

Supplementary Table S1: Virulence genes

A. Virulence genes of *C. jejuni* strain

No .	GENE	% COVERA GE	% IDENTI TY	ACCESSIO N	ROLE
1	pebA	100	99.23	NP_282073	Adhesion
2	cadF	100	98.75	NP_282616	Adhesion
3	jlpA	100	98.39	NP_282133	adhesin
4	ciaB	100	99.13	NP_282066	Invasion
5	ciaC	100	98.75	YP_002344633	Invasion
6	flaC	100	99.87	NP_281892	Invasion
7	flaD	100	96.94	NP_282040	Flagella biosynthesis
8	flhA	100	99.86	NP_282036	Flagella biosynthesis, flagellar type III secretion system (T3SS)
9	fliP	100	99.18	NP_281981	Flagella biosynthesis, flagellar type III secretion system (T3SS)
10	fliR	100	98.83	NP_282326	Flagella biosynthesis, flagellar type III secretion system (T3SS)
11	flgS	100	99.71	YP_002344200	flgSR two-component system (TCS) for flagellar gene expression
12	flgR	100	99	NP_282174	flgSR two-component system (TCS) flagellar gene expression
13	flgA	100	99.7	YP_002344176	Flagella biosynthesis, motility, and involved in biofilm formation
14	flaA	99.77	92.91	NP_282485	Flagellin gene
15	flaB	99.77	93.6	NP_282484	Flagellin gene
16	flgG	100	100	NP_281870	Flagellar basal-body rod protein
17	flgF	100	99.63	NP_281869	Length control of polar flagella (negatively regulating FlaA filament assembly)
18	flgH	100	99.71	NP_281859	Flagellar L-ring protein
19	pseE/maf5	100	97.08	NP_282483	Flagellin glycosylation/motility accessory factor
20	fliN	100	99.35	NP_281542	Flagellar motor switch protein,C-ring
21	fliG	100	99.32	NP_281510	C-ring
22	motA	100	98.71	NP_281528	flagellar rotation
23	motB	100	99.73	NP_281527	flagellar rotation
24	flhB	100	99.91	NP_281526	flagellar export apparatus (secretion)
25	fliH	100	99.76	NP_281511	flagellar export apparatus (secretion)
26	fliF	100	99.05	NP_281509	Rotor
27	cheV	100	99.79	YP_002343726	Chemotaxis protein
28	cheA	100	99.26	YP_002343725	Chemotaxis protein
29	cheW	100	100	YP_002343724	Chemotaxis protein

30	cheY	100	99.75	YP_002344511	chemotaxis protein
31	pseB	100	97.11	NP_282439	Pse biosynthetic pathway
32	pseC	100	95.4	NP_282440	Pse biosynthetic pathway
33	pseF	100	95.42	NP_282457	Pse biosynthetic pathway
34	pseG	100	98.91	NP_282458	Pse biosynthetic pathway
35	pseH	100	94.09	NP_282459	Pse biosynthetic pathway
36	pseA	100	99.3	NP_282462	Pse biosynthetic pathway
37	pseI	99.32	95.61	NP_282463	Pse biosynthetic pathway
38	ptmB	100	99.86	NP_282477	flagellin proteins post translational modification
39	ptmA	99.74	97.79	NP_282478	flagellin proteins post translational modification
40	pflA	100	99.79	NP_282693	component of medial disk
41	fliQ	100	98.52	NP_282802	flagellar export apparatus
42	flgK	100	99.18	NP_282606	Flagellar hook-associated protein
43	fliD	99.07	97.2	NP_281732	Flagellar hook-associated protein 2
44	flgM	100	98.99	YP_002344846	Anti- σ -factor
45	flgJ	100	99.12	YP_002344845	Rod assembly protein
46	flgI	100	99.05	NP_282602	Flagellar P-ring protein
47	kpsM	100	90.93	NP_282588	Capsule polysaccharide ABC transporter permease
48	kpsT	100	93.97	NP_282587	Capsule polysaccharide ABC transporter ATP-binding protein
49	kpsE	100	97.41	NP_282586	Capsule polysaccharide ABC transporter permease
50	kpsD	100	98.73	NP_282585	Capsule polysaccharide export system periplasmic protein
51	kpsF	99.58	94.07	NP_282584	CPS biosynthesis
52	hddA	100	94.51	NP_282566	putative D-glycero-D-manno-heptose 7-phosphate kinase
53	gmhA2	100	94.55	NP_282565	phosphoheptose isomerase
54	gmhA	100	94.12	NP_282296	Phosphoheptose isomerase
55	gmhB	100	95.73	NP_282299	D-glycero-alpha-D-manno-heptose-1,7-bisphosphate 7-phosphatase
56	kpsC	95.31	95.09	NP_282555	Capsule polysaccharide modification protein
57	kpsS	100	98.56	NP_282554	CPS biosynthesis
58	fliL	100	97.95	NP_282549	Motor
59	flgQ	100	99.33	YP_002344420	Flagellar-associated protein FlgQ
60	flgP	100	98.26	YP_002344421	Flagellar biosynthetic protein FliP
61	fliW	100	100	YP_002344468	flagellar assembly protein

62	waaC	100	98.25	NP 282281	Heptosyltransferase I
63	htrB	100	97.52	NP 282282	acyltransferase
64	Cj1135	98.97	95.04	NP 282283	glucosyltransferase
65	waaV	95.27	91.73	NP 282294	Lipooligosaccharide biosynthesis glycosyltransferase
66	waaF	99.79	93.42	NP 282295	ADP-heptose--LPS heptosyltransferase II
67	hldE	100	93.72	NP 282297	phosphorylation of D-glycero-D-manno- heptose 7-phosphate; ADP transfer from ATP to D-glycero-beta-D-manno-heptose 1-phosphate
68	hldD	100	97.69	NP 282298	ADP-glyceromanno-heptose 6-epimerase
69	fliI	100	98.41	NP 281405	H(+)-transporting two-sector ATPase
70	eptC	100	97.92	YP_0023436 98	Lipid A/FlgG phosphoethanolamine transferase
71	rpoN	100	99.04	YP_0023440 93	RNA polymerase sigma-54 factor
72	fliS	100	100	NP 281733	Flagellar secretion chaperone
73	flaG	100	99.45	NP 281731	Flagellar protein
74	flgB	100	97.69	NP 281712	Flagellar basal body rod protein
75	flgC	100	99.39	NP 281711	Flagellar basal-body rod protein
76	fliE	100	99.33	NP 281710	Flagellar hook-basal body complex protein
77	fliK	99.83	99.67	NP 281263	Putative flagellar hook-length control protein
78	flgD	100	99.44	NP 281264	Basal-body rod modification protein
79	flgE	100	100	NP 281265	flagellar hook protein
80	fliY	100	99.88	NP 281274	Flagellar motor switch protein
81	fliM	100	98.43	NP 281275	Flagellar motor switch protein
82	fliA	100	99.86	NP 281276	RNA polymerase sigma factor for flagellar operon
83	flhG	100	99.77	NP 281278	Polar flagellar biogenesis
84	flhF	100	99.66	NP 281279	Flagellar biosynthesis protein
85	cdtC	100	100	NP 281290	toxin activity
86	cdtB	100	99.5	NP 281291	toxin activity
87	cdtA	100	99.5	NP 281292	toxin activity

B. Virulence genes of *C. coli* strain

No .	GENE	%COVERA GE	% IDENTIT Y	ACCESSI ON	ROLE
1	flaD	100	93.25	NP_282040	Flagella biosynthesis
2	flgC	100	91.11	NP_281711	Flagellar basal-body rod protein
3	flgB	100	90.97	NP_281712	Flagellar basal body rod protein
4	flaG	100	99.73	NP_281731	Flagellar protein
5	fliD	100	96.38	NP_281732	Flagellar hook-associated protein 2
6	fliS	100	91.47	NP_281733	Flagellar secretion chaperone
7	cheW	100	100	YP_0023437 24	Chemotaxis protein
8	cheA	100	93.77	YP_0023437 25	Chemotaxis protein
9	cheV	100	92.37	YP_0023437 26	Chemotaxis protein
10	fliN	100	95.15	NP_281542	Flagellar motor switch protein,C-ring
11	hddC	96.25	92.51	NP_282564	D-glycero-D-manno-heptose 1-phosphate guanosyltransferase
12	gmhA2	100	93.23	NP_282565	phosphoheptose isomerase
13	hddA	100	94.61	NP_282566	putative D-glycero-D-manno-heptose 7-phosphate kinase
14	kpsF	98.95	94.88	NP_282584	CPS biosynthesis
15	kpsD	100	99.28	NP_282585	Capsule polysaccharide export system periplasmic protein
16	kpsE	100	97.05	NP_282586	Capsule polysaccharide ABC transporter permease
17	kpsT	100	93.97	NP_282587	Capsule polysaccharide ABC transporter ATP-binding protein
18	flgJ	100	96.2	YP_0023448 45	Rod assembly protein
19	flgM	100	98.99	YP_0023448 46	Anti- σ -factor
20	flgK	100	94.31	NP_282606	Flagellar hook-associated protein
21	fliM	99.72	91.94	NP_281275	Flagellar motor switch protein
22	fliY	100	98.81	NP_281274	Flagellar motor switch protein
23	flgE	100	97.01	NP_281265	flagellar hook protein
24	flgD	99.32	98.98	NP_281264	Basal-body rod modification protein
25	fliK	49.36	98.2	NP_281263	Putative flagellar hook-length control protein
26	fliK	53.87	96.62	NP_281263	Putative flagellar hook-length control protein
27	pseB	100	94.43	NP_282439	Pse biosynthetic pathway
28	pseC	100	94.61	NP_282440	Pse biosynthetic pathway
29	pseF	100	95.71	NP_282457	Pse biosynthetic pathway
30	pseG	100	98.91	NP_282458	Pse biosynthetic pathway

31	pseH	100	93.88	NP_282459	Pse biosynthetic pathway
32	pseA	100	98.94	NP_282462	Pse biosynthetic pathway
33	pseI	100	97.77	NP_282463	Pse biosynthetic pathway
34	maf4	99.33	90.14	YP_002344724	Flagellin glycosylation
35	Cj1420c	100	99.87	NP_282561	capsule polysaccharide biosynthesis
36	Cj1419c	100	99.61	NP_282560	capsule polysaccharide biosynthesis
37	Cj1417c	100	98.67	NP_282558	capsule polysaccharide biosynthesis
38	Cj1416c	99.87	98.95	NP_282557	capsule polysaccharide biosynthesis
39	cysC	100	99.03	NP_282556	capsule polysaccharide biosynthesis
40	kpsC	99.95	95.32	NP_282555	Capsule polysaccharide modification protein
41	kpsS	100	98.65	NP_282554	CPS biosynthesis
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48	waaV	96.85	93.37	NP_282294	Glycosyltransferase
49	waaF	98.02	94.93	NP_282295	ADP-heptose--LPS heptosyltransferase II
50	gmhA	100	95.19	NP_282296	Phosphoheptose isomerase
51	hldE	100	93.43	NP_282297	phosphorylation of D-glycero-D-manno-heptose 7-phosphate; ADP transfer from ATP to D-glycero-beta-D-manno-heptose 1-phosphate
52	hldD	100	98.01	NP_282298	ADP-glyceromanno-heptose 6-epimerase
53	flgH	100	98.71	NP_281859	Flagellar L-ring protein