

FIG S1.

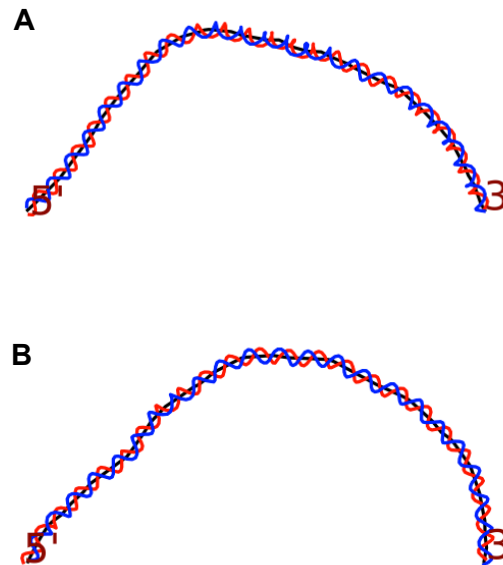


FIG S1. An AT-rich region near P_{tos} is predicted to be bent similar to a corresponding region near P_{papBA} . (A) A predicted DNA curvature plot of a region near P_{tos} , obtained from <http://www.lfd.uci.edu/~gohlke/dnacurve/> using an AA Wedge Model and oriented in the 5' to 3' direction, is indicated. (B) The same web-based tool as above was used to generate a predicted DNA curvature plot of a region near P_{papBA} .

FIG S2.

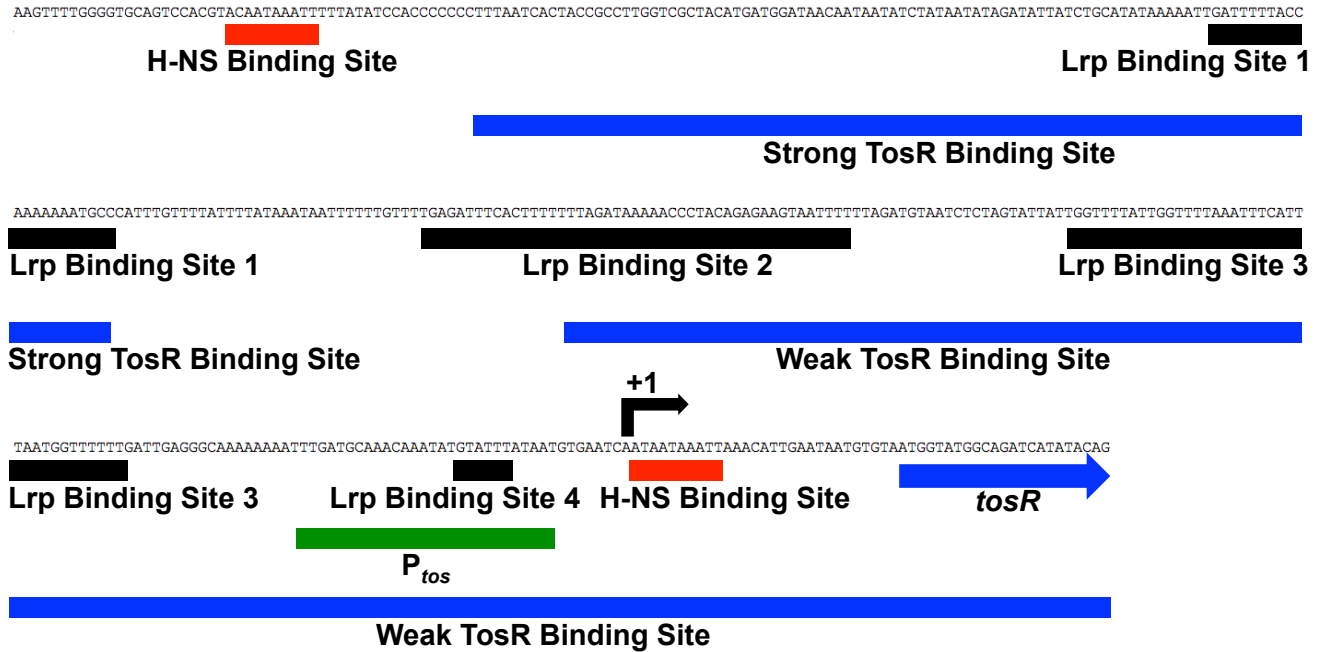


FIG S2. H-NS and Lrp binding sites are predicted in the vicinity of P_{tos}. Predicted H-NS binding sites are marked with a red bar; predicted Lrp binding sites are marked with black bars; the predicted strong and weak TosR binding sites are denoted with blue bars; P_{tos} is indicated with a green bar, and the predicted transcriptional start site is denoted with a “+1” and hooked arrow.

FIG S3.

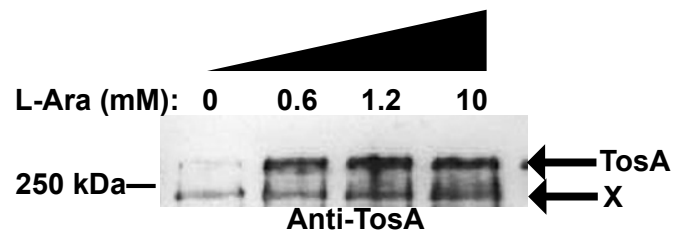


FIG S3. Native TosR negatively regulates Lrp-mediated positive regulation of the *tos* operon. A western blot was performed using total proteins obtained from a Δ *tosR* CFT073 strain harboring pBAD-*lrp* induced with the indicated concentrations of L-arabinose. TosA was detected with a polyclonal anti-TosA antibody, and bands corresponding to TosA are indicated in the figure. A non-specific band is indicated with an X. Equal amounts of proteins were loaded as determined using a Pierce BCA Protein Assay Kit.

FIG S4.

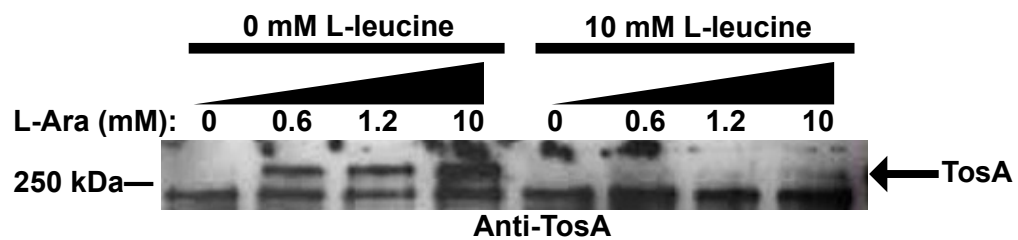


FIG S4. Exogenous L-leucine negatively regulates Lrp-mediated *tos* operon positive regulation. A western blot was performed, as above, using total proteins obtained from CFT073 harboring pBAD-*Irp* induced with the indicated concentrations of L-arabinose in M9 minimal medium with and without 10 mM L-leucine. Bands corresponding to TosA are indicated in the figure.

FIG S5.

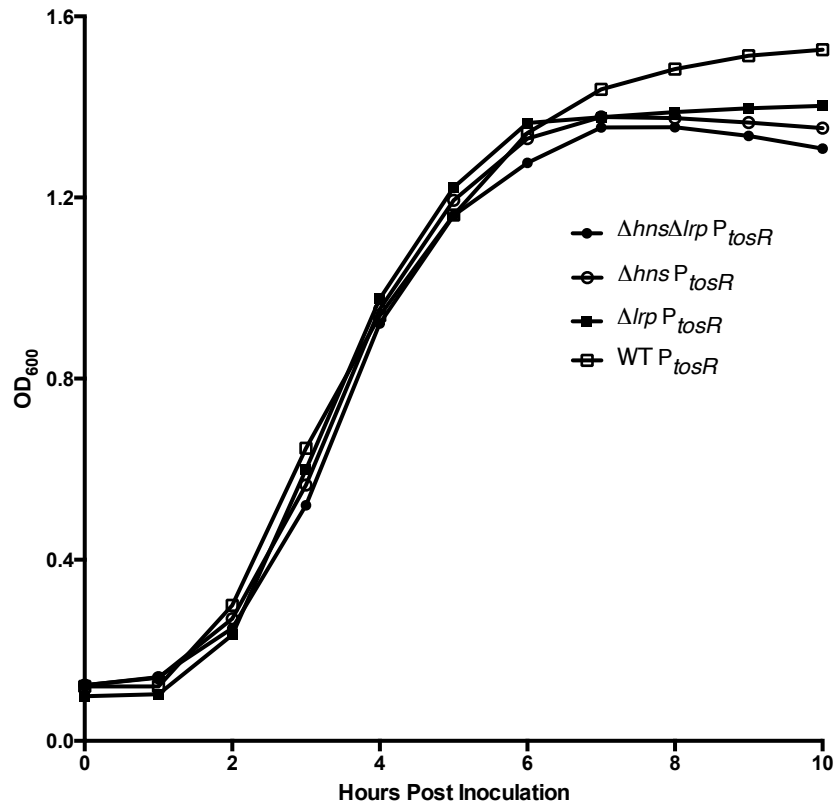


FIG S5. All CFT073 strains harboring pRS551- P_{tosR} -*lacZ* have an equivalent growth phenotype. A plot of a growth curve experiment over ten hours, with the indicated mutant and wild-type CFT073 strains harboring pRS551- P_{tosR} -*lacZ*, is shown.