Supplementary Figure 1. Close-up stereo view of the active site of *Ba*PSAT structure in space group *P*2₁2₁2 compared with that of the *Ba*PSAT-PSER and *Ba*PSAT structures in space group *C*222₁. The colouring scheme for *C*222₁ *Ba*PSAT-PSER and *Ba*PSAT is the same as in Fig. 1 and the orientation as in Fig. 2. The subunits A and B of *P*2₁2₁2 *Ba*PSAT are coloured in green and purple, respectively. The structures were superimposed with PDBeFold.

Supplementary Figure 2. Close-up stereo view of the active sites of *Ba*PSAT-PSER and *Mt*BPSAT. The two structures were superimposed with PDBeFold. The colouring scheme for *Ba*PSAT-PSER is the same as in Fig. 1. The two subunits, A and B, of *Mt*BPSAT are coloured in lemon and light green, respectively. Residues of *Mt*BPSAT and the sulphate ion are labeled. The orientation is similar to that in Fig. 2.