



Fig. S2. Locations of template-independent sequence variation. The X-axis numbers represent the codon number of each amino acid in *vlsE* as presented in figure 3 of [22]. The dark blue bars represent the number of variants recovered at each codon. The black line represents a 3 point moving average. In the diagram below the graph, the light areas indicate the locations of the invariable regions of *vlsE* while the dark areas indicate the positions of the variable regions of *vlsE*.