



FIG S1 Fluorescent fusions between different alleles of CheA1 and YFP are functional. The fluorescent constructs were expressed from the native *cheA1* promoter on a broad host range plasmid, pRH005. The constructs were analyzed for the ability to restore the wild type cell length (A) and chemotaxis in the soft agar plate assay (B). The data are means obtained from a minimum of 100 cells (cell length; panel A) and 9 replicates (chemotaxis; Panel B). An (*) or (**) represent statistically significant differences at the $p < 0.05$ or $p < 0.005$ levels, respectively (Student's t test). In panel B, the chemotaxis phenotypes are compared to that of the $\Delta cheA1$ (pRH005) strain.