

Magnesium homeostasis protects *Salmonella* against nitrooxidative stress

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Supplementary Material

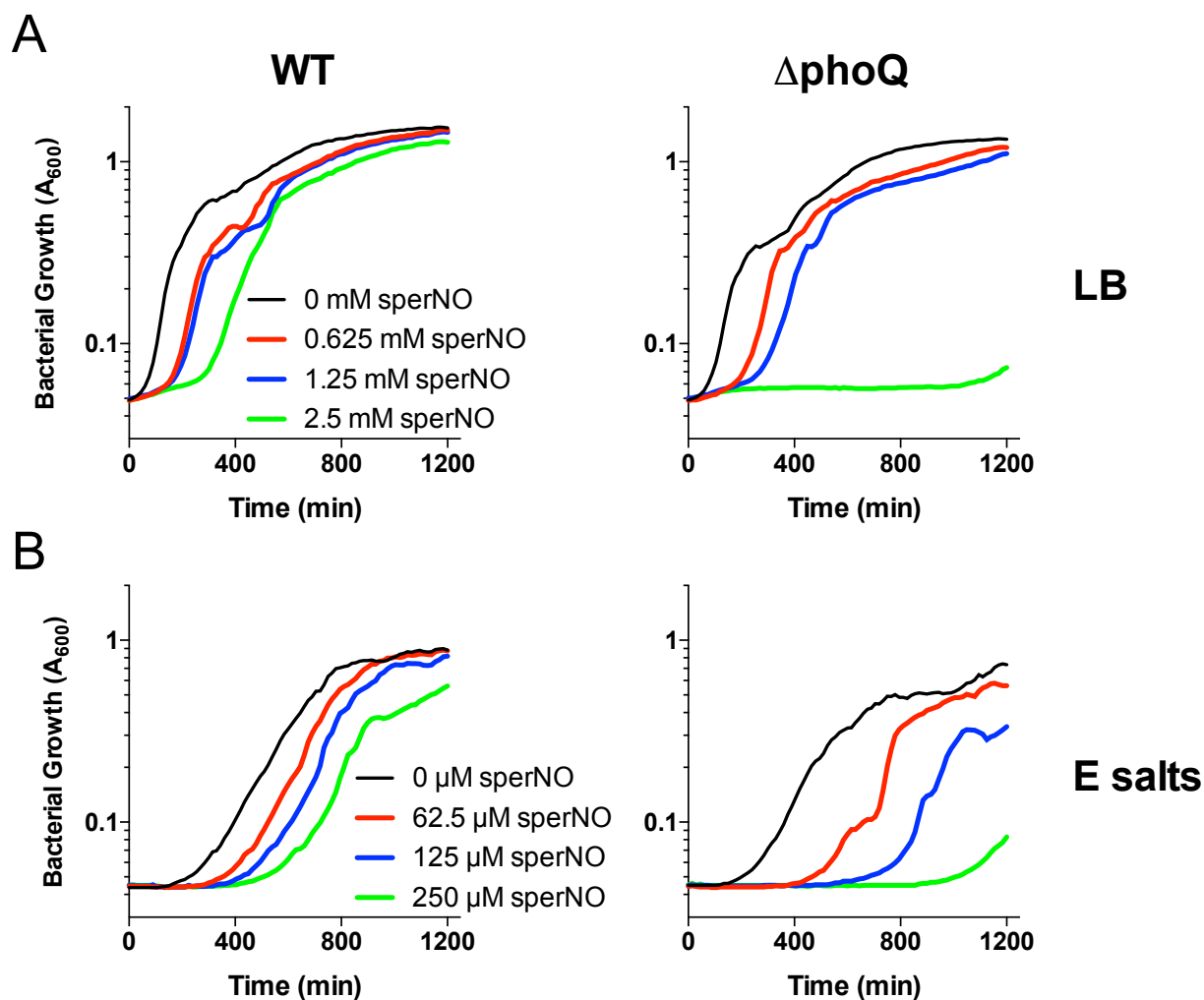


Figure S1. Effect of RNS on the growth of wild-type and $\Delta phoQ$ *Salmonella* in rich and minimal media. *Salmonella* strains grown for 20 h in LB at 37°C with shaking at 325 r.p.m. were subcultured 1:200 in fresh LB (**A**) or minimal E salts (0.2 g/L $MgSO_4$, 2 g/L $C_6H_8O_7 \cdot H_2O$, 10 g/L K_2HPO_4 , 3.5 g/L $Na(NH_4)HPO_4 \cdot 4H_2O$, pH 7.0) + 5 mM malic acid (**B**) in the presence or absence of the indicated concentrations of spermine NONOate (sperNO). The data are presented as the mean bacterial growth from 3 biological replicates.

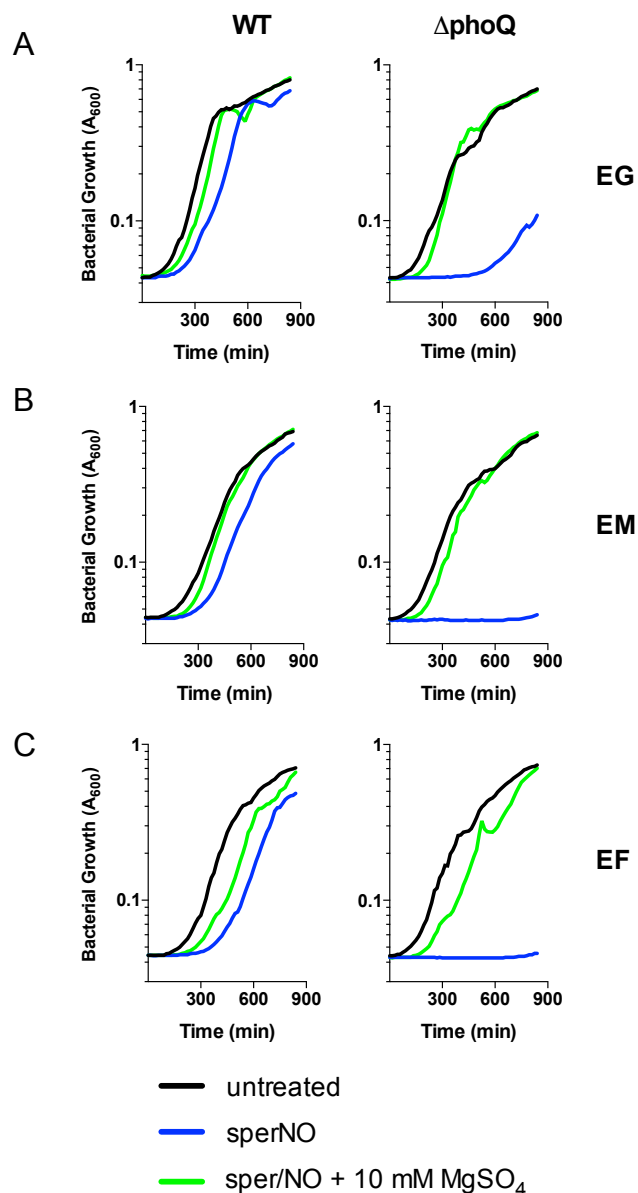


Figure S2. Growth inhibition of $\Delta phoQ$ *Salmonella* strains by RNS in minimal media is reversed by exogenous $MgSO_4$. Stationary phase *Salmonella* strains were cultured as described in Figure S1 and challenged with 250 μM spermine NONOate (sperNO) in minimal E salts supplemented with 5 mM glucose (EG) (**A**), 5 mM malic acid (EM) (**B**), or 5 mM fumarate (EF) (**C**). Exogenous $MgSO_4$ was added to designated cultures at the time of challenge with sperNO. The data are presented as the mean bacterial growth from 3 biological replicates.

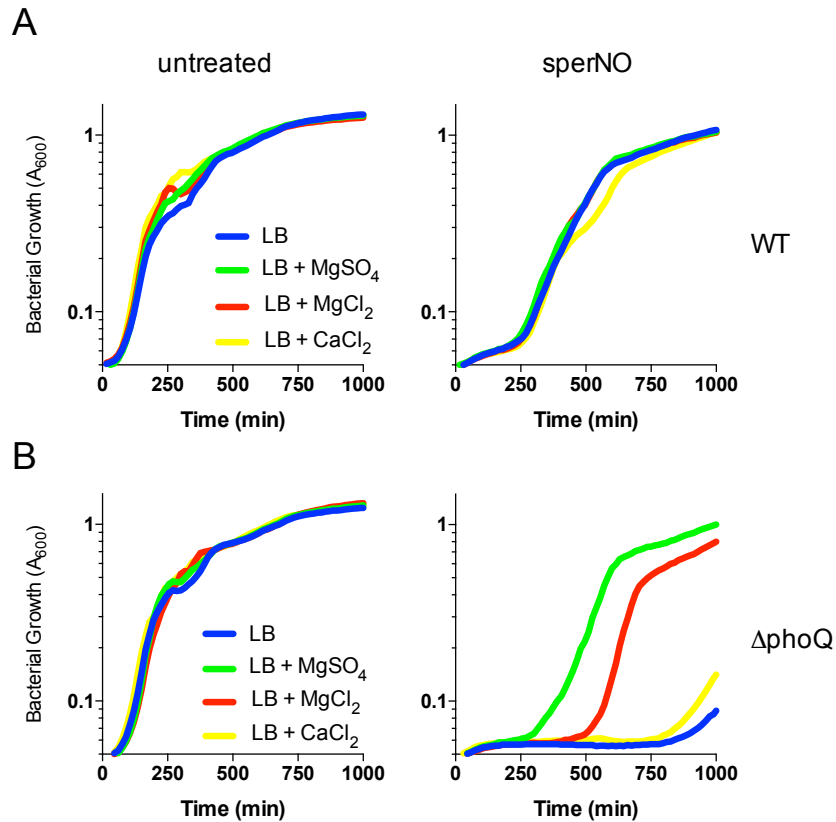


Figure S3. Effect of divalent cations on the growth of *Salmonella* strains following challenge with RNS. *Salmonella* strains were grown as described in Fig. S1, and grown in the presence or absence of 2.5 mM spermine NONOate (sperNO). Selected *Salmonella* cultures were supplemented with 10 mM $MgSO_4$, $MgCl_2$, or $CaCl_2$ at the time of challenge with sperNO. The data are presented as the mean bacterial growth from 3 biological replicates.