

Supplemental Table 1: Deletion mutants used in this study

Strain	Deleted gene	Gene function	Phenotype
EDL933 Δ <i>stx2</i> 86-24 Δ <i>stx2</i>	<i>stx2B</i>	Stx2 B-subunit production	Stx2-deficient
EDL933 Δ <i>N</i>	<i>N</i>	Regulates most 933W genes	Phage not produced; Stx2-deficient
EDL933 Δ <i>int</i>	<i>int</i>	Regulates prophage excision	Stx2 and phage produced, prophage not excised
EDL933 Δ <i>escN</i>	<i>escN</i>	Encodes type 3 ATPase	No type 3 secretion

Supplemental Table 2: Scoring criteria for colon epithelial necrosis and neutrophil infiltrate

Lesion	Score =0	Score=1	Score=2	Score =3
Colon epithelial necrosis or apoptosis	None	Occasional surface cells	Many surface cells affected	Most to all surface cells, lesion extends into glands
Neutrophil infiltrate	None	Occasional PMNs	Scattered PMNs with at least several clusters	Many clusters or widespread infiltration in most of the field

Supplemental Table 3: Splenic necrosis in mice infected with EDL933 or non-pathogenic *E. coli*

Infection group	N	Normal	Necrosis present	Necrosis severe
Uninfected	6	6	0	0
Non-pathogenic <i>E. coli</i>	7	7	0	0
EDL933	72	12	55	5