSFNEFVNEKGMDKLSCPYDI ELESYTKKI QELKFSLFYRYS PGRKN  
QVSAPTVEFINNHFSIFISLPKEA IASKRKAHLES LRQDLPEDLKKSVNEGYLVKFKGVD  
L

>Q07605

MVNEKTSTDQLVRRFIEDLGVTYEEQGSNNIQIKQALRSASKSKSQSGVKGPEFIFFSGN  
HLIIIVEDKLAIDKLEYKNNDGIIDTEFPFRDYAVNGAVHYARHIEKTNYSYKEVIAIGI  
AGDGLHYQIHPYFVSETELKKLPKMSLEDISPENIEEFYKVAVLGELPKERELELVNK  
IAADMHEDLRNYGQLEGEKKATVVSAILLALLEEPTFSLNQLIGSDRVGGTDGEIIFNAVR  
VYLENAGIVPYAKVGEMLDQFIFIQRDVTLNTVNSNLEMTPLKYFATTLAEIMDKIKSN  
TDFDILGNFYGEFVKYGGNDGNPLGIVLTPRHITSLMAELIGINKSDFVLDPACGTGAF  
ISAMNRMLGQAENDDERRDIKQNRLYGIEIQQKLFITATNMILRGDGKSNLIRDNCLTF  
DNTIMNGYGINILMNPYPYSAKNDQTQHLSELSFIQQAEMLVVGGKLCALVVPQSTMVG  
KNRHDKARKKQILKQHTLETVITLKNKDTFHGTVGNPCIVIFKAGIKHPENKRVSVNFED  
DGHVVRKHVGLVGDGTEKGKREHLLAVLAGDEDDGTDLIVKTAIKDTDEWLHSFYFNDG  
IPSEDDFYKTVANYLTFQFDMTANGKGYLFEGVEENE

>Q07606

MNNLIKYSTFLISDLFDVVIGKTIDGNKAQRNENGTPIYITRKATRNGFEFMIDGEKEKLY  
SGKLPVITIGNETSKPFVQEFHFFFTGTVNICIPKLDLNRNHLLYITTMIEENATKMFYS  
YTINSTRKLSLKILLPIKGEEDWDYMNITYISKILSNMEKNFDVQQNDGVSDLRSLKDL  
WSQFKMDEIFINSVRLTKADMKPGNIPFIGATDSNNGITEFTSSTNASFDGNVLGVNY  
NGSVVENFYHPYKAVFSDDVKRLKLNYPNKHVLLFMKVVILQQKVYAYGYKFNATRM  
KEQIILLPTKADGTPDYEFMEQYMMRMENKVVGRTEKEAD

>P47058

MQHIKHMRTAVRLARYALDHDDETPVACIFVHTPTGQVMAYGMNDTNKSLTGVAHAEFMGI  
DQIKAMLGSRGVVDVFKDITLYVTVEPCIMCASALKQLDIGKVVFVGCNERFGNGTVLS  
VNHDCTLVKNNNSAAGYESIPGILRKEAIMLLRYFYVRQNERAPKPRSKSDRVLDKNTF  
PPMEWSKYLNEEAFIETFDDYRTCFANKVDLSSNSVDWDLIDSHQDNI IQELEEQCKMF  
KFNVHKKSKV

>Q9URQ3

MVKKVNNPLKIDYQNGI IENRLLQIRNFKDVNTPKLINVWSIRIDPRDSKKVIELIRNDF  
QKNDPVSLRHLKRIRKDIETSTLEVVLCSKEYICDEGEINNKLKSIWVGTKKYELESDIE  
VPEFAPSTKELNNAWSVKYWPLIWNPNPDQILNDYKIDMQEVRNELSRASTLSVKMATA  
GKQFPMVSVFVDP SRKKDKVVAEDGRNCENSLPIDHSVMVGIRAVGERLREGVDEDANSY  
LCLDYDVYLTHEPCSMCSMALIHSRVRVFLTEMQRTGSLKLTSGDGYCMNDNKQLNST  
YEAQWIGEEYVPGQVDRDVCC

>P11747

MSRKLKKTNLFNKDVSSLLYAYGDVPQPLQATVQCLDELVSGYLVDVCTNAFHTAQNSQR  
NKLRLLEDKFKALRKDPIKLGRAEELIATNKLITEAKKQFNETDNQNSLKRYREEDEEGDE  
MEEDEDEQOVTDDDEEAAGRNSAKQSTDSKATKIRKQGPKNLKKT

>Q7Z7C8

MADAAATAGAGGSGTRSGSKQSTNPADNYHLARRRTLQVVVSSLLTEAGFESA EKASVET  
LTEMLOSYISEIGRSAKSYCEHTARTQPTLSDIVVTLVEMGFNVDLTPAYAKRSQRMVIT  
APPVTNQPVTPKALTAGQNRPHPPHIPSHPFEPDPHTYIKTPTYREPVS DYQVLEKAA  
SQRRDVERALTRFMAKTGETQSLFKDDVSTFPLIAARPFTIPYLTALLPSELEMQQMEET  
DSSEQDEQTDTENLALHISMEDSGAEKENTSVLQQNPSSLSGSRNGEENIIDNPYL RPVKK  
PKIRRKKSLS

>O43680

MSTGSLSDVEDLQEVEMLECDGLKMSDNKEFVTSNESTEESSNCENGSPQKGRGGLGKRR  
KAPTKKSPLSGVSEQEGKQVQRNAANARERARMRVLSKAFSRLKTTLPWVPPDTKLSKLDI  
LRLASSYIAHLRQILANDKYENGYIHPVNLTWPFMVAGKPESDLKEVVVTASRLCGTTAS

>P29549

MSTAACKQNRSTSRVSKKKTAAPKEGAAKSDKGHKYEVVELAKASL'TSAQPQHFYAVVID  
ATFPYKTNQERYICSLKIVDPTLYLKQKQKAGDASDYATLVLYAKRFEDLPIIHRAGDII  
RVHRATLRLYNGQRQFNANVFYSSSWALFSTDKRSVTQEINNQDAVSDTTPFSFSSKHAT  
IEKNEISILQNLRKWANQYFSSYSVSISSDMYTALNKAQAQKGFVVDVAKILQVHELDEYT  
NELKLDKASGQVYFYTSLKLFPHVRTGEVVRIRSATYDETTSTQKKVLILSHYSNIITFI  
QSSKLAKELRAKIQDDHSVEVASLKKNVSLNAVVLTEVDKHAALPSTSLQDLFHHADSD  
KELQAQDTFRTOFYVTKIEPSDVKEWVKGYDRKTKKSSSLKGASGKGDNIQVQFLVKDA  
STQLNNTYRVLTYTQDGLGANFFNVKADNLHKNADARKKLEDSAELLTKFNSYVDAVVE  
RRNGFYLIKDKLIY

>P29548

MSKGAQQQSAFKQLFTEFFNLGGDFSKVSKDLKPLKTYVKESYPHFVLTGDYFFVQPH  
FTKEAVAEFHQKFPNVNIVDLHDKVIVINSWSLELRRVNSAEVFTSYANLEARLVVHSFK  
PNLQERLNPTRYVNLFRDDEFKTI IQHFRHQALQQSIAKNTKQESLDPISKLSGADAAG  
KKTVDGGIVKTGASKGDEFADFSFKEGSTAVLKIQDIFVQEKGDALKRIQDQQVESVQ  
VQPKVRRGAKGKKAATKATKKTVAAKKTAESADVRSVVDKIVKYTPNKPSSRKE'PQK  
SQSAPAAGKSSAKRTTTSKTKIPANPSPSGKKSTKTTDQMTMAQFKKYLDWHEKKKGGK  
TSSGGKVLGKRSAGKASATSGKASKASKRSK

>Q06339

MAVIPAkkRGRPRKSVVAEVPYDSLASPVSSENSGSKRPRRNASKKAVANFAQLVHAGRDD  
VINTTQVNNVDDTDDDDFVLNDEGDGEEEDNVEIEFENELESTKNEVADLNSSGSGASVR  
PSGRNRTVQKRLRLKKNSTKNMKSSSPGSSLGQKGRPIRLKLDLSSARDKIERIYGLNKEK  
LLLLLAKVKEGFETSVFDFPFKNIQPDSPYFVCLDPPCKKESAYNKVIGDKNRTVYHEINK  
TEFENMIKLRTRKLLLIGEVDAEVSTGDKIEFPVLANGKRRGFYINVGGLVTDIAWLNI  
EENTDYGKDIQYLAVAVSQYMDPLNEHLEMFDEKHKSSCIQIFKMNTSTLHCVKVQ'TIV  
HSFGVWDLKWHEGCHAPHLVGLSFSVQEGTINFLEIIDNATDVHVFKMCEKPSLTLSSL  
ADSLITTFDFLSPTTVVCGFKNGFVAEFDLTDPEVPSFYDQVHDSYILSVSTAYSDFEDT  
VVSTVAVDGYFYIFNPKDIATTKTTVSRFRGSNLVVPVYCPQIYSYIYSDGASSLRAVPS  
RAAFVHPLVSRETTITAIIGVSRHLPMVLAGSADGSLIITNAARRLLHGKNSATQKSL  
RLWKWDYSIKDDKYRIDSSYEVYPLTVNDVSKAKIDAHGINITCTKWNETSAGGKCYAFS  
NSAGLLTLEYLS

>Q12308

MKLLKDLLVDRKEFEDWKNLNTWARDGTLTYLTTFPDISIGQPKYAKDINCNSKNLHFVKE  
FPLEFENKLDfELAQONGLNSQPVCYPRVCKPSPIDDWMAVLSNNGNVSVFKDNKMLTN  
LDSKGNLSSRTYHCFEWNPIESSIVVGNEDGELQFFSIRKNSENTPEFYFESSIRLSDAG  
SKDWVTHIVWYEDVLVAALSNNVFSMTVSASSHQPVSRMIQNASRRKITDLKIVDYKVV  
LTCPGYVHKIDLKNYSISLKTGSLENFHI IPLNHEKESTILLMSNKTSYKVLEDELHV  
TADNIIAPYLEKKFKKWTIWNENFYETTLVIHGISLSPDGYSIAIVYDMERVAFKYKI  
ASEQSFNIMFAPLYHTWTISERAVGLAWYQTYQIYNQSLPKLPENFSMNKLLNGNYPIS  
LDFQSYLNALMKSEMRIIMFLNMTIDKPSILSFLEALYEYAINKKSELTNSFDLACVLS  
IAAILKREAPIYNGTLLMKNSFLEETFNLESFTADPETV'TSTTNNTWKRCGVTL'LPILT  
HVKICPVSKQRVIDIKRDDLDNDYGWFT'RGLLERFNEISVYCGTTLEVM

>O24160

MASKIGTAGNRSGTTGMPSPFISQIPVSNPMGTEANNTNTSRMSDFGVLEQYLGFRIGDGA  
NVNRSPLFNSTSATNPAVGFVSGTINRTLAPSNTSLPTATPRSQTMLLQSNLVSASGTH  
HENWGESNMADSGSRTDTSTDMGDGDDKNQLIEAGQSSDKSKEKVLQDQTLRRLAQNREAA  
RKSRLRKKAYVQQLENSRLKLSQLEQDLQRRARQQGKYISNIADQSNVGVANGPLAFDAEY  
SRWLEEHKXINELRTAVNAHASDPELRSIVNNVTAHFDEVFRVKGNAAKADVHFVLSGM  
WKTPAERCFMWIGGFRPSELLKLLVNQLEPLTEQQLAGIYNLQQSSHQAEDALSQGMEAL  
QQSLAETLANGSPAPEGSSGDVANYMGQMAMAMGKLGTLLEGFLRQADNLRQQTLLQQMHRV  
LTTRQSARALLAINEYFSRLRALSSLWLARPREQLV

>Q08231

MDMANQLLDELAHGNFSLHTLNLSONGREIAILLQKQLTGFDDKQLETFVEQHPAMPNDTR  
FKIMCTSFLNYARDVDPWSAWSSSDLI FEFYQCLINCLINDNAPHIEMLI PVATRETEFI  
INLAGKLD SFHLQLHTRSHQFLSHISSILSRLFN SIKPPRGNASSTNIPGKQRILLYLVN  
KLNNIYFRIESPQLCSNIFKNFQPKSMLAHFNEYQLDQQIEYRYLLGRYLLNSQVHNAF  
VQFNEAFQSLNLPLTNQAITRNGTRILNYMIPTGLILGKMVKWGPLRPFLSQETIDNWS  
VLYKHVRYGNIQGVSLWLRQNERHLCARQLLIVLLEKLPMTYRNLIKTVIKSWTTEWGQ  
NKL PYS LI ERV LQLSIGPTFEDPGAQEIT IYNGIHS PKNVENV LVT LINLGLLRANCFPQ  
LQLCVVKKTTMIQEIVPPVNERITKMFPAHSHVLW

>Q08749

MLLFPGPKPVLNASTVIVNPVRAVFPGLVVLSTKRSFY SINRLNAENK INDIANTSKEASS  
SVQMFKPPEFSQFKDSYQKDYERIAKYTLIPLTMVPFYASFTGGVINPLLDASLSSIFLI  
YLQYGFTSCIIDYIPK GKYP RW H K L A L Y C L Y G G S M L S L Y G I Y E L E T K N N G F V D L V K K L W N  
ENDDHLYIFGRN

>P47045

MSSSESGPIAKPIRKPGYTNPALKALGIPALRLPSRNWMI FWSVLT V S I G G I A Y D K Y K Q R  
QILSHATDLVKPLAEESMEVDKVPK I T V F I A P P P N D Y L E S S L K V W R R Y V K P V L Y Y A G L D  
YELVQEDRQGI IRTNVANRIREL RKE I L A S T D G Q P V K E P N Q T V A K P S G S S T S K I S S L L P F  
NKIIQDPAEEDDSFDPEIGKKFKENFDWRNVIGIFYTMPKPKHII SEDALTKDPI L S G G V  
ICLGRGAYKEYIAGIHEGLLGP I E K T E K T G S T E P K M T G V V E A N Q I E S K V S E S G A T E L V D A  
EKETALEEAKVQDDLKVD EENSS EDSQKFLKPF I S S D Q Y P D L Q I A S E L Q T P N G E F I R N P N  
TNIPLLINQPLLVIPINLIGFTTIPRR IHRFYQKR FYVEDVCSSVNCVRQTRIRPFDI  
AKDIDLAKDEEKDWPQNWVKQGKEKNSEWTQELVCDPRITKHM FVYEKPPKEEPESDI

>Q06643

MGALGLEGRGGRLQGRGSLLLAVAGATSLVTL L L A V P I T V L A V L A L V P Q D Q G G L V T E T A D  
PGAQAQQGLGFQKLPEEPEPETDLSPGLPAAHLIGAPLKGQGLGWETTKEQAF L T S G T Q F S  
DAEGLALPQDGLYYLYCLVGYRGRAPPGGGDPQGRSVTLRSSLYRAGGAYGPGTPELLE  
GAETVTPVLDPARRQGYGPLWYTSVGFGLVQLRRGERVYVNI SHPDMVDFARGKTFFGA  
VMVG

>P15969

MMKFVVFVLA CLFVA A H S F A V E G E E E Y F E A E V P E L E R A K A L P P G S V C D G N E S D C K C Y G K W H  
KCRCPWKWHFTGEGPCTCEKGMKHTCITKLHCPNKA EWGLDWRSEESERSPC

>P19972

MRKETLIGLAFITANVIAWSLRWRMQKSTTIAA IAGCSGAATFGGLAGGIVGCI AAGILA

ILQGFVFNWHNGGGGDRSNPVKRSSDSFSIVNHNGEKVDSYAHLPVPGKVGKVIIDNIELS  
AIRYANNHTSLGYHFTSDGSGPAARGEATTIWGVGADEAIDKGTSPKNDLQNMADLAKN  
GFKGHQGVACSTVKDGNKDVYMIKFSLAGGSNDPGGSPCSDD

>P00750

MDAMKRGLCCVLLLCGAVFVSPSQEIHARFRRGARSYQVICRDEKTQMIYQQHQSWLRPV  
LRSNRVEYCWNSGRAQCHSVPVKSCSEPRCFNGGTCQQALYFSDFVCQCEGFAKGCCE  
IDTRATCYEDQGISYRGTWSTAESGAECTNWNSSALAQKPYSGRRPDAILRGLGNHNYCR  
NPDRDSKPWCYVFKAGKYSSEFCSTPACSEGNSDCYFGNGSAYRGTHTSLTESGASCLPWN  
SMILIGKVYTAQNPSAQALGLGKHNCRNPDGDAKPWCHVLKNRRLTWEYCDVPSCTCG  
LRQYSQPQFRKGGFLADIASHPWQAAIFAKHRRSPGERFLCGGILISSCWILSAAHCFQ  
ERFPPHHLTVILGRTYRVVPGEEEEQKFEVEKEYIVHKEFDDDTYDNDIALQLKSDSSRCA  
QESSVVRTVCLPPADLQLPDWTECELSGYGKHEALSPFYSERLKEAHVRLYPSSRCTSQH  
LLNRTVTDNMLCAGDTRSGGPQANLHDACQGDSSGGPLVCLNDGRMTLVGIIISWGLGCGQK  
DVPGVYTKVTNYLDWIRDNMRP

>O75865

MADTVLFEFLHTEMVAELWAHDPDPGGQKMSLSVLEGMGFRVQALGERLPRETLAFR  
EELDVLKFLCKDLWVAVFQKQMDSLRTNHQGTYYVLQDNSFPLLLPMASGLQYLEEAPKFL  
AFTCGLLRGALYTLGIESVVTASVAALPVCKFQVVIPKS

>P04268

MDAIKKKMQMLKLDKENALDRAEQAEADKKAEEERSKQLEDELVALQKKLKGTEDELDKY  
SESLKDAQEKLELADKKATDAESEVASLNRRIQLVVEELDRAQERLATALQKLEEAEEKAA  
DESERGMKVIENRAQKDEEKMEIQEIQKKEAKHIAEEADRKYEEVARKLVIIEGDLERAE  
ERAELSESKCAELEELKTVTNLKSLEAQAEKYSQKEDKYEEEIKVLTDKLKEAETRAE  
FAERSVTKLEKSIDDLEDELYAQKLYKAISEELDHALNDMTSI

>Q49KI5

MPGLALLGLTALLGLTALLDHGEGATSCLSQQLRMQGDYVLGGLFPLGSAEGTGLGDGLQ  
PNATVCTRFSGLLWALAVKMAVEEINNGSALLPGLHLGYDLFDTCSEPMVAMKPSLVF  
MAKAGSCSIAAYCNYTQYQPRVLAVIGPHSSELALVTGKFFSFFLVPQVSYGASTDRLSN  
REIFPSFFRTVPSDQVQVAAMVELLEELGWNWVAAVGSDDEYGRQGLSLFSGLASARGIC  
IAHEGLVPLPPGSLRLGALQGLLRQVNQSSVQVVVLFSSAHAARTLFSYSIRCKLSPKW  
VASEAWLTSDLVMTLPGMPGVGTVLGFLQQGAPMPEFPYSYVRTRLALAADPAFCASLDAE  
QPGLEEHVVGPRCPQCDHVTLENLGAGLLHHQTFAAAYAAVYGVAQALHNTLRCNASGCPR  
REPVRPWQLLENMYNVSFRARGLALQFDASGNVNDYDLKLVVWQDPTPELRTVGTFKGR  
LELWRSQMCWHTPGKQQPVSQCSRQCKEGQVRRVKGFHSCCYNCVDCKAGSYQRNPDDL  
CTQCDQDQWSPDRSTRCFARKPMFLAWGEPVLLLLLALLLALALGLALAALGLFLWHS DSP  
LVQASGGPRACFGLACLGLVCLSVLLFPQPQPASCLAQQPLFHLPLTGCLSTFFLQAAE  
IFVGSELPPSWAEKMRGRLRGPWAWLVVLLAMLAEAAALCAWYLVAFPPEVVTDRVLPTE  
ALVHCHVHSWISFGLVHATNAMLAFCLFGLTFLVQSRPGRYNGARGLTFAMLAYFITWIS  
FVPLFANVHVAYQPAVQMGITILLCALGILATFHLPKCYLLLRPELNTPEFFLEDNARAQ  
GSSWGQGRGESGQKQVTPDPVTSPO

>P01408

LTCVTGKSIGGIESTECCAAGQKICFKKWTMGPPLYDVSRCCTATCPKADEYGCVKCKT  
DRN

>P45531



MKRIAFVVFSTAPHGTAAGREGLDALLATSALTDDLAVFFIADGVFQLLPGQKPDVAVLARD  
YIATFKLLGLYDIEQCWVCAASLRERGLDPQTPFVVEATPLEADALRRELANYDVILRF

>P45532

MRFAIVVTGPAYGTQQASSAFQFAQALIADGHELSSVFFYREGVYNANQLTSPASDEFDL  
VRAWQQLNAQHGVALNICVAAALRRGVVDETEAGRLGLASSNLQQGFTLSGLGALAEASL  
TCDRVVQF

>Q9D030

MEEGSSSPVSPVDSLGTSEEELERQPKRFGRKRRYSKKSSEDGSPTPGKRKKGSPSAQS  
FEELQSQRILANVRERQRTQSLNEAFAALRKIIPITLPSDKLSKIQTLKLAARYIDFLYQV  
LQSDMDNKMTSCSYVAHERLSYAYSVWRMEGAWSMSASH

>P83919

SDCTLRNHDCDDRHSRCKSMFKDVCTCFYPSQAKKELCTCQQPKHLKYIEKGLQKAKD  
YAT

>Q01081

MAEYLASIFGTEKDKVNCSFYFKIGACRHGDRCSRLHNKPTFSQTIALLNIYRNPQNSSQ  
SADGLRCAVSDVEMQEHYDEFFEEVFTMEMEEKYGEVEEMNVCDNLGDHLVGNVYVKFRE  
EDA EKAVIDLNNRWFNGQPIHAELSPVTDFREACCRQYEMGECTRGGFCNFMHLKPI SRE  
LRRELYGRRRKKHRSR SR SRERRSR SRDRGRGGGGGGGGGGRRERDRRRSRDRERSGRF

>Q24562

MGYDDRERDRERRRHR SR SRDRHRERSRDRRHRNSRRKPSLYWDVPPPGFEHITPMQYK  
AMQASGQIPASVVPDTPQTAVPVVGSTITRQARRLYVGNIPFGVTEEMMEFFNQQMHLV  
GLAQAAGSPVLACQINLDKNFAFLEFRSIDETTQAMAFDGINLKGQSLKIRRPHDYQPMP  
GITDTPAIKPAVVSSGVI STVVPD SPHKIFIGGLPNYLNDQVKELLLSFGKLR AFNLVK  
DAATGLSKGYAFCEYVDLSITDQSIAGLNGMQLGDKKLIVQRASVGAKNAQNAANTTQSV  
MLQVPGLSNVVTSGPPTVCLLNMTVPDEL RDEEEYEDILEDIKEECTKYGVVRSVEIP  
RPIEGVEVPGCGKVFVEFNSVLDCQKAQQALTGRKFSDRVVVT SYFDPDKYH RREF

>Q13404

MAYKFRTHSPEALEQLYPWECFVFCIIIFGTFTNQIHKWSHTYFGLPRWVTLQDWHVIL  
PRKHHR IHVSPHETYFCITTGVKVPRNFRLLLEELEEGQKGVGDGTVSWGLEDDEDMTLT  
RWTGMIIGPPRTIYENRIYSLKIECGPKYPEAPPFVRVTKINMNGVNSSNGVVDPR AIS  
VLAKWQNSYSIKVVVLQELRRLMMSKENMKLPQPPEGQCYSN

>P52490

MASLPKRI IKETEKLVS DPVPGITAEPHDDNLR YFQVTIEGPEQSPYEDGIFELELYLPD  
DYPMEAPKVRFLTKIYHPNIDRLGRICLDVLKTNWSPALQIRTVLLSIQALLASPNPNP  
LANDVAEDWIKNEQGAKAKAREWTKLYAKKKPE

>P06104

MSTPARRRLMRDFKRMKEDAPPGVSASPLPDNVMVWNAMIIGPADTPYEDGTFRLLLLLEFD  
EEYPNKP PHVKFLSEMFHPNVYANGEICLDILQNRWTPTYDVASILTSIQSLFNDPNPAS  
PANVEAATL FKDHKSQYVVKRVKETVEKSWEDDMDDDDDDDDDDDDDEAD

>P16708

MSHGKMLVLSLVLILCGLFNSISCEKQQTSPKTI TPVVSFKRIAALSQKMEANYKAF AQE

LFKTLLIEDPRKNMIFSPVSIISLTLGLRSATRTRNAIDVLDVALKNLAVMLMAQAP  
TALLEIVHELNVNRTAKHQDILIDRTEMNQMFLEIDRYIKMDIQMIDFKDKEKTKKAINQ  
FVADKIDKKAKNLI THLDPQTL LCLVNYIFFK GILERA FQTNLTKKEDFFVNEKTIVQVD  
MMRKTERMIYSRSEELLATMVKIPCKENASII LVL PDTGKFN FALKEMA AKRARLQKTND  
FRLVHLVVPKIKDNLQDRFKHLLPKIGINDIFTTKAVTWN TTGTSTILEAVHHAVIEVKE  
DGLTKNAAKDKDFWKVPVDKKEVPVVKFDRPFFL FVEDEITRRDLFVAKVFNPKTE

>P42744

MQAVKRSRRHVEEPTMVEPKTKYDRQLRIWGEVQQAAL EEA SICLLNCGPTGSEALKNL  
VLGGVGSITVV DGSKVQFGDLGNNFMVDAK SVGQSKAKSVCAFLQELNDSVNAKFIEENP  
DTLITTNPSFFSQFTLVIATQLVEDSMLKLDRI CRDANVKLV LRSYGLAGFVRISVKEH  
PIIDSKPDHFLDDLRLNPNWPELKS FVETIDLVSE PAAAHKHIPYV VILVKMAE EWAQS  
HSGNLPSTREEKKEFKDLVKSKMVSTDEDNYKEAIEAAFKVFAPRGISSEVQKLINDSCA  
EVNSNSSAFWVMVAALKEFVLNEGGEAPLEGSIPDMTSSTEHYINLQKIYLAKAEADFL  
VIEERVKNILKKIGRDPSSIPKPTIKSFCKNARKLKLCRYRMVEDEF RNP SVTEIQKYLA  
DEDYSGAMGFYILLRAADRFAANYNKFPQGQFDGGMDEDISRLKTTALSLLTDLGCNGSVL  
PDDL IHEMCRFGASEIHVVSAFVGGIASQEVIKLVTKQFV PMLGTYIFNGIDHKSQ LLLKL

>Q13564

MAQLGKLLKEQKYDRQLRLWGDH GQEALSAHVCLINATATGTEILKNLVLPGIGSFTII  
DGNQVSGEDAGNFFLQRSSIGKNRAEAAMEFLQELNSDVSGSFVEESPENLLDNDPSFF  
CRFTVVVATQLPESTSLRLADVLWNSQIPL LICRTYGLVGYMRIIKEHPVIESHPDNAL  
EDLRLDKFPPELREHFQSYDLDHMEKKDHSHTPWIVII AKYLAQWYSETNGRIPKTYKEK  
EDFRDLIRQGILKNENGAP EDEENFE EA IKNVNTALNTTQIPSSIEDIFNDDRCINITKQ  
TPSFWILARALKEFVAKEGQGNLPVRGTIPDMIADSGKYIKLQNVYREKAKKDAAAVGNH  
VAKLLQSIGQAPESISEKELKLLCSNSAFLRVVRCRSLAE EYGLDTINKDEI ISSMDNPD  
NEIVLYLMLRAVDRFHKQQGRYPGVSNYQVEEDIGK LK SCLTGFLQEYGLSVMVKDDYVH  
EFCRYGAAEPHTIAAFLGGAAAQEVIKIITKQFVIFNNTYIYSGMSQTSATFQL

>P38574

MPPLWVVLALGCLRLGSGVNLQPQLASVTFATMNP TLTTVALEKPLCMFDSSAALHGTYE  
VYLYVLVDSASFRNASVQDSTKTPLSSTFQQQTQGRTGYPYKAAAFDLTPCSDSPSLDAVR  
DVSRASEILNAYLIRVGTNGTCLLDPNFQGLCNPPLSAATEYRFKYVLVNMSSGLVQDQT  
LWSDPIRTDRLTLYSAIDTWPGRRS GGMIVITSILGSLPFFLLIGFAGAIVLSLVDRGDA  
DGATSHDSQITQEAVPKSLGTSEPSYTSVNRGPSLDRAEVYASKLQD

>Q864V4

MGLPSRQPRLWLLLLLVLGWPQCLTLDLIPYTPRITSWDLE GKVTATTF SLEQPRCVLD  
RHSSAADTVWL VVAFSNASRVFQNPQTLAEIPASPRLLTDGHYMTLPLTMDQLPCEDPAD  
GSGRAPVLRVGN DAGCLADLHQPRYCNA PLPGPGPYRVKFLLTNSRGSPQAETRWSDLIA  
LRQKSPGSIDTWPGRRS GDMIITSILSSLAGLLLLLAFLAASSVRFSSLWWPEEAPEQL  
RIGSFMGKRYMTHHI PPSEAATLPVGCEPGLERF PSLSP

>Q9BT76

MGLPWGQPHLGLQMLLLALNCLRPSLSLGEWGSWMDASSQTQGAGGPAGVIGPWAPAPLR  
LGEAAPGTPTPVSAHLLSPVATELV PYPYTPQITAWDLE GKVTATTF SLEQPRCVFDGLAS  
ASDTVWL VVAFSNASRGFQNPETLADIPASQLLTDGHYMTLPLSPDQLPCGDPMAGSGG  
APVLRVGH DHGCHQQPFCNA PLPGPGPYREDPRIHRHLARAAKWQHDRHYLHPLFSGRPP  
TLGLLGS LYHALLQPVVAGGGPGAAADRLLHGQALHDPPHPTQRGRHTAGGLQAWPGPPP  
QPQPLAWPLCMGLGEMGRRE

>P20153

MDNCDQDASFRLSHIKEEVKPDISQLNDSNNSFSFPAESVFPFMQAMSMVHVLPGSNSA  
SSNNNSAGDAQMAQAPNSAGGSAAAAVQQQYPPNHPLSGSKHLCSICGDRASGKHYGVYS  
CEGCKGFFKRTVRKDLTYACRENRNCCIIDKRQRNRCQYCRYQKCLTCGMKREAVQEERQR  
GARNAAGRLSASGGSSGPGSVGGSSSQGGGGGGVSGMGSGNGSDDFMTNSVSRDFS I  
ERIEAEQRAETQCGDRALTFRLRVGPYSTVQPDYKGAVSALCQVVNKQLFQMV EYARMMP  
HFAQVPLDDQVILLKAAWIELLIANVAWCSIVSLDDGAGGGGGGLGHDGSFERRSPGLQ  
PQQLFLNQSFYSYHRNSAIKAGVSAIFDRILSELVSKMKRLNLDRELSCLKAII LYNPDI  
RGIKSRAEIECREKVYACLDEHCRLEHPGDDGRFAQLLLRLPALRSISLKCQDHLFLFR  
ITSDRPLEELFLEQLEAPPPGLAMKLE

>Q27309

MKLFVLAIIAAVSSDRFSSQSQSTGGQTYPSWPQVKGQYRYEVTSRTLAHLQEGPSSGS  
AFKAQFTIRVKSPGRLQAKLENPQHGNFNEQLPDPREL PVDLKYQPTPNIDKVF EIEIDG  
GRIVSLDFPVSVPVQENLIKGLISALQLDTSARVVIHDSQNNYDREQQQGLFRKMETDV  
TGDCETLYTVSPVASEWRRELPKFANEQDPVEVTKSTNYGHCHHRVAYHFVGPVGAEWG  
TAHKTQEQQIIGRATYSRILTGKEGPIYKAETTSTVHVHPHLYGKQKAEVYSHVHMELIS  
VDQDSGAEWPRAGAMRPAQSILYSLSTKQMTKHYESSSSSSSSSESHEFNFPQEHEPHQS  
NQRSRRSYMRSKLVTVHKVLKRNSESSSGSSSSSADSSSTYINDDIPDIDEPAYAALYM  
SPQPHADKKQAMNAQKILQDIAQQQLQNPMPKSDFLSKFNILVRLIASMSTEQLSQT S  
RSIETAKTSSNNI IKSDMWMIFRDGVTQAGTLPAPKQIQSWIENKKIQEEEEAAQVVVALPR  
TLRYPTKQIMTQFFNFARSPAVKQMFNLNSALMAATKLINLGQVNNYTAHSYYPHMYG  
RLTHKHDAFVLEEILPTLAADLKATVEYKDSTKAQVYIQAIIGNLGHREILKVFAPYLEGK  
VEISTYLRTHIVKNLKTAKLRDRHRAVLFSILRN TAEPPVRVAAIQSIFISHPTGEM  
MQAMAEMTHNDPSVEVRAVLKSAILSAAELQHPRNFYLSRTAQAAARYLVTNEEFQYQHSF  
KFIDDSYDEDNDIGTFVISHIGSEDSL LPKDFKIVTNSKGGAWERNTEASFSSAERFLD  
YLRDSVFAPHPKFDRAHKYSAEKIAKLLNIKNDEEEPLEASFYVDFMNNQRLFSFSESDL  
QQLSQYISEYMKKVESGAEKHYTKVYNQDQVSIMFPVASGMPFIFKYKEPAVIHFQSKLK  
GKFSFSPKDNKYEANMIKDVQFTYAINIDGNVGFMDT LSNQYSSVGVNKLQFNI PPKF  
GIEIKSGLIKFRVEPLHPDQDQTLVHYSVWPYASQKKDSLVAISQDPATKIVERRSKVF  
SVDSKYGQSTHAVIYAQGYTYSSDWRNFGAKFTSRDYFTNLASLLTQEDIALTHFNL KHL  
CKQSQSKAL TITAYYDEYYNQNSGILT DATDRNDLSPNSETRRAEMVKLV SAGINKARV  
RVVDLSASFEGSQDQNYVLTGTWGDSPVDSKVQGM L FAGTKSATQGNQQINAVFATTKPE  
IHSLSFSKPLQSDLRAPFGMHFKYQSGEIRVSGSFDR TKKYTTELENHPLAKQCSQQTT  
LNNFYQDSCHKAI VMAHAPDHVEFSVSFQDMSPQYRNFSYHTYRLYEYLGWYTEANPLK  
LTQNGKMDFKIDFSYFDRTYTVDIASPSGEARMRDMPIATMAPGALS FYQPLKAYELVAN  
YFTGHQYQPYCSIDGTRIHTFSNRSY EYPLSRSWHVVMQDESTQRGNWHELAILSR RQQR  
DQQEIIYISYKSESGQDLEIEIQPASGDSAYQVKVTNTTKITDDDLTMYWDDVKEQPFLQ  
YHTHKDGVLVINIEDDRIRAIYDGRFVVFTQDYRNSTRGICGRMSGEQRDDYLTPEGLV  
DKPELYAAAAYSLNEENS DPKTQELKALATQQA YYPEYKYTSILRSDPTWQEESQSCGEDQ  
WQSETVYKSRSYDKHKGACEVRQQVQFYENHGDICITTSRVPSCQSHCRAGDYKIQHVQV  
TCKSKLDHDFRMYKEQIKKGQNPEVSGIPSVKQFKVPVTCQP

>O26799

MKKAYPVINSVECKACERCI IACPRKVLQMSSK INERGYHYVEYRGE GCNGCNCYYTCP  
EINAIEVHIERCEDGNTDG

>Q51800

MNTLFGKTKEEAKPIVLKSVDEYPEAPISLGTTLVNPTGDWR TFKPVVNEEKCVKCYICW

KYCPEPAIYIKPDGYVAIDYDYCKGCGICANECPTKAITMIKEEK

>Q9PT51

VIGGDECNINEHRFLALLYSERFQCGGTLINEEWVLTAAHCDMGNMYIYLGVHNVSVQYD  
DEQRRYPKKKYFCLSSRNYNQWDNDIMLIRLNRPVNRSAHIAPLSLPSGPPSVGSVCRVM  
GWGTITSPNETYPDVPHCANINILDYEVCRAAAYAGLPATSRTLCAILEGGKDCRGRDGS  
GPLICNGEIQGIVSWGGNICAPREPGLYTKVFDYIDWIQSI IAGNTTVNCP

>Q80HV2

MDNLFTHLHEIEDRYARTIFNFHLISCDIEIGDIYGLMKERISSEDMFDNIVYNKDIHPAI  
KKLVCYDIQLTKHIINQNTYPVFNDSQVKCCHYFDINSDNSNISSRTVEIFEREKSSLV  
SYIKTTNKKRKYVNYGEIKKTVHGGTNANYFSGKKSDEYLSSTTVRSNINQPWIKTISKRMR  
VDIINHISIVTRGKSSILQTIIEIIFTNRTC VKIFK DSTMHIILSKDKDEKGC IHMIDKLFY  
VYYNLFLLFEDI IQNEYFKEVANVVNHVLTATALDEKLFLLIKKMAEHDVYGVSNFKIGMF  
NLTFIKSLDHTVFPSSLDEDSKIKFFKGGKLNIVALRSLEDCINVTSENMIEMMKERS  
TILNSIDIETESVDRLKELLLK

>P68720

MFEPVVDLNLLEASVELGEVNIQDTPMIKENS GFISRSRRLFAHRSKDDERKLALRFFLQ  
RLYFLDHRREIHYLFRCVDAVKDVTITTKNNIIVAPYIALLLTIASKGCKLTETMIEAFFPE  
LYNEHKKKFKFNSQVSI IQEKLGYQFGNYHVYDFEPYYSTVALAIRDEHSSGIFNIRQES  
YLVSSLSEITYRFYLINLKS DLVQWSASTGAVINQM VNTVLIITVYEKLQLVIENDSQFTC  
SLAVESKLP IKLLKDRNELFTKFINELKKTSSFKISKRDKDTLLKYFT

>Q99MZ3

MARALADLSVNLQVPRVVPSPDSDSDTDLEDPSPRRSAGGLHRSQVIHSGHFMVSSPHSD  
SLTRRRDQEGPVGLADFGPRS IDPTLTHLFECLSLAYSGLVSPKWNFKGLKLLCRDKI  
RLNNAIWRAYIQYVQRRKSPVCGFVTP LQ GSEADEHRKPEAVILEGNYWKRRIEVVMRE  
YHKWRIYYKRLRKSSREGDFLAPKQVEGGWPPPERWCEQLFSSVVPVLLGGSEEPGGR  
QLLDLDCFLSDISDTLFTMTQSPSSQLPPEDAYVGNADMIQPDLTPLQPSLDDFMEIS  
DFFTNYRPPQTPTSSNYIESPSFGPMADSLFSSGILAPEMPSPASSSSSSGMTPHSGNTR  
LQARNSCSGPLDPNPFLSSEFLLPEDPKTKIPPAPGPTPLLPFPPTPVKVHGLEPCTPSPF  
PTMAPPPSLLPEESLLSARFPFTSAPPAPGVSTLPAPTTFVPTPQPGPGVPVPSVDHLP  
GYLEPVFGPHFTVPQGMQPRCKPSSPSPGGQKASPTLASATASPTATATARDNNPCLTQ  
LLRAAKPEQALEPPTMPGTLLRPPESPQDVTSEIPRARAFFPPIPAPTPPRPPPGPATLA  
PPRSLVVPKAERLSPPASSGSERRLSGDLNSIQPSGALSVHLSPPQTVLSRGRVDNNKME  
NRRITHISAEQKRRFNKLGFDTLHGLVSTLSAQPSLKVSKATTLQKTAEYILMLQQERA  
AMQEEAQQLRDEIEELNAAINLCQQQLPATGVPI THQRFDQMRDMFDDYVRTRTLHNWKF  
WVFSILIRPLFESFNGMVSTASLHSLRQTS LAWLEQYCSLPALRPVTLNSLRQLSTSTSI  
LTDPSLVPEQATRAVTEGTLGRPL

>P10090

MGQEDQELLIRGGSKHPSAEHLNMGDSGAASQSCINQGFQAKNYGTLPPSPPEDSGSG  
SGQLAENLTYAWHNMDIFGAVNQPGSGWRQLVNRTRGLFCNERHIPAPRKHLLKNVCGVA  
YPGELLAVMGSSGAGKTTLLNALAFRSPQGIQVSPSGMRLLNQPVDAKEMQARCAVQQ  
DDLFIGSLTAREHLIFQAMVRMPRHLYRQRVARVDQVIQELSLSKCQHTIIGVPRVK  
LSGGERKRLAFASEALTDPELLICDEPTSGLDSTAHSVVQVLKKSQKGTIVILTIHQ  
SSELFELFDKILLMAEGRVAFGLTPSEAVDFFSYVGAQCPTNYNPADFYVQVLAVVPGRE  
IESRDRIAKICDNFAISKVARDMEQLLATKNLEKPLEQPENGYTYKATWFMQFRAVLWRS  
WLSVLKEPLLVKVRLLIQTTMVAAILIGLIFLGQQLTQVGMNINGAIFLFLTNMTFQNVFA

TINVFTSELPVFMREARSRLYRCDTYFLGKTI AELPLFLTVPPLVFTA IAYPMIGLRAGVL  
HFFNCLALVTLVANVSTSTFGYLISCASSSTSMALSVGPPV IIPFLLFGGFFLNSGSVPVY  
LKWLSYLSWFRYANEGLLINQWADVPEGEISCTSSNTTCPSSGKVILETLNFSAADLPLD  
YVGLAILIVSFRVLAYLALRLRARRKE

>Q9QXY7

MKFPASVIASVFLFVAETAALYLSSTYRSAGDRMWQVLTLLFSLMPCALVQFTLLFVHR  
DLSRDRPLALLMHLQLGPLYRCEVFCIYCQSDQNEEPYVSI TKKRQMPKDGLSEEVEK  
EVGQAEGLKITHRSASF SRASVIQAF LGSAPQLTLQLYITVLEQNIT TGRCFIMTLSLLSI  
VYGALRCNILAIKIKYDEYEVKVKPLAYVCIFLWRSFEIATRVIIVLVLF'TSVLKIWVAV  
ILVNFFSFFLYPWIVFWCSGSPF PENIEKALSRVGT TIVLCFLTLLYAGINMFCWSAVQL  
KIDNPELISKSQNWYRLLIYYMTRFIENSVLLLLWYFFKTDIYMYVCAPLLILQLLIGYC  
TGILFMLVFYQFFHPCKKLFSSSVSEFRALLRCACWSSLRRKSSEPVGRIDTDLKACTE  
QDVMPTTSKVIPEATDIWTAVDLCSA

>Q01831

MARKRAAGGEPRGRELRSQKSKAKSKARREEEEEDAFEDEKPPKKSLLSKVSQGRKRGC  
SHPGGSADGPAKKKVKAVTVKSENKVIKDEALSDGDDL RDFPSDLKKAHHLKRGATMNE  
DSNEEEEESENDWEEVEELSEPV LGDVRESTAFSRLLPVKPV EIEIETPEQAKTRERSE  
KIKLEFETYLRAMKRFNKG VHDHVKVHLLCLLANGFYRN NICSQPD LHAIGLSIIPAR  
FTRVLPRDVDTYYSNLVKWFI GTFTVNAELSASEQDNLQT TLERRFAIYSARDDEELVH  
IFLLILRALQLLTRLVLSLQPIPLKSATAKGGKPSKERLTADPGGSSETSSQVLENHTKP  
KTSKGTQEE TFAKGT CRPSAKGKRNGGRKRSKPSSE EDEGPGDKQEKATQRRPHGR  
ERRVASRVSYKEESGSDEAGSGSDFELSSGEASDP SDEDESEPGPPKQRKAPAPQRTKAGS  
KSASRTHRGS HRKDP SLPVASSSSSSSKRGKMCSDGEKAEKRSIAGIDQWLEVFCEQEE  
KWVCVDCVHGVVQPLTCYKYATKPMTYVVGIDSDGWVRDVTQRYPVWMTVTRKCRVDA  
EWWAETLRPYQSPFMDREKKEDLEFQAKHMDQPLPTAIGLYKNHPLYALKRHLLKYEAIY  
PETAAILGYCRGEAVYSRDCVHTLHSRDTWLK KARVVRLGEVPYKMVKGFSNRARKARLA  
EPQLREENDLGLFGYWQTEEYQPPVAVDGKVP RNEFGNVYLF LPSMMPIGCVQLNLPNLH  
RVARKLDIDCVQAITGFDFHGGYSHPVTDGYIVCEEFKDVL LTAWENEQAVIERKEKEKK  
EKRALGNWKLAKGLLIRERLKR RYGPKSEAAAPHTDAGGGLSSDEEEGTSSQAEAAARIL  
AASWPQNREDEEKQKLGKGP KTKREKKAASHLFPFEKL

>P40182

MSEELPPSEAPRPDEADAVDET RATGETRGA AQEPGASDADAWATACAEDLEAEKARRRA  
AYGPPPGSAAEELRRLVDTVADKLSGLQSP LLGQVAGPAAQQVVRQVVQAKAAVEPVIE  
RNPDLFDHLAAAGGELLAA YRS AVQNQERRWTTGDTAPKDPSPRDLDERGTDGRDEGDG  
GTGPGQRIDL D

>P21574

MSEAEAQEPPEPVPQPESEPEIQKPGIAAARNQANKKVLATQVQGTVKWFNVRNGYGF INR  
NDTKEDVVFVHQTAIKKNNPRKFLRSVGDGETVEFDVVEGEKGAEEANVTGPGGV PVKGSR  
FAPNRRRRFRRRFYRPRADTAGESGGEGVSPEQMSEGERGEETSPQQRPPRRRPPPFYRR  
RFRRGPRPNNQONQGAEVTEQSENKDPVAPTSEALASGDDPQRPPRRRFRQRFRRPFRPR  
PAPQQTPEGGDGEAKAESGEDPRPEPQRQRNRPYVQRRRRQGATQVAATAQEGEKAEP TQ  
HPASEEGTPSDSPTDDGAPVQSSAPDPGIADTPAPE

>P76254

MSDYQMFEVQVSQVEPLTEQVKRFTLVATD GKPLPAFTGGSHVIVQMSDGDNQYSNAYSL  
LSSPHDTSCYQIAVRLEENSRGSRFLHQVKVGDRLTISTPNNLFALIPSARKHLFIAG

GIGITPFLSHMAELQHSDVDWQLHYCSRNPESCAFRDELVQHPQAEKVHLHHSSTGTRLE  
LARLLADIEPGTHVYTCGPEALIEAVRSEAARLDIAADTLHFQFAIEDKTGDAFTLVLA  
RSGKEFVVPEEMTILQVIENNKAAKVECLCREGVCGTCETAILEGEADHRDQYFSDEERA  
SQQSMLICCSRAKGRVLVLDL

>P69346

MRTISYSEARQNL SATMMKAVEDHAPILITRQNGEACVLM SLEEYNSLEETAYLLRSPAN  
ARRLMDSIDSLKSGKGTEDIIE

>P69348

MKLIWSEESWDDYLYWQETDKRIVKKINELIKDTRRTPFEGKKGKPEPLKHNLSGFWSRRI  
TEEHRLVYAVTDDSLLIAACRYHY

>Q54944

MANIVNFTDKQFENRLNDNLEELIQGKKAVESPTAFLGQPGSGKTSLSAIFEETQGN  
VIVIDNDTFKQHPNFDELVKLYEKDVVKHVTPYSNRMTEAII SRLSDQGYNLVIEGTGR  
TTDVPIQTATMLQAKGYETKMYVMAVPKINSYLGTIERYETMYADDPMTARATPKQAHI  
VVKNLPTNLETLHKTGLFSDIRLYNREGVKLYSSLETSPKISPKETLEKELNRKVSQKEIQ  
PTLERIEQKMVLNKHQETPEFKAIQQKLESLOPPTPPIPKTPKLPGI