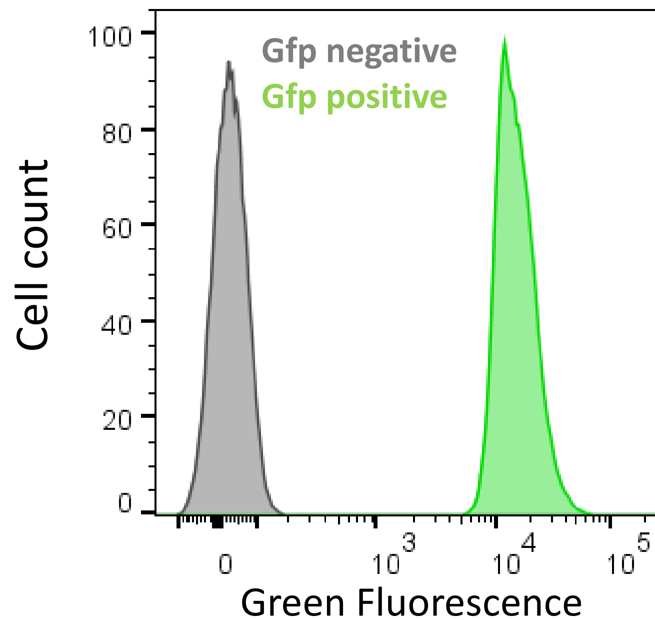
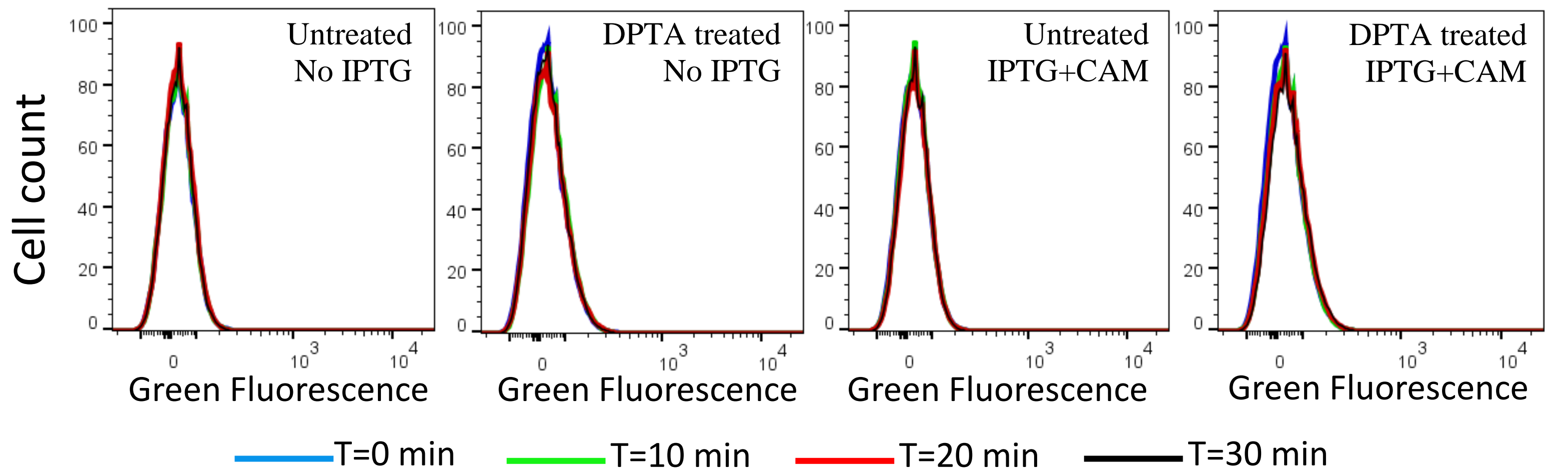
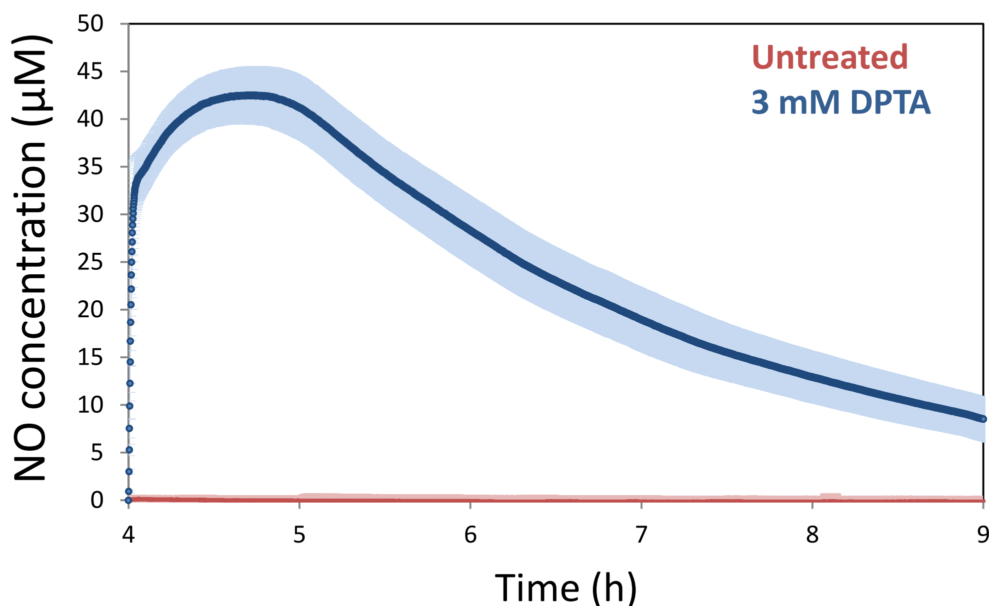


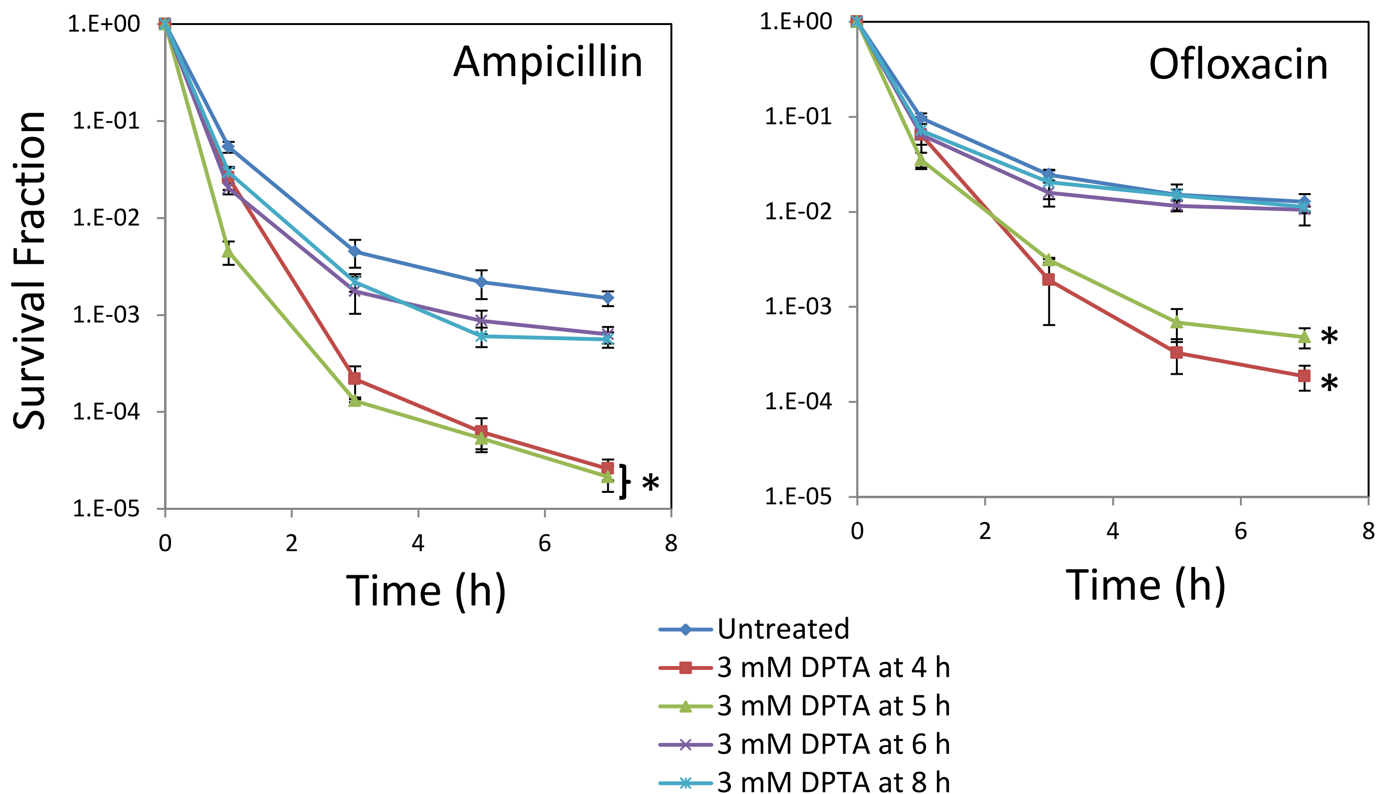
Supplementary Figure S1. Positive and negative controls of GFP expression system.
For the negative control, an *E. coli* strain carrying a pQE-80L plasmid variant without an inducible *gfp* expression cassette was used. These cells did not fluoresce when introduced to fresh media with inducer (1mM IPTG). For the positive control, an *E. coli* strain carrying the pQE-80L plasmid variant with the inducible *gfp* expression cassette was used to induce GFP throughout the overnight. These cells were highly fluorescent when introduced to fresh media with inducer.



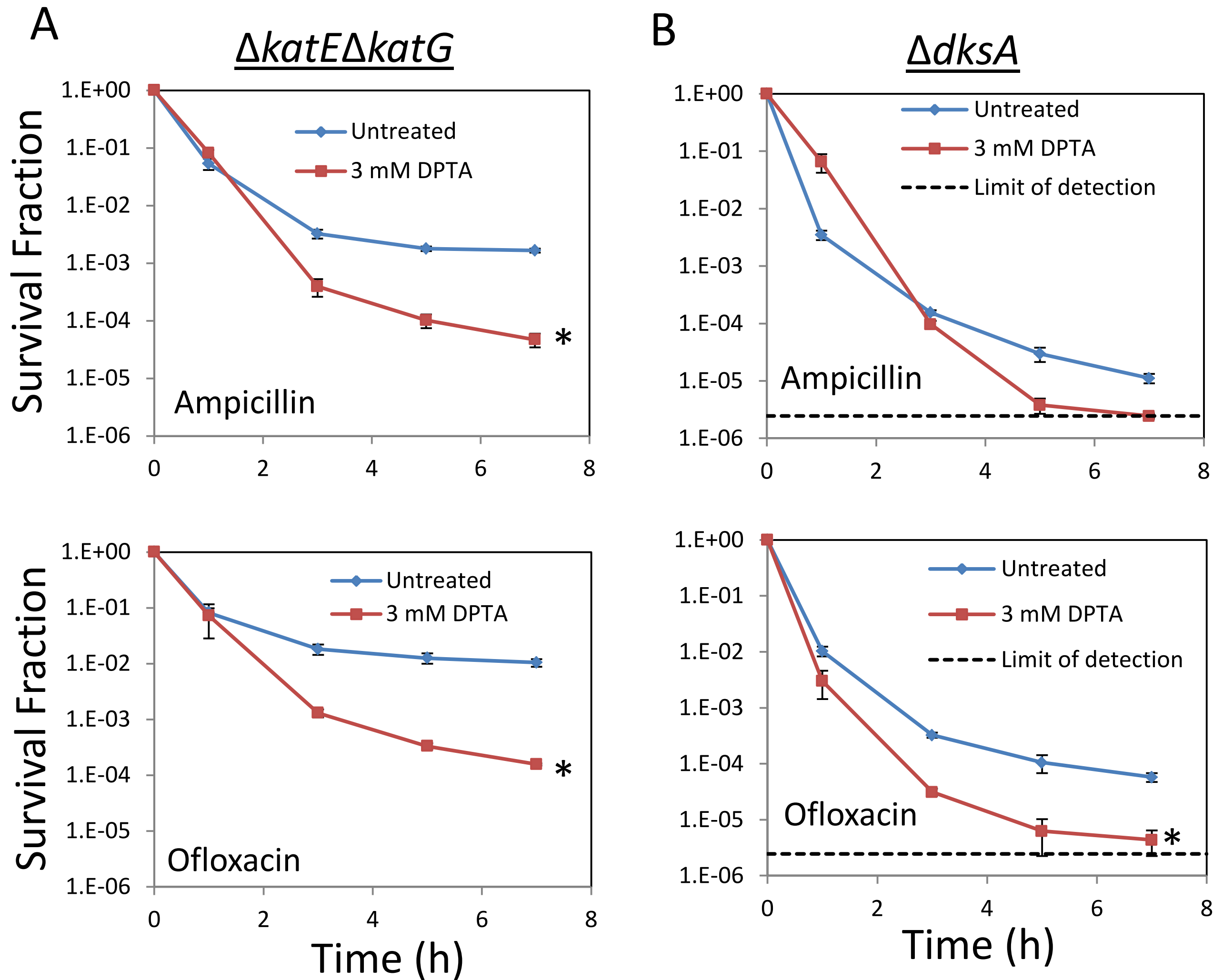
Supplementary Figure S2. Control experiments of transcription/translation assay.
Cells carrying IPTG inducible *gfp* expression cassette with 3 mM DPTA at t=4 h and untreated controls were grown until 24 h, and washed and diluted in fresh LB without inducer or with 1 mM IPTG and 100 µg/mL chloramphenicol (CAM). GFP expression was monitored at indicated time points with a flow cytometer.



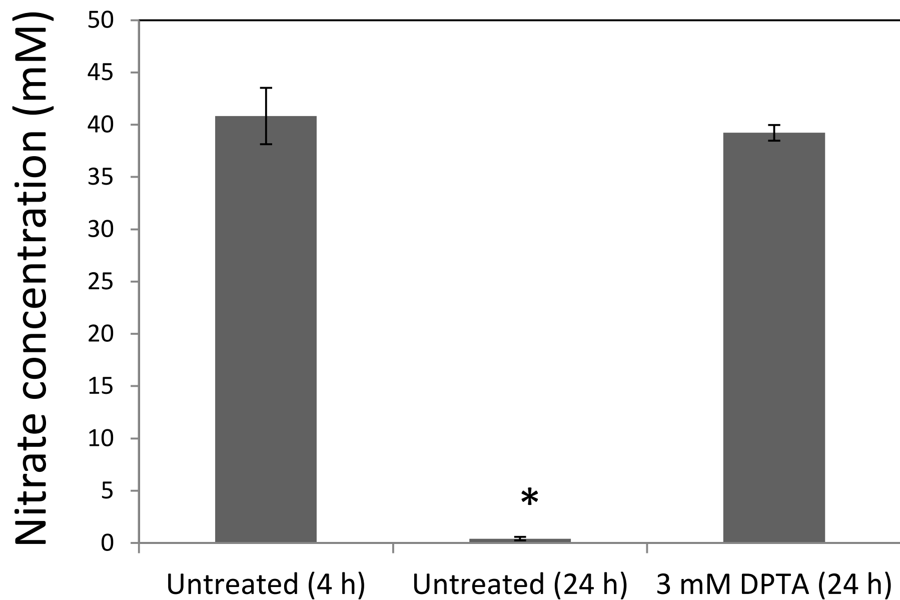
Supplementary Figure S3. Release of NO by DPTA in the media at time of treatment.
Cell cultures at t=4 h in test tubes were immersed in a stirred water bath to maintain the temperature at 37°C. Cultures were mixed with a sterilized magnetic stirring bar and DPTA at 3 mM was added. Control cultures (untreated) were treated with the solvent only (0.15 mM NaOH). NO concentrations were continuously measured using an ISO-NOP NO sensor (World Precision Instruments, Inc.). The optimum measurement range of the sensor is 1 nM - 40 µM NO. The electrode was calibrated daily according to the manufacturer's protocols. Each data point represents the mean value ± standard error.



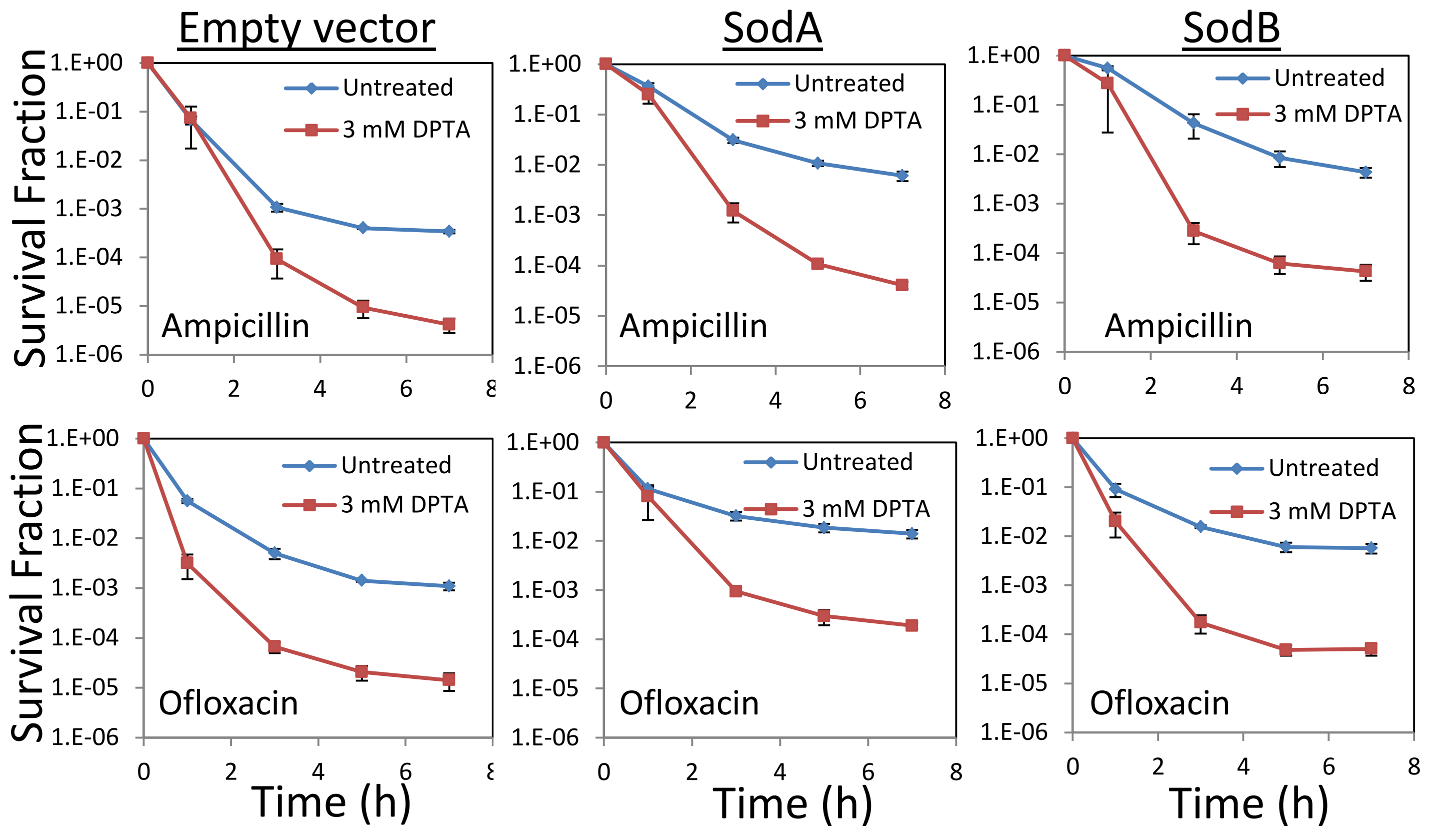
Supplementary Figure S4. Impact of NO treatment time on type I persister formation. Cell cultures at indicated time points were treated with 3 mM DPTA. Control cultures (untreated) were treated with the solvent only at t=4 h. At t=24 h, cultures were washed to remove the chemical inhibitors, diluted (100-fold) in fresh LB, and treated with ampicillin or ofloxacin. Cell survival fractions were monitored for 7 h during the treatments. * indicates a statistical difference between untreated and DPTA-treated cultures (P-value<0.05, t-test). The 7 hour time points of the survival data (final time points) were used for statistical analysis. At least three biological replicates were performed for each experimental condition. Each data point represents the mean value ± standard error.



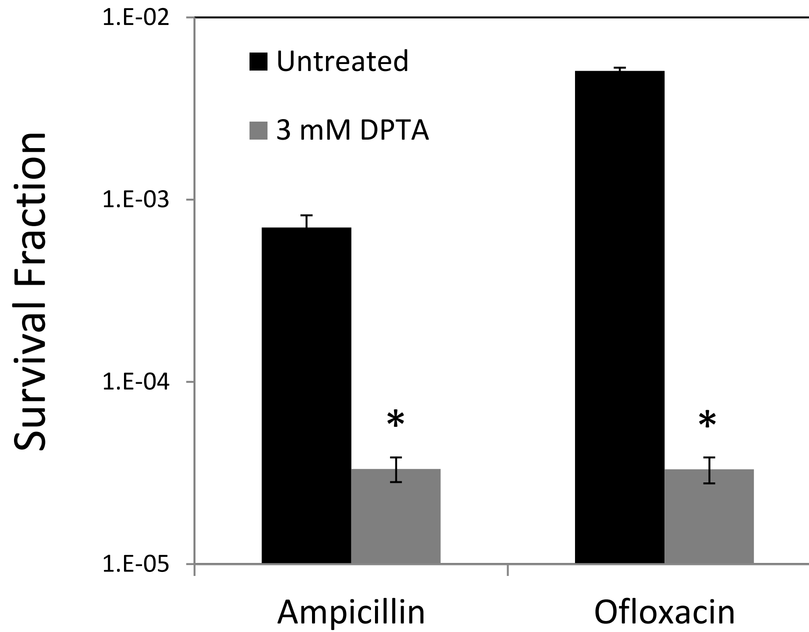
Supplementary Figure S5. Impact of NO on the persister levels of Δ*katE*Δ*katG* and Δ*dksA*. Cell cultures at t=4 h were treated with DPTA at indicated concentrations. For control groups (untreated), solvent was added to cultures. At t=24 h, persister assays were performed. **A.** Survival fractions of Δ*katE*Δ*katG* were monitored for 7 h during ampicillin and ofloxacin treatments. **B.** Survival fractions of Δ*dksA* were monitored for 7 h during ampicillin and ofloxacin treatments. * indicates a statistical difference between untreated and DPTA-treated cultures (P-value<0.05, t-test). The 7 hour time points of the survival data (final time points) were used for statistical analysis. At least three biological replicates were performed for each experimental condition. Each data point represents the mean value ± standard error.



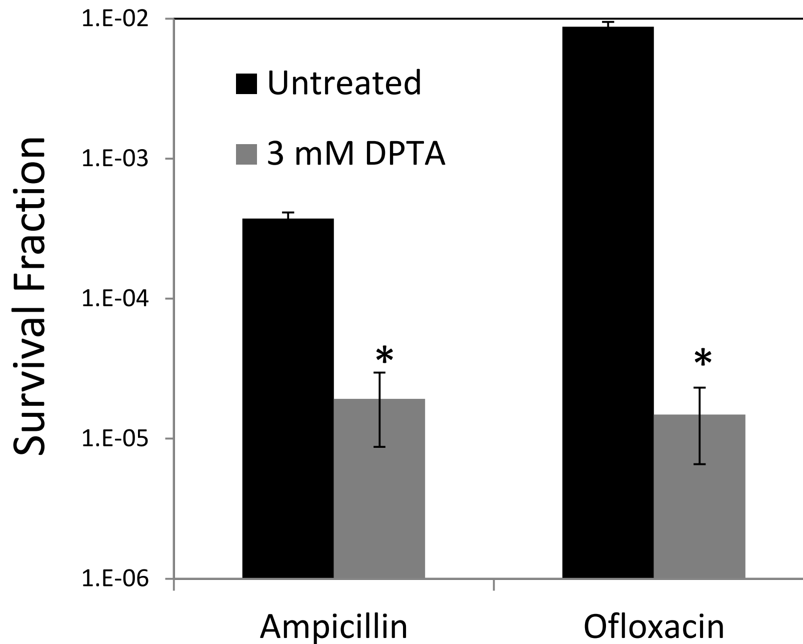
Supplementary Figure S6. Nitrate concentrations in DPTA-treated or untreated cultures. $NaNO_3$ (electron acceptor) at 40 mM was added to cultures at t=4 h. Then the cultures were treated with either 3 mM DPTA or the solvent (untreated), and transferred to an anaerobic chamber. DPTA-treated or untreated overnight cultures (24 h), and cultures before the DPTA treatment (t=4 h) were filter-sterilized. Nitrate concentrations in cell free media were measured using Nitrate/Nitrite Colorimetric Assay Kit (Cayman Chemical, MI). * indicates a statistical difference between untreated (24 h) and other cultures (P-value<0.05, t-test). At least three biological replicates were performed for each experimental condition. Each data point represents the mean value ± standard error.



Supplementary Figure S7. Persister levels in the strains over-expressing superoxide dismutases.
Cell cultures where *sodA* and *sodB* were over-expressed from pQE-80L plasmid variants throughout culturing were treated with 3 mM DPTA at t=4 h. For control groups (untreated), solvent was added to cultures. At t=24 h, persister assays were performed. To analyze the impact of plasmids on persistence, similar experiments were applied to cells carrying empty plasmid variant. Under all conditions, persister levels in DPTA-treated cultures were significantly reduced compared to untreated cultures ($P\text{-value}<0.05$, t-test). The 7 hour time points of the survival data (final time points) were used for statistical analysis. At least three biological replicates were performed for each experimental condition. Each data point represents the mean value ± standard error.

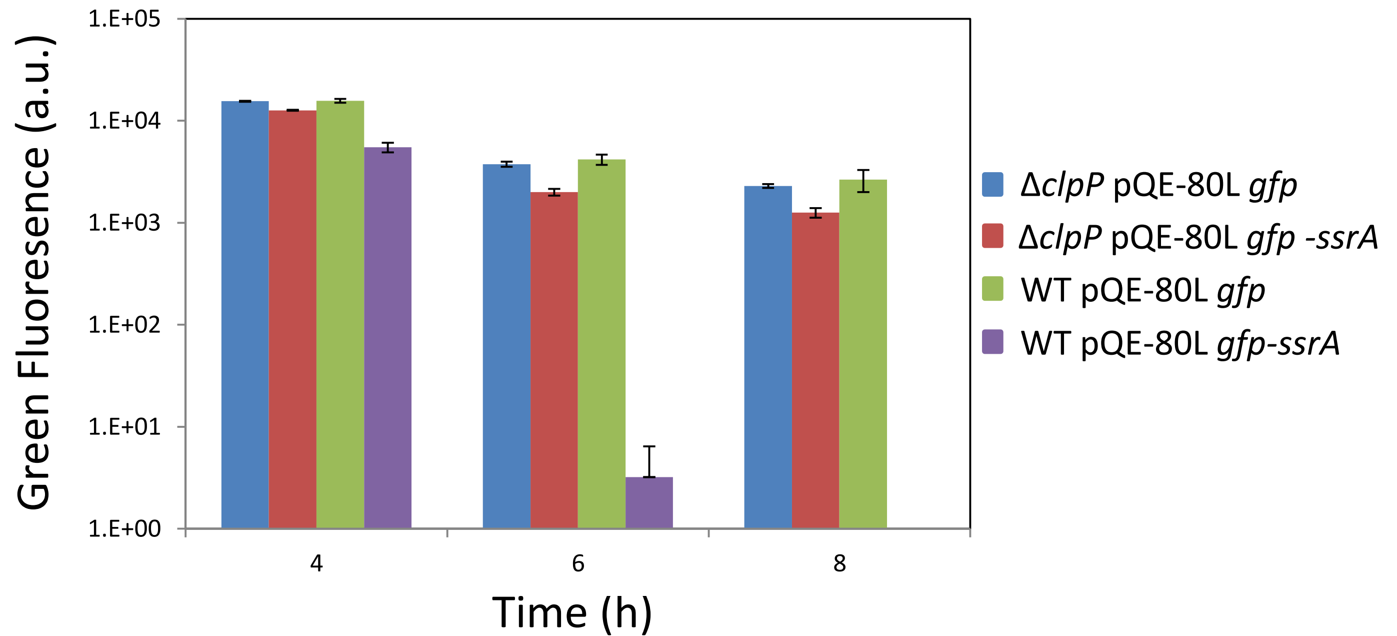


Supplementary Figure S8. Impact of overexpressing mCherry on persistence
Cell cultures grown in LB with 1mM IPTG to induce mCherry were treated with 3 mM DPTA or solvent (untreated control) at t=4 h. At t=24 h, cells were washed to remove the chemicals and diluted in fresh LB with antibiotics to perform persistence assays. Survival fractions are those after 7 hours of antibiotic treatment. * indicates a statistical difference between untreated and DPTA-treated groups (P-value<0.05, t-test). Each data point represents the mean value ± standard error.



Supplementary Figure S9. Impact of high-copy plasmid on persistence

Cells carrying pQE-80L plasmid variant carrying an IPTG inducible *gfp* expression cassette grown in LB were treated with 3 mM DPTA or solvent (untreated control) at t=4 h. At t=24 h, cells were washed to remove the chemicals and diluted in fresh LB to perform persistence assays. Survival fractions are those after 7 hours of antibiotic treatment. * indicates a statistical difference between untreated and DPTA-treated groups (P-value<0.05, t-test). Each data point represents the mean value ± standard error.



Supplementary Figure S10. Control experiments for protein-degradation assay.
Strains (WT and Δ*clpP*) carrying an IPTG-inducible, *ssrA*-tagged (degradable) or untagged (stable) GFP were grown in the presence of inducer in both overnight and following cultures. At t=4 h, the inducer was removed, and cells were diluted in spent media without inducer. GFP levels were measured with a plate reader after the removal of inducer.