



**Figure S6. The fatty acid mimetic 2CCA-1.**

(A) 2CCA-1 and (B) lauric acid (12:0) in three dimensional representations. (C) 2CCA-1, (D) lauric acid (12:0), (E) stearic acid (18:0), (F) oleic acid (18:1Δ9) and (G) linoleic acid (18:2Δ9, 12) added in a concentration titration to D39 grown in supplemented C+Y medium to assess the lysis inducing activity. (H) Treatment of D39 cultures in stationary phase with daptomycin (8 μg/mL) and DMSO (1 % v/v) as solvent control in supplemented C+Y medium with Ca<sup>2+</sup> (50 μg/mL). Arrows indicate the timepoint of treatment administration. Avg +/- SD of triplicate treatment in one biological experiment are shown. (I) Determination of laurdan generalized polarization (GP) to record of changes in membrane fluidity upon treatment with 2CCA-1 (3 μM (1 x MlytC), 25 μM (8 x MlytC), 50 μM (16 x MlytC) and 100 μM (32 x MlytC)). Treatments with 1 % DMSO as solvent control and 30 mM benzyl alcohol as positive control for membrane fluidization were included. Avg +/- SD of at least biological triplicates (performed in at least technical duplicates) are shown (J-L) Electro mobility shift assay (EMSA) with (J) a 300 bp fragment including the *fabB3* promoter and 300 bp fragments of a sequence derived from the GAPDH orf in which FabT binding sites of either (K) the *fabT* promoter or (L) the *fabK* promoter were included. The radioactively end-labelled probe (0.4 nM) was incubated with no FabT (-) and increasing concentrations of FabT (2.5 nM, 5 nM, 7.5 nM, 10 nM, 15 nM, 20 nM and 25nM). The lower panels show competition conditions for FabT binding. Increasing concentrations (4 nM, 8 nM, 12 nM and 16 nM) of unlabeled probe as specific competitor and a 300bp GAPDH fragment with no FabT binding site as unspecific competitor were added to 25 nM FabT before the labelled probe (0.4 nM). The labelled probe alone (-) and the shift with 25 nM FabT (+) are shown for reference. Representative gels are shown. A band shift was observed when FabT was incubated with the radioactively end-labelled probe (J-L, upper panels) of the *fabB3* promoter and fragments containing the FabT binding sites within the *fabT* and *fabK* promoter. However, competition experiments (J-L, lower panels) showed that, in contrast to FabT binding to the *fabT* and *fabK* promoter, binding to the *fabB3* promoter was not specific.