## Supplementary Material

## EVOLUTIONARY BASIS FOR THE COUPLED-DOMAIN MOTIONS IN *THERMUS*THERMOPHILUS LEUCYL-TRNA SYNTHETASE

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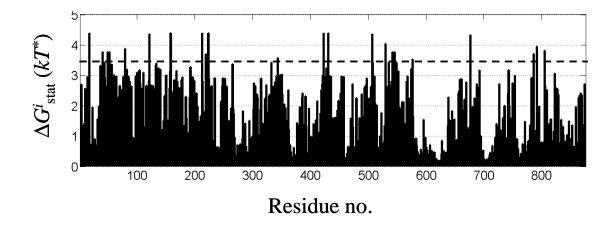


Figure S1. The plot of of  $\Delta G_i^{\rm stat}$  of Tt LeuRS showing evolutionary conservation.  $\Delta G_i^{\rm stat}$  values were computed using equation 8 from a multiple sequence alignment containing 484 sequences of LeuRS family. Table 2 of the text represents the residues which is above the arbitrary threshold value of 3.5  $kT^*$  indicated by the broken line.

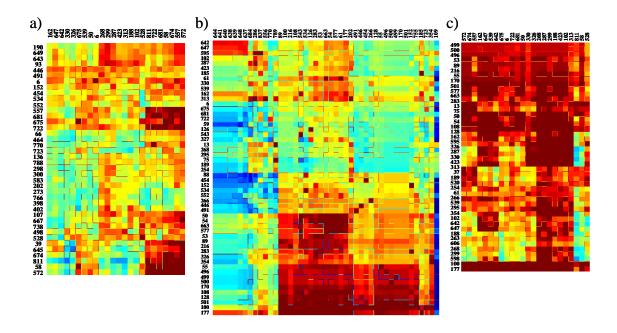


Figure S2. a-c) SCA plots showing coupling matrices of stage 2 clustering. The coupling values are normalized and represented with a color-coded scale. The highest correlated pairs are shown in red squares while the lowest correlated pairs are shown in blue squares.