



FIG S5 A *cpxA* mutant is indole irresponsive and is attenuated for pathogenesis. (A and B) *cpxA* deficient EHEC strains were grown anaerobically in the presence or absence of indole. (A) Western blot analysis on the secreted protein EspB, (B) qRT-PCR analysis on the expression of select genes. These experiments were performed in Δ*tnaA* EHEC background strain to avoid the effects of endogenous indole. (C) qRT-PCR analysis on representative virulence gene (*eae*) indicating Δ*cpxA* EHEC is attenuated for virulence gene expression. WT, Δ*cpxA* and *pcpxA* (complemented strain) EHEC strains were grown anaerobically. *P* values were determined by using one-way ANOVA. (D) qRT-PCR expression analysis of Δ*cpxA* EHEC strains with and without indole. All qRT-PCR experiments are representative of at least two independent experiments. Error bars indicate standard deviation (SD). Subjects with asterisks (**), (***) represent $p < 0.01$, and $p < 0.001$. (E) Mice were infected with either WT *C. rodentium* or Δ*cpxA* *C. rodentium*. Fecal samples were collected day 2 post-infection to assess the colonization levels

of these strains in mice. Each data point represents an individual mouse. *P*-value was determined by using Mann-Whitney *U*-test. Error bars indicate standard error of mean (SEM), * indicate $p < 0.05$. (F) Survival analysis of mice infected with either WT *C. rodentium* or $\Delta cpxA$ *C. rodentium*. A total of $n=10$ mice per group were used for the study. Statistical significance was calculated using log rank (Mantel-Cox) test, *** indicates $p < 0.001$.