Supplementary Information

Interactions of the intact FsrC membrane histidine kinase with the tricyclic peptide inhibitor siamycin I revealed through synchrotron radiation circular dichroism

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1. Figures in support of Supplementary Information

Fig. S1.

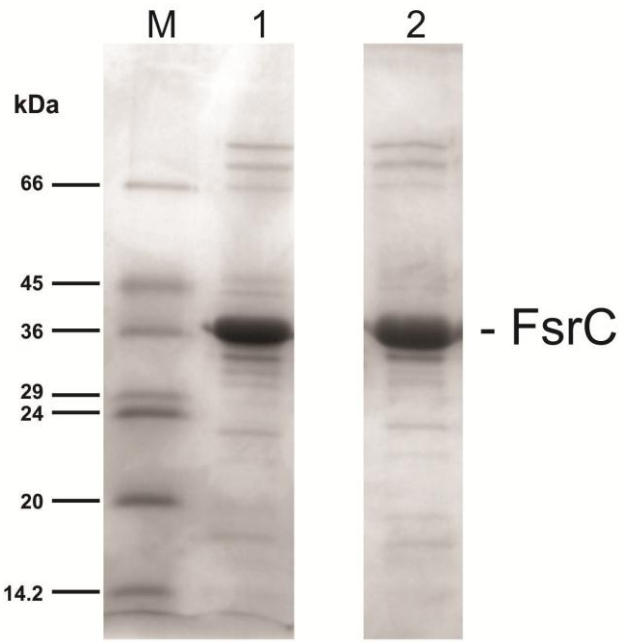

Fig. S1. Purity of preparations of intact FsrC used in the study. The intact membrane protein was prepared as described previously[12] using mixed *E. coli* membranes. M, molecular mass markers; Lanes 1 and 2 show purified protein from two separate preparations. The apparent mass is typical of that observed previously for the intact sequence-verified protein,[5] which runs anomalously in SDS-PAGE.

Fig. S2.

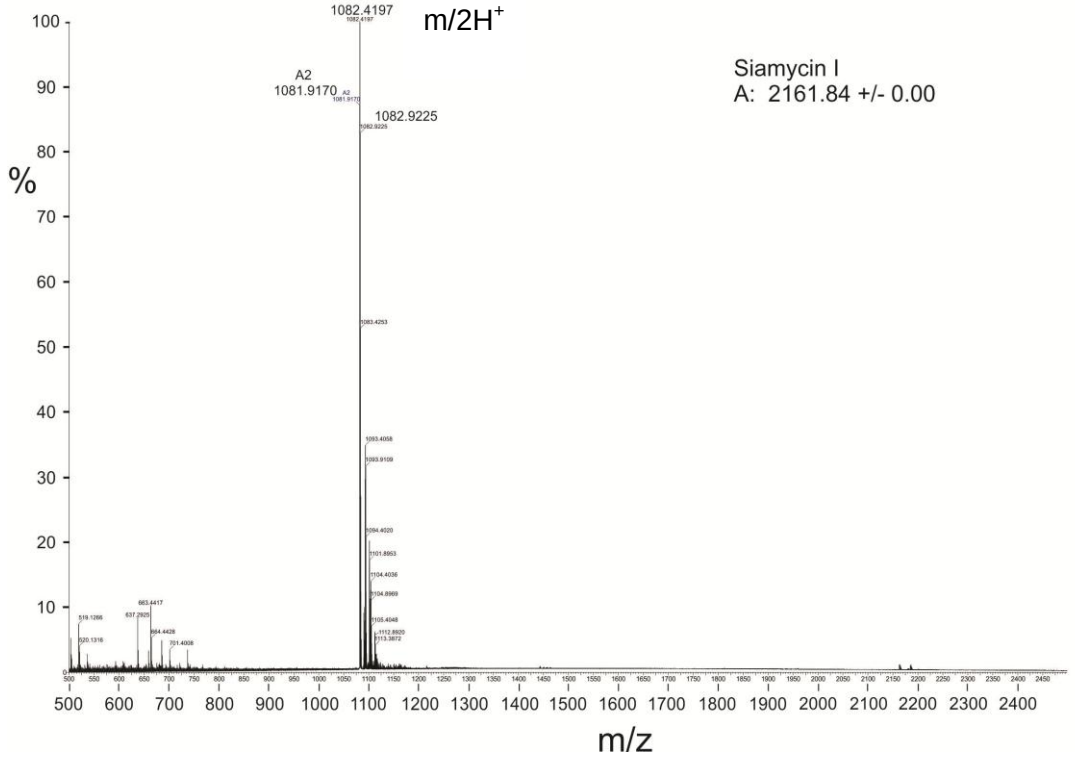

Fig. S2. Purity of purified siamycin I determined by mass spectrometry. Samples (20 pmol/ul) in methanol/formic acid mixtures were analysed by positive ionisation in a Q-tof electrospray ionisation instrument. The observed mass of siamycin I, which possesses two proton adducts, $m/2H^+$, is therefore 2161.84 and is in good agreement with the expected mass of 2164. Purity is > 90%.

Fig. S3

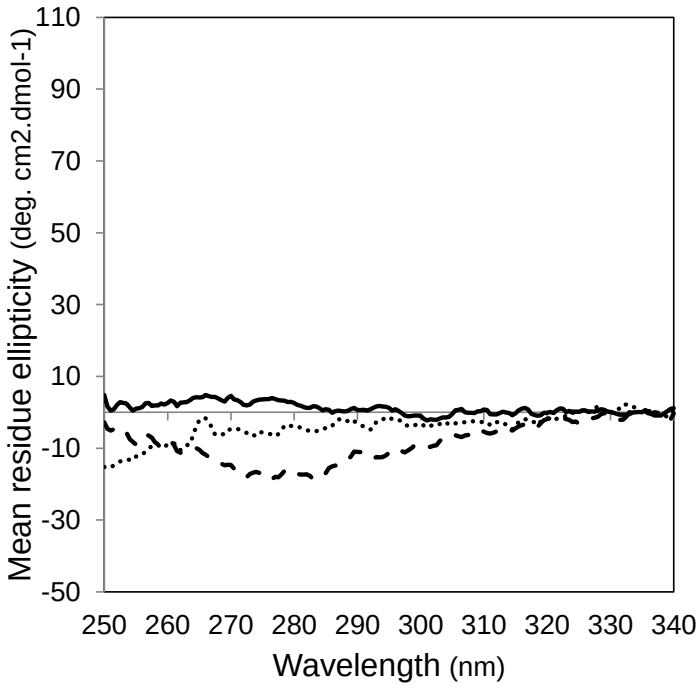

Fig. S3. Interaction between siamycin I and GBAP revealed through SRCD spectroscopy in the near-UV region. *Solid)* SRCD spectrum of GBAP (60 µM) (dissolved in acetonitrile) in 10 mM potassium phosphate pH 7.5 containing 0.05% DDM, following subtraction of control spectrum (buffer plus equivalent concentration of acetonitrile); *Dash)*: SRCD spectrum of siamycin I (100 µM) (dissolved in methanol) in the above buffer , following subtraction of control spectrum (buffer plus equivalent concentration of methanol); and *Dot)*: SRCD spectrum of GBAP (60 µM) (dissolved in acetonitrile) plus siamycin I (100 µM) (dissolved in methanol), following subtraction of control spectrum (the above buffer containing equivalent concentrations of acetonitrile and methanol). Ten measurements (scans were obtained with integration time of 1 sec, bandwidth of 2 nm, 20 ^{o}C). Unsmoothed data are shown.