Supplemental materials of

Distinct nitrite and nitric oxide physiology in *Escherichia coli* and *Shewanella oneidensis*

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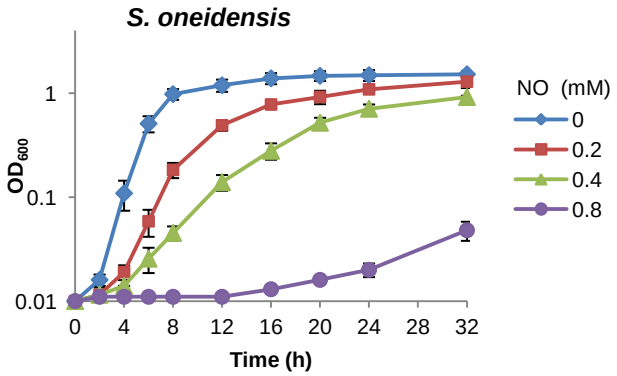
A



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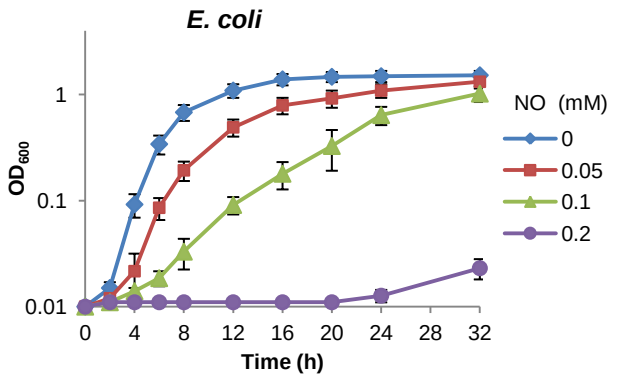

FIG S1 Inhibition of NO released from DETA-NONOate at varying concentrations on growth in liquid media. (**A**) On *S. oneidensis.* (**B**) On *E. coli*. Data are shown as mean ± SEM from at least three experiments.

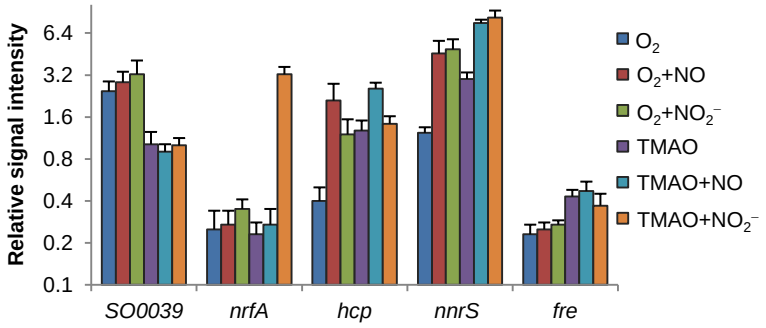

FIG S2 qRT-PCR analysis of RNA extracted from mid-log growing cells. Cells were prepared the same as in Fig. 3A. All data were normalized to expression of the *arcA* rRNA gene, which was constant during the exponential growth phase. Numbers reported are standardized to expression of the reference gene. Data are shown as mean ± SEM from at least three experiments.

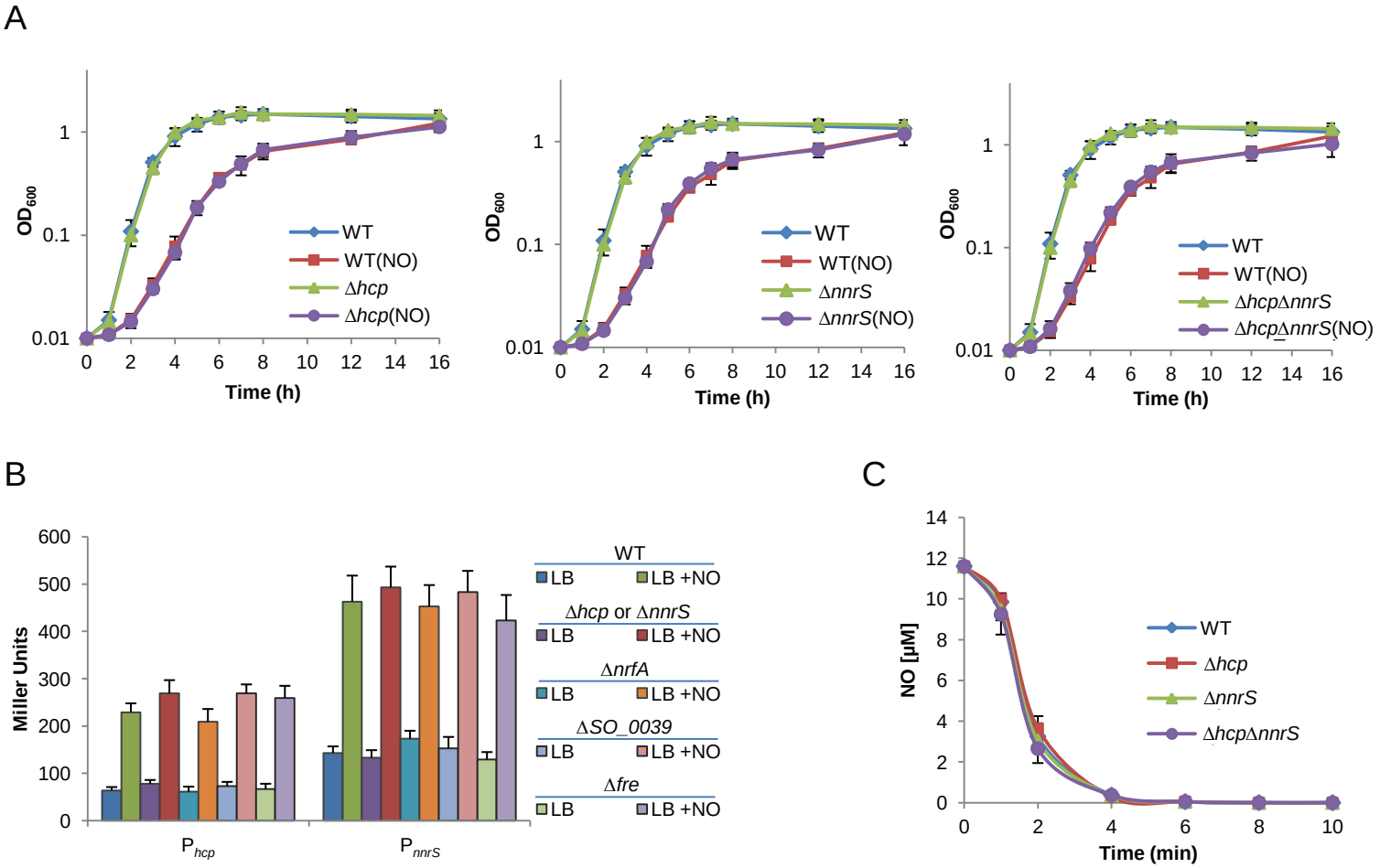

FIG S3 Impacts of Hcp, NnrS, SO_0039, and Fre on NO resistance and removal. (A) Effects of indicated proteins on NO-induced growth inhibition. Growth of WT, Δ*hcp,* Δ*SO_0039,* Δ*nnrS*, Δ*fre,* and Δ*hcp*Δ*nnrS*, in LB without or with 0.4 mM DETA-NONOate was compared. In all cases, difference was insignificant. Only Δ*hcp,* Δ*nnrS,* and Δ*hcp*Δ*nnrS* were shown because these two genes are responsive to NO. (B) Promoter activity measurement of P_{nrfA}, P_{SO0039}, P_{hcp}, P_{nnrS}, and P_{fre} by an integrated *lacZ* reporter in strains lacking one of these genes. Mutation of a single gene did not significantly affect expression of the other genes. Only data for *hcp* and *nnrS* genes were shown. (C) Effects of indicated proteins on NO consumption. Data are shown as mean ± SEM from at least three experiments.

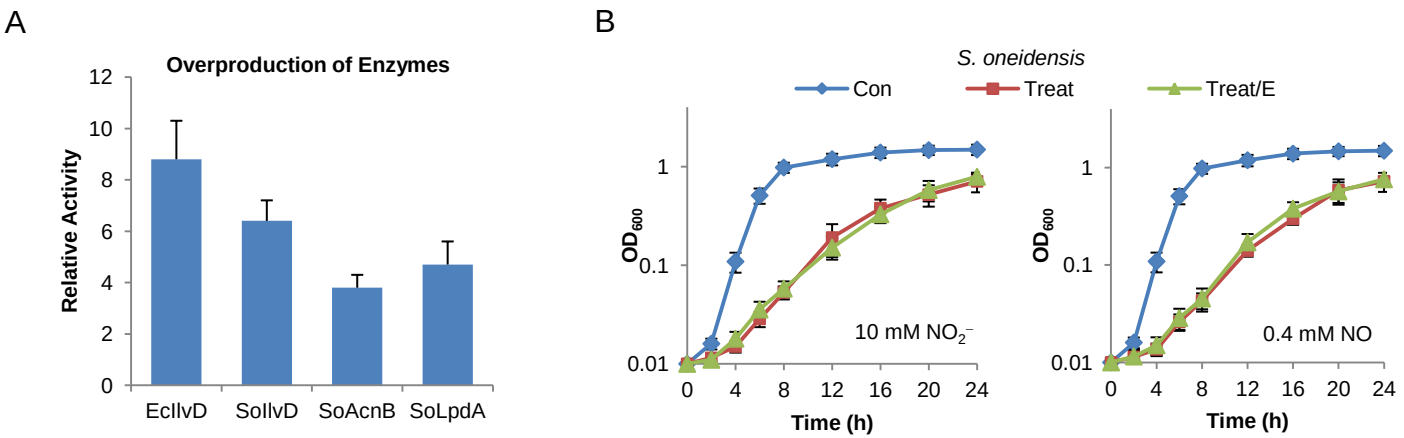

FIG S4 Validation of enzyme overproduction. Controlled expression of indicated genes was carried out by using IPTG-inducible promoter P*tac*. The expression system is effective, validated previously and here by measuring respective enzyme activities. Relative activity is given be normalizing to the wild-type containing empty vector. (B) Effects of overproduction of *Ec*IlvD on growth of *S. oneidensis*. Con, grown in LB; Treat, grown in LB with either 0.4 mM NO or 10 mM nitrite; Treat/E, cells with overproduced *So*IlvD in the presence of 1 mM IPTG. Data are shown as mean ± SEM from at least three experiments.