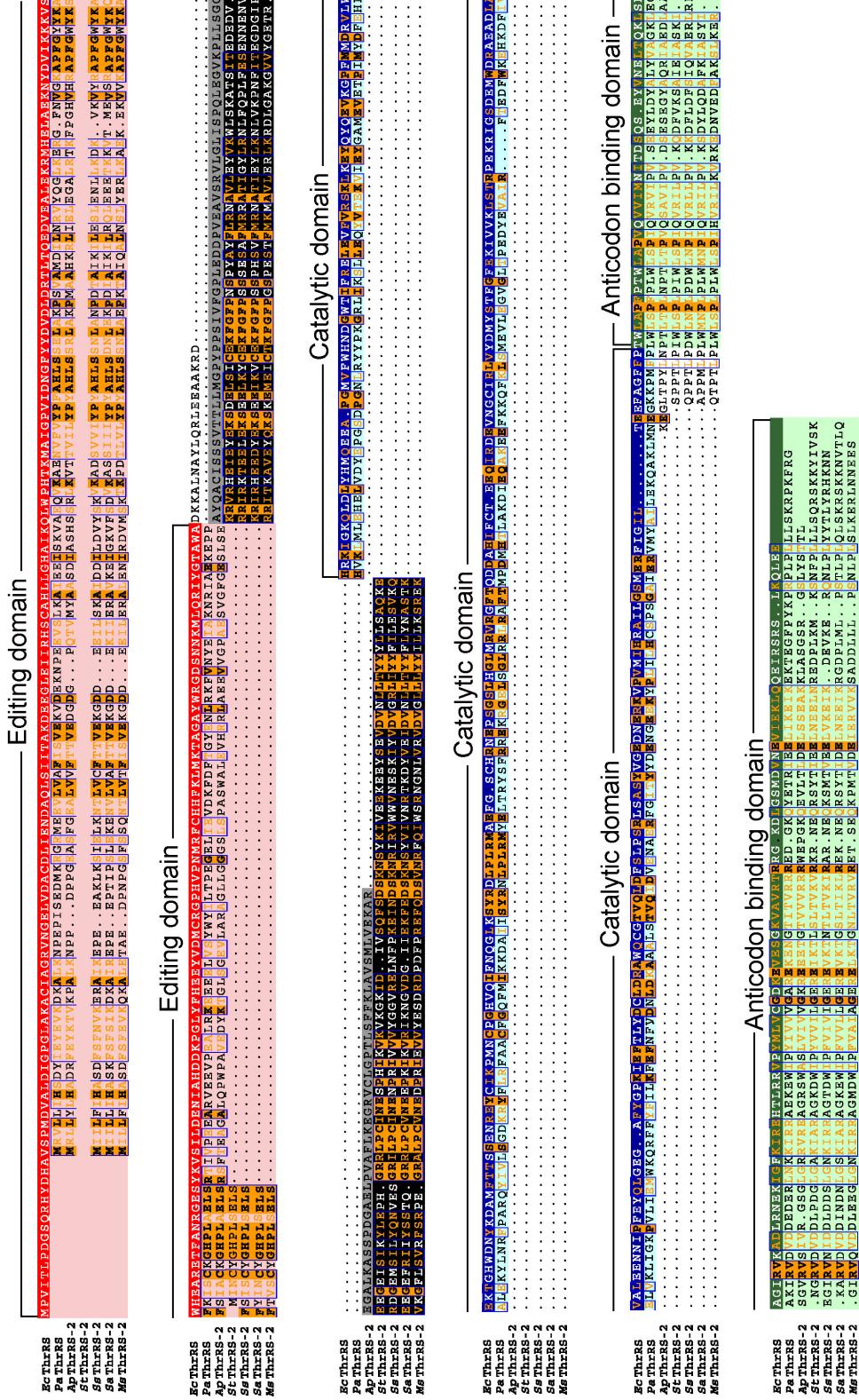


Supplementary figure 1. A sequence alignment of *EcthRS*, *PaThRS*, *ApThRS-1* and *ThrRS-1* from several *Sulfolobus* variants, *Sulfolobus tokodaii* (Sf), *Sulfolobus solfataricus* (Ss), *Sulfolobus acidocaldarius* (Sa) and *Metallosphaera sedula* (Ms). Orange boxes and orange characters indicate identical and homologous residues, respectively.



Supplementary figure 2. A sequence alignment of *EcThrRS*, *PaThrRS*, *ApThrRS*, *StThrRS-2* and *ThrS2* from several *Sulfolobus* variants, *Sulfolobus tokodaii* (*St*), *Sulfolobus solfataricus* (*Ss*), *Sulfolobus acidocaldarius* (*Sa*) and *Methylophaera sedula* (*Ms*). Orange boxes and orange characters indicate identical and homologous residues, respectively.