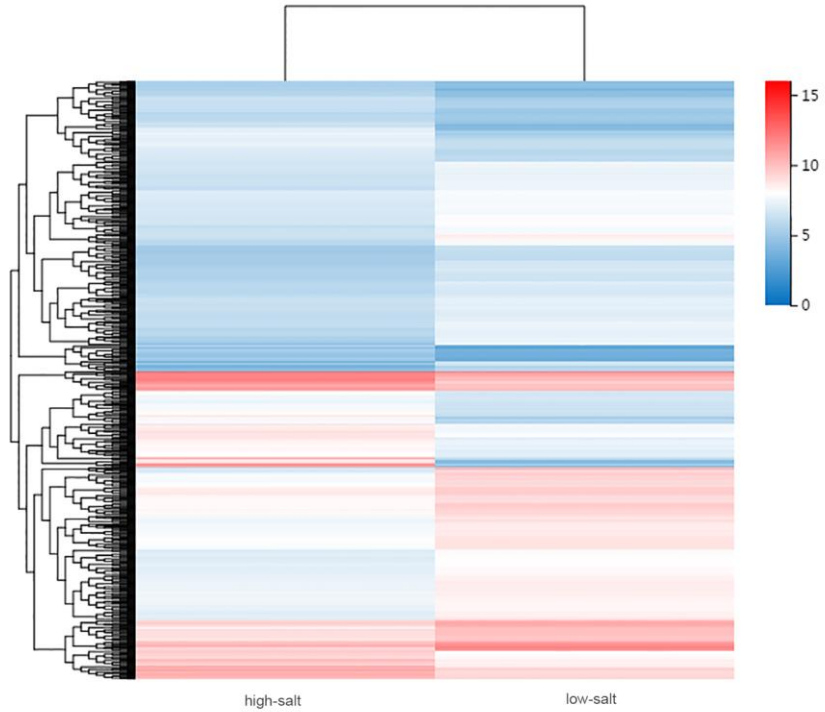


1

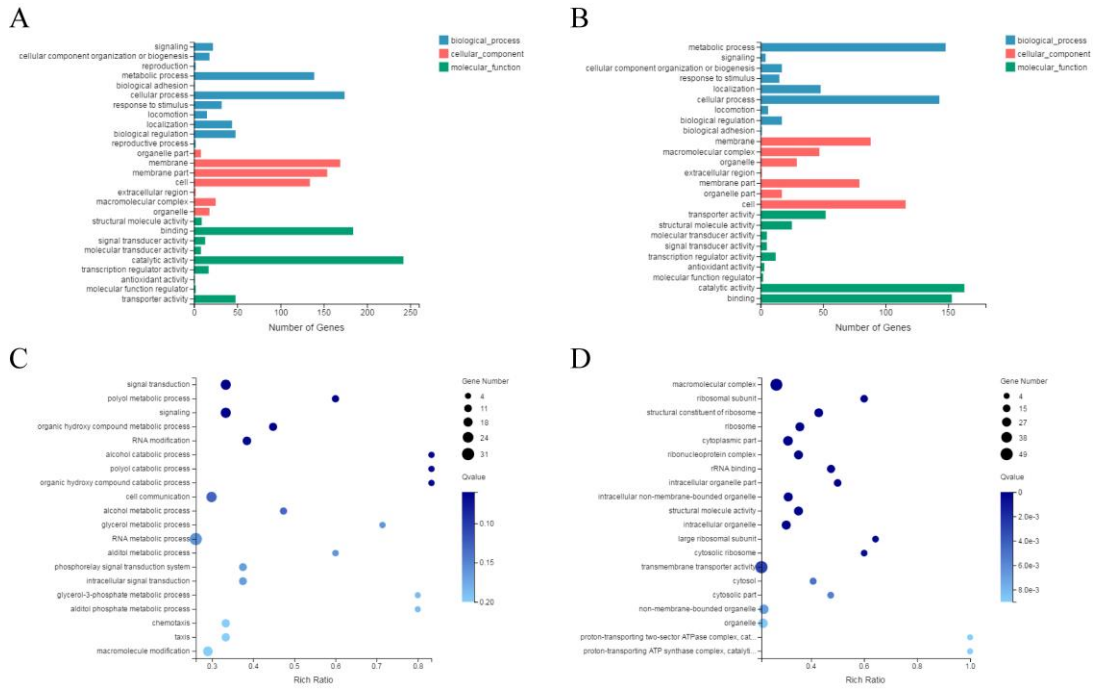
2 **Figure S1.** Sequence length distribution of *V. fujianensis* transcripts analyzed in this study.

3

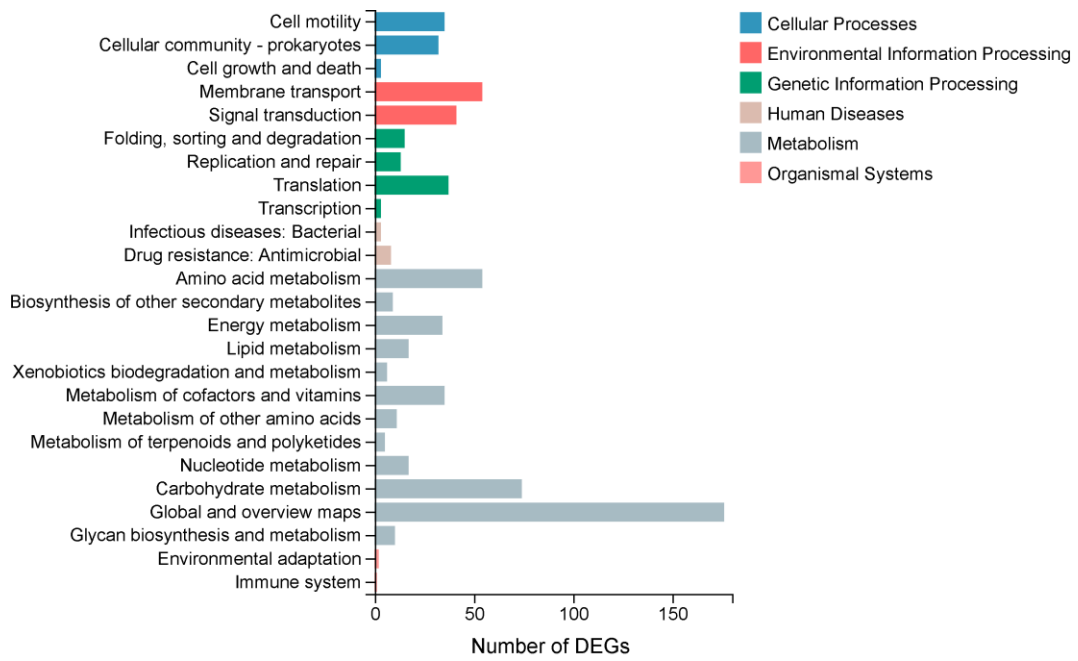


4

5 **Figure S2.** Differentially expressed genes (DEGs) cluster analysis of gene expression patterns
 6 between the high-salt and low-salt condition. The red color indicates high relative expression,
 7 and the blue color indicates low relative expression.



10 **Figure S3.** (A) Functional classification of gene ontology (GO) annotations of the
 11 up-regulated differentially expressed genes (DEGs). (B) Functional classification of GO
 12 annotations of the down-regulated DEGs. (C) Bubble charts of GO enrichment analysis of the
 13 up-regulated DEGs. (D) Bubble charts of GO enrichment analysis of the down-regulated
 14 DEGs. The x-axis corresponds to fold enrichment values while the y-axis indicates the top 20
 15 GO enriched terms. Size of the bubble indicates the number of significant genes in the given
 16 enriched term.



18

19 **Figure S4.** Functional classification of KEGG pathway of differentially expressed genes

20 (DEGs). The y-axis indicates the name of the KEGG metabolic pathways. The x-axis indicates

21 the number of the total DEGs annotated between high-salt and low-salt condition.

Table S1. Overview of 16S rRNA gene sequences of *Vibrio* species analyzed in this study.

No.	Species	Strain	Isolation Region	Isolation Source	Isolation Year	16S rRNA Accession
1	<i>Vibrio aerogenes</i>	ATCC 700797 ^T	China, Taiwan	Seagrass bed sediment	1993	AF124055
2	<i>Vibrio aestivus</i>	CECT 7558 ^T	Spain	Coastal seawater	2008	HE613734
3	<i>Vibrio aestuarianus</i>	ATCC 35048 ^T	USA	Oyster	-	X74689
4	<i>Vibrio agarivorans</i>	CECT 5085 ^T	Spain	Seawater	1996	AJ310647
5	<i>Vibrio albensis</i>	ATCC 14547	Elbe River	Fish	-	EF032499
6	<i>Vibrio alfacensis</i>	CAIM 1831 ^T	Spain	Gill	2009	JF316656
7	<i>Vibrio alginolyticus</i>	ATCC 17749 ^T	Japan	Metamorphic horse mackerel	-	X56576
8	<i>Vibrio algiovor</i>	SA2 ^T	Japan	Turbo cornutus	2013	LC060680
9	<i>Vibrio anguillarum</i>	ATCC 19264 ^T	Norge	Sick squid	1956	X16895
10	<i>Vibrio antiquarius</i>	BV25Ex	USA	Oyster	2007	AF319769
11	<i>Vibrio aphrogenes</i>	CA-1004 ^T	Japan	Seawater	1994	KX713151
12	<i>Vibrio areninigrae</i>	KCTC 22122 ^T	South Korea	Soesaggak Beach, black sand	-	EU143360
13	<i>Vibrio artabrorum</i>	LMG 23865 ^T	Spain	Ruditapes philippinarum	2005	EF599164
14	<i>Vibrio astriarenae</i>	JCM 19233 ^T	Japan	Coral reef seawater	-	KP342514
15	<i>Vibrio atlanticus</i>	CECT 7223 ^T	Spain	Ruditapes philippinarum	2005	EF599163
16	<i>Vibrio atypicus</i>	HHS02 ^T	China	Penaeus chinensis	2007	FJ009624
17	<i>Vibrio azureus</i>	NBRC 104587 ^T	Japan	Seawater	2005	AB428897
18	<i>Vibrio barjaei</i>	3062 ^T	Spain	Ruditapes decussatus broodstock	2011	LN867554
19	<i>Vibrio bivalvicida</i>	605 ^T	Spain	Venerupis decussata	2012	HF568951
20	<i>Vibrio brasiliensis</i>	LMG 20546 ^T	Brazil	Scallop hatchery	1999	AJ316172
21	<i>Vibrio breoganii</i>	CECT 7222 ^T	Spain	Ruditapes decussatus	2004/2005	EF599161
22	<i>Vibrio campbellii</i>	ATCC 25920 ^T	USA	Seawater	1971	X56575
23	<i>Vibrio caribbeanicus</i>	DSM 23640 ^T	Netherlands	Scleritoderma cyanea (marine sponge)	2005	GU223601

24	<i>Vibrio casei</i>	WS 4539 ^T	Germany	Surface of French smear ripened cheese	2010	FJ968722
25	<i>Vibrio celticus</i>	LMG 23850 ^T	Spain	Ruditapes decussatus	2004	EF599162
26	<i>Vibrio chagasii</i>	LMG 21353 ^T	Norge	Gut of fish	1997	AJ316199
27	<i>Vibrio cholerae</i>	CECT 514 ^T	Asia	Cholera patient	-	X76337
28	<i>Vibrio cidicii</i>	2756-81 ^T	-	River water	1981	KJ807108
29	<i>Vibrio cincinnatiensis</i>	NCTC 12012 ^T	USA	Patient	-	X74698
30	<i>Vibrio comitans</i>	GHG2-1 ^T	Japan	Gut of abalone	2005	DQ922915
31	<i>Vibrio coralliilyticus</i>	LMG 20984 ^T	Indian Ocean	Coral	1999	AJ440005
32	<i>Vibrio cortegadensis</i>	LMG 27474 ^T	Spain	Venerupis decussata	2004/2005	HF955040
33	<i>Vibrio crassostreae</i>	LGP 7 ^T	France	Atlantic coast	2001	EF094887
34	<i>Vibrio crosai</i>	CAIM 1437 ^T	Mexico	Crassostrea gigas (oyster)	2003	JQ434120
35	<i>Vibrio cyclitrophicus</i>	P-2P44 ^T	USA	Seabed sediment	-	AM162656
36	<i>Vibrio diabolicus</i>	LMG 19805 ^T	East Pacific	Pompeii worm	1999	X99762
37	<i>Vibrio diazotrophicus</i>	ATCC 33466 ^T	Canada	Gut of sea urchin	1981	X74701
38	<i>Vibrio europaeus</i>	PP-638 ^T	Spain	Shellfish hatchery	2001	AY792622
39	<i>Vibrio ezurae</i>	LMG 19970 ^T	Japan	Gut of abalone	1999	AY426980
40	<i>Vibrio fluvialis</i>	ATCC 33809 ^T	Bangladesh	Patient	1976	X74703
41	<i>Vibrio fortis</i>	CAIM 629 ^T	Ecuador	Vannamei larva	1996	AJ514916
42	<i>Vibrio fujianensis</i>	FJ201301 ^T	China	Aquaculture water	2013	KY951464
43	<i>Vibrio furnissii</i>	ATCC 35016 ^T	Japan	Human feces	1969	X76336
44	<i>Vibrio galathea</i>	S2757 ^T	Australia	Mussel	2007	FJ457478
45	<i>Vibrio gallaecicus</i>	CECT 7244 ^T	Spain	Ruditapes philippinarum	2004/2005	EU541605
46	<i>Vibrio gallicus</i>	CIP 107863	France	Abalone	2001	AY257972
47	<i>Vibrio gazogenes</i>	ATCC 29988 ^T	USA	Saltwater marsh	1978	X74705
48	<i>Vibrio gigantis</i>	LGP 13 ^T	France	Cultured oysters	2005	EF094888
49	<i>Vibrio haliotocoli</i>	IAM 14596 ^T	Japan	Gut of abalone	1991	AB000390

50	<i>Vibrio hangzhouensis</i>	cn83 ^T	China	Seabed sediment	-	EU082035
51	<i>Vibrio harveyi</i>	NCIMB1280 ^T	USA	Dead amphip	1935	AY750575
52	<i>Vibrio hemicentroti</i>	AlyHP32	South Korea	Gut of Hemicentrotus pulcherrimus	2011	JX204734
53	<i>Vibrio hepatarius</i>	LMG 20362 ^T	Ecuador	Litopenaeus vannamei	1996	AJ345063
54	<i>Vibrio hippocampi</i>	BFLP-4 ^T	Spain	Intestinal content of Hippocampus guttulatus	-	FN421434
55	<i>Vibrio hispanicus</i>	LMG 13240 ^T	Spain	Artemia sp.	1991	AY254039
56	<i>Vibrio hyugaensis</i>	090810a ^T	Japan	Seawater	2010	LC004912
57	<i>Vibrio ichthyenteri</i>	ATCC 700023 ^T	Japan	Intestine of japanese flounder larvae	-	AJ421445
58	<i>Vibrio inhibens</i>	BFLP-10 ^T	Japan	Hippocampus guttulatus	-	FN687911
59	<i>Vibrio injenensis</i>	KCTC 32233 ^T	South Korea	Human blood	2015	KC634073
60	<i>Vibrio inusitatus</i>	RW14 ^T	USA	Gut of abalone	2005	DQ922920
61	<i>Vibrio ishigakensis</i>	JCM 19231 ^T	Japan	Seawater	-	KP790249
62	<i>Vibrio jasicida</i>	CAIM 1864 ^T	New Zealand	Haemolymph of Rock lobster	1999	AB562589
63	<i>Vibrio kanaloae</i>	LMG 20539 ^T	France	Oyster larva	1998	AM162657
64	<i>Vibrio lentus</i>	CECT 5110 ^T	Spain	Oyster	-	AJ278881
65	<i>Vibrio littoralis</i>	DSM 17657 ^T	South Korea	Coastal seawater	-	DQ097523
66	<i>Vibrio madracius</i>	A-354 ^T	Brazil	Coral	-	KC751062
67	<i>Vibrio mangrovi</i>	MSSRF38 ^T	India	mangrove-associated wild rice	2009	EU144014
68	<i>Vibrio marisflavi</i>	CECT 7928 ^T	China	Seawater	2008	FJ847833
69	<i>Vibrio maritimus</i>	R-40493 ^T	Brazil	Coral	2005	GU929925
70	<i>Vibrio mediterranei</i>	50 ^T	Spain	Seawater	-	X74710
71	<i>Vibrio metoecus</i>	OP3H ^T	USA	Saline pond	2006	KJ647312
72	<i>Vibrio metschnikovii</i>	JCM 21189 ^T	Asia	Sick poultry	1888	X74711
73	<i>Vibrio mexicanus</i>	CAIM 1540 ^T	Mexico	Oyster	2004	JQ434105
74	<i>Vibrio mimicus</i>	ATCC 33653 ^T	USA	Patient's ear	-	X74713
75	<i>Vibrio mytili</i>	CECT 632 ^T	Spain	Mussel	1985	X99761

76	<i>Vibrio natriegens</i>	NBRC 15636 ^T	USA	Saltwater marsh	-	X74714
77	<i>Vibrio navarrensis</i>	CIP 103381 ^T	Spain	Sewage	1982	X74715
78	<i>Vibrio neonatus</i>	HDD3-1 ^T	Japan	Gut of Japanese abalones	1999	AY426979
79	<i>Vibrio neptunius</i>	LMG 20536	Brazil	Scallop hatchery	1998	AJ316171
80	<i>Vibrio nereis</i>	ATCC 25917 ^T	USA	Seawater	-	X74716
81	<i>Vibrio nigripulchritudo</i>	ATCC 27043 ^T	USA	Seawater	-	X74717
82	<i>Vibrio ordalii</i>	ATCC 33509 ^T	USA	Oncorhynchus kisutch	1973	X74718
83	<i>Vibrio orientalis</i>	ATCC 33934 ^T	China	Seawater	-	X74719
84	<i>Vibrio ostreicida</i>	PP-203 ^T	Spain	Ostrea edulis	-	AJ296159
85	<i>Vibrio owensii</i>	CAIM 1854 ^T	Australia	Diseased larvae	2007	GU018180
86	<i>Vibrio pacinii</i>	LMG 19999 ^T	China	Chinese shrimp	1996	AJ316194
87	<i>Vibrio pacinii</i>	MSSRF3 ^T	India	Mangrove-associated wild rice	2006	DQ847123
88	<i>Vibrio palustris</i>	EAod9 ^T	Spain	Arthrocnemum macrostachyum	2014	KU320862
89	<i>Vibrio panuliri</i>	LBS2 ^T	Indian Ocean, Andaman	Panuliruspeniciliatus	2012	KF487035
90	<i>Vibrio parahaemolyticus</i>	ATCC 17802 ^T	Japan	Patient	1950	AF388386
91	<i>Vibrio pectenicida</i>	A365 ^T	France	Pecten maximus	1991	Y13830
92	<i>Vibrio penaeicida</i>	DSM 14398 ^T	Japan	Penaeus japonicus (Kuruma shrimp)	1994	AJ421444
93	<i>Vibrio ponticus</i>	CECT 5869 ^T	Spain	Cultured mussel	1986	AJ630103
94	<i>Vibrio porteresiae</i>	DSM 19223 ^T	India	Porteresia coarctata	2006	EF488079
95	<i>Vibrio proteolyticus</i>	ATCC 15338 ^T	USA	Intestinal content of louse	-	X74723
96	<i>Vibrio quintilis</i>	CECT 7734 ^T	Spain	Coastal seawater	2008	HE613736
97	<i>Vibrio renipiscarius</i>	CECT 8603 ^T	Spain	Sparus aurata	2000	HG931125
98	<i>Vibrio rotiferianus</i>	CAIM 577 ^T	Belgium	Rotifer from water	1999	AJ316187
99	<i>Vibrio ruber</i>	VR1 ^T	China, Taiwan	Seawater	2011	AF462458
100	<i>Vibrio rumoiensis</i>	S-1 ^T	Japan	waste water	1999	AB013297

101	<i>Vibrio sagamiensis</i>	NBRC 104589 ^T	Japan	Seawater	2005	AB428909
102	<i>Vibrio salilacus</i>	DSG-S6 ^T	China	Saltwater lake	2013	KP234045
103	<i>Vibrio scopthalmi</i>	LMG 19158 ^T	Spain	Scophthalmus maximus	1990	HM771340
104	<i>Vibrio sinaloensis</i>	CAIM 797 ^T	Mexico	Spotted rose snapper spleen	2003	DQ451211
105	<i>Vibrio sonorensis</i>	CAIM 1076 ^T	Mexico	Crassostrea gigas	2003	KT732014
106	<i>Vibrio spartinae</i>	SMJ21 ^T	Spain	Heavy metal polluted estuary	2013	KX583607
107	<i>Vibrio splendidus</i>	LMG 4042 ^T	-	Fish	-	AJ515230
108	<i>Vibrio superstes</i>	G3-29 ^T	Australia	Abalone	2000	AY155585
109	<i>Vibrio tapetis subsp. britannicus</i>	CETE 8161 ^T	UK	Hippoglossus hippoglossus	2001	HE795148
110	<i>Vibrio tapetis subsp. tapetis</i>	CECT4600 ^T	France	Venerupis philippinarum	1990	Y08430
111	<i>Vibrio tasmaniensis</i>	LMG 20012 ^T	Australia	Fish	-	AJ316192
112	<i>Vibrio thalassae</i>	CECT 8203 ^T	Mediterranean Sea	Seawater	2008	HF541973
113	<i>Vibrio toranzoniae</i>	CECT 7225 ^T	Spain	Clams of Ruditapes decussatus	2004	HE978310
114	<i>Vibrio tritonius</i>	AM2 ^T	Japan	Gut of marine invertebrate	2008	GU951698
115	<i>Vibrio tubiashii</i>	ATCC 19109 ^T	USA	Clams	1965	X74725
116	<i>Vibrio variabilis</i>	R-40492 ^T	Brazil	Mucus	2005	GU929924
117	<i>Vibrio vulnificus</i>	ATCC 27562 ^T	USA	Human blood	1979	X76333
118	<i>Vibrio xiamenensis</i>	G21 ^T	China	Soil	2007	GQ397859
119	<i>Vibrio xuii</i>	DSM 17185 ^T	China	Shrimp culture water	1995	AJ316181
120	<i>Aeromonas hydrophila</i>	ATCC 7966 ^T	-	-	-	AY264937

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Table S2: Genomic overview of *Vibrio* species analyzed in this study

No.	Species	Strain	Genome Size	GC content (%)	Isolation Region	Isolation Year	Accession Number
1	<i>Vibrio anguillarum</i>	NCTC 12159 ^T	4.42	44.40	USA	1900/1988	PRJEB6403
2	<i>Vibrio bivalvicida</i>	605 ^T	4.92	44.30	Spain	2012	PRJNA297724
3	<i>Vibrio cholerae</i>	O1 biovar El Tor str. N16961 ^T	4.03	47.49	Bangladesh	1971	PRJNA36
4	<i>Vibrio cholerae</i>	O139 serovar MO45	4.02	47.50	India	1992	PRJNA242443
5	<i>Vibrio cincinnatiensis</i>	NCTC 12012 ^T	3.67	43.70	USA	-	PRJEB19569
6	<i>Vibrio diazotrophicus</i>	NBRC 103148 ^T	4.72	43.40	Canada	-	PRJDB1326
7	<i>Vibrio europaeus</i>	PP-638 ^T	5.47	44.99	Spain	2001	PRJNA312891
8	<i>Vibrio fujianensis</i>	FJ201301 ^T	3.62	43.40	China	2013	PRJNA381276
9	<i>Vibrio hyugaensis</i>	090810a ^T	5.61	44.99	Japan	2010	PRJNA429390
10	<i>Vibrio injenensis</i>	KCTC 32233 ^T	3.67	44.00	South Korea	2015	PRJDB5318
11	<i>Vibrio jasicida</i>	CECT 7692 ^T	5.99	45.10	-	-	PRJNA427410
12	<i>Vibrio metschnikovii</i>	JCM 21189 ^T	3.75	44.19	-	1888	PRJNA40493
13	<i>Vibrio owensii</i>	CAIM 1854 ^T	6.35	43.90	Australia	2007	PRJNA189697
14	<i>Vibrio pacinii</i>	DSM 19139 ^T	4.30	45.20	China	-	PRJNA234841
15	<i>Vibrio parahaemolyticus</i>	RIMD 2210633 ^T	5.15	45.40	Japan	1950	PRJNA233509
16	<i>Vibrio salilacus</i>	DSG-S6 ^T	3.62	45.10	China	2013	PRJNA390014
17	<i>Vibrio vulnificus</i>	ATCC 27562 ^T	5.01	46.71	USA	1979	PRJNA295776

Table S3. Virulence-associated factors profile of *V. fujianensis* and other pathogenic *Vibrio* species.

VF class	Virulence factors	Related genes	A	B	C	D	E	F	G	H	I	J	K	L		
Adherence	Accessory colonization factor	<i>acfA</i>	-	-	-	-	-	-	-	+	-	-	-	-		
		<i>acfB</i>	+	-	-	-	-	-	-	+	+	-	-	+		
		<i>acfC</i>	-	-	-	-	-	-	-	-	+	+	-	-	-	
		<i>acfD</i>	-	-	-	-	-	-	-	-	+	+	-	-	-	
	Mannose-sensitive hemagglutinin (MSHA type IV pilus)	<i>mshA</i>	+	+	+	-	-	+	-	+	+	-	-	+	+	
		<i>mshB</i>	-	+	+	-	+	+	+	+	+	+	-	+	+	
		<i>mshC</i>	+	+	+	-	-	+	+	+	+	+	-	+	+	
		<i>mshD</i>	+	+	+	-	+	-	+	+	+	+	-	+	+	
		<i>mshE</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshF</i>	-	+	+	-	-	-	-	+	+	+	-	+	-	
		<i>mshG</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshH</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshI</i>	+	+	+	+	-	+	+	+	+	+	+	+	+	
		<i>mshJ</i>	-	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshK</i>	-	+	+	-	-	+	+	+	+	+	-	+	-	
		<i>mshL</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshM</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>mshN</i>	-	+	+	+	-	+	+	+	+	+	-	+	-	
		Toxin-coregulated pilus	<i>tcpA</i>	-	-	-	-	-	-	-	-	+	+	-	-	-

(type IVB pilus)	<i>tcpB</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpC</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpD</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpE</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpF</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpH</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpI</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpJ</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpN/toxT</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpP</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpQ</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpR</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpS</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>tcpT</i>	-	-	-	-	-	-	-	-	+	+	-	-	-
	<i>pilA</i>	+	-	+	-	+	-	+	+	+	+	-	+	-
Type IV pilus	<i>pilB</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
	<i>pilC</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
	<i>pilD</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
	<i>wbpE</i>	-	-	-	-	-	-	-	-	-	-	+	-	-
	<i>wbpG</i>	-	-	-	-	-	-	-	-	-	-	+	-	-
LPS O-antigen	<i>wbpH</i>	-	-	-	-	-	-	-	-	-	-	+	-	-
	<i>wbpI</i>	-	-	-	-	-	-	-	-	-	-	+	-	-
	Undetermined	-	-	-	-	+	-	-	-	-	-	-	-	-
	Undetermined	+	-	-	+	-	-	+	-	+	-	-	-	-
Flp type IV pili	<i>flpF</i>	-	-	-	-	-	+	+	-	-	-	-	-	+
The tad locus	<i>tadA</i>	+	-	-	-	-	-	-	-	-	-	-	-	+

	Lateral flagella	<i>flgI</i>	-	-	-	-	-	-	+	-	-	-	-	-	-	
		<i>lfgH</i>	-	-	-	-	-	-	+	-	-	-	-	-	-	
		<i>lfnA</i>	-	-	-	-	-	-	+	-	-	-	-	-	-	
	Polar flagella	<i>nueB</i>	-	+	-	-	-	-	-	-	-	-	-	-	-	
	Curli fibers	<i>csgG</i>	-	-	-	-	-	-	+	+	-	-	-	-	-	
Antiphagocytosis	Capsular polysaccharide	<i>cpsA</i>	-	+	+	+	-	-	-	-	+	+	+	+	-	
		<i>cpsB</i>	-	+	+	+	-	-	-	-	-	+	+	+	+	-
		<i>cpsC</i>	-	+	+	-	-	-	-	-	-	+	+	-	+	-
		<i>cpsD</i>	-	+	+	+	-	-	-	-	-	+	+	+	+	-
		<i>cpsE</i>	-	-	+	-	-	-	-	-	-	-	-	-	+	-
		<i>cpsF</i>	-	+	+	+	-	-	-	-	-	+	+	+	+	-
		<i>cpsG</i>	-	-	+	-	-	-	-	-	-	-	-	-	+	-
		<i>cpsH</i>	-	+	+	-	-	-	-	-	-	-	-	-	+	-
		<i>cpsI</i>	-	+	+	-	-	-	-	-	-	-	-	-	+	-
		<i>cpsJ</i>	-	+	+	-	-	-	-	-	-	-	-	-	+	-
		<i>rmlA</i>	-	-	-	-	+	-	-	-	-	-	-	-	-	-
		<i>rmlC</i>	-	+	-	-	-	-	-	-	-	-	-	-	-	-
		<i>rmlD</i>	-	+	-	-	-	-	-	+	-	-	-	-	-	-
		<i>wbfB</i>	-	-	-	+	-	-	-	-	-	-	+	+	-	-
		<i>wbfT</i>	+	-	-	-	-	-	-	-	-	-	-	-	-	-
		<i>wbfU</i>	+	-	-	-	+	-	-	-	+	+	-	-	-	-
		<i>wbfV/wcvB</i>	+	+	+	+	+	+	+	+	+	+	+	-	+	+
		<i>wbfY</i>	+	-	+	-	+	-	-	-	+	+	-	-	-	+
		<i>wbjD/wecB</i>	-	-	-	+	-	-	-	-	-	+	+	+	+	-
		<i>wecA</i>	-	+	-	-	-	-	+	+	-	-	-	-	+	-
<i>wecC</i>	-	-	-	+	-	-	-	-	-	+	+	+	+	-		

		<i>wza</i>	-	+	+	+	-	+	+	-	-	-	+	-	
		<i>wzb</i>	-	+	-	-	-	+	-	-	-	-	+	-	
		<i>wzc</i>	-	+	+	+	-	+	+	-	-	-	+	-	
	Capsule	<i>uge</i>	-	-	-	-	-	+	+	-	-	-	-	-	
Chemotaxis and motility	Flagella	<i>cheA</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>cheB</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>cheR</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>cheV</i>	+	+	+	+	-	+	+	+	+	+	+	+	+
		<i>cheW</i>	+	+	+	-	+	+	+	+	+	+	-	+	+
		<i>cheY</i>	+	+	+	-	+	+	+	+	+	+	+	+	+
		<i>cheZ</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>filM</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flaA</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flaB</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flaC</i>	-	-	-	+	-	+	+	+	+	+	+	-	-
		<i>flaD</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flaE</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flaG</i>	+	+	+	-	+	+	+	+	+	+	-	+	+
		<i>flaI</i>	+	+	+	-	+	+	+	+	+	+	-	+	+
		<i>flgA</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flgB</i>	+	+	+	-	+	+	+	+	+	+	-	+	+
		<i>flgC</i>	+	+	+	-	+	+	+	+	+	+	-	+	+
		<i>flgD</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
		<i>flgE</i>	+	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgF</i>	+	+	+	+	+	+	+	+	+	+	+	+	+		
<i>flgG</i>	+	+	+	+	+	+	+	+	+	+	+	+	+		

<i>flgH</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgI</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgJ</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgK</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgL</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flgM</i>	+	+	+	-	+	-	-	+	+	-	+	-
<i>flgN</i>	+	+	+	-	+	+	+	+	+	-	+	+
<i>flhA</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flhB</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flhF</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>flhG</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliA</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliD</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliE</i>	+	+	+	-	+	+	+	+	+	+	+	+
<i>fliF</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliG</i>	-	+	+	+	+	+	+	+	+	+	+	+
<i>fliH</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliI</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliJ</i>	+	+	+	-	+	+	+	+	+	-	+	+
<i>fliK</i>	-	+	+	+	-	-	-	+	+	-	+	-
<i>fliL</i>	+	+	+	-	+	+	+	+	+	-	+	+
<i>fliN</i>	+	+	+	-	+	+	+	+	+	-	+	+
<i>fliO</i>	+	+	+	-	-	+	+	+	+	-	+	-
<i>fliP</i>	+	+	+	+	+	+	+	+	+	+	+	+
<i>fliQ</i>	+	+	+	-	+	+	+	+	+	+	+	+
<i>fliR</i>	+	+	+	+	+	+	+	+	+	+	+	+

		<i>fliS</i>	+	+	+	-	+	+	+	+	+	-	+	+	
		<i>fliA</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>fliB</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>fliC</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>motA</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>motB</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>motX</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>motY</i>	+	+	+	+	+	+	+	+	+	+	+	+	
Enzyme	Metalloproteases	<i>hap/vvp</i>	-	+	-	+	-	+	+	+	+	+	-	-	
	Neuraminidase	<i>nanH</i>	-	-	-	+	-	-	-	+	-	+	-	-	
Iron uptake	Enterobactin receptors	<i>irgA</i>	+	-	+	+	-	+	+	+	+	+	+	+	
		<i>vctA</i>	+	-	+	+	-	+	+	+	+	+	-	+	
		<i>hasR</i>	-	-	-	-	+	-	-	+	-	-	-	-	
	Heme receptors	<i>hutA</i>	-	+	+	+	+	+	+	+	+	+	+	+	-
		<i>hutR</i>	-	+	+	-	-	-	-	+	+	-	+	-	
		<i>vctC</i>	+	+	+	+	+	+	+	+	+	+	+	+	
	Periplasmic binding protein-dependent ABC transport systems	<i>vctD</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>vctG</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>vctP</i>	+	+	+	+	+	+	+	+	+	+	+	+	
		<i>viuC</i>	+	-	-	-	+	+	+	+	+	+	-	+	
		<i>viuD</i>	+	-	-	-	-	+	+	+	+	+	-	-	
		<i>viuG</i>	+	-	-	-	-	+	+	+	+	+	-	-	
		<i>viuP</i>	+	-	-	-	-	+	+	+	+	+	-	-	
		<i>vibA</i>	+	+	-	-	+	+	+	+	+	+	+	+	
		Vibriobactin biosynthesis	<i>vibB</i>	+	+	-	-	+	+	+	+	+	+	+	+
<i>vibC</i>	+		+	-	-	+	+	+	+	+	+	+	+		

		<i>vibD</i>	-	+	-	-	-	-	-	+	+	-	-	-
		<i>vibE</i>	+	+	-	-	+	+	+	+	+	+	+	+
		<i>vibF</i>	-	+	-	-	-	-	-	+	+	-	-	-
		<i>vibH</i>	-	+	-	-	-	-	-	+	+	-	-	-
	Vibriobactin utilization	<i>viuA</i>	-	+	-	-	-	-	-	+	+	-	-	-
		<i>viuB</i>	-	+	-	-	-	-	-	+	+	-	-	-
		<i>barB</i>	-	-	-	-	-	-	-	-	-	+	+	-
	Acinetobactin	<i>bauB</i>	-	-	-	-	-	-	-	-	-	+	+	-
		<i>bauC</i>	-	-	-	-	-	-	-	-	-	+	+	-
		<i>bauD</i>	-	-	-	-	-	-	-	-	-	+	+	-
		<i>basG</i>	+	-	-	-	-	-	-	-	-	-	-	-
	Enterobactin transport	<i>fepB</i>	-	-	-	-	-	-	-	-	-	-	+	-
		<i>fepD</i>	-	-	-	-	-	-	-	-	-	-	+	-
		<i>fepG</i>	-	-	-	-	+	-	-	-	-	-	-	-
	ABC transporter	<i>fagA</i>	-	-	-	-	-	+	-	-	-	-	-	-
		<i>fagB</i>	-	-	-	-	-	+	-	-	-	-	-	-
Quorum sensing	Autoinducer-2	<i>luxS</i>	+	+	+	-	+	+	+	+	+	-	+	+
	Cholerae autoinducer-1	<i>cqsA</i>	-	-	+	+	+	+	+	+	+	+	+	+
Secretion system	EPS type II secretion system	<i>epsC</i>	+	+	+	+	+	+	+	+	+	+	+	+
		<i>epsE</i>	+	+	+	+	+	+	+	+	+	+	+	+
		<i>epsF</i>	+	+	+	+	+	+	+	+	+	+	+	+
		<i>epsG</i>	+	+	+	-	+	+	+	+	+	-	+	+
		<i>epsH</i>	+	+	+	-	+	+	+	+	+	+	+	+
		<i>epsI</i>	+	+	+	-	+	+	+	+	+	-	+	+
		<i>epsJ</i>	+	+	+	+	+	+	+	+	+	+	+	+
		<i>epsK</i>	+	+	+	+	+	+	+	+	+	+	+	+

	<i>epsL</i>	+	+	+	+	+	+	+	+	+	+	+	+	+	
	<i>epsM</i>	+	+	+	-	-	+	+	+	+	-	+	+		
	<i>epsN</i>	+	+	+	+	+	+	+	+	+	-	+	-		
	<i>gspD</i>	+	+	+	+	+	+	+	+	+	+	+	+		
	Undetermined	-	-	+	-	-	-	-	-	-	-	-	-		
T3SS1 secreted effectors	<i>vopQ</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vopR</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vopS</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>sycN</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>tyeA</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vcrD</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vcrG</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vcrH</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vcrR</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>vcrV</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	<i>virF</i>	-	-	+	-	-	-	-	-	-	-	+	-		
	T3SS1	<i>virG</i>	-	-	+	-	-	-	-	-	-	-	+	-	
		<i>vopB</i>	-	-	+	-	-	-	-	-	-	-	+	-	
		<i>vopD</i>	-	-	+	-	-	-	-	-	-	-	+	-	
<i>vopN</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscA</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscB</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscC</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscD</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscF</i>		-	-	+	-	-	-	-	-	-	-	+	-		
<i>vscG</i>		-	-	+	-	-	-	-	-	-	-	+	-		

		Undetermined	-	-	+	-	-	-	-	-	-	-	-
		Undetermined	-	-	+	-	-	-	-	-	-	-	-
		<i>vcrD2</i>	-	-	+	-	-	-	-	-	-	-	-
		<i>vscC2</i>	-	-	+	-	-	-	-	-	-	-	-
		<i>vscN2</i>	-	-	+	-	-	-	-	-	-	-	-
		<i>hcp-2</i>	-	-	-	-	-	+	+	+	+	-	-
	VAS effector proteins	<i>vgrG-1</i>	-	-	-	-	-	-	-	+	+	+	-
		<i>vgrG-2</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vgrG-3</i>	-	-	-	+	-	-	+	+	+	+	-
		<i>vasA</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasB</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasC</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasD</i>	-	-	-	-	-	+	+	+	+	-	-
		<i>vasE</i>	-	-	-	+	-	+	+	+	+	+	-
	VAS type VI secretion system	<i>vasF</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasG</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasH</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasI</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasJ</i>	-	-	-	+	-	+	+	+	+	+	-
		<i>vasK</i>	-	-	-	+	-	+	+	+	+	+	-
	T4SS effectors	Undetermined	-	-	-	-	-	-	-	-	-	-	+
	Accessory cholera enterotoxin	<i>ace</i>	-	-	-	-	-	-	-	+	+	-	-
	Cholera toxin	<i>ctxA</i>	-	-	-	-	-	-	-	+	+	-	-
Toxin	Hemolysin/cytolysin	<i>vvhA</i>	-	+	-	-	-	-	-	-	-	-	-
	RTX toxin	<i>rtxA</i>	-	+	-	-	-	-	-	+	+	+	-
		<i>rtxB</i>	-	+	-	-	-	-	-	+	+	+	-

		<i>rtxC</i>	-	+	-	-	-	-	-	+	+	-	-	-
		<i>rtxD</i>	-	+	-	-	-	-	-	+	+	+	-	-
		<i>rtxE</i>	-	+	-	-	-	-	-	-	-	-	-	-
	Thermolabile hemolysin	<i>tlh</i>	-	+	+	+	+	+	+	+	+	+	+	-
	Thermostable direct hemolysin	<i>tdh</i>	-	-	+	-	-	-	-	-	-	-	-	-
	V.cholerae cytolysin	<i>hlyA</i>	-	-	-	+	+	+	+	+	+	+	-	-
	Zona occludens toxin	<i>zot</i>	-	-	-	-	-	-	-	+	+	-	-	-
	Phytotoxin coronatine	Undetermined	-	-	-	-	-	+	+	-	-	-	+	-
Others	O-antigen	Undetermined	+	-	-	-	-	-	-	-	-	+	-	-
		<i>manB</i>	-	-	-	-	-	+	+	-	-	-	-	+
		<i>lgtF</i>	+	-	-	-	+	+	+	-	-	-	-	+
		<i>kdkA</i>	-	-	-	-	+	+	+	-	-	-	-	-
Endotoxin	LOS	<i>lpxK</i>	-	-	-	-	+	-	-	-	-	+	-	-
		<i>opsX/rfaC</i>	+	-	-	-	+	-	-	-	-	-	-	-
		<i>rfaF</i>	-	-	-	-	+	-	-	-	-	-	-	-
	LPS	<i>bplA</i>	-	-	-	-	-	-	-	-	-	+	-	-
Immune evasion	Capsule	Undetermined	-	+	-	+	+	+	+	-	-	+	+	-
Invasion	Flagella	<i>cheB2</i>	+	-	-	-	+	+	-	-	-	+	-	+
		Undetermined	-	-	-	-	+	-	-	-	-	+	+	-
Iron acquisition	Ent siderophore	Undetermined	-	-	-	-	+	-	-	-	-	-	-	-
		<i>fepG</i>	-	-	-	-	-	-	-	-	-	-	+	-
Biofilm formation	AdeFGH efflux pump/transport autoinducer	<i>adeG</i>	-	-	-	-	-	-	-	-	-	-	+	-
Cell surface components	Trehalose-recycling ABC transporter	<i>sugC</i>	-	-	-	-	-	+	-	-	-	-	-	+

Regulation	Two-component system	<i>bvgA</i>	-	-	-	-	-	-	-	-	-	-	-	-	+
		<i>bfmR</i>	+	-	-	-	+	-	-	-	-	-	-	-	-
Anaerobic respiration	Nitrate reductase	<i>narH</i>	-	-	-	-	-	-	+	-	-	-	-	-	-
Efflux pump	AcrAB	Undetermined	-	-	-	-	-	-	+	-	-	-	-	-	-
		<i>acrB</i>	-	-	-	-	-	+	-	-	-	-	-	-	-

30 Note: A. *Vibrio fujianensis* FJ201301^T; B. *Vibrio vulnificus* ATCC 27562^T ; C. *Vibrio parahaemolyticus* RIMD 2210633^T; D. *Vibrio mimicus* NCTC 11435^T;
31 E. *Vibrio metschnikovii* JCM 21189^T; F. *Vibrio furnissii* NCTC 13120^T; G. *Vibrio fluvialis* ATCC 33809^T; H. *Vibrio cholerae* O1 biovar El Tor N16961^T; I.
32 *Vibrio cholerae* O139 serovar MO45; J. *Vibrio anguillarum* NCTC 12159^T; K. *Vibrio alginolyticus* ATCC 17749^T; L. *Vibrio cincinnatiensis* NCTC 12012^T