

**Supplementary Table 3. Functions and  $F_{st}$  values between populations of population specific genes.**

Gene	Type	Function	COG classification	Corresponding gene in reference genome RIMD 2210633	$F_{st}$ values between populations					
					VppAsia-VppUS1	VppAsia-VppUS2	VppAsia-VppX	VppUS1-VppUS2	VppX-VppUS1	VppX-VppUS2
group_2347	Accessory genes	hypothetical protein	M	VP1008	0.00	0.00	0.00	0.00	0.00	0.93
group_2035	Accessory genes	hypothetical protein	S	VP1009	0.00	0.00	0.00	0.00	0.00	0.95
group_44	Accessory genes	hypothetical protein		VP1355	0.00	0.83	0.00	0.00	0.00	0.98
bamA_2	Accessory genes	Surface antigen	M	VP1356	0.00	0.83	0.00	0.00	0.00	0.98
aaeB	Accessory genes	hypothetical protein		VP1357	0.00	0.89	0.00	0.00	0.00	0.98
aaeA_2	Accessory genes	p-hydroxybenzoic acid efflux pump subunit AaeA	V	VP1359	0.00	0.88	0.00	0.00	0.00	0.00
group_4643	Accessory genes	hypothetical protein		VP1360	0.00	0.88	0.00	0.00	0.00	0.00
mlaE_1	Accessory genes	putative phospholipid ABC transporter permease protein MlaE	Q	VP1361	0.00	0.00	0.00	0.00	0.90	0.90
mlaF_1	Accessory genes	putative phospholipid import ATP-binding protein MlaF	Q	VP1363	0.00	0.00	0.00	0.00	0.90	0.90
group_5148	Accessory genes	paraquat-inducible protein B	S	VP1364	0.00	0.00	0.00	0.00	0.90	0.90
dapE_1	Accessory genes	hypothetical protein	E	VP1365	0.00	0.88	0.00	0.00	0.00	0.95
pdxY_2	Accessory genes	Pyridoxamine kinase	H	VP1366	0.00	0.88	0.00	0.00	0.00	0.00
benM_2	Accessory genes	HTH-type transcriptional regulator BenM	K	VP1367	0.00	0.88	0.00	0.00	0.00	0.00
group_3228	Accessory genes	hypothetical protein		VP1369	0.00	0.93	0.00	0.00	0.00	0.92
group_97	Accessory genes	hypothetical protein	S	VP1370	0.00	0.95	0.00	0.00	0.00	0.92
group_2305	Accessory genes	Murein DD-endopeptidase MepM	M	VP1385	0.00	0.00	0.00	0.00	0.00	0.81
group_8	Accessory genes	hypothetical protein	S	VP1387	0.00	0.00	0.00	0.00	0.00	0.86
vnfA	Accessory genes	Nitrogen fixation protein VnfA	K	VP1391	0.00	0.00	0.00	0.00	0.00	0.86
clpB_2	Accessory genes	Chaperone protein ClpB	O	VP1392	0.00	0.00	0.00	0.00	0.00	0.83
hcpA	Accessory genes	Major exported protein	S	VP1393	0.00	0.00	0.00	0.00	0.00	0.86
group_1627	Accessory genes	Phage-related baseplate assembly protein	M	VP1394	0.00	0.00	0.00	0.00	0.00	0.86
group_2795	Accessory genes	hypothetical protein		VP1397	0.00	0.00	0.00	0.00	0.00	0.86
group_3434	Accessory genes	hypothetical protein	S	VP1398	0.00	0.00	0.00	0.00	0.00	0.86

group_3435	Accessory genes	3-oxoacyl-(acyl carrier protein) synthase		VP1399	0.00	0.00	0.00	0.00	0.00	0.86
pknK	Accessory genes	Serine/threonine-protein kinase PknK	T	VP1400	0.00	0.00	0.00	0.00	0.00	0.86
group_2642	Accessory genes	hypothetical protein	S	VP1401	0.00	0.00	0.00	0.00	0.00	0.86
group_3958	Accessory genes	hypothetical protein	S	VP1402	0.00	0.00	0.00	0.00	0.00	0.86
group_2479	Accessory genes	hypothetical protein	S	VP1403	0.00	0.00	0.00	0.00	0.00	0.86
group_2643	Accessory genes	Gene 25-like lysozyme	S	VP1404	0.00	0.00	0.00	0.00	0.00	0.86
group_3185	Accessory genes	hypothetical protein	S	VP1406	0.00	0.00	0.00	0.00	0.00	0.86
lrp_7	Accessory genes	Leucine-responsive regulatory protein	K	VP1407	0.00	0.00	0.00	0.00	0.00	0.86
group_456	Accessory genes	Intracellular multiplication and human macrophage-killing	S	VP1408	0.00	0.00	0.00	0.00	0.00	0.86
group_2100	Accessory genes	hypothetical protein	S	VP1409	0.00	0.00	0.00	0.00	0.00	0.86
group_3641	Accessory genes	hypothetical protein		VP1410	0.00	0.00	0.00	0.00	0.00	0.86
group_4175	Accessory genes	FHA domain protein	T	VP1411	0.00	0.00	0.00	0.00	0.00	0.86
group_15999	Accessory genes	Type VI secretion lipoprotein	S	VP1412	0.00	0.00	0.00	0.00	0.00	0.86
group_5499	Accessory genes	hypothetical protein	S	VP1413	0.00	0.00	0.00	0.00	0.00	0.86
group_3416	Accessory genes	hypothetical protein	S	VP1414	0.00	0.00	0.00	0.00	0.00	0.86
group_5473	Accessory genes	HTH-type transcriptional regulator DmlR	K	VP1676	0.93	0.99	0.99	0.00	0.00	0.00
group_1578	Accessory genes	Alpha/beta hydrolase family protein	S	VP1677	0.93	0.99	0.99	0.00	0.00	0.00
group_2897	Accessory genes	Alpha/beta hydrolase family protein	S	VP1678	0.93	0.99	0.99	0.00	0.00	0.00
group_161	Accessory genes	flavodoxin	C	VP1679	0.93	0.99	0.99	0.00	0.00	0.00
appY_3	Accessory genes	HTH-type transcriptional regulator AppY	K	VP1765	0.00	0.00	0.82	0.00	0.00	0.83
group_674	Accessory genes	Alanine--tRNA ligase	S	VP1766	0.00	0.00	0.82	0.00	0.00	0.83
group_807	Accessory genes	hypothetical protein	S	VP1784	0.00	0.00	0.00	0.85	0.00	0.82
ydaF_4	Accessory genes	Glyoxalase-like domain protein		VP1786	0.00	0.00	0.00	0.85	0.00	0.00
polC_1	Accessory genes	DNA polymerase III PolC-type	L	VPA0074	0.93	0.99	0.00	0.00	0.94	0.00
kdsD_3	Accessory genes	inosine 5'-monophosphate dehydrogenase	T	VPA0075	0.94	0.99	0.00	0.00	0.94	0.00
kdgR	Accessory genes	Transcriptional regulator KdgR	K	VPA0076	0.94	0.99	0.00	0.00	0.94	0.00
kduD	Accessory genes	2-dehydro-3-deoxy-D-gluconate 5-dehydrogenase	S	VPA0077	0.94	0.99	0.00	0.00	0.94	0.00

ygjV	Accessory genes	Inner membrane protein YgjV	S	VPA0078	0.93	0.99	0.00	0.00	0.91	0.98
group_7024	Accessory genes	Cupin domain protein	S	VPA0079	0.94	0.99	0.00	0.00	0.94	0.00
group_7025	Accessory genes	hypothetical protein	G	VPA0080	0.94	0.99	0.00	0.00	0.94	0.00
axeA1	Accessory genes	Acetylxyilan esterase precursor	I	VPA0081	0.94	0.99	0.00	0.00	0.94	0.00
eda_2	Accessory genes	Putative KHG/KDPG aldolase	G	VPA0082	0.94	0.99	0.00	0.00	0.94	0.00
sgIT_2	Accessory genes	Sodium/glucose cotransporter	E	VPA0084	0.94	0.99	0.00	0.00	0.94	0.00
kdgM	Accessory genes	Oligogalacturonate-specific porin KdgM precursor	M	VPA0085	0.93	0.99	0.00	0.00	0.94	0.00
pelX	Accessory genes	Pectate disaccharide-lyase precursor	S	VPA0086	0.93	0.99	0.00	0.00	0.94	0.00
group_1876	Accessory genes	Sodium/glucose cotransporter	E	VPA0087	0.92	0.98	0.00	0.00	0.94	0.00
ogl	Accessory genes	Oligogalacturonate lyase	U	VPA0088	0.94	0.99	0.00	0.00	0.94	0.00
group_1383	Accessory genes	HTH-type transcriptional regulator LeuO	K	VPA0105	0.00	0.95	0.00	0.00	0.00	0.92
group_1171	Accessory genes	hypothetical protein	S	VPA0106	0.00	0.95	0.00	0.00	0.00	0.92
syrM1	Accessory genes	HTH-type transcriptional regulator SyrM 1	K	VPA0107	0.00	0.95	0.00	0.00	0.00	0.92
group_1013	Accessory genes	Phosphoglycolate phosphatase	S	VPA0110	0.94	0.99	0.00	0.00	0.00	0.00
group_377	Accessory genes	hypothetical protein		VPA0282	0.81	0.88	0.00	0.00	0.91	0.98
ybdO	Accessory genes	putative HTH-type transcriptional regulator YbdO	K	VPA0599	0.81	0.00	0.81	0.88	0.00	0.88
group_1094	Accessory genes	Arylsulfatase	P	VPA0600	0.81	0.00	0.00	0.82	0.00	0.81
chuR_1	Accessory genes	Anaerobic sulfatase-maturing enzyme	S	VPA0601	0.85	0.00	0.85	0.88	0.00	0.88
group_439	Accessory genes	HTH-type transcriptional regulator YidZ	K	VPA0602	0.00	0.00	0.00	0.88	0.00	0.88
atsA_1	Accessory genes	Arylsulfatase precursor	P	VPA0683	0.00	0.85	0.00	0.00	0.00	0.85
group_1858	Accessory genes	hypothetical protein		VPA0992	0.00	0.00	0.00	0.00	0.91	0.98
group_2143	Accessory genes	NPCBM-associated	S	VPA0993	0.00	0.00	0.00	0.00	0.91	0.98
group_86	Accessory genes	hypothetical protein	S	VPA1608	0.00	0.85	0.00	0.00	0.00	0.00
adiA_1	Accessory genes	Biodegradative arginine decarboxylase	E		0.00	0.00	0.88	0.00	0.88	0.88
adiA_2	Accessory genes	Biodegradative arginine decarboxylase	E		0.00	0.00	0.88	0.00	0.88	0.88
adiC	Accessory genes	Arginine/agmatine antiporter	P		0.00	0.00	0.90	0.00	0.90	0.90

asD	Accessory genes	Bifunctional aspartate aminotransferase and L-aspartate beta-decarboxylase	E		0.00	0.95	0.00	0.00	0.00	0.95
aspT_1	Accessory genes	Aspartate/alanine antiporter	P		0.00	0.95	0.00	0.00	0.00	0.95
atsA_4	Accessory genes	Arylsulfatase	P		0.00	0.85	0.00	0.00	0.00	0.85
cls_1	Accessory genes	Cardiolipin synthase	I		0.00	0.95	0.00	0.00	0.00	0.95
dmlR_11	Accessory genes	HTH-type transcriptional regulator DmlR	K		0.00	0.00	0.88	0.00	0.81	0.88
dmlR_17	Accessory genes	HTH-type transcriptional regulator DmlR	K		0.99	0.99	0.00	0.00	0.95	0.95
dthadh	Accessory genes	D-threo-3-hydroxyaspartate dehydratase	E		0.99	0.99	0.00	0.00	0.95	0.95
emrK_2	Accessory genes	putative multidrug resistance protein EmrK	V		0.00	0.00	0.88	0.00	0.88	0.00
fac-dex	Accessory genes	Fluoroacetate dehalogenase	S		0.99	0.99	0.00	0.00	0.95	0.95
gbpR	Accessory genes	HTH-type transcriptional regulator GbpR	K		0.00	0.00	0.90	0.00	0.90	0.90
glnH_2	Accessory genes	ABC transporter glutamine-binding protein GlnH precursor	E		0.00	0.00	0.90	0.00	0.90	0.90
group_10915	Accessory genes	hypothetical protein			0.00	0.00	0.85	0.00	0.86	0.86
group_1125	Accessory genes	hypothetical protein			0.00	0.00	0.00	0.00	0.00	0.86
group_1163	Accessory genes	NPCBM-associated	S		0.00	0.00	0.00	0.00	0.91	0.98
group_1406	Accessory genes	hypothetical protein			0.00	0.00	0.00	0.00	0.91	0.98
group_16220	Accessory genes	L-lysine cyclodeaminase	E		0.99	0.99	0.00	0.00	0.95	0.95
group_16624	Accessory genes	Surface antigen	S		0.00	0.95	0.00	0.00	0.00	0.95
group_1818	Accessory genes	Major Facilitator Superfamily protein	P		0.00	0.00	0.88	0.00	0.88	0.00
group_2253	Accessory genes	hypothetical protein			0.00	0.93	0.00	0.00	0.00	0.00
group_3327	Accessory genes	HTH-type transcriptional regulator YidZ	K		0.93	0.99	0.00	0.00	0.89	0.95
group_3405	Accessory genes	Metallo-beta-lactamase superfamily protein	Q		0.93	0.00	0.00	0.94	0.91	0.00
group_3824	Accessory genes	Surface antigen	M		0.00	0.90	0.00	0.83	0.00	0.00
group_4234	Accessory genes	Miniconductance mechanosensitive channel MscM precursor	M		0.00	0.00	0.83	0.00	0.83	0.83
group_4422	Accessory genes	hypothetical protein			0.00	0.95	0.00	0.00	0.00	0.95

group_4424	Accessory genes	IS2 transposase TnpB	L	0.00	0.85	0.00	0.00	0.00	0.85
group_4426	Accessory genes	hypothetical protein		0.00	0.00	0.88	0.00	0.88	0.88
group_4757	Accessory genes	hypothetical protein	S	0.00	0.00	0.00	0.00	0.00	0.95
group_4779	Accessory genes	hypothetical protein		0.99	0.84	0.00	0.00	0.95	0.00
group_4793	Accessory genes	hypothetical protein	S	0.00	0.85	0.00	0.00	0.00	0.00
group_5174	Accessory genes	p-hydroxybenzoic acid efflux subunit AaeB	S	0.00	0.90	0.00	0.00	0.00	0.90
group_5645	Accessory genes	p-hydroxybenzoic acid efflux pump subunit AaeB	S	0.00	0.00	0.81	0.00	0.81	0.81
group_5646	Accessory genes	p-hydroxybenzoic acid efflux pump subunit AaeA	V	0.00	0.95	0.90	0.00	0.00	0.00
group_5667	Accessory genes	Ankyrin repeats (3 copies)	S	0.00	0.00	0.00	0.00	0.00	0.82
group_6224	Accessory genes	Pyridoxamine kinase	H	0.00	0.00	0.85	0.00	0.86	0.86
group_6259	Accessory genes	HTH-type transcriptional regulator BenM	K	0.00	0.95	0.00	0.00	0.00	0.95
group_6260	Accessory genes	Patatin-like phospholipase	S	0.00	0.95	0.00	0.00	0.00	0.95
group_7035	Accessory genes	hypothetical protein		0.00	0.00	0.00	0.00	0.00	0.90
group_7097	Accessory genes	Acetyltransferase (GNAT) family protein	E	0.99	0.99	0.00	0.00	0.95	0.95
group_7101	Accessory genes	hypothetical protein		0.00	0.00	0.88	0.00	0.88	0.88
group_7148	Accessory genes	hypothetical protein		0.00	0.90	0.00	0.83	0.00	0.00
group_7149	Accessory genes	hypothetical protein		0.00	0.90	0.00	0.83	0.00	0.00
group_7157	Accessory genes	Pyridoxamine kinase	H	0.00	0.90	0.00	0.00	0.00	0.90
group_7464	Accessory genes	hypothetical protein	S	0.00	0.85	0.00	0.85	0.00	0.85
group_7519	Accessory genes	hypothetical protein		0.00	0.85	0.00	0.85	0.00	0.85
group_8461	Accessory genes	Metallo-beta-lactamase superfamily protein	Q	0.00	1.00	0.00	0.94	0.00	0.98
group_8469	Accessory genes	hypothetical protein		0.00	0.95	0.90	0.00	0.00	0.00
group_8470	Accessory genes	Patatin-like phospholipase	S	0.00	0.00	0.85	0.00	0.86	0.86
group_8471	Accessory genes	hypothetical protein		0.00	0.00	0.88	0.00	0.88	0.88
group_8560	Accessory genes	hypothetical protein		0.00	0.95	0.00	0.00	0.00	0.95
korA	Accessory genes	2-oxoglutarate oxidoreductase subunit KorA	C	0.00	0.00	0.90	0.00	0.84	0.90
korB	Accessory genes	2-oxoglutarate oxidoreductase subunit KorB	C	0.00	0.00	0.90	0.00	0.84	0.90
ompH	Accessory genes	Porin-like protein H precursor	M	0.00	0.00	0.00	0.00	0.00	0.95

pepP	Accessory genes	Xaa-Pro aminopeptidase	E		0.00	0.85	0.00	0.85	0.00	0.85
pnbA	Accessory genes	Para-nitrobenzyl esterase	I		0.00	0.95	0.00	0.00	0.00	0.95
potE_2	Accessory genes	Putrescine-ornithine antiporter	E		0.00	0.00	0.90	0.00	0.90	0.90
ptpA	Accessory genes	Prolyl tripeptidyl peptidase precursor	E		0.00	1.00	0.00	0.00	0.00	0.00
srpR	Accessory genes	HTH-type transcriptional regulator SrpR	K		0.00	0.90	0.00	0.83	0.00	0.00
tamA_2	Accessory genes	Translocation and assembly module TamA precursor	M		0.00	0.95	0.00	0.00	0.00	0.95
yxaF	Accessory genes	putative HTH-type transcriptional regulator YxaF	K		0.00	0.00	0.88	0.00	0.88	0.00
VP0013	Core genes	recombination protein F		VP0013	0.00	0.83	0.00	0.00	0.00	0.00
VP0133	Core genes	general secretion pathway protein D		VP0133	0.00	0.00	0.00	0.82	0.00	0.93
VP0307	Core genes	hypothetical protein		VP0307	0.00	0.92	0.00	0.00	0.00	0.95
VP0308	Core genes	hypothetical protein		VP0308	0.00	0.95	0.00	0.00	0.00	0.95
VP0338	Core genes	survival protein SurA		VP0338	0.00	0.00	0.00	0.00	0.00	0.82
VP0456	Core genes	UDP-N-acetylmuramoylalanyl-D-glutamyl-2%2C 6-diaminopimelate-D-alanyl-D-alanyl ligase		VP0456	0.00	0.81	0.00	0.00	0.00	0.00
VP0508	Core genes	flavodoxin FldB		VP0508	0.00	0.00	0.00	0.00	0.00	0.82
VP0561	Core genes	ClpB protein		VP0561	0.00	0.86	0.00	0.85	0.00	0.85
VP0564	Core genes	penicillin-insensitive murein endopeptidase		VP0564	0.00	0.85	0.00	0.00	0.00	0.84
VP0588	Core genes	queuine tRNA-ribosyltransferase		VP0588	0.00	0.85	0.00	0.00	0.00	0.00
VP0627	Core genes	hypothetical protein		VP0627	0.00	0.82	0.00	0.00	0.00	0.85
VP0628	Core genes	hypothetical protein		VP0628	0.00	0.87	0.00	0.00	0.00	0.88
VP0629	Core genes	homocysteine synthase		VP0629	0.81	0.87	0.00	0.00	0.00	0.84
VP0632	Core genes	Na+/H+ antiporter		VP0632	0.00	0.88	0.00	0.00	0.00	0.86
VP0700	Core genes	hypothetical protein		VP0700	0.00	0.00	0.00	0.00	0.00	0.87
VP0713	Core genes	hypothetical protein		VP0713	0.00	0.91	0.00	0.00	0.00	0.92
VP0714	Core genes	hypothetical protein		VP0714	0.00	0.83	0.00	0.00	0.00	0.00
VP0715	Core genes	serine hydroxymethyltransferase		VP0715	0.00	0.87	0.00	0.00	0.00	0.98
VP0732	Core genes	PhoH family protein		VP0732	0.00	0.88	0.00	0.00	0.00	0.90

VP0758	Core genes	cation transporter E1-E2 family ATPase	VP0758	0.00	0.00	0.00	0.00	0.00	0.82
VP0791	Core genes	flagellin	VP0791	0.00	0.00	0.00	0.00	0.00	0.87
VP0794	Core genes	phosphoenolpyruvate-protein phosphotransferase	VP0794	0.00	0.89	0.00	0.00	0.00	0.90
VP0810	Core genes	PTS system mannose-specific%2C factor IIC	VP0810	0.00	0.90	0.00	0.00	0.00	0.87
VP0812	Core genes	hypothetical protein	VP0812	0.00	0.94	0.00	0.00	0.00	0.93
VP0814	Core genes	hypothetical protein	VP0814	0.00	0.91	0.00	0.00	0.00	0.82
VP0831	Core genes	PTS system N-acetylglucosamine-specific transporter subunit IIABC	VP0831	0.00	0.00	0.00	0.00	0.00	0.82
VP0854	Core genes	AraC family transcriptional regulator	VP0854	0.00	0.95	0.00	0.00	0.00	0.92
VP0900	Core genes	oxidoreductase	VP0900	0.81	0.00	0.00	0.00	0.82	0.00
VP1015	Core genes	hypothetical protein	VP1015	0.00	0.00	0.00	0.00	0.00	0.85
VP1134	Core genes	hypothetical protein	VP1134	0.00	0.94	0.00	0.00	0.00	0.85
VP1135	Core genes	hypothetical protein	VP1135	0.00	0.94	0.00	0.00	0.00	0.88
VP1148	Core genes	UDP-2%2C3-diacylg glucosamine hydrolase	VP1148	0.00	0.81	0.00	0.00	0.00	0.95
VP1159	Core genes	hypothetical protein	VP1159	0.00	0.87	0.00	0.00	0.00	0.88
VP1220	Core genes	83 kDa decaheme outer membrane cytochrome c	VP1220	0.00	0.93	0.00	0.00	0.00	0.93
VP1221	Core genes	cytochrome subunit of sulfide dehydrogenase	VP1221	0.00	0.89	0.00	0.00	0.00	0.95
VP1222	Core genes	cytochrome c-type protein	VP1222	0.00	0.84	0.00	0.88	0.00	0.00
VP1223	Core genes	hypothetical protein	VP1223	0.00	0.85	0.00	0.00	0.00	0.87
VP1224	Core genes	adhesin	VP1224	0.00	0.88	0.00	0.00	0.00	0.90
VP1254	Core genes	hypothetical protein	VP1254	0.00	0.85	0.00	0.00	0.00	0.00
VP1255	Core genes	GGDEF family protein	VP1255	0.00	0.00	0.00	0.00	0.00	0.85
VP1353	Core genes	hypothetical protein	VP1353	0.00	0.00	0.00	0.00	0.00	0.82
VP1354	Core genes	hypothetical protein	VP1354	0.00	0.84	0.00	0.00	0.00	0.85
VP1431	Core genes	ATP-binding protein of a transport system	VP1431	0.00	0.84	0.00	0.00	0.00	0.00
VP1441	Core genes	GGDEF family protein	VP1441	0.81	0.89	0.00	0.00	0.00	0.82
VP1544	Core genes	cbb3-type cytochrome c oxidase subunit I	VP1544	0.00	0.85	0.00	0.00	0.00	0.85

VP1674	Core genes	translocation protein in type III secretion	VP1674	0.00	0.90	0.00	0.00	0.00	0.90
VP1675	Core genes	translocation protein in type III secretion	VP1675	0.00	0.00	0.97	0.00	0.00	0.87
VP1680	Core genes	hypothetical protein	VP1680	0.00	0.84	0.81	0.00	0.00	0.00
VP1736	Core genes	hypothetical protein	VP1736	0.00	0.00	0.00	0.00	0.00	0.94
VP1743	Core genes	hypothetical protein	VP1743	0.00	0.00	0.00	0.00	0.86	0.00
VP1771	Core genes	4-aminobutyrate transaminase	VP1771	0.82	0.89	0.00	0.00	0.00	0.83
VP1870	Core genes	hypothetical protein	VP1870	0.00	0.00	0.00	0.00	0.00	0.84
VP1873	Core genes	fumarate hydratase%2C class I	VP1873	0.00	0.87	0.00	0.00	0.00	0.90
VP1902	Core genes	hypothetical protein	VP1902	0.82	0.00	0.00	0.00	0.82	0.00
VP1978	Core genes	hypothetical protein	VP1978	0.00	0.94	0.00	0.82	0.00	0.90
VP1979	Core genes	hypothetical protein	VP1979	0.00	0.90	0.00	0.00	0.00	0.82
VP2076	Core genes	GGDEF family protein	VP2076	0.00	0.00	0.00	0.00	0.00	0.81
VP2077	Core genes	maltodextrin glucosidase	VP2077	0.00	0.85	0.00	0.00	0.00	0.00
VP2125	Core genes	Na+/H+ antiporter	VP2125	0.00	0.83	0.00	0.00	0.00	0.90
VP2126	Core genes	hypothetical protein	VP2126	0.00	0.88	0.00	0.00	0.00	0.87
VP2127	Core genes	hypothetical protein	VP2127	0.00	0.92	0.00	0.00	0.00	0.92
VP2128	Core genes	nucleoid-associated protein NdpA	VP2128	0.00	0.85	0.00	0.00	0.00	0.85
VP2188	Core genes	folylpolyglutamate synthase/dihydrofolate synthase	VP2188	0.00	0.95	0.00	0.00	0.00	0.95
VP2189	Core genes	acetyl-CoA carboxylase carboxyltransferase subunit beta	VP2189	0.00	0.89	0.00	0.00	0.00	0.87
VP2190	Core genes	tRNA pseudouridine synthase A	VP2190	0.00	0.90	0.00	0.00	0.00	0.90
VP2193	Core genes	erythronate-4-phosphate dehydrogenase	VP2193	0.00	0.90	0.00	0.00	0.00	0.90
VP2194	Core genes	3-oxoacyl-ACP synthase	VP2194	0.00	0.00	0.00	0.00	0.00	0.82
VP2215	Core genes	cytochrome c-type biogenesis protein	VP2215	0.00	0.83	0.00	0.00	0.00	0.84
VP2285	Core genes	phosphoribosylaminoimidazole synthetase	VP2285	0.00	0.00	0.00	0.00	0.00	0.82
VP2319	Core genes	methionine aminopeptidase	VP2319	0.00	0.00	0.00	0.00	0.00	0.85
VP2343	Core genes	hypothetical protein	VP2343	0.00	0.90	0.00	0.00	0.00	0.90

VP2344	Core genes	hypothetical protein	VP2344	0.00	0.90	0.00	0.00	0.00	0.90
VP2352	Core genes	cell division protein BolA	VP2352	0.82	0.00	0.00	0.00	0.82	0.00
VP2360	Core genes	hypothetical protein	VP2360	0.82	0.00	0.00	0.00	0.00	0.00
VP2425	Core genes	long-chain-fatty-acid-CoA ligase	VP2425	0.00	0.85	0.00	0.00	0.00	0.85
VP2427	Core genes	LysR family transcriptional regulator	VP2427	0.00	0.00	0.00	0.00	0.00	0.84
VP2442	Core genes	DNA polymerase III subunit psi	VP2442	0.00	0.85	0.00	0.00	0.00	0.84
VP2445	Core genes	lipid carrier protein	VP2445	0.00	0.90	0.00	0.00	0.00	0.95
VP2448	Core genes	protease	VP2448	0.00	0.85	0.00	0.00	0.00	0.85
VP2451	Core genes	lipoprotein NlpI	VP2451	0.00	0.84	0.00	0.00	0.00	0.87
VP2452	Core genes	polynucleotide phosphorylase	VP2452	0.00	0.87	0.00	0.00	0.00	0.82
VP2456	Core genes	translation initiation factor IF-2	VP2456	0.00	0.85	0.00	0.00	0.00	0.83
VP2457	Core genes	transcription elongation factor NusA	VP2457	0.00	0.95	0.00	0.00	0.00	0.95
VP2461	Core genes	phosphoglucosamine mutase	VP2461	0.00	0.85	0.00	0.00	0.00	0.85
VP2463	Core genes	cell division protein FtsH	VP2463	0.00	0.00	0.00	0.00	0.82	0.00
VP2480	Core genes	peptide ABC transporter permease	VP2480	0.00	0.84	0.00	0.00	0.00	0.83
VP2481	Core genes	peptide ABC transporter permease	VP2481	0.00	0.84	0.00	0.00	0.00	0.85
VP2483	Core genes	peptide ABC transporter ATP-binding protein	VP2483	0.00	0.83	0.00	0.00	0.00	0.86
VP2488	Core genes	phosphoglucomutase/phosphomanno mutase	VP2488	0.00	0.82	0.00	0.00	0.00	0.00
VP2490	Core genes	iron(III) ABC transporter permease	VP2490	0.00	0.00	0.00	0.00	0.00	0.82
VP2496	Core genes	hypothetical protein	VP2496	0.86	0.00	0.00	0.00	0.85	0.00
VP2564	Core genes	GTP pyrophosphokinase	VP2564	0.00	0.89	0.00	0.00	0.00	0.95
VP2587	Core genes	2-octaprenyl-6-methoxyphenyl hydroxylase	VP2587	0.00	0.00	0.00	0.00	0.00	0.82
VP2591	Core genes	5-formyltetrahydrofolate cyclo-ligase	VP2591	0.81	0.00	0.00	0.00	0.82	0.00
VP2714	Core genes	class V aminotransferase	VP2714	0.00	0.00	0.00	0.82	0.00	0.00
VP2717	Core genes	B12-dependent methionine synthase	VP2717	0.00	0.00	0.00	0.00	0.00	0.82
VP2721	Core genes	sulfite reductase subunit beta	VP2721	0.00	0.85	0.00	0.00	0.00	0.85

VP2881	Core genes	acetyl-CoA carboxylase biotin carboxylase subunit	VP2881	0.00	0.97	0.00	0.00	0.00	0.00
VP2883	Core genes	ribosomal protein L11 methyltransferase	VP2883	0.00	0.92	0.00	0.00	0.00	0.94
VP2884	Core genes	NifR3/Smm1 family protein	VP2884	0.00	0.93	0.00	0.00	0.00	0.92
VP2886	Core genes	MFS transporter	VP2886	0.00	0.92	0.00	0.00	0.00	0.93
VP2920	Core genes	anti-RNA polymerase sigma 70 factor	VP2920	0.00	0.00	0.00	0.83	0.00	0.00
VP2956	Core genes	cell division protein FtsY	VP2956	0.00	0.83	0.00	0.00	0.00	0.00
VP2989	Core genes	uroporphyrinogen-III synthase	VP2989	0.00	0.84	0.00	0.00	0.00	0.85
VP2990	Core genes	uroporphyrin-III C-methyltransferase	VP2990	0.00	0.81	0.00	0.00	0.00	0.84
VP3028	Core genes	camphor resistance protein CrcB	VP3028	0.00	0.82	0.00	0.00	0.00	0.00
VPA0001	Core genes	hypothetical protein	VPA0001	0.00	0.84	0.00	0.00	0.00	0.83
VPA0009	Core genes	two-component sensor	VPA0009	0.00	0.86	0.00	0.00	0.00	0.85
VPA0045	Core genes	ada regulatory protein	VPA0045	0.00	0.00	0.00	0.00	0.00	0.85
VPA0052	Core genes	hypothetical protein	VPA0052	0.00	0.90	0.00	0.00	0.00	0.90
VPA0053	Core genes	transcriptional regulator	VPA0053	0.00	0.95	0.00	0.00	0.00	0.95
VPA0054	Core genes	hypothetical protein	VPA0054	0.00	0.95	0.00	0.00	0.00	0.95
VPA0055	Core genes	chitinase	VPA0055	0.00	0.90	0.00	0.90	0.00	0.93
VPA0066	Core genes	hypothetical protein	VPA0066	0.00	0.84	0.00	0.00	0.00	0.85
VPA0067	Core genes	hypothetical protein	VPA0067	0.00	0.85	0.00	0.00	0.00	0.85
VPA0068	Core genes	GGDEF family protein	VPA0068	0.00	0.88	0.00	0.00	0.00	0.88
VPA0070	Core genes	esterase	VPA0070	0.00	0.88	0.00	0.00	0.00	0.90
VPA0071	Core genes	alcohol dehydrogenase	VPA0071	0.00	0.82	0.00	0.00	0.00	0.83
VPA0109	Core genes	hypothetical protein	VPA0109	0.94	0.99	0.00	0.00	0.00	0.00
VPA0127	Core genes	cytochrome c-type protein YecK	VPA0127	0.82	0.90	0.00	0.00	0.82	0.90
VPA0168	Core genes	multidrug resistance protein D	VPA0168	0.00	0.82	0.00	0.00	0.00	0.00
VPA0175	Core genes	LysR family transcriptional regulator	VPA0175	0.00	0.00	0.00	0.00	0.00	0.82
VPA0185	Core genes	branched chain amino acid transporter	VPA0185	0.00	0.90	0.00	0.00	0.00	0.90
VPA0186	Core genes	conotoxin scaffold I	VPA0186	0.00	0.89	0.00	0.00	0.00	0.90
VPA0188	Core genes	hypothetical protein	VPA0188	0.00	0.90	0.00	0.00	0.00	0.89
VPA0202	Core genes	GGDEF family protein	VPA0202	0.00	0.87	0.00	0.00	0.00	0.88

VPA0253	Core genes	transport protein	VPA0253	0.00	0.85	0.00	0.00	0.00	0.85
VPA0254	Core genes	L-serine dehydratase 1	VPA0254	0.00	0.83	0.00	0.00	0.00	0.87
VPA0255	Core genes	hypothetical protein	VPA0255	0.00	0.87	0.00	0.00	0.00	0.90
VPA0273	Core genes	flagellar hook-associated protein	VPA0273	0.00	0.00	0.91	0.00	0.00	0.00
VPA0318	Core genes	outer membrane protein OmpV	VPA0318	0.00	0.00	0.87	0.00	0.00	0.00
VPA0406	Core genes	hypothetical protein	VPA0406	0.00	0.85	0.00	0.00	0.00	0.85
VPA0467	Core genes	ABC transporter ATP-binding protein	VPA0467	0.00	0.85	0.00	0.00	0.00	0.85
VPA0470	Core genes	multidrug efflux system transmembrane protein	VPA0470	0.90	0.00	0.00	0.00	0.90	0.00
VPA0471	Core genes	multidrug efflux membrane fusion protein	VPA0471	0.84	0.89	0.00	0.00	0.00	0.00
VPA0472	Core genes	long-chain fatty acid transport protein	VPA0472	0.88	0.00	0.00	0.00	0.00	0.00
VPA0476	Core genes	hypothetical protein	VPA0476	0.93	0.00	0.00	0.00	0.00	0.00
VPA0554	Core genes	methyl-accepting chemotaxis protein	VPA0554	0.00	0.89	0.00	0.00	0.00	0.82
VPA0603	Core genes	NodN-like protein	VPA0603	0.82	0.00	0.00	0.00	0.00	0.00
VPA0605	Core genes	hypothetical protein	VPA0605	0.00	0.85	0.00	0.00	0.00	0.00
VPA0606	Core genes	AraC-type regulatory protein	VPA0606	0.00	0.95	0.00	0.00	0.00	0.95
VPA0607	Core genes	exoribonuclease II	VPA0607	0.00	0.91	0.00	0.85	0.00	0.92
VPA0608	Core genes	ATP-dependent RNA helicase DeaD	VPA0608	0.91	0.94	0.00	0.00	0.91	0.91
VPA0609	Core genes	hypothetical protein	VPA0609	0.82	0.93	0.00	0.00	0.00	0.91
VPA0613	Core genes	permease	VPA0613	0.00	0.86	0.00	0.00	0.00	0.87
VPA0614	Core genes	hypothetical protein	VPA0614	0.00	0.87	0.00	0.00	0.00	0.88
VPA0615	Core genes	hydroxymethylglutaryl-CoA lyase	VPA0615	0.00	0.90	0.00	0.00	0.00	0.87
VPA0618	Core genes	acyl-CoA dehydrogenase	VPA0618	0.00	0.85	0.00	0.00	0.00	0.85
VPA0668	Core genes	hypothetical protein	VPA0668	0.00	0.85	0.00	0.00	0.00	0.00
VPA0675	Core genes	sensor protein TorS	VPA0675	0.00	0.00	0.00	0.00	0.82	0.00
VPA0677	Core genes	fatty acid cis/trans isomerase	VPA0677	0.00	0.85	0.00	0.00	0.00	0.00
VPA0678	Core genes	hypothetical protein	VPA0678	0.00	0.83	0.00	0.00	0.00	0.00
VPA0679	Core genes	arylsulfatase	VPA0679	0.93	0.86	0.91	0.89	0.93	0.87
VPA0680	Core genes	arylsulfatase	VPA0680	0.91	0.00	0.00	0.94	0.94	0.00

VPA0681	Core genes	hypothetical protein	VPA0681	0.82	0.84	0.92	0.89	0.92	0.90
VPA0682	Core genes	LysR family transcriptional regulator	VPA0682	0.99	0.96	0.96	0.00	0.98	0.94
VPA0683	Core genes	arylsulfatase protein	VPA0683	0.00	0.85	0.00	0.00	0.00	0.85
VPA0684	Core genes	arylsulfatase regulator	VPA0684	0.00	0.85	0.00	0.00	0.00	0.85
VPA0689	Core genes	hypothetical protein	VPA0689	0.00	0.00	0.00	0.00	0.85	0.00
VPA0706	Core genes	C4-dicarboxylate transporter DcuC	VPA0706	0.00	0.88	0.00	0.82	0.00	0.92
VPA0712	Core genes	ribosomal biogenesis GTPase	VPA0712	0.00	0.98	0.00	0.00	0.00	0.98
VPA0738	Core genes	fimbrial protein Z transcriptional regulator	VPA0738	0.00	0.00	0.85	0.00	0.00	0.00
VPA0739	Core genes	GGDEF domain-containing protein	VPA0739	0.00	0.00	0.82	0.00	0.00	0.81
VPA0832	Core genes	chitodextrinase	VPA0832	0.00	0.00	0.00	0.00	0.00	0.98
VPA0835	Core genes	inosine-guanosine kinase	VPA0835	0.00	0.89	0.00	0.00	0.00	0.90
VPA0838	Core genes	hypothetical protein	VPA0838	0.00	0.93	0.00	0.00	0.00	0.95
VPA0839	Core genes	hypothetical protein	VPA0839	0.00	0.92	0.00	0.00	0.00	0.92
VPA0842	Core genes	methyl-accepting chemotaxis protein	VPA0842	0.00	0.87	0.00	0.00	0.00	0.86
VPA0846	Core genes	hypothetical protein	VPA0846	0.00	0.85	0.00	0.00	0.00	0.84
VPA0847	Core genes	hypothetical protein	VPA0847	0.00	0.85	0.00	0.00	0.00	0.83
VPA0852	Core genes	LysR family transcriptional regulator	VPA0852	0.00	0.89	0.00	0.00	0.00	0.90
VPA0859	Core genes	lipase	VPA0859	0.00	0.85	0.00	0.00	0.00	0.84
VPA1016	Core genes	multidrug resistance protein D	VPA1016	0.00	0.86	0.00	0.00	0.00	0.87
VPA1018	Core genes	lipoprotein Blc	VPA1018	0.00	0.81	0.00	0.00	0.00	0.85
VPA1022	Core genes	exonuclease SbcC	VPA1022	0.00	0.87	0.00	0.00	0.00	0.86
VPA1024	Core genes	hypothetical protein	VPA1024	0.82	0.91	0.00	0.00	0.82	0.91
VPA1028	Core genes	ClpA/B-type chaperone	VPA1028	0.00	0.85	0.00	0.00	0.00	0.85
VPA1046	Core genes	hypothetical protein	VPA1046	0.00	0.82	0.00	0.00	0.00	0.00
VPA1101	Core genes	cytochrome c551 peroxidase	VPA1101	0.00	0.90	0.00	0.00	0.00	0.86
VPA1104	Core genes	hypothetical protein	VPA1104	0.00	0.90	0.95	0.00	0.89	0.88
VPA1111	Core genes	glycine betaine-binding ABC transporter	VPA1111	0.00	0.84	0.00	0.00	0.00	0.90
VPA1112	Core genes	choline dehydrogenase	VPA1112	0.00	0.83	0.00	0.00	0.00	0.87
VPA1176	Core genes	hypothetical protein	VPA1176	0.00	0.00	0.00	0.00	0.00	0.82

VPA1219	Core genes	transcriptional regulator	VPA1219	0.00	0.00	0.00	0.00	0.00	0.85
VPA1404	Core genes	hypothetical protein	VPA1404	0.00	0.00	0.00	0.00	0.00	0.85
VPA1406	Core genes	exopolysaccharide biosynthesis protein	VPA1406	0.00	0.82	0.00	0.00	0.00	0.00
VPA1407	Core genes	hypothetical protein	VPA1407	0.00	0.85	0.00	0.00	0.00	0.85
VPA1412	Core genes	polysaccharide biosynthesis-like protein	VPA1412	0.00	0.90	0.00	0.83	0.00	0.86
VPA1413	Core genes	hypothetical protein	VPA1413	0.00	0.85	0.00	0.00	0.00	0.85
VPA1449	Core genes	methyl-accepting chemotaxis protein	VPA1449	0.00	0.83	0.00	0.00	0.00	0.85
VPA1511	Core genes	sensory box/GGDEF family protein SrcC	VPA1511	0.00	0.00	0.00	0.00	0.00	0.84
VPA1557	Core genes	chemotaxis LafU protein	VPA1557	0.00	0.83	0.00	0.00	0.00	0.00