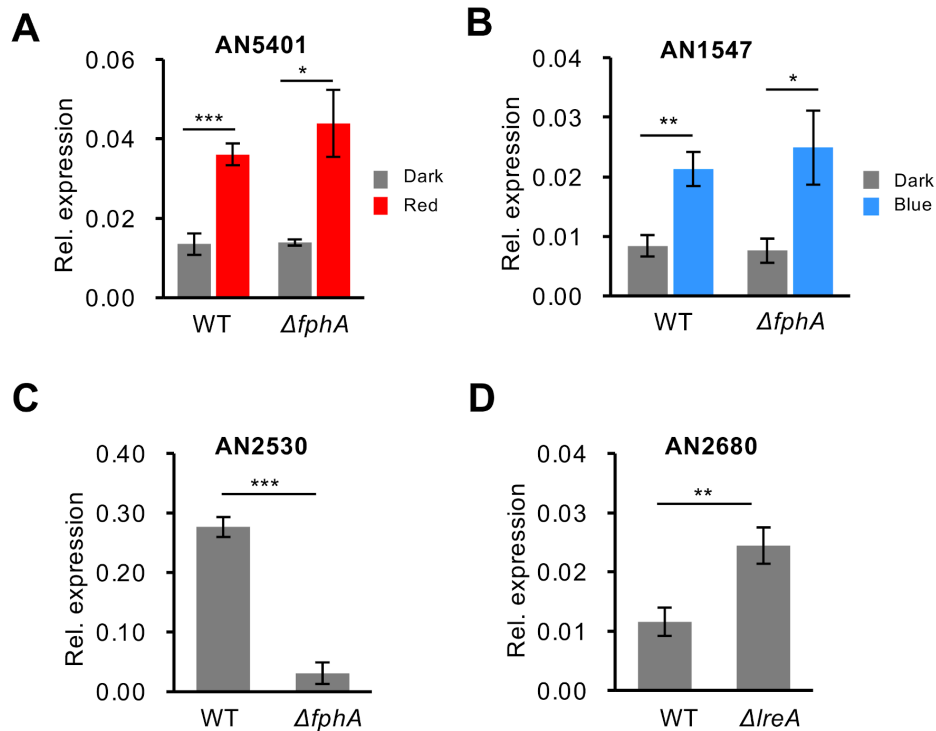


## Supporting information



**Fig. S5: Validation of the expression of some genes. (A)** Red light induction of AN5401 was independent of FphA. **(B)** Blue light induction of AN1547 was independent of FphA. **(C)** Expression of AN2530 was downregulated in the *fphA*-deletion strain. **(D)** Expression of AN2680 was upregulated in *lreA*-deletion strain. Red or blue light was imposed for 15 min. The expression level was normalized to *h2b*. The error bar was calculated from three biological replicates. Significant differences were calculated using the two-sample *t*-test (\* $P < 0.05$ , \*\* $P < 0.01$  and \*\*\* $P < 0.001$ ).