

Table S1. Virulence genes present in Commensal gut *E. coli* LM715-1.

Gene Function	Gene
TonB-dependent hemin, ferrichrome receptor	<i>chuA</i>
Hemin transport protein HmuS	<i>chuS</i>
Periplasmic hemin-binding protein	<i>chuT</i>
Hemin ABC transporter, permease protein	<i>chuU</i>
ABC-type hemin transport system, ATPase component	<i>chuV</i>
Putative oxygen independent coproporphyrinogen III oxidase, heme uptake	<i>chuW</i>
Putative heme iron utilization protein	<i>chuX</i>
Flavin reductase	<i>chuY</i>
curli production assembly/transport protein CsgG	<i>csgG</i>
2,3-dihydro-2,3-dihydroxybenzoate dehydrogenase	<i>entA</i>
Enterobactin synthase component B	<i>entB</i>
Isochorismate synthase EntC	<i>entC</i>
Enterobactin synthase component D, phosphopantetheinyl transferase	<i>entD</i>
Enterobactin synthase component E	<i>entE</i>
Enterobactin synthase component F	<i>entF</i>
Enterobactin exporter EntS, iron-regulated	<i>entS</i>
Putative adhesin FdeC	<i>fdeC</i>
TonB-dependent receptor; Outer membrane receptor for ferric enterobactin and colicins B, D	<i>fepA</i>
Ferric enterobactin-binding periplasmic protein FepB	<i>fepB</i>
Ferric enterobactin transport ATP-binding protein FepC	<i>fepC</i>
Ferric enterobactin transport system permease protein FepD	<i>fepD</i>
Ferric enterobactin transport system permease protein FepG	<i>fepG</i>
Enterobactin esterase	<i>fes</i>
Type-1 fimbrial protein, A chain precursor	<i>fimA</i>
Type 1 fimbriae regulatory protein FimB	<i>fimB</i>
Chaperone protein FimC	<i>fimC</i>
Outer membrane usher protein FimD	<i>fimD</i>
Type 1 fimbriae regulatory protein FimE	<i>fimE</i>
Protein FimF (regulates length and adhesion of type 1 fimbriae)	<i>fimF</i>
Protein FimG (regulates length and adhesion of type 1 fimbriae)	<i>fimG</i>
Protein FimH (regulates length and adhesion of type 1 fimbriae, and mediates mannose binding)	<i>fimH</i>
Fimbrin-like protein FimI	<i>fimI</i>
Formate efflux transporter FocA	<i>focA</i>
Chaperone protein FocC	<i>focC</i>
Outer membrane usher protein FimD	<i>focD</i>
F1C Putative fimbrial adhesin precursor	<i>focH</i>
pesticin/yersiniabactin receptor protein	<i>fyuA</i>
General secretion pathway protein C	<i>gspC</i>
General secretion pathway protein D	<i>gspD</i>
General secretion pathway protein E	<i>gspE</i>
General secretion pathway protein F	<i>gspF</i>
General secretion pathway protein G	<i>gspG</i>
General secretion pathway protein H	<i>gspH</i>
General secretion pathway protein I	<i>gspI</i>
General secretion pathway protein J	<i>gspJ</i>
General secretion pathway protein K	<i>gspK</i>
General secretion pathway protein L	<i>gspL</i>
General secretion pathway protein M	<i>gspM</i>

Glycosyltransferase IroB	<i>iroB</i>
ABC transporter protein IroC	<i>iroC</i>
Trilactone hydrolase IroD	<i>iroD</i>
Periplasmic esterase IroE	<i>iroE</i>
Outer Membrane Siderophore Receptor IroN	<i>iroN</i>
iron acquisition yersiniabactin synthesis enzyme (<i>irp1</i> , polyketide synthetase)	<i>irp1</i>
yersiniabactin biosynthetic protein <i>Irp2</i>	<i>irp2</i>
Capsular polysaccharide export system periplasmic protein <i>KpsD</i>	<i>kpsD</i>
Capsular polysaccharide ABC transporter, permease protein <i>KpsM</i>	<i>kpsM</i>
Capsular polysaccharide ABC transporter, ATP-binding protein <i>KpsT</i>	<i>kpsT</i>
outer membrane protein A	<i>ompA</i>
Pap fimbrial major pilin protein	<i>papA</i>
Outer membrane usher protein <i>PapC</i>	<i>papC</i>
Chaperone protein <i>PapD</i>	<i>papD</i>
Fimbrial adapter <i>PapF</i>	<i>papF</i>
PAP fimbrial minor pilin protein	<i>papH</i>
regulatory protein <i>PapI</i>	<i>papI</i>
Per-activated serine protease autotransporter enterotoxin <i>EspC</i> / autotransporter domain, T5aSS type secretion	<i>pic</i>
Putative F1C and S fimbrial switch Regulatory protein	<i>sfaB</i>
S fimbrial switch regulatory protein <i>SfaC</i>	<i>sfaC</i>
S fimbriae minor subunit <i>SfaD</i>	<i>sfaD</i>
S fimbriae outer membrane usher <i>SfaF</i>	<i>sfaF</i>
S fimbriae minor subunit <i>SfaG</i>	<i>sfaG</i>
regulatory protein <i>SfaX</i>	<i>sfaX</i>
regulatory protein <i>SfaY</i>	<i>sfaY</i>
outer membrane heme/hemoglobin receptor <i>ShuA</i>	<i>shuA</i>
Tir domain containing protein <i>TcpC</i>	<i>tcpC</i>
Hemoglobin protease	<i>vat</i>
E. coli common pilus chaperone <i>EcpE</i>	<i>yagV/lecE</i>
iron acquisition regulator (<i>YbtA</i> , AraC-like, required for transcription of <i>FyuA/psn,Irp2</i>)	<i>ybtA</i>
yersiniabactin siderophore biosynthetic enzyme, 2,3-dihydroxybenzoate-AMP ligase	<i>ybtE</i>
Iron siderophore ABC transporter, permease/ATP-binding protein <i>YbtP</i>	<i>ybtP</i>
Iron siderophore ABC transporter, permease/ATP-binding protein <i>YbtQ</i>	<i>ybtQ</i>
salicylate synthase <i>Irp9</i> of siderophore biosynthesis	<i>ybtS</i>
Iron acquisition yersiniabactin synthesis enzyme <i>YbtT</i>	<i>ybtT</i>
Yersiniabactin synthetase, thiazolinyil reductase component <i>Irp3</i>	<i>ybtU</i>
putative signal transducer	<i>ybtX</i>
regulator protein <i>EcpR</i>	<i>ykgK/lecR</i>