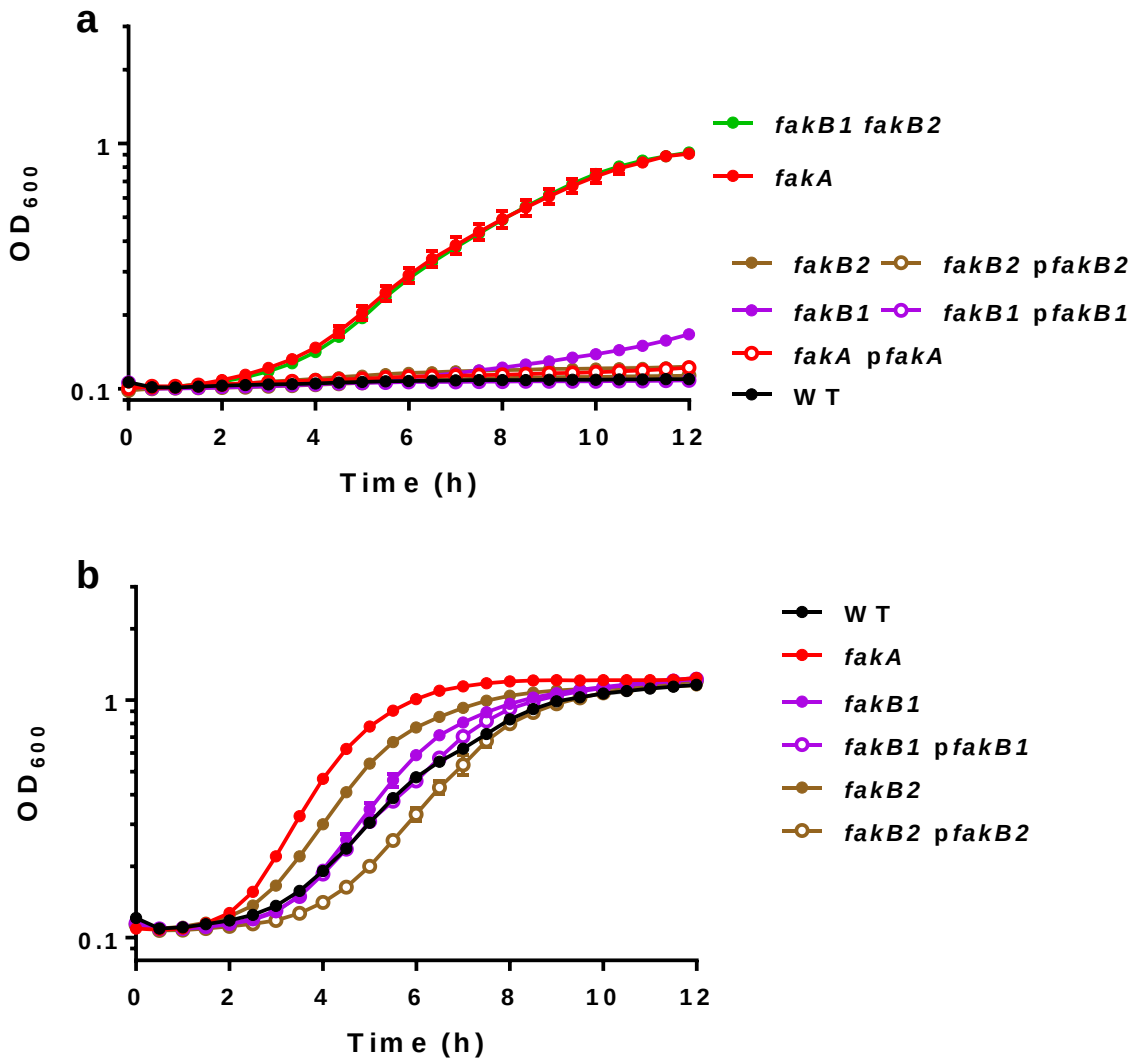

Fig. S1. Mutant sensitivity to unsaturated fatty acids. (a) Growth (OD_{600}) was measured for wild-type (WT), *fakA* mutant, *fakB1* mutant, *fakB2* mutant, *fakB1 fakB2* double mutant, *fakA* complement, *fakB1* complement, and *fakB2* complement strains in TSB containing 160 µM linoleic acid at 30-min intervals for 12 hours. **(b)** Growth (OD_{600}) was measured for wild-type (WT), *fakA* mutant, *fakB1* mutant, *fakB2* mutant, *fakB1* complement, and *fakB2* complement strains in TSB containing 315 µM oleic acid at 30-min intervals for 12 hours. Data is the average (n=3) of a representative experiment. All points have error bars (SD) and may be smaller than symbols.

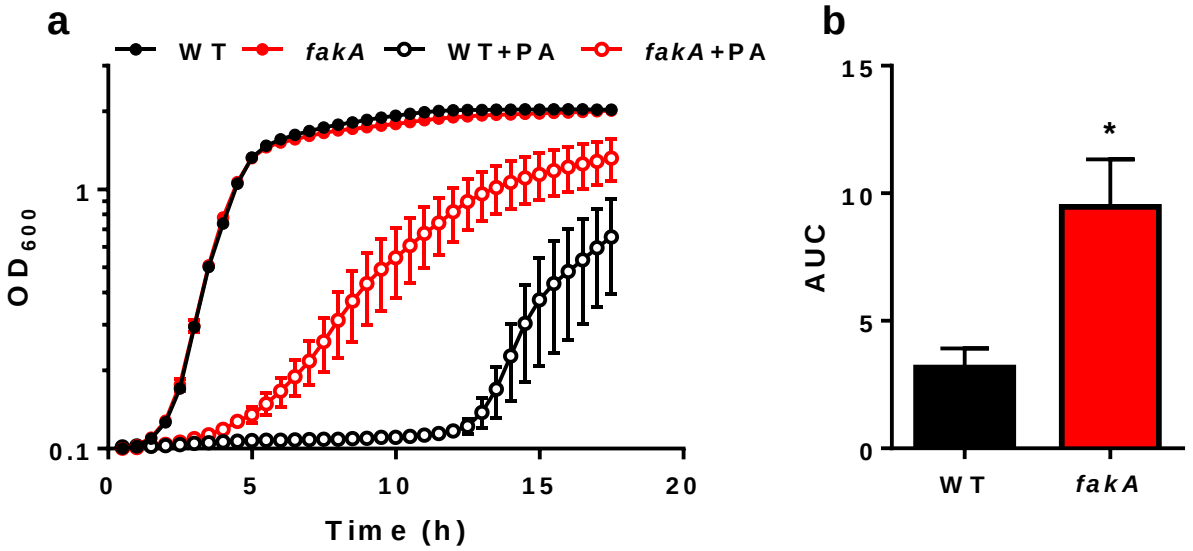

Fig. S2. *fakA* mutant sensitivity to palmitoleic acid. (a) Growth (OD_{600}) was measured for wild-type (WT) and *fakA* mutant in TSB containing 703 µM palmitoleic acid (PA) at 30-min intervals for 17.5 hours. **(b)** Data represented as the area under the curve (AUC). Data is the average (n=8). All points have error bars (SEM) and may be smaller than symbols.

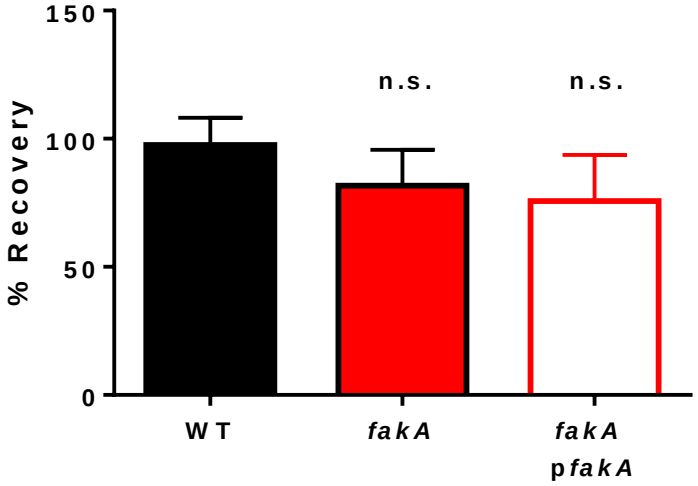

Fig. S3. *fakA* mutants do not alter resistance to myristic acid. Percent recovery was determined from wild-type (WT), *fakA* mutant, and *fakA* complement (p*fakA*) strains incubated in PBS containing 2.2 mM myristic acid for 15-minutes. Error bars are SD, n=3; n.s. indicates no significant difference using one-way ANOVA.

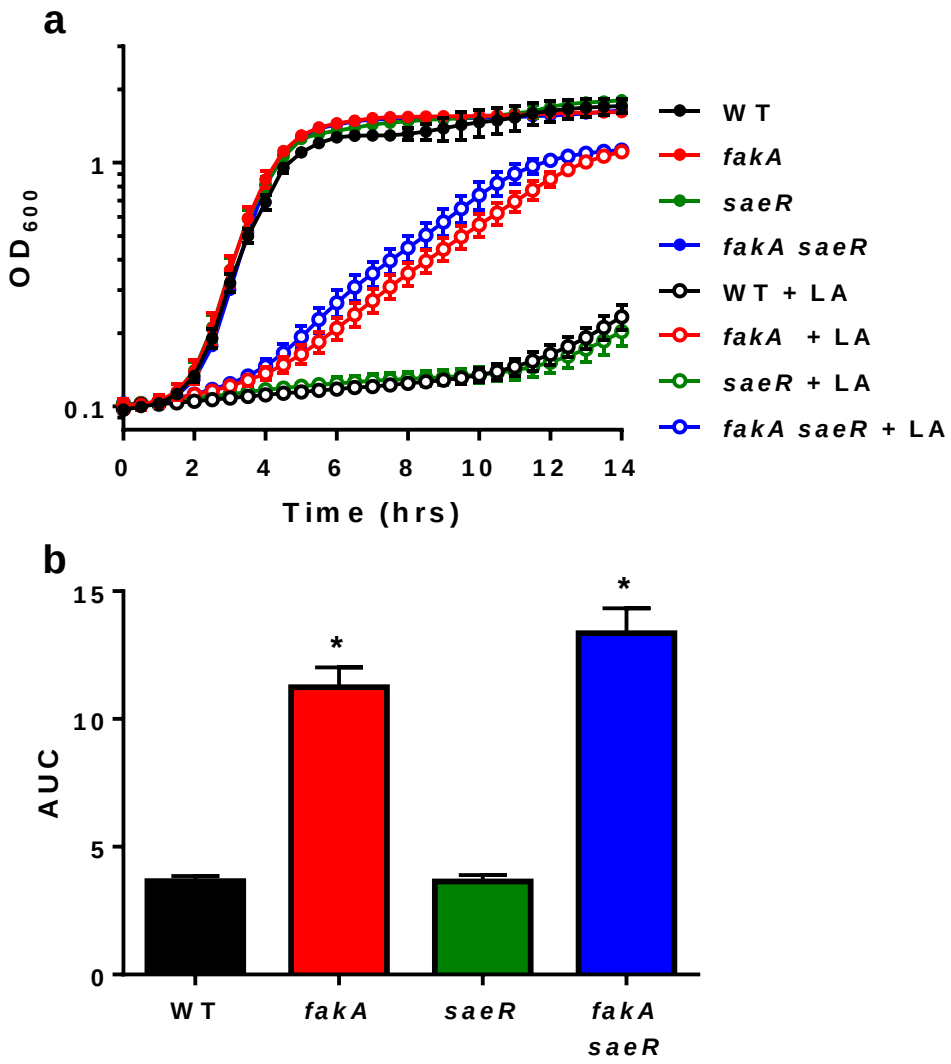

Fig. S4. SaeRS does not contribute to the resistance of *fakA* mutant to unsaturated fatty acids **(a)** Growth (OD_{600}) was measured for wildtype (WT), *fakA, saeR* and *fakA saeR* mutant in TSB containing 160 µM linoleic acid (LA) at 30-min intervals for 14 hours. **(b)** Data represented as the area under the curve (AUC). Data is the average (n=5) with SD. All points have error bars (SD) and may be smaller than symbols.

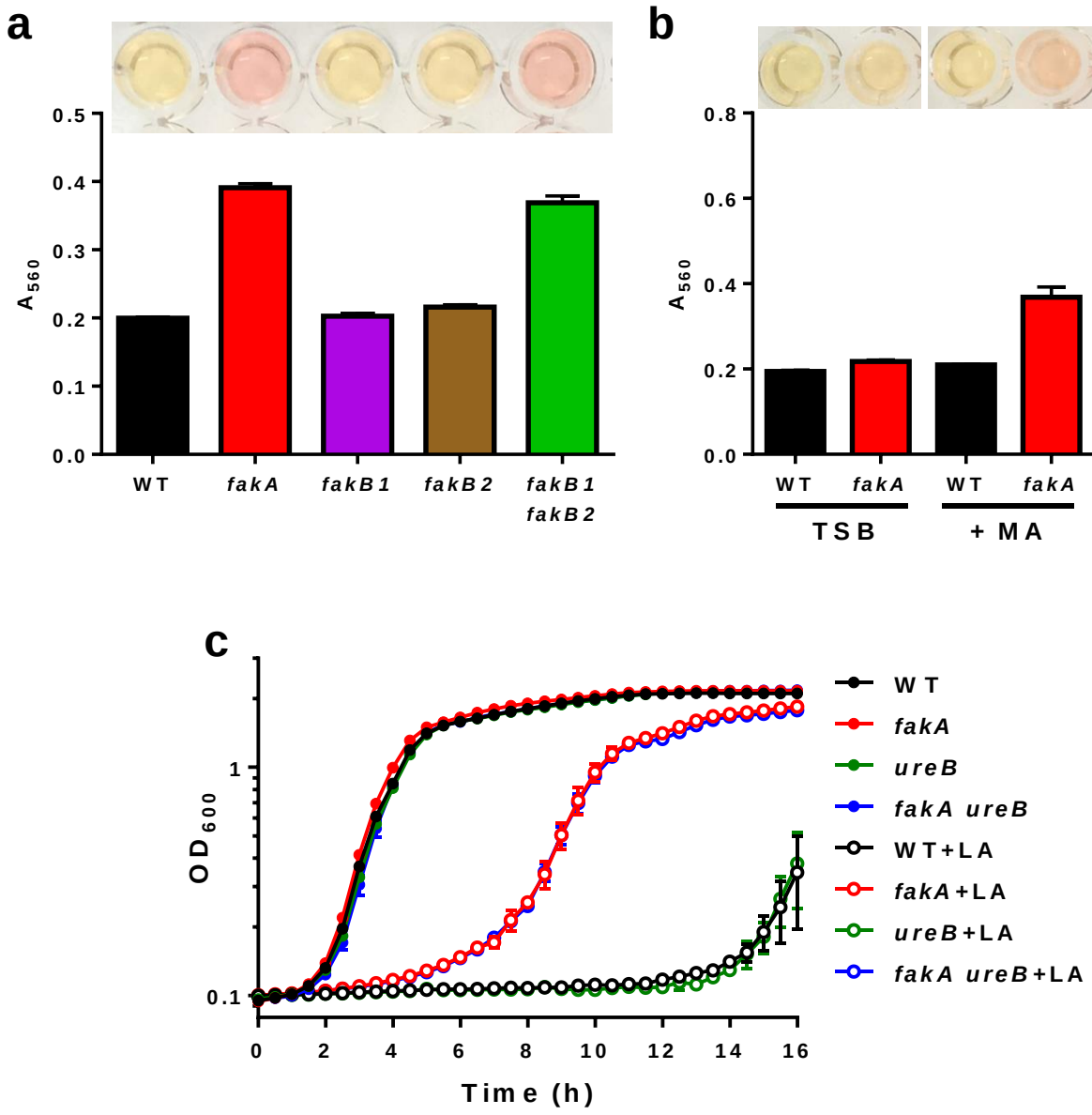

Fig. S5. Urease does not contribute to resistance of *fakA* mutant to unsaturated fatty acids. (a) Urease activity of wild-type (WT), *fakA*, *fakB1*, *fakB2*, and *fakB1 fakB2* strains grown in TSB. Pink color indicates more urease activity. Graph is a quantitative measurement of the color change. Data is the average (n=4) with SD. **(b)** Urease activity of wildtype and *fakA* mutant in TSB alone or in the presence of 109 µM myristic acid or 315 µM oleic acid. Graph is a quantitative measurement of the color change and is the average (n=3) with SD. **(c)** Growth of wild-type (WT), *fakA*, *ureB*, and *fakA ureB* in TSB alone and in the presence of 160 µM linoleic acid. Data is the average (n=3) with SD.

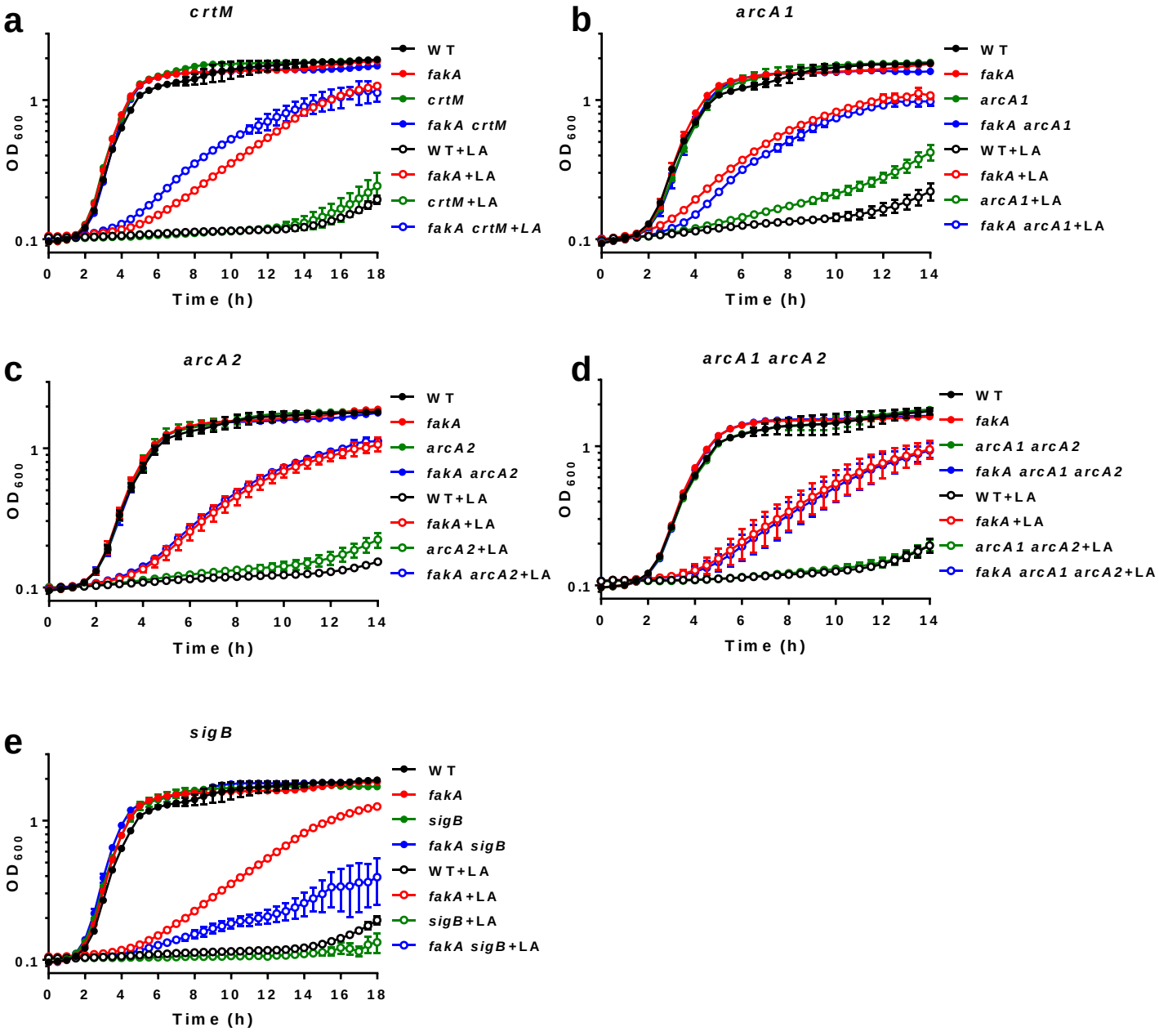

Fig. S6. Growth (OD_{600}) of wildtype (WT), *fakA*, **(a)** *crtM*, and *fakA crtM* **(b)** *arcA1*, and *fakA* **(c)** *arcA2*, and *fakA arcA2,* **(d)** *arcA1 arcA2*, and *fakA arcA1 arcA2* or **(e)** *sigB*, and *fakA sigB* in TSB alone or in the presence of 160 µM linoleic acid (+LA). Data is the average (n=3 for panel a and e, 5 for panels b-d, with standard deviation. All points have error bars and may be smaller than symbols.

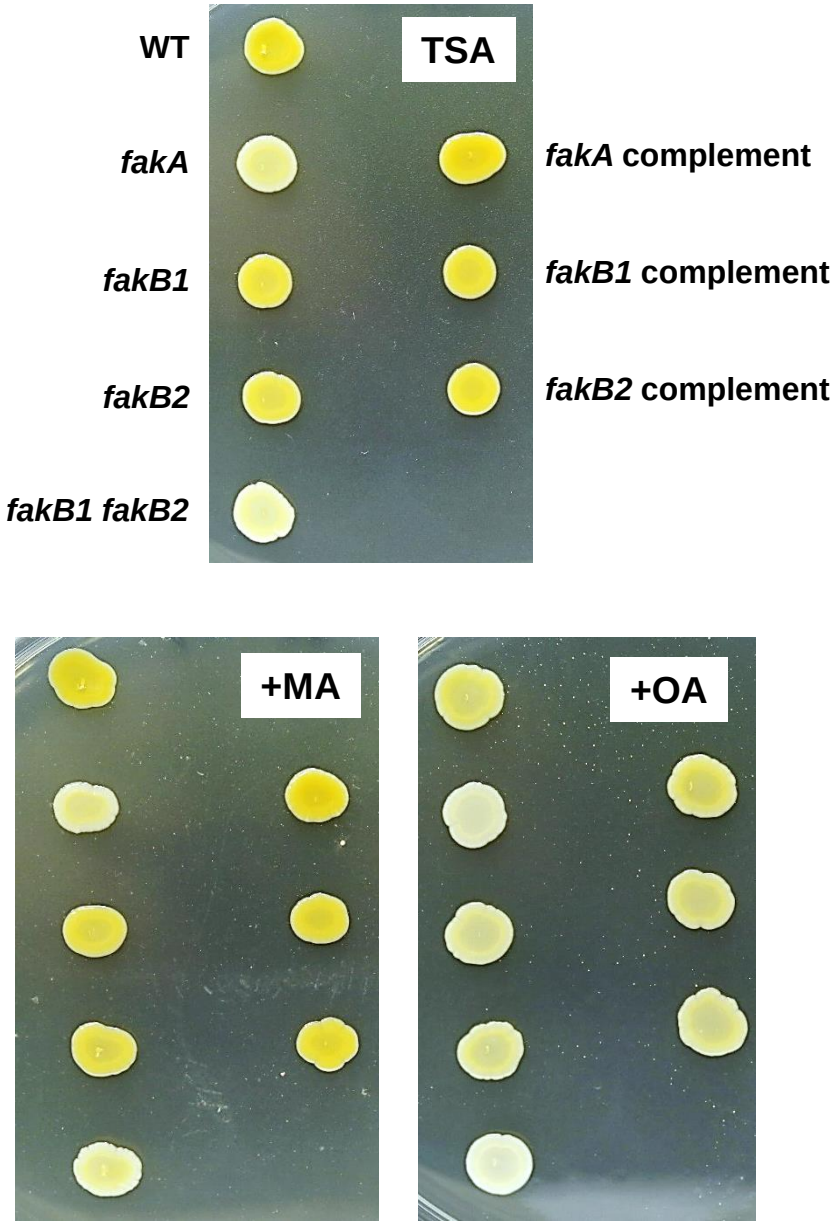

Fig. S7. TSA plates containing 109 µM myristic acid (+MA) or 315 µM oleic acid (+OA) were spotted with wild-type (WT), *fakA*, *fakB1*, *fakB2*, and *fakB1 fakB2*, *fakA* complement, *fakB1* complement, and *fakB2* complement cultures diluted to an OD_{600} of 0.1. The plates were then incubated at 37°C. Pictures were taken 24 hours after inoculation with identical camera settings and adjusted equally. Spots in lower two images are organized the same as labeled on the top TSA plate.