## 3 Supplementary Figures

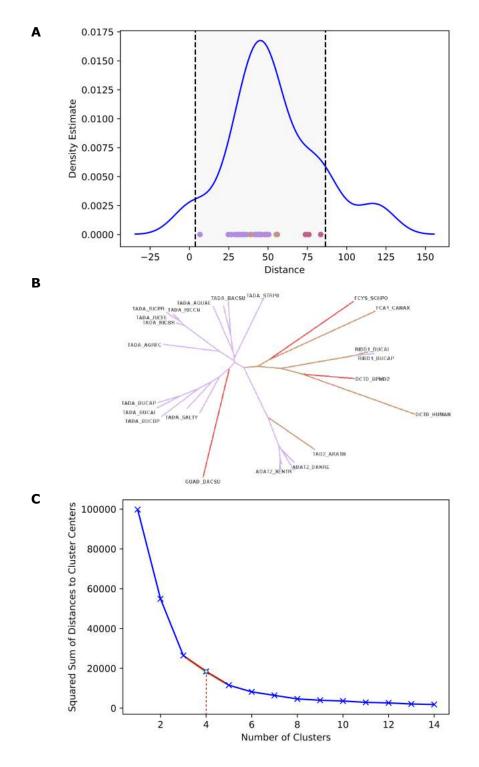


Figure S1: (A) Kernel density estimate (KDE) showing the distance of sequences from  $E. \ coli$  wtTadA from the first 2 principal components. (B) Phylogenetic analysis of the alignment for  $E. \ coli$  wtTadA. (C) Elbow plot to determine the optimal number of clusters to be used in k-means clustering.