

S3 Fig. Multiple sequence alignment of CheA-P2 sequences from the non-redundant *Enterobacteriales* genome set. Each sequence tag contains the first two letters of the genus, the first three letters of the species and the organism id in the MIST database, followed by the locus and accession number. The tag also includes the chemotaxis class for CheA (e.g. F7) and shows the presence (1CheV) or absence (0CheV) of *cheV* genes in a corresponding genome.

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Ye.ent.378-YE2577-YP_001006780.1-F7-1CheV-1
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Ph.asy.1114-PAU_02687-YP_003041521.1-F7-0CheV-1
Ye.pse.585-YPTB2405-YP_070919.1-F7-0CheV-1
Ye.pes.133-YPZ3_2033-YP_003568205.1-F7-0CheV-1
Es.col.1836-Y75_p1864-YP_490150.1-F7-0CheV-1
Pe.atr.485-ECA1689-YP_049790.1-F7-1CheV-1
Pectob.2320-W5S_1766-YP_006282729.1-F7-1CheV-1
Pe.car.1139-PC1_2611-YP_003018177.1-F7-1CheV-1
Sa.bon.1474-SBG_1757-YP_004730611.1-F7-1CheV-1
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Xe.bov.105-XBJ1_1921-YP_003467825.1-F7-0CheV-1
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En.aer.1436-EAE_15525-YP_004593295.1-F7-0CheV-1
Se.pro.864-Spro_2985-YP_001479214.1-F7-0CheV-1
Er.tas.1011-ETA_14620-YP_001907401.1-F7-1CheV-1
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Serrat.1901-SerAS13_3078-YP_006025917.1-F7-0CheV-1
Xe.nem.162-XNC1_1623-YP_003711884.1-F7-0CheV-1
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Es.fer.1173-EFER_1133-YP_002382295.1-F7-1CheV-1
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Er.bil.197-EbC_25380-YP_003741916.1-F7-1CheV-1
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