

TABLE S2. Genes that are transcribed at a higher level in *V. cholerae* O1 El Tor biotype. Differentially expressed genes were determined using SAM software with ≥ 2.0 fold change in gene expression and False Discovery Rate (FDR) ≤ 0.01 as a criteria. Genes that are absent in classical biotype (17) and expressed in El Tor biotype under our experimental conditions are marked with asterisk (*).

Gene ID / Main Cellular Roles		Fold Change
Amino Acid Biosynthesis		
VC0968	cysteine synthase A <i>cysK</i>	2.17
VC1977	aspartate aminotransferase putative	3.70
Biosynthesis of Cofactors, Prosthetic Groups and Carriers		
VC0194	gamma-glutamyltranspeptidase <i>ggt</i>	2.33
VC1040	cob(I)alamin adenosyltransferase <i>cobA</i>	2.56
Cell Envelope		
VC0430	immunogenic protein	2.22
VC0502	type IV pilin putative	3.57
VC1318	outer membrane protein OmpV <i>ompV</i>	2.00
VC1622	outer membrane protein putative	11.11
VCA0317	lipoprotein Blc <i>blc-1</i>	2.13
VCA0406	lipoprotein Blc <i>blc-3</i>	2.00
VCA0443	lipoprotein Blc <i>blc-4</i>	2.33
Cellular Processes: Chemotaxis and Motility		
VC1248	methyl-accepting chemotaxis protein	5.00
VC1298	methyl-accepting chemotaxis protein	2.70
VC1394	methyl-accepting chemotaxis protein	2.70
VC1395	chemotaxis protein CheY authentic frameshift <i>cheY-1</i>	3.45
VC1398	chemotaxis protein CheY <i>cheY-2</i>	2.04
VC1399	chemotaxis protein methyltransferase CheR <i>cheR-1</i>	2.13
VC1401	protein-glutamate methylesterase CheB <i>cheB-1</i>	2.44
VC1402	purine-binding chemotaxis protein Chew putative	3.03
VC1403	methyl-accepting chemotaxis protein	4.35
VC1643	methyl-accepting chemotaxis protein	5.26
VC1763	chemotaxis protein MotB-related protein	2.56
VC1868	methyl-accepting chemotaxis protein	2.04
VC1967	methyl-accepting chemotaxis protein	3.57
VCA1096	chemotaxis protein CheY <i>cheY-4</i>	4.17
Cellular Processes: Pathogenesis		
VC0408	MSHA pilin protein MshB <i>mshB</i>	2.22
VC0409	MSHA pilin protein MshA <i>mshA</i>	2.33
VC1450	RTX toxin activating protein <i>rtxC</i>	*
VC1621	agglutination protein	4.17
VC1888	hemolysin-related protein	4.76
VCA0219	haemolysin <i>hlyA</i>	2.78
VCA0300	chloramphenicol acetyltransferase <i>cat</i>	*
Cellular Processes: Detoxification		
VC0731	antioxidant AhpC/Tsa family	2.22
VC1350	antioxidant putative	2.86
VC1583	superoxide dismutase Cu-Zn <i>sodC</i>	4.76

VC2694	superoxide dismutase_Mn <i>sodA</i>	2.94
Cellular Processes: Other		
VC0076	universal stress protein A <i>uspA</i>	2.50
VC0139	DPS family protein	3.45
VC1585	catalase <i>katB</i>	4.55
Central Intermediary Metabolism		
VC0454	glutaminase family protein	2.17
VCA0274	carbonic anhydrase <i>cah</i>	2.38
VCA0301	oxidoreductase_short-chain dehydrogenase/reductase family	3.70
VCA0316	acetyltransferase_putative	*
VCA0328	biphenyl-2_3-diol 1_2-dioxygenase III-related protein	4.55
VCA0463	biphenyl-2_3-diol 1_2-dioxygenase III-related protein	3.45
VCA0523	aminotransferase_class II	2.08
VCA0798	CbbY family protein	2.13
DNA Metabolism		
VC0452	A/G-specific adenine glycosylase <i>mutY</i>	2.08
VC1765	type I restriction enzyme HsdR_putative	5.00
Energy Metabolism		
VC0168	cytochrome c5 <i>cycB</i>	2.56
VC0432	malate dehydrogenase <i>mdh</i>	3.23
VC0478	fructose-bisphosphate aldolase_class II <i>fbaA</i>	2.17
VC0574	ubiquinol--cytochrome c reductase_cytochrome B <i>petB</i>	2.70
VC0575	ubiquinol--cytochrome c reductase_cytochrome c1 <i>petC</i>	2.33
VC0604	aconitate hydratase 2 <i>acnB</i>	2.04
VC1336	carboxyphosphoenolpyruvate phosphonmutase <i>prpB</i>	2.00
VC1338	aconitate hydratase 1 <i>acnA</i>	2.50
VC1439	cytochrome c oxidase_subunit CcoP <i>ccoP</i>	2.04
VC1440	cytochrome c oxidase_subunit CcoQ <i>ccoQ</i>	2.08
VC1558	6-phospho-beta-glucosidase <i>bglA</i>	5.56
VC1573	fumarate hydratase_class II_aerobic <i>fumC</i>	5.88
VC2091	succinate dehydrogenase_cytochrome b556 subunit <i>sdhC</i>	2.63
VCA0136	glycerophosphoryl diester phosphodiesterase <i>glpQ</i>	2.04
VCA0277	glycine cleavage system H protein <i>gcvH</i>	2.22
Fatty Acid and Phospholipid Metabolism		
VC2759	fatty oxidation complex_beta subunit <i>fadA</i>	2.00
VCA0688	polyhydroxyalkanoic acid synthase <i>phaC</i>	11.11
VCA0690	acetyl-CoA acetyltransferase	50.00
VCA0691	acetoacetyl-CoA reductase	25.00
Mobile and Extrachromosomal Element Functions		
VC0516	phage integrase	*
VC1452	RstC protein <i>rstC</i>	2.44
VC1455	transcriptional repressor RstR <i>rstR-I</i>	20.00
Protein Fate		
VC0034	thiol:disulfide interchange protein <i>tpcG</i>	2.63
VC0354	peptidyl-prolyl cis-trans isomerase_FKBP-type <i>fkpA</i>	2.08
VC0566	protease DO <i>htrA</i>	2.63
VC2436	outer membrane protein TolC <i>tolC</i>	2.27
VC2568	peptidyl-prolyl cis-trans isomerase_FKBP-type <i>fklB</i>	2.86
VCA0116	clpB protein <i>clpB-2</i>	3.23
VCA0223	protease <i>prtV</i>	3.45

Protein Synthesis		
VC0219	ribosomal protein L33 <i>rpmG</i>	3.33
VC0878	ribosomal protein_ L31P family	2.33
VC0879	ribosomal protein L36_ putative	2.56
Purine, Pyrimidines, Nucleosides, Nucleotides		
VC0756	nucleoside diphosphate kinase <i>ndk</i>	2.22
VC1038	uridine kinase <i>udk</i>	2.08
VC1916	cytidylate kinase <i>cmk</i>	2.04
VCA0197	GMP reductase <i>guaC</i>	2.50
Regulatory Functions		
VC0166	transcriptional regulator_ TetR family	2.38
VC0176	transcriptional regulator_ putative	*
VC0330	regulator of sigma D <i>rsd</i>	2.94
VC0665	sigma-54 dependent transcriptional regulator <i>vpsR</i>	2.17
VC1081	response regulator	2.27
VC1085	sensor histidine kinase	2.08
VC1142	cold shock-like protein CspD <i>cspD</i>	5.88
VC1445	sensor histidine kinase/response regulator	4.17
VC2275	transcriptional regulator Crl <i>crl</i>	2.44
VC2530	sigma-54 modulation protein_ putative	2.27
VCA0231	transcriptional regulator_ AraC/XylS family	2.56
VCA0697	sensory box/GGDEF family protein	7.14
VCA1087	anti-sigma F factor antagonist_ putative	4.00
Transport and Binding Proteins		
VC0164	multidrug resistance protein_ putative	2.38
VC0171	peptide ABC transporter_ periplasmic peptide-binding protein	3.03
VC0172	peptide ABC transporter_ permease protein	2.78
VC0173	peptide ABC transporter_ permease protein	3.23
VC0364	bacterioferritin-associated ferredoxin <i>bfd</i>	2.27
VC0488	extracellular solute-binding protein_ putative	8.33
VC0538	thiosulfate ABC transporter_ periplasmic thiosulfate-binding protein <i>cysP</i>	2.13
VC0608	iron(III) ABC transporter_ periplasmic iron-compound-binding protein	5.88
VC0704	spermidine/putrescine ABC transporter_ periplasmic spermidine/putrescine-binding protein_ putative	3.45
VC0774	hypothetical protein	4.35
VC0775	vibriobactin synthetase_ amide synthase subunit VibH <i>vibH</i>	2.13
VC0776	vibriobactin and enterobactin ABC transporter_ periplasmic ferric vibriobactin/enterobactin-binding protein <i>viuP</i>	3.45
VC0777	vibriobactin and enterobactin ABC transporter_ permease protein <i>viuD</i>	2.56
VC0784	sodium/alanine symporter	2.27
VC1168	proton/glutamate symporter <i>glpP-1</i>	4.00
VC1325	galactoside ABC transporter_ periplasmic D-galactose/D-glucose-binding protein <i>mglB</i>	2.00
VC1327	galactoside ABC transporter_ ATP-binding protein <i>mglA</i>	2.22
VC1362	amino acid ABC transporter_ periplasmic amino acid-binding protein	2.78
VC1424	spermidine/putrescine ABC transporter_ periplasmic spermidine/putrescine-binding protein <i>potD-1</i>	5.56
VC1547	biopolymer transport protein ExbB-related protein	2.17
VC1658	serine transporter <i>sdaC-2</i>	6.67
VC1861	amino acid ABC transporter_ permease protein	3.85
VC1862	amino acid ABC transporter_ permease protein	5.88

VC1863	amino acid ABC transporter_ periplasmic amino acid-binding protein	4.55
VC1864	amino acid ABC transporter_ ATP-binding protein	2.33
VC2012	sodium-dependent transporter	7.69
VC2210	vibriobactin utilization protein ViuB <i>viuB</i>	2.38
VC2211	ferric vibriobactin receptor <i>viuA</i>	2.70
VCA0227	vibriobactin and enterobactin ABC transporter_ periplasmic vibriobactin/enterobactin-binding protein <i>vctP</i>	5.88
VCA0576	heme transport protein HutA <i>hutA</i>	9.09
VCA0612	large-conductance mechanosensitive channel <i>mscL</i>	4.76
VCA0759	arginine ABC transporter_ periplasmic arginine-binding protein <i>artI</i>	2.38
VCA0910	tonB1 protein <i>tonB1</i>	2.94
VCA0911	TonB system transport protein ExbB1 <i>exbB1</i>	4.17
VCA0912	TonB system transport protein ExbD1 <i>exbD1</i>	3.23
VCA0915	hemin ABC transporter_ ATP-binding protein HutD <i>hutD</i>	2.38
VCA0978	amino acid ABC transporter_ periplasmic amino acid-binding protein_ putative	2.22
VCA0996	ABC transporter_ ATP-binding protein	2.17
VCA1039	amino acid ABC transporter_ periplasmic amino acid-binding protein	2.13

Unkown Function

VC0036	FixG-related protein	3.33
VC0178	patatin family protein	*
VC1415	hcp protein <i>hcp-1</i>	16.67
VC1599	GGDEF family protein	2.78
VC1754	paraquat-inducible protein B <i>pqiB</i>	2.00
VCA0017	hcp protein <i>hcp-2</i>	16.67
VCA0324	DNA-damage-inducible protein J <i>dinJ</i>	3.33
VCA0628	SecA-related protein	8.33
VCA0785	GGDEF family protein	2.13
VCA0878	integrase-related protein	2.27

VPS Biosynthesis

VC0928	hypothetical protein	4.55
VC0929	hypothetical protein	3.70
VC0930	hemolysin-related protein	8.33

Hypothetical Proteins

VC0180	conserved hypothetical protein	*
VC0181	conserved hypothetical protein	*
VC0480	conserved hypothetical protein	2.13
VC0490	conserved hypothetical protein	*
VC0503	conserved hypothetical protein	*
VC0559	conserved hypothetical protein	2.04
VC0628	conserved hypothetical protein	2.63
VC0957	conserved hypothetical protein	2.04
VC1009	conserved hypothetical protein	4.00
VC1332	conserved hypothetical protein	5.26
VC1334	conserved hypothetical protein	5.26
VC1433	conserved hypothetical protein	2.38
VC1492	conserved hypothetical protein	9.09
VC1576	conserved hypothetical protein	2.63
VC1712	conserved hypothetical protein	7.69
VC1872	conserved hypothetical protein	9.09
VC1873	conserved hypothetical protein	5.26

VC1874	conserved hypothetical protein	8.33
VC2386	conserved hypothetical protein	4.00
VC2706	conserved hypothetical protein	16.67
VCA0037	conserved hypothetical protein	2.08
VCA0048	conserved hypothetical protein	4.55
VCA0105	conserved hypothetical protein	2.33
VCA0154	conserved hypothetical protein	3.70
VCA0309	conserved hypothetical protein	3.70
VCA0323	conserved hypothetical protein	10.00
VCA0332	conserved hypothetical protein	14.29
VCA0345	conserved hypothetical protein	11.11
VCA0689	conserved hypothetical protein	50.00
VCA0903	conserved hypothetical protein	5.00
VCA1054	conserved hypothetical protein	3.57
VCA1083	conserved hypothetical protein	2.04
VCA1097	conserved hypothetical protein	5.26
VC0102	hypothetical protein	4.76
VC0179	hypothetical protein	*
VC0182	hypothetical protein	*
VC0493	hypothetical protein	*
VC0504	hypothetical protein	50.00
VC0712	hypothetical protein	2.44
VC0955	hypothetical protein	2.33
VC0996	hypothetical protein	2.22
VC1116	hypothetical protein	6.25
VC1197	hypothetical protein	2.50
VC1247	hypothetical protein	2.56
VC1323	hypothetical protein	2.27
VC1333	hypothetical protein	12.50
VC1384	hypothetical protein	2.44
VC1389	hypothetical protein	2.63
VC1396	hypothetical protein	2.44
VC1449	hypothetical protein	*
VC1548	hypothetical protein	2.63
VC1572	hypothetical protein	2.63
VC1575	hypothetical protein	2.08
VC1620	hypothetical protein	4.35
VC1742	hypothetical protein	2.27
VC1743	hypothetical protein	2.04
VC1771	hypothetical protein	5.00
VC1865	hypothetical protein	3.57
VC1933	hypothetical protein	2.94
VC1999	hypothetical protein	3.03
VC2010	hypothetical protein	2.08
VCA0032	hypothetical protein	3.70
VCA0078	hypothetical protein	2.56
VCA0081	hypothetical protein	2.94
VCA0109	hypothetical protein	3.57
VCA0112	hypothetical protein	3.33
VCA0114	hypothetical protein	2.94

VCA0224	hypothetical protein	2.63
VCA0283	hypothetical protein	3.13
VCA0294	hypothetical protein	5.26
VCA0298	hypothetical protein	4.35
VCA0299	hypothetical protein	9.09
VCA0307	hypothetical protein	6.67
VCA0330	hypothetical protein	4.55
VCA0331	hypothetical protein	4.00
VCA0333	hypothetical protein	12.50
VCA0340	hypothetical protein	4.35
VCA0344	hypothetical protein	2.08
VCA0376	hypothetical protein	3.85
VCA0379	hypothetical protein	2.13
VCA0380	hypothetical protein	3.85
VCA0405	hypothetical protein	2.04
VCA0420	hypothetical protein	2.08
VCA0430	hypothetical protein	2.44
VCA0448	hypothetical protein	6.67
VCA0611	hypothetical protein	3.23
VCA0645	hypothetical protein	2.70
VCA0728	hypothetical protein	*
VCA0730	hypothetical protein	*
VCA0849	hypothetical protein	2.13
VCA0880	hypothetical protein	2.08
VCA0882	hypothetical protein	3.70
VCA0883	hypothetical protein	14.29
VCA0935	hypothetical protein	5.26
VCA0976	hypothetical protein	2.56
VCA0980	hypothetical protein	3.13
VCA0981	hypothetical protein	2.44
VCA1035	hypothetical protein	2.04
<hr/>		
Others		
VC1935	CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase-related protein	2.17
VCA0346	H-REV 107-related protein	8.33
VCA0907	heme-binding protein HutZ <i>hutZ</i>	10.00
VCA0908	hutX protein <i>hutX</i>	5.88