



**Supplemental Figure S4.** The anticodon loop is recognized by Leucyl-tRNA synthetase (LeuRS). (A) Structure of tRNA<sup>Leu</sup> (green; anticodon nucleotides in red) in complex with LeuRS (blue) from *Pyrococcus horikoshii*, previously solved by X-ray crystallography (Fukunaga and Yokoyama 2005). (B) Modeling of the TYMV TLS (grey; anticodon nucleotides in red) (Colussi et al. 2014) with LeuRS (blue) from *P. horikoshii*.