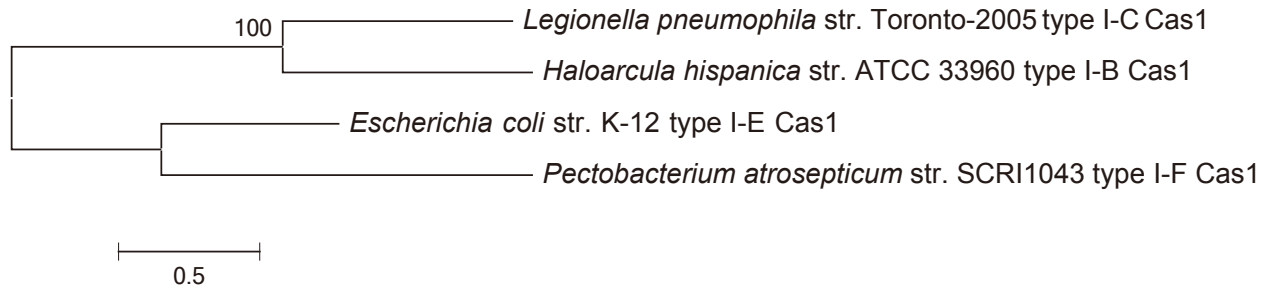**Supplemental Figure S3: Cas1-based phylogenies of select type-I CRISPR-Cas systems.**

Cas1 protein sequences were retrieved from genomes of *Legionella pneumophila* str. Toronto-2005 (GenBank CP012019), *Haloarcula hispanica* str. ATCC 33960 (GenBank CP002922), *Escherichia coli* str. K-12 (GenBank NC_000913) and *Pectobacterium atrosepticum* str. SCRI1043 (GenBank BX950851). These sequences were aligned using the ClustalW option and subjected to the Maximum Likelihood phylogenetic tree construction using the LG model with 500 bootstrap iterations in MEGA v6.0 [Tamura, K., Stecher, G., Peterson, D., Filipski, A., and Kumar, S. (2013). MEGA6: Molecular Evolutionary Genetics Analysis version 6.0. Mol Biol Evol 30: 2725-2729.]