

Supplementary Table S1: Primer for VPs generation (FW\_forward, RV\_reverse)

Protein	Epitop shortcut	Epitop sequence	Primer
FimH	EC_1	NVYVNLPVVNV	FW CAACGTGTATGTGAACCTGGCGCCGGTGGTGAACGTGC RV CCGGGCACGTTACCACCGGCCAGGTTACATACACGTTGAGCT
FimH	EC_2	YLTPVSSAGG	FW CTATCTGACCCCCGGTGGCAGCAGCGCCGGGCC RV CCGGGGCCGCCGCCGCTGCTACCGGGGTCAAGATAGAGCT
FimH	EC_3	PGSVPPIPLTVYC	FW CCCGGGCAGCGTGCCGATTCCCGTGACCGTGTATTGCC RV CCGGGGCAATACCGTCAGCGGAATCGGCACGCTGCCGGGAGCT
OmpG	EC_4	HYVDEPGKDT	FW CCATTATGTGGATGAACCGGGAAAGATAACCC RV CCGGGGGTATCTTGGCCGGTTCATCCACATAATGGAGCT
OmpG	EC_5	FNMDDSRNNGEF	FW CTTAACATGGATGATAGCCGAACAACGGCAATTTC RV CCGGAAATTGCCGGTTGCGGCTATCCATGTTAAAGAGCT

Supplementary Table S2: Overview of identified surface proteins related to bacterial strain *E.coli* O157:H7 EDL933

SeqID	Protein	Localisation
Z0152	yadN putative fimbrial protein	Extracellular
Z0375	eaeH putative adhesin	Outer Membrane
Z0608	putative outer membrane export protein	Outer Membrane
Z0639	hypothetical protein	Extracellular
Z0698	nfrA bacteriophage N4 receptor, outer membrane protein	Outer Membrane
Z0872	ybgD putative fimbriae structural protein	Extracellular
Z0980	putative tail component of prophage CP-933K	Extracellular
Z0981	lomK putative outer membrane protein of prophage CP-933K	Outer Membrane
Z1026	fiu putative outer membrane receptor for iron transport	Outer Membrane
Z1149	hypothetical protein	Extracellular
Z1151	hypothetical protein	Outer Membrane
Z1178	putative receptor	Outer Membrane
Z1211	putative adhesin	Outer Membrane
Z1380	putative tail component encoded by cryptic prophage CP-933M; partial putative outer membrane protein Lom precursor encoded by cryptic prophage CP-933M	Extracellular
Z1381	lomW putative outer membrane protein Lom precursor of	Outer Membrane
Z1385	putative secreted protein encoded by cryptic prophage CP-933M	Extracellular
Z1489	bacteriophage BP-933W	Outer Membrane
Z1516	hypothetical protein	Extracellular
Z1588	hypothetical protein	Extracellular
Z1590	hypothetical protein	Outer Membrane
Z1617	putative receptor	Outer Membrane
Z1651	putative adhesin	Outer Membrane
Z1916	putative tail protein (partial) of prophage CP-933X	Extracellular
Z1917	putative outer membrane protein of prophage CP-933X	Outer Membrane
Z1972	partial putative adhesion protein	Extracellular
Z2066	unknown protein encoded by prophage CP-933O	Extracellular
Z2109	hypothetical phage protein similar to YjhS encoded within prophage CP-933O	Extracellular
Z2140	putative tail component of prophage CP-933O	Extracellular
Z2145	putative tail component of prophage CP-933O	Extracellular
Z2146	putative outer membrane protein Lom precursor of prophage CP-933O	Outer Membrane
Z2195	ydeK autotransporter family porin	Outer Membrane
Z2196	ydeU putative ATP-binding component of a transport system and adhesin protein	Outer Membrane

Z2213	yddB hypothetical protein	Outer Membrane
Z2323	putative surface-exposed virulence protein	Extracellular
	partial putative outer membrane protein Lom precursor encoded by prophage CP-933R	
Z2342	partial putative outer membrane protein Lom precursor encoded by prophage CP-933R	Outer Membrane
Z2343	partial putative outer membrane protein Lom precursor encoded by prophage CP-933R	Outer Membrane
Z2462	ompG outer membrane protein	Outer Membrane
Z2475	mycjM Glycosidase	Extracellular
	lomP putative Lom-like outer membrane protein of cryptic prophage CP-933P	
Z6028	putative tail component of cryptic prophage CP-933P	Outer Membrane
Z6029	uidC putative glucuronide porin	Outer Membrane
Z2619	putative secreted protein	Extracellular
Z3023	putative secreted protein	Extracellular
Z3026	unknown protein encoded within prophage CP-933U	Extracellular
Z3075	lomU putative outer membrane protein of prophage CP-933U	Outer Membrane
Z3159	putative outer membrane receptor for iron compound or colicin	Outer Membrane
Z3310	putative Lom-like outer membrane protein of prophage CP-933V	Outer Membrane
Z3311	putative tail fiber protein of prophage CP-933V	Extracellular
Z3449	yejO putative ATP-binding component of a transport system	Extracellular
Z3487	yfaL putative ATP-binding component of a transport system	Outer Membrane
Z3920	hypothetical protein	Extracellular
Z3955	putative enzyme	Extracellular
Z5918	FimH protein	Extracellular