Online Supporting Information

Elucidation of the multiple roles of CheD in *Bacillus subtilis* chemotaxis

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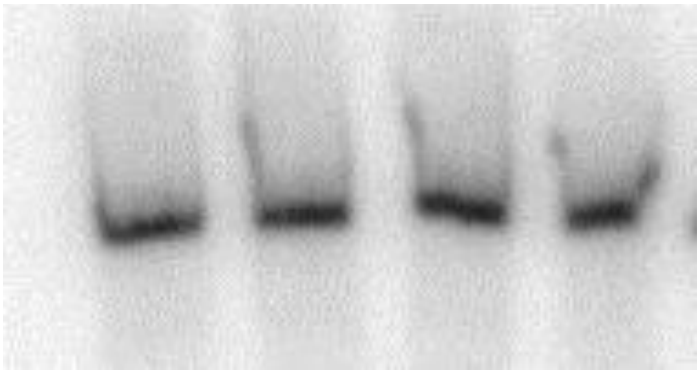


McpC | McpC+ CheD | McpC-Q609E | McpC-Q609E+ CheD

Fig. S1. Western blot of membranes used in the *in vitro* kinase assay. The *in vitro* kinase assay reactions (which included membrane preparations and various che proteins) were diluted in SDS loading buffer and run on a 12% SDS-PAGE minigel and transferred to PVDF membrane. Anti-McpC antibody was added and the bands were visualized using ECL Plus Western Detection Reagents (GE Healthcare) and imaged with a UVP EpiChem^3 Darkroom and LabWorks Image Acquisition and Analysis Software.

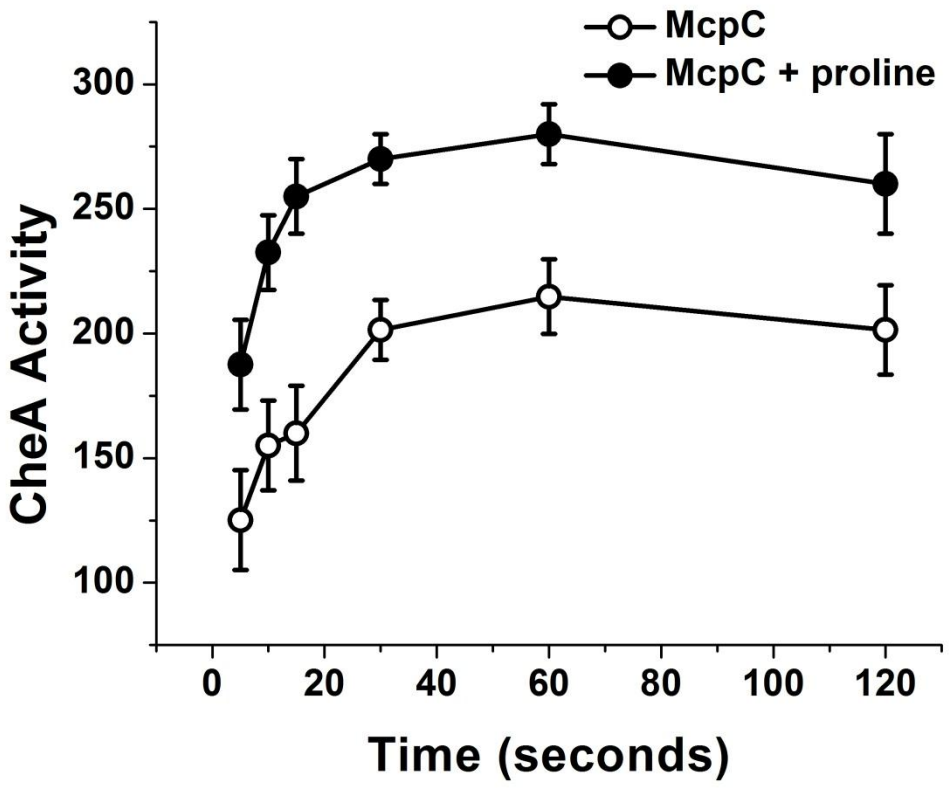


Fig. S2. McpC *in vitro* kinase assay as a function of time. An aliquot of the reaction was removed at the indicated time and stopped by addition of SDS loading buffer. The phosphorylation of CheA (as determined by densitometry) is plotted on the graph.

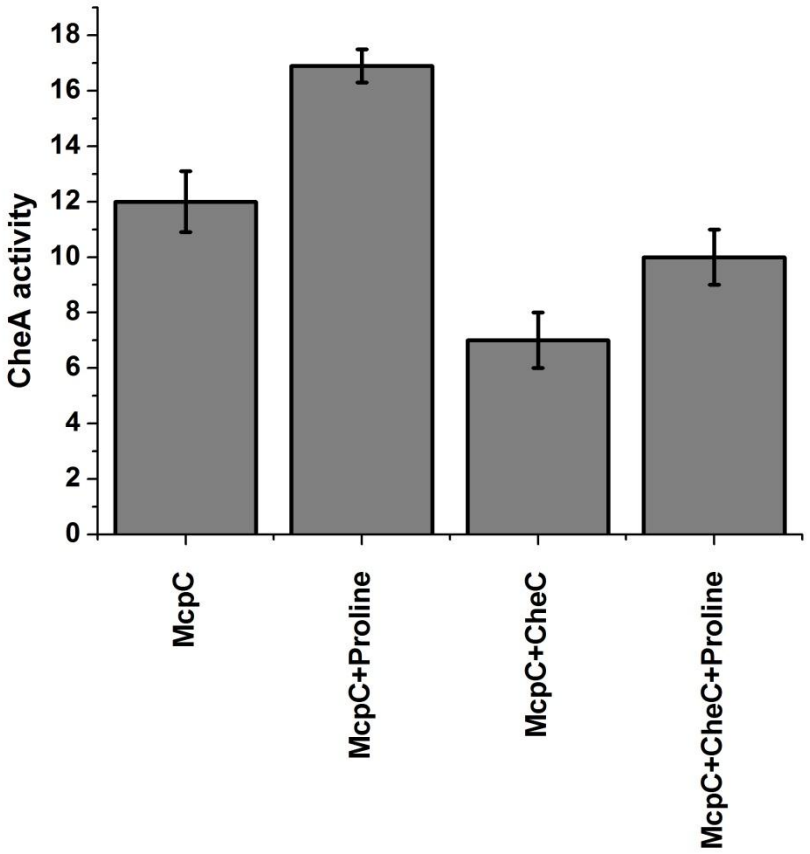
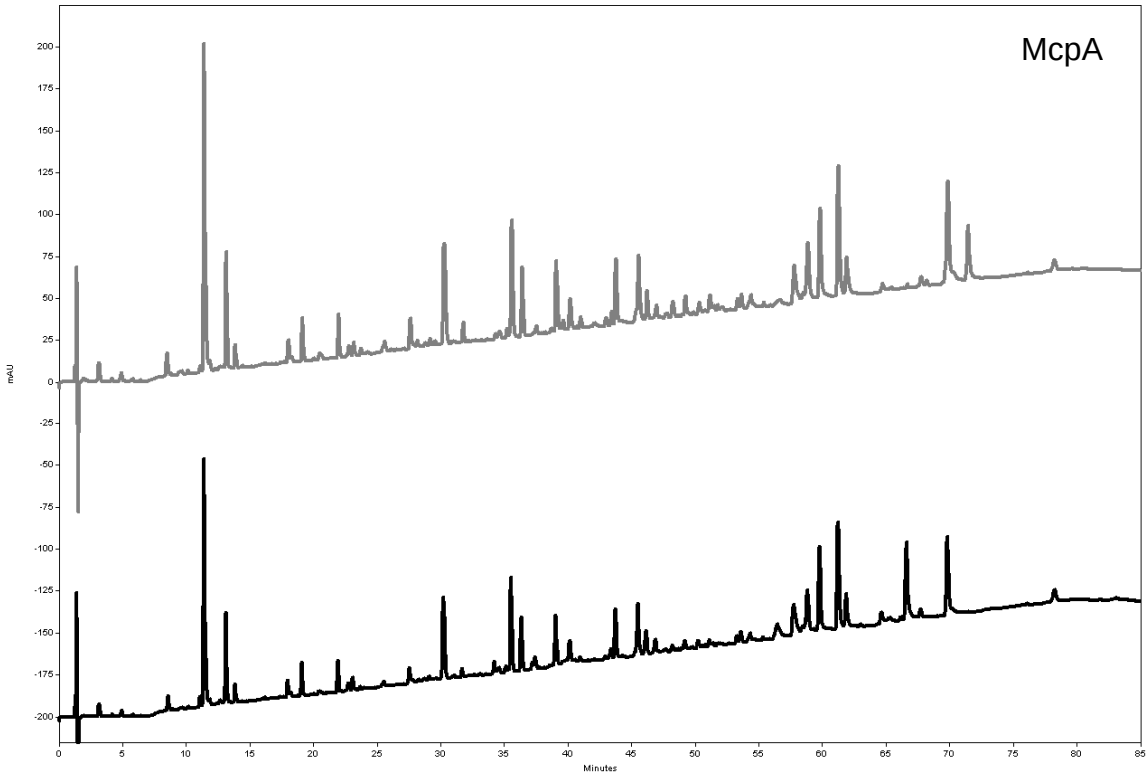
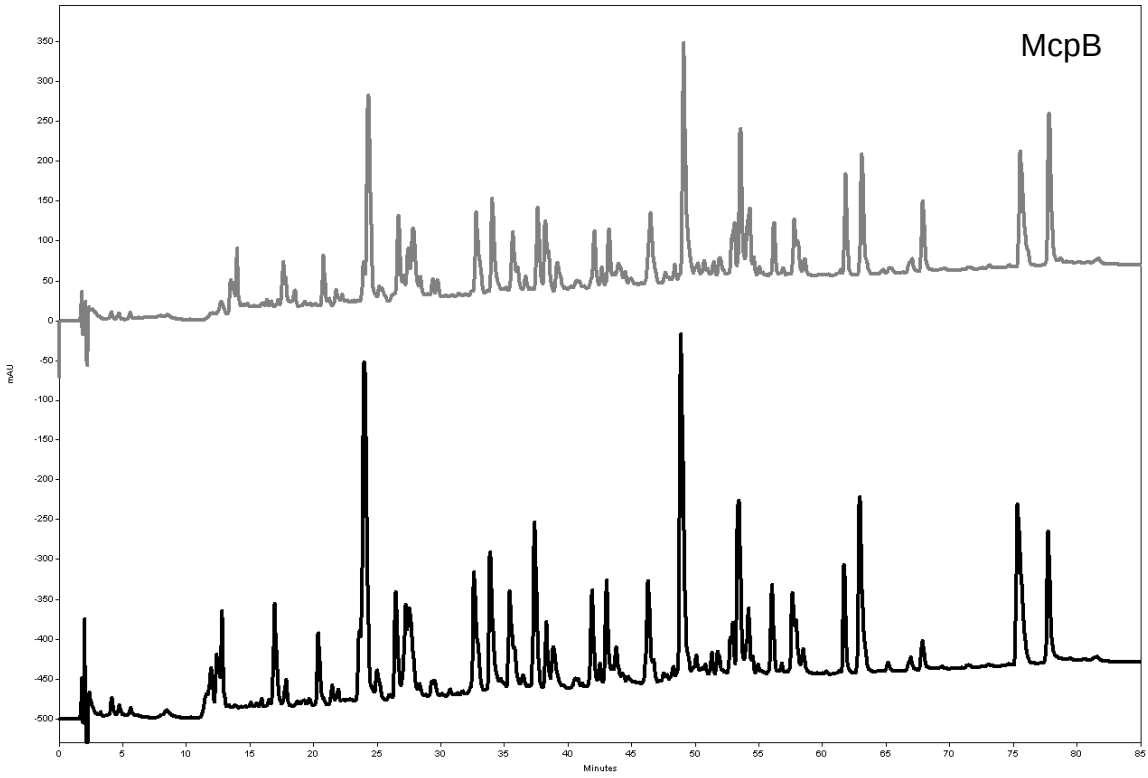


Fig. S3. Addition of CheC and its effect on CheA phosphorylation in the presence of CheD. CheC was added to the *in vitro* kinase assay reaction predictably resulted in a decrease in CheA phosphorylation.


McpA
mAU
Minutes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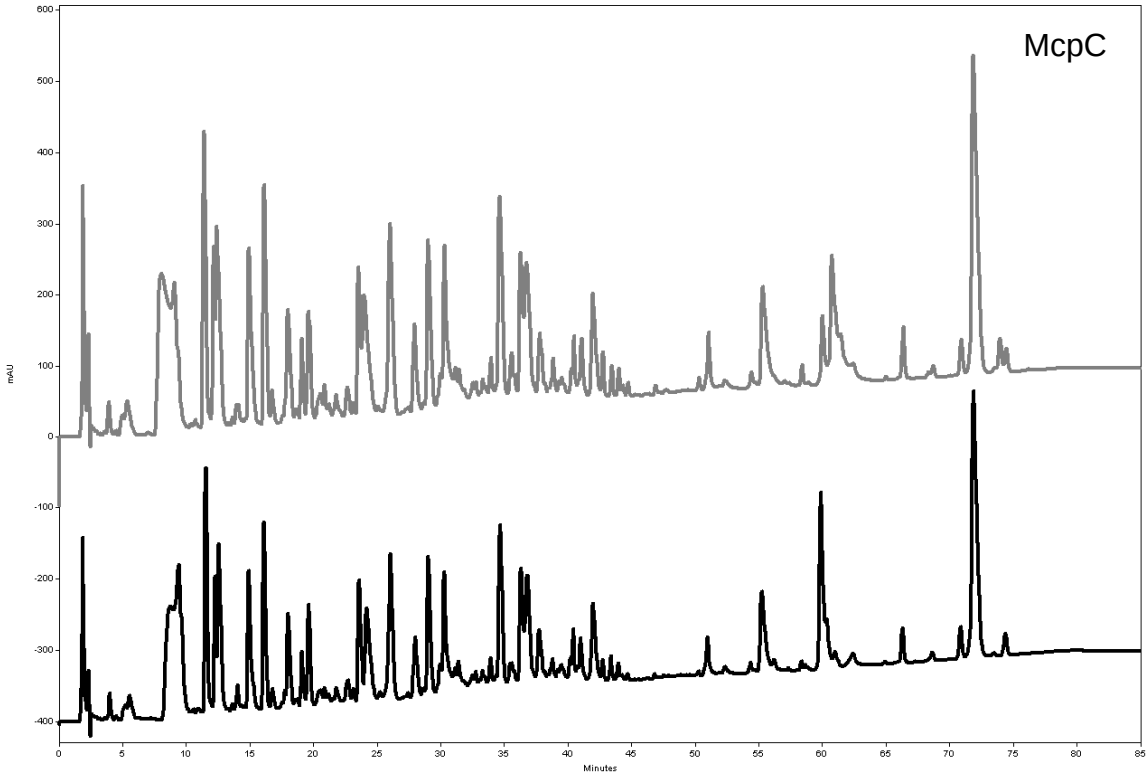

Fig. S4. Entire HPLC traces of tryptic digestions. The full-length HPLC traces shown highlighted in Fig. 2 are shown. The black trace is without CheD, the grey trace is with CheD. A change in elution time corresponds to a deamidation.