

Vibrio cholerae Gateway® Clone Set, Recombinant in Escherichia coli, Plates 1-46

Catalog No. NR-19279

Table 1: Vibrio cholerae Gateway® Clones, Plate 1 (NR-19679)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174071	A02	367	VC2271	ribD	riboflavin-specific deaminase	NP_231902.1
174346	A03	336	VC1877	lpxK	tetraacyldisaccharide 4'-kinase	NP_231511.1
174354	A04	342	VC0953	hoiA	DNA polymerase III, delta subunit	NP_230600.1
174115	A05	388	VC2085	sucC	succinyl-CoA synthase, beta subunit	NP_231717.1
174310	A06	506	VC2400	murC	UDP-N-acetylmuramate--alanine ligase	NP_232030.1
174523	A07	132	VC0644	rbfA	ribosome-binding factor A	NP_230293.2
174632	A08	322	VC0681	ribF	riboflavin kinase-FMN adenylyltransferase	NP_230330.1
174930	A09	433	VC0720	phoR	histidine protein kinase PhoR	NP_230369.1
174953	A10	206	VC1178		conserved hypothetical protein	NP_230823.1
174976	A11	213	VC2358		hypothetical protein	NP_231988.1
174898	A12	369	VC0154	trmA	tRNA (uracil-5-)-methyltransferase	NP_229811.1
174059	B01	73	VC2098		hypothetical protein	NP_231730.1
174075	B02	82	VC0561	rpsP	ribosomal protein S16	NP_230212.1
174087	B03	378	VC1843	cydB-1	cytochrome d ubiquinol oxidase, subunit II	NP_231477.1
174099	B04	383	VC1798	eha	eha protein	NP_231433.1
174294	B05	494	VC0763		GTP-binding protein	NP_230412.1
174311	B06	314	VC2183	prsA	ribose-phosphate pyrophosphokinase	NP_231814.1
174603	B07	108	VC0675	thyA	thymidylate synthase	NP_230324.1
174474	B08	466	VC1297	asnS	asparaginyl-tRNA synthetase	NP_230942.2
174933	B09	198	VC0166		transcriptional regulator, TetR family	NP_229823.1
174773	B10	302	VC0195	rarD	rarD protein	NP_229852.1
175070	B11	268	VC1169	trpA	tryptophan synthase, alpha subunit	NP_230814.1
174902	B12	156	VC0181		conserved hypothetical protein	NP_229838.1
174143	C01	398	VC2397	ftsZ	cell division protein FtsZ	NP_232027.1
174160	C02	142	VC0324	rplK	ribosomal protein L11	NP_229978.1
174172	C03	414	VC1882		conserved hypothetical protein	NP_231516.1
174192	C04	162	VC0326	rplJ	ribosomal protein L10	NP_229980.1
174298	C05	294	VC0890	ispA	geranyltransferase	NP_230537.1
174390	C06	362	VC2179	prfA	peptide chain release factor 1	NP_231810.1
174527	C07	545	VC2448	pyrG	CTP synthase	NP_232077.1
174478	C08	105	VC2585	rplX	ribosomal protein L24	NP_232213.1
174847	C09	107	VC0714		hypothetical protein	NP_230363.1
174867	C10	332	VC1172	trpD	anthranilate phosphoribosyltransferase	NP_230817.2
174796	C11	315	VC0174		hypothetical protein	NP_229831.1
175086	C12	279	VC0187		conserved hypothetical protein	NP_229844.1
174322	D01	321	VC0943	lipA	lipoic acid synthetase	NP_230590.1
174250	D02	242	VC2260	rpsB	ribosomal protein S2	NP_231891.1
174176	D03	150	VC2106	fur	ferric uptake regulation protein	NP_231738.1
174278	D04	468	VC0371	dnaB	replicative DNA helicase	NP_230025.1
174378	D05	N/A	VCA0589		peptide ABC transporter, permease protein, putative	N/A
174315	D06	509	VC2214	gltX	glutamyl-tRNA synthetase	NP_231845.1
174547	D07	166	VC2724	epsM	cholerae toxin secretion protein EpsM	NP_232351.1
174724	D08	372	VC1128	trmU	tRNA (5-methylaminomethyl-2-thiouridylate)-methyltransferase	NP_230773.1
174941	D09	199	VC0146		conserved hypothetical protein	NP_229804.1
174870	D10	125	VC0198		hypothetical protein	NP_229855.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174890	D11	368	VC0165		conserved hypothetical protein	NP_229822.1
174815	D12	85	VC0143		hypothetical protein	NP_229801.1
174063	E01	366	VC0013	dnaN	DNA polymerase III, beta chain	NP_062597.1
174079	E02	N/A	VCA0921		hypothetical protein	N/A
174266	E03	265	VC2670	tpiA	triosephosphate isomerase	NP_232298.1
174362	E04	347	VC0415	mreB	rod shape-determining protein MreB	NP_230069.1
174123	E05	394	VC0362	tufA	elongation factor TU	NP_230016.1
174574	E06	206	VC2572	rpsD	ribosomal protein S4	NP_232200.1
174701	E07	366	VC2500		conserved hypothetical protein	NP_232129.1
175006	E08	233	VC0148	ftsE	cell division ATP-binding protein FtsE	NP_229806.1
174851	E09	330	VC0149	ftsX	cell division protein FtsX	NP_229807.1
174957	E10	466	VC0151	udhA	pyridine nucleotide-disulfide oxidoreductase, class I	NP_229808.1
174894	E11	152	VC0159		RNA-binding protein	NP_229816.1
174910	E12	183	VC0702		conserved hypothetical protein	NP_230351.1
174148	F01	399	VC0215	dfp	DNA-pantothenate metabolism flavoprotein	NP_229872.1
174164	F02	404	VC2086	sucB	2-oxoglutarate dehydrogenase, E2 component, dihydrolipoamide succinyltransferase	NP_231718.1
174095	F03	N/A	VCA0323		conserved hypothetical protein	NA
174286	F04	472	VC0012	dnaA	chromosomal DNA replication initiator DnaA	NP_062596.1
174382	F05	359	VC0332	hemE	uroporphyrinogen decarboxylase	NP_229986.1
174402	F06	385	VC0472	metK	S-adenosylmethionine synthase	NP_230126.1
174466	F07	475	VC2412	lpdA	pyruvate dehydrogenase, E3 component, lipoamide dehydrogenase	NP_232042.1
174831	F08	99	VC0197		gene 3 protein-related protein	NP_229854.1
174855	F09	108	VC0706		sigma-54 modulation protein, putative	NP_230355.1
174874	F10	355	VC0178		patatin family protein	NP_229835.1
175078	F11	270	VC0192		transcriptional regulator, AraC-XylS family	NP_229849.1
175184	F12	315	VC0744	secF-1	protein-export membrane protein SecF	NP_230393.1
174242	G01	212	VC2016	tmk	thymidylate kinase	NP_231650.1
174168	G02	142	VC0756	ndk	nucleoside diphosphate kinase	NP_230405.1
174184	G03	156	VC2768	atpF	ATP synthase F0, B subunit	NP_232394.1
174290	G04	280	VC2255	cdsA	phosphatidate cytidyltransferase	NP_231886.1
174131	G05	394	VC0321	tufB	elongation factor Tu	NP_229975.1
174410	G06	377	VC1255	nrdB	ribonucleoside-diphosphate reductase, beta subunit	NP_230900.2
174470	G07	103	VC2597	rpsJ	ribosomal protein S10	NP_232225.1
174922	G08	404	VC0185		transposase, putative	NP_229842.1
174949	G09	203	VC1173	trpG	anthranilate synthase component II	NP_230818.1
174964	G10	466	VC0717		protease, putative	NP_230366.1
174803	G11	318	VC1182	trxB	thioredoxin reductase	NP_230827.1
175277	G12	379	VC2390	carA	carbamoyl-phosphate synthase, small subunit	NP_232020.1
174330	H01	326	VC2523		conserved hypothetical protein	NP_232152.1
174258	H02	247	VC2233	dnaQ	DNA polymerase III, epsilon subunit	NP_231864.1
174270	H03	467	VC2764	atpD	ATP synthase F1, beta subunit	NP_232390.1
174370	H04	348	VC1014		RnfD-related protein	NP_230660.1
174224	H05	175	VC2099	fldA	flavodoxin 1	NP_231731.1
174515	H06	129	VC2573	rpsK	ribosomal protein S11	NP_232201.1
174560	H07	169	VC0046	def-1	polypeptide deformylase	NP_229705.1
174835	H08	324	VC1907	cysB	cys regulon transcriptional activator	NP_231541.1
174863	H09	123	VC0153		conserved hypothetical protein	NP_229810.1
174886	H10	143	VC0182		hypothetical protein	NP_229839.1
174807	H11	84	VC0716		ferredoxin	NP_230365.1

Table 2: *Vibrio cholerae* Gateway® Clones, Plate 2 (NR-19680)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175200	A02	317	VC2380		cobalamin biosynthesis protein CbiB, putative	NP_232010.1
175313	A03	196	VC1894		conserved hypothetical protein	NP_231528.1
175325	A04	402	VC1205	hutI	imidazolonepropionase	NP_230850.1
175432	A05	261	VC0780	vibD	vibriobactin synthase component D	NP_230429.1
175260	A06	160	VC2388		hypothetical protein	NP_232018.1
175455	A07	269	VC2391	dapB	dihydrodipicolinate reductase	NP_232021.1
175645	A08	403	VC1200		trypsin, putative	NP_230845.1
175739	A09	197	VC0770		conserved hypothetical protein	NP_230419.1
175664	A10	144	VC2378		conserved hypothetical protein	NP_232008.1
175676	A11	437	VC0736	aceA	isocitrate lyase	NP_230385.1
175777	A12	223	VC1195		lipoprotein, putative	NP_230840.1
175281	B01	173	VC1902	dsbB	disulfide bond formation protein B	NP_231536.1
175204	B02	116	VC1897		Hit family protein	NP_231531.1
175408	B03	244	VC0746		RNA methyltransferase, TrmH family	NP_230395.1
175329	B04	204	VC0761		conserved hypothetical protein	NP_230410.1
175152	B05	288	VC0745		inositol monophosphate family protein	NP_230394.1
175349	B06	N/A	VCA0749	glpC	anaerobic glycerol-3-phosphate dehydrogenase, subunit C	NA
175176	B07	315	VC1207		hypothetical protein	NP_230852.1
175731	B08	N/A	VCA0769		conserved hypothetical protein	NA
175466	B09	N/A	VCA0767		transcriptional regulator, TetR family	NA
175754	B10	214	VC1213		transcriptional regulator, LuxR family	NP_230858.1
175680	B11	155	VC1199		conserved hypothetical protein	NP_230844.1
175508	B12	39	VC2372		hypothetical protein	NP_232002.1
175372	C01	429	VC0755	pepB	peptidase B	NP_230404.2
175297	C02	N/A	VCA0755		hypothetical protein	NA
175228	C03	132	VC2392	mutT	mutator MutT protein	NP_232022.1
175424	C04	261	VC2384		conserved hypothetical protein	NP_232014.1
175248	C05	358	VC0778	viuG	vibriobactin and enterobactin ABC transporter, permease protein	NP_230427.1
175353	C06	N/A	VCA0757	artM	arginine ABC transporter, permease protein	NA
175180	C07	106	VC1208		conserved hypothetical protein	NP_230853.1
175548	C08	N/A	VCA0759	artI	arginine ABC transporter, periplasmic arginine-binding protein	NA
175569	C09	N/A	VCA0765	ybjU	L-allo-threonine aldolase	NA
175482	C10	254	VC1186	sanA	sanA protein	NP_230831.1
175769	C11	219	VC1183		hypothetical protein	NP_230828.1
175606	C12	372	VC1216		GGDEF family protein	NP_230861.1
175376	D01	231	VC2379	pfs	MTA-SAH nucleosidase	NP_232009.1
175392	D02	239	VC2382		conserved hypothetical protein	NP_232012.1
175317	D03	N/A	VCA0772	tyrP	tyrosine-specific transport protein	NA
175148	D04	N/A	VCA0746		hypothetical protein	NA
175252	D05	157	VC2395		hypothetical protein	NP_232025.1
175168	D06	308	VC0781		transcriptional regulator, LysR family	NP_230430.1
175272	D07	376	VC0759	gcpE	gcpE protein	NP_230408.1
175561	D08	327	VC1219	pheS	phenylalanyl-tRNA synthetase, alpha chain	NP_230864.1
175658	D09	N/A	VCA0738		hypothetical protein	NA
175583	D10	352	VC0739	queA	S-adenosylmethionine:tRNA ribosyltransferase-isomerase	NP_230388.1
175496	D11	260	VC2399	ftsQ	cell division protein FtsQ	NP_232029.1
175610	D12	N/A	VCA0731		hypothetical protein	NA
175096	E01	N/A	VCA0754		lipase-related protein	NA
175208	E02	N/A	VCA0756		transcriptional regulator, LysR family	NA

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175321	E03	188	VC1209		elongation factor P family protein	NP_230854.2
175240	E04	350	VC0777	viuD	vibriobactin and enterobactin ABC transporter, permease protein	NP_230426.1
175341	E05	404	VC0748		aminotransferase NifS, class V	NP_230397.1
175172	E06	N/A	VCA0743		conserved hypothetical protein	NA
175365	E07	438	VC0775	vibH	vibriobactin synthetase, amide synthase subunit VibH	NP_230424.1
175565	E08	77	VC0765		conserved hypothetical protein	NP_230414.1
175747	E09	207	VC0731		antioxidant, AhpC-Tsa family	NP_230380.1
175668	E10	N/A	VCA0768		ATP-dependent RNA helicase, DEAD box family	NA
175599	E11	N/A	VCA0737	luxP	luxP protein	NA
175692	E12	443	VC1185		GGDEF family protein	NP_230830.1
175192	F01	316	VC2409		conserved hypothetical protein	NP_232039.1
175212	F02	127	VC0749		NifU-related protein	NP_230398.1
175416	F03	256	VC2415	pdhR	pyruvate dehydrogenase complex repressor	NP_232045.1
175244	F04	N/A	VCA0752	trxC	thioredoxin 2	NA
175345	F05	N/A	VCA0740		conserved hypothetical protein	NA
175264	F06	374	VC1905	ald	alanine dehydrogenase	NP_231539.1
175368	F07	N/A	VCA0758	artQ	arginine ABC transporter, permease protein	NA
175651	F08	405	VC1190		phosphoribosylaminoimidazole-succinocarboxamide synthase, putative	NP_230835.1
175474	F09	N/A	VCA0760	artP	arginine ABC transporter, ATP-binding protein	NA
175672	F10	N/A	VCA0766		cytochrome c554	NA
175602	F11	N/A	VCA0739		conserved hypothetical protein	NA
175694	F12	162	VC2366	menG-1	s-adenosylmethionine:2-demethylmenaquinone methyltransferase	NP_231996.1
175285	G01	383	VC1899		hypothetical protein	NP_231533.1
175305	G02	188	VC0747		conserved hypothetical protein	NP_230396.1
175136	G03	286	VC1893		conserved hypothetical protein	NP_231527.1
175333	G04	N/A	VCA0751	fabH-2	3-oxoacyl-(acyl-carrier-protein) synthase III	NA
175160	G05	305	VC2396	envA	UDP-3-O-3-hydroxymyristoyl N-acetylglucosamine deacetylase	NP_232026.1
175268	G06	164	VC1904	lrp	leucine-responsive regulatory protein	NP_231538.1
175544	G07	N/A	VCA0761		hypothetical protein	NA
175654	G08	132	VC1191		hypothetical protein	NP_230836.1
175575	G09	350	VC1194		conserved hypothetical protein	NP_230839.1
175761	G10	218	VC1226		thiopurine methyltransferase	NP_230871.1
175684	G11	444	VC2403	murD	UDP-N-acetylmuramoylalanine--D-glutamate ligase	NP_232033.2
175524	G12	44	VC1221		hypothetical protein	NP_230866.1
175289	H01	179	VC1892		conserved hypothetical protein	NP_231526.1
175309	H02	398	VC1906		hypothetical protein	NP_231540.1
175236	H03	139	VC0753		ferredoxin	NP_230402.1
175337	H04	205	VC2387		conserved hypothetical protein	NP_232017.1
175256	H05	373	VC0757		conserved hypothetical protein	NP_230406.1
175357	H06	N/A	VCA0748	glpB	anaerobic glycerol-3-phosphate dehydrogenase	NA
175553	H07	316	VC2371		conserved hypothetical protein	NP_232001.1
175735	H08	489	VC2374	gltD-1	glutamate synthase, small subunit	NP_232004.1
175663	H09	416	VC1184		NifS-related protein	NP_230829.1
175595	H10	98	VC1222	himA	integration host factor, alpha subunit	NP_230867.1
175688	H11	161	VC1217		conserved hypothetical protein	NP_230862.1

Table 3: *Vibrio cholerae* Gateway® Clones, Plate 3 (NR-19681)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175633	A02	122	VC1187		hypothetical protein	NP_230832.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175896	A03	266	VC1887		hypothetical protein	NP_231521.1
175816	A04	239	VC0129		conserved hypothetical protein	NP_229787.1
176008	A05	426	VC2362	thrC	threonine synthase	NP_231992.1
176099	A06	516	VC1874		conserved hypothetical protein	NP_231508.1
175848	A07	255	VC0103		conserved hypothetical protein	NP_229762.1
175956	A08	N/A	VCA0819	groES-2	chaperonin, 10 Kd subunit	N/A
176137	A09	228	VC1883		ABC transporter, ATP-binding protein	NP_231517.1
175983	A10	406	VC1884		conserved hypothetical protein	NP_231518.1
197509	A11	259	VC2350	deoC	deoxyribose-phosphate aldolase	NP_231980.1
197521	A12	334	VC1845	ruvB	Holliday junction DNA helicase RuvB	NP_231479.1
175621	B01	386	VC0762		conserved hypothetical protein	NP_230411.1
175716	B02	N/A	VCA0764		MutT-nudix family protein	N/A
175992	B03	122	VC0142		hypothetical protein	NP_229794.1
175912	B04	275	VC0134		conserved hypothetical protein	NP_229792.1
176011	B05	N/A	VCA0823	ectC	ectoine synthase	N/A
176101	B06	205	VC0136		conserved hypothetical protein	NP_229794.1
175944	B07	318	VC2363	thrB	homoserine kinase	NP_231993.1
176036	B08	440	VC2452		TrmA family RNA methyltransferase, putative	NP_232081.1
175880	B09	260	VC1863		amino acid ABC transporter, periplasmic amino acid-binding protein	NP_231497.1
175987	B10	N/A	VCA0827	phhB	pterin-4-alpha-carbinolamine dehydratase	N/A
197511	B11	268	VC1860	xth	exodeoxyribonuclease III	NP_231494.1
197522	B12	N/A	VCA0721		hypothetical protein	N/A
175625	C01	110	VC0742		conserved hypothetical protein	NP_230391.1
175800	C02	238	VC2368	fexA	aerobic respiration control protein FexA	NP_231998.1
176071	C03	182	VC0114		conserved hypothetical protein	NP_229773.1
176001	C04	423	VC1873		conserved hypothetical protein	NP_231507.1
176091	C05	514	VC0132		hypothetical protein	NP_229790.1
175840	C06	254	VC0730	cutC	copper homeostasis protein	NP_230379.1
175948	C07	71	VC0101		hypothetical protein	NP_229760.1
176040	C08	163	VC0115		conserved hypothetical protein	NP_229774.1
175884	C09	45	VC1881		hypothetical protein	NP_231515.1
176062	C10	N/A	VCA0812		leucine aminopeptidase-related protein	N/A
197513	C11	279	VC1825		transcriptional regulator	NP_231459.1
197524	C12	105	VC1841		conserved hypothetical protein	NP_231475.1
175706	D01	453	VC2405	murF	UDP-N-acetylmuramoylalanyl-D-glutamyl-2,6-diaminopimelate--D-alanyl-D-alanyl ligase	NP_232035.1
175540	D02	56	VC1227		hypothetical protein	NP_230872.1
175808	D03	236	VC0727	phoU	phosphate transport system regulatory protein PhoU	NP_230376.1
176004	D04	136	VC2455		hypothetical protein	NP_232084.1
176095	D05	198	VC0131		conserved hypothetical protein	NP_229789.1
175936	D06	311	VC0128	xerC	integrase-recombinase XerC	NP_229786.1
176028	D07	434	VC1890	ndh	NADH dehydrogenase	NP_231524.1
176125	D08	222	VC0113		methyltransferase-related protein	NP_229772.1
175979	D09	109	VC0140		conserved hypothetical protein	NP_229793.1
176065	D10	178	VC1889		ribosomal-protein-serine acetyltransferase, putative	NP_231523.1
197515	D11	283	VC2353		conserved hypothetical protein	NP_231983.1
197525	D12	N/A	VCA0710	torT	periplasmic protein TorT	N/A
175709	E01	N/A	VCA0734		hypothetical protein	N/A
175637	E02	395	VC0773	vibC	vibriobactin-specific isochorismate synthase	NP_230422.1
175904	E03	273	VC0726	pstB-1	phosphate ABC transporter, ATP-binding protein	NP_230375.1
176083	E04	N/A	VCA0813		aminopeptidase	N/A
175832	E05	252	VC1875	kdsB	3-deoxy-manno-octulosonate cytidyltransferase	NP_231509.1
175940	E06	N/A	VC0124	lppL	lipopeptide	N/A

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
176032	E07	160	VC2365		hypothetical protein	NP_231995.1
176131	E08	223	VC0112	cycA	cytochrome c4	NP_229771.1
176054	E09	N/A	VCA0822		aspartokinase, putative	N/A
197497	E10	251	VC1245		vitamin B12 ABC transporter, ATP-binding protein BtuD, putative	NP_230890.1
197517	E11	N/A	VCA0719		sensor histidine kinase	N/A
197528	E12	N/A	VCA0714	dgkA	diacylglycerol kinase	N/A
175528	F01	301	VC0732		transcriptional regulator, LysR family	NP_230381.1
175641	F02	127	VC2367		hypothetical protein	NP_231997.1
175997	F03	125	VC2361		formate acetyl transferase-related protein	NP_231991.1
176087	F04	N/A	VCA0817		hypothetical protein	N/A
175928	F05	N/A	VCA0814	speB	agmatinase	N/A
176024	F06	156	VC0139		DPS family protein	NP_229792.1
176117	F07	220	VC1870		hypothetical protein	NP_231504.1
175968	F08	389	VC0117	hemY	hemY protein	NP_229776.1
176058	F09	176	VC1880		conserved hypothetical protein	NP_231514.1
197503	F10	257	VC2355		conserved hypothetical protein	NP_231985.1
197518	F11	N/A	VCA0722		hypothetical protein	N/A
197529	F12	356	VC1837	tolA	tolA protein	NP_231471.1
175532	G01	N/A	VCA0733		hypothetical protein	N/A
175720	G02	N/A	VCA0762		conserved hypothetical protein	N/A
176075	G03	N/A	VCA0811		chitinase, putative	N/A
175824	G04	246	VC1869	pflA	pyruvate formate-lyase 1 activating enzyme	NP_231503.1
176015	G05	430	VC2454		GGDEF family protein	NP_232083.1
176105	G06	517	VC1865		hypothetical protein	NP_231499.1
175856	G07	256	VC1864		amino acid ABC transporter, ATP-binding protein	NP_231498.1
175972	G08	106	VC0100	glpE	glpE protein	NP_229759.1
176143	G09	232	VC0127		conserved hypothetical protein	NP_229785.1
197505	G10	259	VC1856		conserved hypothetical protein	NP_231490.1
197519	G11	328	VC2345	serB	phosphoserine phosphatase	NP_231975.1
197530	G12	139	VC1812		conserved hypothetical protein	NP_231446.1
175629	H01	393	VC1228	purT	phosphoribosylglycinamide formyltransferase 2	NP_230873.1
175724	H02	185	VC1215	pgsA	CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase	NP_230860.1
176079	H03	191	VC1885		hypothetical protein	NP_231519.1
175920	H04	N/A	VCA0828	phhA	phenylalanine-4-hydroxylase	N/A
176016	H05	143	VC0106		conserved hypothetical protein	NP_229765.1
176109	H06	220	VC0111		conserved hypothetical protein	NP_229770.1
175952	H07	338	VC0135	lypA	lysophospholipase L2	NP_229793.1
176050	H08	N/A	VCA0825	ectA	L-2,4-diaminobutyric acid acetyltransferase	N/A
175888	H09	260	VC1862		amino acid ABC transporter, permease protein	NP_231496.1
197507	H10	259	VC1824		PTS system, nitrogen regulatory IIA component, putative	NP_231458.1
197520	H11	99	VC1823	frwB	PTS system, fructose-specific IIB component	NP_231457.1

Table 4: *Vibrio cholerae* Gateway® Clones, Plate 4 (NR-19682)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197539	A02	384	VC2340		conserved hypothetical protein	NP_231970.1
197548	A03	172	VC1835	pal	peptidoglycan-associated lipoprotein	NP_231469.1
197560	A04	191	VC1246		hypothetical protein	NP_230891.1
197578	A05	N/A	VCA0703		conserved hypothetical protein	N/A
197598	A06	58	VC1262		hypothetical protein	NP_230907.1
197610	A07	332	VC1259		conserved hypothetical protein	NP_230904.1
197621	A08	148	VC2434		conserved hypothetical protein	NP_232064.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197631	A09	N/A	VCA0799		hypothetical protein	N/A
197640	A10	438	VC2436	tolC	outer membrane protein TolC	NP_232066.1
197657	A11	227	VC0790	citB	transcriptional regulator CitB	NP_230439.1
197686	A12	301	VC1151		conserved hypothetical protein	NP_230796.1
197532	B01	146	VC1838	tolR	tolR membrane protein	NP_231472.1
197540	B02	N/A	VCA0711	mgsA	methylglyoxal synthase	N/A
197549	B03	N/A	VCA0723	hmgA	3-hydroxy-3-methylglutaryl CoA reductase	N/A
197562	B04	N/A	VCA0789		conserved hypothetical protein	N/A
197582	B05	235	VC1815		C-factor, putative	NP_231449.1
197601	B06	N/A	VCA0778		conserved hypothetical protein	N/A
197613	B07	N/A	VCA0792	orfA	transposase OrfAB, subunit A	N/A
197622	B08	N/A	VCA0784		hypothetical protein	N/A
197632	B09	433	VC2447	eno	enolase	NP_232076.1
197641	B10	172	VC2420	fldB	flavodoxin 2	NP_232050.2
197659	B11	228	VC2441		conserved hypothetical protein	NP_232070.1
197688	B12	304	VC2324		transcriptional regulator, LysR family	NP_231955.1
197533	C01	368	VC1854	ompT	ompT protein	NP_231488.1
197541	C02	388	VC1827	manA-2	mannose-6-phosphate isomerase	NP_231461.1
197550	C03	173	VC1847	ruvC	crossover junction endodeoxyribonuclease RuvC	NP_231481.1
197564	C04	204	VC1846	ruvA	Holliday junction DNA helicase RuvA	NP_231480.1
197584	C05	241	VC2347	deoD-1	purine nucleoside phosphorylase	NP_231977.1
197602	C06	90	VC0789		hypothetical protein	NP_230438.1
197614	C07	342	VC1242	astE	succinylglutamate desuccinylase	NP_230887.1
197623	C08	N/A	VCA0806		hypothetical protein	N/A
197633	C09	178	VC0800	citX	citX protein	NP_230449.1
197643	C10	200	VC1240		alpha-ribazole-5'-phosphate phosphatase CobC, putative	NP_230885.1
197665	C11	245	VC1257	ubiG	3-demethylubiquinone-9 3-methyltransferase	NP_230902.1
197690	C12	307	VC0690		glucokinase regulatory protein-related protein	NP_230339.1
197534	D01	146	VC1820	frvA	PTS system, fructose-specific IIA component	NP_231454.1
197542	D02	155	VC1840		conserved hypothetical protein	NP_231474.1
197551	D03	N/A	VCA0704		phosphoglycerate transport system transcriptional regulatory protein PgtA	N/A
197565	D04	448	VC2349	deoA	thymidine phosphorylase	NP_231979.2
197589	D05	N/A	VCA0791	orfB	transposase OrfAB, subunit B	N/A
197603	D06	310	VC0787		transcriptional regulator, LysR family	NP_230436.1
197615	D07	129	VC1233		conserved hypothetical protein	NP_230878.1
197625	D08	N/A	VCA0800	creA	creA protein	N/A
197634	D09	433	VC2442		pho4 family protein	NP_232071.1
197645	D10	202	VC2443		conserved hypothetical protein	NP_232072.1
197673	D11	261	VC1238	cobS	cobalamin (5'-phosphate) synthase	NP_230883.1
197692	D12	311	VC1152		hypothetical protein	NP_230797.1
197535	E01	380	VC2339		chromate resistance protein-related protein	NP_231969.1
197543	E02	404	VC1851		conserved hypothetical protein	NP_231485.1
197552	E03	N/A	VCA0716		conserved hypothetical protein	N/A
197566	E04	N/A	VCA0712	pncA	pyrazinamidase-nicotinamidase	N/A
197592	E05	35	VC1241		hypothetical protein	NP_230886.1
197605	E06	313	VC0801	citG	citG protein	NP_230450.1
197616	E07	356	VC0796	citC	citrate (pro-3S)-lyase ligase	NP_230445.1
197626	E08	404	VC1261		conserved hypothetical protein	NP_230906.1
197635	E09	179	VC1239	cobU	cobinamide kinase-cobinamide phosphate guanylyltransferase	NP_230884.1
197647	E10	208	VC2435		MutT-nudix family protein	NP_232065.1
197675	E11	272	VC2433	cpdA	cyclic AMP phosphodiesterase	NP_232063.1
197695	E12	322	VC2323		conserved hypothetical protein	NP_231954.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197536	F01	150	VC1828		conserved hypothetical protein	NP_231462.1
197545	F02	406	VC2348	deoB	phosphopentomutase	NP_231978.1
197554	F03	187	VC1857	priC	primosomal replication protein N``	NP_231491.1
197568	F04	N/A	VCA0729		hypothetical protein	N/A
197593	F05	296	VC2422	nadC	nicotinate-nucleotide pyrophosphorylase, carboxylating	NP_232052.1
197606	F06	N/A	VCA0794		hypothetical protein	N/A
197617	F07	142	VC1253		hypothetical protein	NP_230898.1
197627	F08	N/A	VCA0793		hypothetical protein	N/A
197636	F09	433	VC2439		methyl-accepting chemotaxis protein	NP_232068.1
197649	F10	N/A	VCA0788		DnaJ-related protein	N/A
197680	F11	290	VC1140		pseudouridine synthase family 1 protein	NP_230785.1
197696	F12	43	VC2328		hypothetical protein	NP_231959.1
197537	G01	N/A	VCA0702		iron-containing alcohol dehydrogenase	N/A
197546	G02	164	VC1849	ppiB	peptidyl-prolyl cis-trans isomerase B	NP_231483.1
197556	G03	190	VC1832		hypothetical protein	NP_231466.1
197573	G04	502	VC1161		gonadoliberin III-related protein	NP_230806.1
197594	G05	36	VC0782		hypothetical protein	NP_230431.1
197607	G06	N/A	VCA0795		resolvase, putative	N/A
197618	G07	369	VC1237	cobT	nicotinate-nucleotide--dimethylbenzimidazole phosphoribosyltransferase	NP_230882.1
197629	G08	167	VC2423	pilA	fimbrial protein	NP_232053.1
197637	G09	181	VC2421	ampD	ampD protein	NP_232051.1
197653	G10	N/A	VCA0782		ABC transporter, ATP-binding protein	N/A
197681	G11	31	VC0699		hypothetical protein	NP_230348.1
197701	G12	330	VC0692	exoll	beta-hexosaminidase	NP_230341.1
197538	H01	151	VC1852		conserved hypothetical protein	NP_231486.1
197547	H02	418	VC2352		NupC family protein	NP_231982.1
197558	H03	N/A	VCA0720		guanylate cyclase-related protein	N/A
197576	H04	228	VC2346		smp protein, putative	NP_231976.1
197597	H05	299	VC1260		transcriptional regulator, AraC-XylS family	NP_230905.1
197609	H06	N/A	VCA0797		hypothetical protein	N/A
197619	H07	148	VC1236		PilB-related protein	NP_230881.1
197630	H08	421	VC0786	dadA	D-amino acid dehydrogenase, small subunit	NP_230435.1
197639	H09	195	VC2432		conserved hypothetical protein	NP_232062.1
197655	H10	N/A	VCA0798		CbbY family protein	N/A
197682	H11	299	VC1250		conserved hypothetical protein	NP_230895.1

Table 5: *Vibrio cholerae* Gateway® Clones, Plate 5 (NR-19683)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197712	A02	113	VC0688		conserved hypothetical protein	NP_230337.1
197720	A03	118	VC0701		trp operon repressor, putative	NP_230350.1
197728	A04	N/A	VCA0694		hypothetical protein	N/A
197738	A05	182	VC1154		hypothetical protein	NP_230799.1
197748	A06	203	VC1136	hisH	amidotransferase HisH	NP_230781.1
197775	A07	257	VC2293	nqrC	NADH:ubiquinone oxidoreductase, Na translocating, gamma subunit	NP_231924.1
197791	A08	296	VC2305	ompK	outer membrane protein OmpK	NP_231936.1
197804	A09	134	VC2314		hypothetical protein	NP_231945.1
197818	A10	161	VC0657	rimI	ribosomal-protein-alanine acetyltransferase	NP_230306.1
197838	A11	N/A	VCA0665	dcuC	C4-dicarboxylate transporter, anaerobic	N/A
197958	A12	252	VC2236		hydroxyacylglutathione hydrolase GloB, putative	NP_231867.1
197703	B01	335	VC2337		transcriptional regulator, LacI family	NP_231968.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197713	B02	357	VC1135	hisB	imidazoleglycerol-phosphate dehydratase-histidinol-phosphatase	NP_230780.1
197721	B03	379	VC1159	serC	phosphoserine aminotransferase	NP_230804.1
197729	B04	415	VC1252		competence damage protein CinA, putative	NP_230897.1
197739	B05	431	VC1133	hisD	histidinol dehydrogenase	NP_230778.1
197752	B06	210	VC1139	hisI	phosphoribosyl-ATP pyrophosphatase-phosphoribosyl-AMP cyclohydrolase	NP_230784.1
197777	B07	264	VC0673		conserved hypothetical protein	NP_230322.1
197795	B08	312	VC1114	bioC	biotin synthesis protein BioC	NP_230759.1
197805	B09	N/A	VCA0673		transcriptional regulator, LacI family	N/A
197821	B10	416	VC2297		conserved hypothetical protein	NP_231928.1
197844	B11	205	VC1127		conserved hypothetical protein	NP_230772.1
197962	B12	256	VC2256	uppS	undecaprenyl diphosphate synthase	NP_231887.1
197705	C01	N/A	VCA0685		iron(III) ABC transporter, periplasmic iron-compound-binding protein	N/A
197714	C02	N/A	VCA0677	napD	napD protein	N/A
197722	C03	131	VC1247		hypothetical protein	NP_230892.1
197731	C04	421	VC1158		hypothetical protein	NP_230803.1
197740	C05	N/A	VCA0680	napC	periplasmic nitrate reductase, cytochrome c-type protein	N/A
197756	C06	N/A	VCA0695		hypothetical protein	N/A
197781	C07	271	VC0674	lgt	prolipoprotein diacylglycerol transferase	NP_230323.1
197797	C08	365	VC0663	prfB	peptide chain release factor 2, authentic frameshift	NP_230312.1
197809	C09	368	VC2312	mltA	membrane-bound lytic murein transglycosylase A	NP_231943.1
197822	C10	175	VC1125		hypothetical protein	NP_230770.1
197846	C11	206	VC2298		lipoprotein, putative	NP_231929.1
197966	C12	260	VC1717	smtA	smtA protein	NP_231353.1
197706	D01	87	VC1146	grxA	glutaredoxin 1	NP_230791.2
197715	D02	363	VC2332		acetyltransferase, GNAT family	NP_231963.1
197723	D03	N/A	VCA0690		acetyl-CoA acetyltransferase	N/A
197732	D04	171	VC0683	lspA	lipoprotein signal peptidase	NP_230332.1
197741	D05	433	VC0792	oadB-2	oxaloacetate decarboxylase, beta subunit	NP_230441.1
197760	D06	245	VC1137	hisA	phosphoribosylformimino-5-aminoimidazole carboxamide ribotide isomerase	NP_230782.1
197783	D07	273	VC2311		HesA-MoeB-ThiF family protein	NP_231942.1
197798	D08	104	VC0666		hypothetical protein	NP_230315.1
197813	D09	382	VC0676	ntpA	ntpA protein	NP_230325.1
197825	D10	426	VC1120		conserved hypothetical protein	NP_230765.1
197848	D11	N/A	VCA0659		protein F-related protein	N/A
197968	D12	262	VC2248	lpxA	acyl-(acyl-carrier-protein)--UDP-N-acetylglucosamine O-acyltransferase	NP_231879.1
197708	E01	102	VC2326		conserved hypothetical protein	NP_231957.1
197716	E02	114	VC2336		methionyl-tRNA synthetase-related protein	NP_231967.1
197724	E03	143	VC0697		hypothetical protein	NP_230346.1
197733	E04	422	VC1147		iron-containing alcohol dehydrogenase	NP_230792.1
197742	E05	195	VC2335		hypothetical protein	NP_231966.1
197762	E06	246	VC2428		conserved hypothetical protein	NP_232077.1
197785	E07	287	VC1117	htpX	heat shock protein HtpX	NP_230762.1
197799	E08	N/A	VCA0656	csck	fructokinase	N/A
197814	E09	N/A	VCA0652		hypothetical protein	N/A
197826	E10	179	VC1123		hypothetical protein	NP_230768.1
197852	E11	210	VC2292	nqrD	NADH:ubiquinone oxidoreductase, NqrD	NP_231923.1
197970	E12	N/A	VCA0606	phnX	phosphonoacetaldehyde phosphonohydrolase	N/A
197709	F01	N/A	VCA0687		iron(III) ABC transporter, ATP-binding protein	N/A
197717	F02	370	VC0691		conserved hypothetical protein	NP_230340.1

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197725	F03	N/A	VCA0699	glgC-2	glucose-1-phosphate adenylyltransferase	N/A
197734	F04	N/A	VCA0679	napB	periplasmic nitrate reductase, cytochrome c-type protein	N/A
197743	F05	N/A	VCA0684	uhpC	regulatory protein UhpC	N/A
197764	F06	N/A	VCA0691		acetoacetyl-CoA reductase	N/A
197787	F07	296	VC0677	nhaR	transcriptional activator protein NhaR	NP_230326.1
197800	F08	106	VC2296	bolA	bolA protein	NP_231927.1
197815	F09	384	VC1113	bioF	8-amino-7-oxononanoate synthase	NP_230758.1
197828	F10	432	VC1122	cfa	cyclopropane-fatty-acyl-phospholipid synthase	NP_230767.1
197856	F11	221	VC0668	mutH	DNA mismatch repair protein MutH	NP_230317.1
197972	F12	272	VC1725		beta-ketoadipate enol-lactone hydrolase, putative	NP_231361.1
197710	G01	106	VC1143		conserved hypothetical protein	NP_230788.1
197718	G02	N/A	VCA0689		conserved hypothetical protein	N/A
197726	G03	144	VC0684	fkpB	peptidyl-prolyl cis-trans isomerase, FKBP-type	NP_230333.1
197736	G04	181	VC1155		response regulator	NP_230800.1
197744	G05	201	VC1150		hypothetical protein	NP_230795.1
197768	G06	257	VC1138	hisF	hisF protein (cyclase)	NP_230783.1
197789	G07	296	VC2307	panE	2-dehydropanoate 2-reductase	NP_231938.1
197801	G08	N/A	VCA0654		sucrose operon repressor ScrR, putative	N/A
197816	G09	N/A	VCA0661		peptidyl-prolyl cis-trans isomerase-related protein	N/A
197836	G10	456	VC2316	argA	N-acetylglutamate synthase	NP_231947.1
197860	G11	238	VC1115	bioD	dethiobiotin synthetase	NP_230760.1
197974	G12	N/A	VCA0620		thiosulfate sulfurtransferase SseA, putative	N/A
197711	H01	357	VC0695	aroF	phospho-2-dehydro-3-deoxyheptonate aldolase, tyrosine-sensitive	NP_230344.1
197719	H02	375	VC0696	tyrA	chorismate mutase-prephenate dehydrogenase	NP_230345.1
197727	H03	414	VC2330		conserved hypothetical protein	NP_231961.1
197737	H04	N/A	VCA0681		conserved hypothetical protein	N/A
197746	H05	202	VC1153		conserved hypothetical protein	NP_230798.1
197773	H06	241	VC1119		oxidoreductase, short-chain dehydrogenase-reductase family	NP_230764.1
197790	H07	N/A	VCA0670		hypothetical protein	N/A
197803	H08	N/A	VCA0671		hypothetical protein	N/A
197817	H09	404	VC2309		aminotransferase, class V	NP_231940.1
197837	H10	194	VC2302		RNA polymerase sigma-70 factor, ECF subfamily	NP_231933.1
197861	H11	240	VC0661		conserved hypothetical protein	NP_230310.1

Table 6: *Vibrio cholerae* Gateway® Clones, Plate 6 (NR-19684)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197990	A02	N/A	VCA0593		hypothetical protein	N/A
197999	A03	147	VC1713		transcriptional regulator, AsnC family	NP_231349.1
198008	A04	N/A	VCA0629		conserved hypothetical protein	N/A
198019	A05	200	VC1056	recR	recombination protein RecR	NP_230701.1
198032	A06	450	VC0600		hypothetical protein	NP_230250.1
198047	A07	247	VC1715	mukE	mukE protein	NP_231351.1
197976	B01	281	VC2238		conserved hypothetical protein	NP_231869.1
197992	B02	N/A	VCA0623	talB	transaldolase B	N/A
198000	B03	N/A	VCA0129	rbsC	ribose ABC transporter, permease protein	N/A
198009	B04	N/A	VCA0627		rRNA methylase, putative	N/A
198020	B05	N/A	VCA0136	glpQ	glycerophosphoryl diester phosphodiesterase	N/A
198034	B06	452	VC2253		conserved hypothetical protein	NP_231884.1
198049	B07	247	VC1059		oxidoreductase, short-chain dehydrogenase-reductase family	NP_230704.1
197978	C01	282	VC1718		conserved hypothetical protein	NP_231354.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197993	C02	N/A	VCA0607		regulator of nucleoside diphosphate kinase	N/A
198001	C03	148	VC0596	dksA	dnaK suppressor protein	NP_230246.1
198011	C04	174	VC2240		decarboxylase	NP_231871.1
198021	C05	204	VC1712		conserved hypothetical protein	NP_231348.1
198035	C06	N/A	VCA0616	folE	GTP cyclohydrolase	N/A
197980	D01	286	VC1063	tesB	acyl-CoA thioesterase II	NP_230708.1
197994	D02	N/A	VCA0595		hypothetical protein	N/A
198002	D03	N/A	VCA0132	rbsR	ribose operon repressor	N/A
198014	D04	353	VC1060		sohB protein, peptidase U7 family	NP_230705.2
198024	D05	N/A	VCA0602		ABC transporter, ATP-binding protein	N/A
198037	D06	234	VC1719	torR	DNA-binding response regulator TorR	NP_231355.1
197982	E01	N/A	VCA0130	rbsB	ribose ABC transporter, periplasmic D-ribose-binding protein	N/A
197995	E02	N/A	VCA0612	mscL	large-conductance mechanosensitive channel	N/A
198003	E03	153	VC2249	fabZ	(3R)-hydroxymyristoyl-(acyl-carrier-protein) dehydratase	NP_231880.1
198015	E04	N/A	VCA0592		MutT-nudix family protein	N/A
198025	E05	N/A	VCA0610		sigma cross-reacting protein 27A	N/A
198040	E06	484	VC1726	glgA	glycogen synthase	NP_231362.1
197984	F01	N/A	VCA0599		hypothetical protein	N/A
197996	F02	319	VC2244	accA	acetyl-CoA carboxylase, carboxyl transferase alpha subunit	NP_231875.1
198004	F03	336	VC1721		transcriptional regulator, LacI family	NP_231357.1
198016	F04	N/A	VCA0590		peptide ABC transporter, permease protein, putative	N/A
198027	F05	220	VC1720	torD	torD protein	NP_231356.1
198041	F06	N/A	VCA0134	udp-2	uridine phosphorylase	N/A
197987	G01	114	VC2239	glnB-2	nitrogen regulatory protein P-II	NP_231870.1
197997	G02	145	VC1058		conserved hypothetical protein	NP_230703.1
198005	G03	156	VC2234	mhA	ribonuclease HI	NP_231865.1
198017	G04	195	VC1722		conserved hypothetical protein	NP_231358.1
198029	G05	N/A	VCA0608		conserved hypothetical protein	N/A
198043	G06	N/A	VCA0133	pnuC	pnuC protein, authentic point mutation	N/A
197989	H01	120	VC1055		conserved hypothetical protein	NP_230700.1
197998	H02	N/A	VCA0621		transcriptional regulator, SorC family	N/A
198006	H03	N/A	VCA0603		ABC transporter, periplasmic substrate-binding protein	N/A
198018	H04	N/A	VCA0604	phnW	2-aminoethylphosphonate:pyruvate aminotransferase	N/A
198030	H05	445	VC1716	mukF	mukF protein	NP_231352.1
198045	H06	245	VC2235		conserved hypothetical protein	NP_231866.1

Table 7: *Vibrio cholerae* Gateway® Clones, Plate 7 (NR-19685)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198347	A02	N/A	VCA0126		hypothetical protein	NP_230153.1
198359	A03	N/A	VCA0105		conserved hypothetical protein	NP_230273.1
198369	A04	N/A	VCA0124		hypothetical protein	NP_230274.1
198380	A05	396	VC1671	metC	cystathionine beta-lyase	NP_230277.1
198390	A06	N/A	VCA0121		hypothetical protein	NP_230280.1
198399	A07	184	VC1686		hypothetical protein	NP_230282.1
198415	A08	N/A	VCA0118		hypothetical protein	NP_230284.1
200741	A09	N/A	VCA0635		transcriptional regulator, LysR family	NP_230289.1
200752	A10	N/A	VCA0642		transcriptional regulator, ArsR family	NP_230294.1
200762	A11	129	VC2275	crl	transcriptional regulator Crl	NP_230297.1
200772	A12	147	VC2280		hypothetical protein	NP_230298.1
198336	B01	262	VC1684	sapF	peptide ABC transporter, ATP-binding protein	NP_230300.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198350	B02	N/A	VCA0070	pstS	ABC transporter, periplasmic phosphate-binding protein	NP_230301.1
198361	B03	98	VC1702		conserved hypothetical protein	NP_230737.1
198371	B04	N/A	VCA0100	pspE	phage shock protein E	NP_230739.1
198381	B05	146	VC1701		conserved hypothetical protein	NP_230740.1
198391	B06	163	VC1703		conserved hypothetical protein	NP_230741.1
198401	B07	186	VC1689		hypothetical protein	NP_230744.1
198417	B08	228	VC1708		conserved hypothetical protein	NP_230745.1
200742	B09	51	VC0625		hypothetical protein	NP_230746.1
200753	B10	324	VC1094	oppD	oligopeptide ABC transporter, ATP-binding protein	NP_230757.1
200763	B11	350	VC1112	bioB	biotin synthase	NP_231307.1
200773	B12	366	VC0628		conserved hypothetical protein	NP_231308.1
198338	C01	276	VC1697		conserved hypothetical protein	NP_231310.1
198352	C02	301	VC1687		conserved hypothetical protein	NP_231311.1
198362	C03	N/A	VCA0111		hypothetical protein	NP_231312.1
198372	C04	N/A	VCA0074		GGDEF family protein	NP_231314.1
198382	C05	N/A	VCA0085		hypothetical protein	NP_231315.1
198393	C06	N/A	VCA0107		conserved hypothetical protein	NP_231317.1
198403	C07	193	VC1672	tag	DNA-3-methyladenine glycosidase I	NP_231318.1
198419	C08	N/A	VCA0095		hypothetical protein	NP_231320.1
200743	C09	315	VC1096		conserved hypothetical protein	NP_231321.1
200754	C10	111	VC0640	secG	preprotein translocase, SecG subunit	NP_231322.1
200764	C11	136	VC1100		hypothetical protein	NP_231323.1
200774	C12	N/A	VCA0647		hypothetical protein	NP_231325.1
198340	D01	280	VC1695		formate transporter 1, putative	NP_231331.1
198353	D02	N/A	VCA0122		hypothetical protein	NP_231332.1
198363	D03	N/A	VCA0091		conserved hypothetical protein	NP_231333.1
198373	D04	126	VC1696		DNA-binding protein inhibitor Id-2-related protein	NP_231334.1
198383	D05	N/A	VCA0084	soxR	soxR protein	NP_231336.1
198394	D06	N/A	VCA0079		conserved hypothetical protein	NP_231337.1
198405	D07	N/A	VCA0092		hypothetical protein	NP_231338.1
198423	D08	N/A	VCA0073	pstB-2	phosphate ABC transporter, ATP-binding protein	NP_231339.1
200745	D09	321	VC0651		conserved hypothetical protein	NP_231342.1
200757	D10	N/A	VCA0639		AcrA-AcrE family protein	NP_231343.1
200765	D11	350	VC0633	ompU	outer membrane protein OmpU	NP_231344.1
200775	D12	369	VC2269	ribB-A	3,4-dihydroxy-2-butanone 4-phosphate synthase-GTP cyclohydrolase II	NP_231895.1
198342	E01	N/A	VCA0072	pstA-2	phosphate ABC transporter, permease protein	NP_231900.1
198354	E02	305	VC1706	metR	transcriptional activator MetR	NP_231905.2
198364	E03	338	VC1679	pspF	psp operon transcriptional activator	NP_231906.1
198374	E04	369	VC1674		periplasmic linker protein, putative	NP_231911.1
198384	E05	N/A	VCA0083	emrD-1	multidrug resistance protein D	N/A
198395	E06	174	VC0502		type IV pilin, putative	N/A
198407	E07	215	VC1698		conserved hypothetical protein	N/A
198425	E08	256	VC1685		conserved hypothetical protein	N/A
200747	E09	321	VC1101		conserved hypothetical protein	N/A
200758	E10	N/A	VCA0633	glpM	glpM protein	N/A
200766	E11	137	VC2264		conserved hypothetical protein	N/A
200777	E12	395	VC0631	tyrS-2	tyrosyl-tRNA synthetase	N/A
198344	F01	295	VC1682	sapC	peptide ABC transporter, permease protein	N/A
198355	F02	N/A	VCA0125		hypothetical protein	N/A
198366	F03	343	VC1675		multidrug resistance protein, putative	N/A
198375	F04	N/A	VCA0086		hypothetical protein	N/A

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198386	F05	N/A	VCA0096		hypothetical protein	N/A
198396	F06	N/A	VCA0098	pncB	nicotinate phosphoribosyltransferase	N/A
198409	F07	N/A	VCA0102		CbbY family protein	N/A
200735	F08	303	VC0648		conserved hypothetical protein	N/A
200748	F09	N/A	VCA0636		conserved hypothetical protein	N/A
200759	F10	336	VC1095	oppF	oligopeptide ABC transporter, ATP-binding protein	N/A
200768	F11	139	VC0649		transcriptional regulator, MarR family	N/A
200779	F12	377	VC2274	proB	glutamate 5-kinase	N/A
198345	G01	67	VC1707		hypothetical protein	N/A
198356	G02	320	VC1681	sapB	peptide ABC transporter, permease protein	N/A
198367	G03	N/A	VCA0094		conserved hypothetical protein	N/A
198377	G04	138	VC1676	pspC	phage shock protein C	N/A
198387	G05	N/A	VCA0127	rbsD	ribose ABC transporter protein	N/A
198397	G06	181	VC1700	yciB	intracellular separation protein A	N/A
198411	G07	N/A	VCA0104	rluA-2	ribosomal large subunit pseudouridine synthase A	N/A
200737	G08	306	VC1092	oppB	oligopeptide ABC transporter, permease protein	N/A
200750	G09	635	VC0635		conserved hypothetical protein	N/A
200760	G10	N/A	VCA0645		hypothetical protein	N/A
200769	G11	361	VC0624		conserved hypothetical protein	N/A
200780	G12	152	VC1099		conserved hypothetical protein	N/A
198346	H01	N/A	VCA0082		transcriptional regulator, LysR family	N/A
198358	H02	N/A	VCA0071	pstC-2	phosphate ABC transporter, permease protein	N/A
198368	H03	N/A	VCA0099		oxidoreductase, Gfo-Idh-MocA family	N/A
198379	H04	N/A	VCA0109		hypothetical protein	N/A
198389	H05	N/A	VCA0113		hypothetical protein	N/A
198398	H06	N/A	VCA0114		hypothetical protein	N/A
198413	H07	222	VC1678	pspA	phage shock protein A	N/A
200739	H08	312	VC0645	truB	tRNA pseudouridine 55 synthase	N/A
200751	H09	N/A	VCA0630		D-3-phosphoglycerate dehydrogenase-related protein	N/A
200761	H10	337	VC0652		protease, putative	N/A
200770	H11	N/A	VCA0641		conserved hypothetical protein	N/A

Table 8: *Vibrio cholerae* Gateway® Clones, Plate 8 (NR-19686)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200793	A02	433	VC0630		conserved hypothetical protein	NP_230279.1
200809	A03	487	VC0632	dacB	D-alanyl-D-alanine carboxypeptidase-D-alanyl-D-alanine-endopeptidase	NP_230281.1
200825	A04	301	VC2281	rimK	ribosomal protein S6 modification protein	NP_231912.1
197877	A05	45	VC1787		hypothetical protein	NP_231422.1
197892	A06	321	VC1779	dctP-1	C4-dicarboxylate-binding periplasmic protein	NP_231414.1
197908	A07	384	VC1774		conserved hypothetical protein	NP_231409.1
197918	A08	408	VC1749		hypothetical protein	NP_231385.1
197926	A09	436	VC1732	aroA	3-phosphoshikimate 1-carboxyvinyltransferase	NP_231368.1
197936	A10	462	VC1768		conserved hypothetical protein	NP_231403.1
197948	A11	N/A	VCA0182		sigma-54 dependent transcriptional regulator	N/A
198438	A12	293	VC1588		transcriptional regulator, LysR family	NP_231228.1
200781	B01	398	VC1098	ackA-1	acetate kinase	NP_230743.1
200795	B02	434	VC1085		sensor histidine kinase	NP_230730.1
200810	B03	217	VC2270	ribE	riboflavin synthase, alpha subunit	NP_231901.1
197864	B04	244	VC1763		chemotaxis protein MotB-related protein	NP_231398.1
197878	B05	292	VC1751		conserved hypothetical protein	NP_231387.1
197894	B06	N/A	VCA0189		response regulator	N/A
197909	B07	97	VC1780		hypothetical protein	NP_231415.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197919	B08	N/A	VCA0186		hypothetical protein	N/A
197927	B09	N/A	VCA0173		hypothetical protein	N/A
197937	B10	N/A	VCA0164		conserved hypothetical protein	N/A
197951	B11	233	VC1736		arginyl-tRNA-protein transferase-related protein	NP_231372.1
198442	B12	N/A	VCA0058		conserved hypothetical protein	N/A
200782	C01	N/A	VCA0640		conserved hypothetical protein	N/A
200798	C02	N/A	VCA0649		hypothetical protein	N/A
200814	C03	N/A	VCA0648		hypothetical protein	N/A
197866	C04	N/A	VCA0167		conserved hypothetical protein	N/A
197880	C05	298	VC1776		N-acetylneuraminase lyase, putative	NP_231411.1
197896	C06	341	VC1743		hypothetical protein	NP_231379.1
197912	C07	N/A	VCA0179		NupC family protein	N/A
197920	C08	N/A	VCA0180	pepT	peptidase T	N/A
197928	C09	427	VC1777		conserved hypothetical protein	NP_231412.1
197939	C10	202	VC1761		hypothetical protein	NP_231396.1
197955	C11	243	VC1735	aat	leucyl-phenylalanyl-tRNA--protein transferase	NP_231371.1
198444	C12	N/A	VCA0040		conserved hypothetical protein	N/A
200783	D01	408	VC2290	nqrF	NADH:ubiquinone oxidoreductase, beta subunit	NP_231921.1
200799	D02	445	VC0650		conserved hypothetical protein	NP_230299.1
200816	D03	256	VC2286		conserved hypothetical protein	NP_231917.1
197868	D04	274	VC1748		hypothetical protein	NP_231384.1
197884	D05	N/A	VCA0174		conserved hypothetical protein	N/A
197898	D06	N/A	VCA0144		immunogenic protein	N/A
197913	D07	N/A	VCA0152		conserved hypothetical protein	N/A
197921	D08	158	VC1786		DNA repair protein RadC, putative	NP_231421.1
197929	D09	N/A	VCA0150	def-2	polypeptide deformylase	N/A
197940	D10	N/A	VCA0161	tnaA	tryptophanase	N/A
198428	D11	N/A	VCA0030		hypothetical protein	N/A
198446	D12	315	VC1659		conserved hypothetical protein	NP_231296.1
200784	E01	154	VC2277	gpt	xanthine-guanine phosphoribosyltransferase	NP_231908.1
200800	E02	194	VC1083		hypothetical protein	NP_230728.1
200818	E03	264	VC1103		ABC transporter, ATP-binding protein	NP_230748.1
197872	E04	286	VC1772		hypothetical protein	NP_231407.1
197885	E05	67	VC1733		hypothetical protein	NP_231369.1
197899	E06	74	VC1747		hypothetical protein	NP_231383.1
197914	E07	N/A	VCA0140		spindolin-related protein	N/A
197922	E08	N/A	VCA0160	mtr	tryptophan-specific transport protein	N/A
197930	E09	434	VC1753	pqiA	paraquat-inducible protein A	NP_231389.1
197943	E10	209	VC1746		transcriptional regulator, TetR family	NP_231382.1
198430	E11	284	VC1592		conserved hypothetical protein	NP_231232.1
198448	E12	N/A	VCA0055		conserved hypothetical protein	N/A
200785	F01	415	VC2276		conserved hypothetical protein	NP_231907.1
200801	F02	446	VC0639	glmM	phosphoglucosamine mutase	NP_230288.1
200820	F03	270	VC1089		periplasmic binding protein-related protein	NP_230734.1
197873	F04	N/A	VCA0145		hypothetical protein	N/A
197886	F05	N/A	VCA0159		conserved hypothetical protein	N/A
197902	F06	364	VC1756		periplasmic linker protein, putative	NP_231392.1
197915	F07	N/A	VCA0139		hypothetical protein	N/A
197923	F08	N/A	VC1759		integrase, truncation	N/A
197931	F09	173	VC1778		conserved hypothetical protein	NP_231413.1
197944	F10	488	VC1745	gabD	succinate-semialdehyde dehydrogenase	NP_231381.1
198432	F11	287	VC1656		conserved hypothetical protein	NP_231293.1
198449	F12	78	VC1578		hypothetical protein	NP_231218.1
200790	G01	158	VC0634	greA	transcription elongation factor GreA	NP_230283.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200806	G02	209	VC0636	ftsJ	cell division protein FtsJ	NP_230285.1
200822	G03	280	VC2261	map	methionine aminopeptidase	NP_231892.1
197874	G04	287	VC1782		ROK family protein	NP_231417.1
197888	G05	N/A	VCA0175		MoxR-related protein	N/A
197906	G06	378	VC1783	nagA-2	N-acetylglucosamine-6-phosphate deacetylase	NP_231418.1
197916	G07	N/A	VCA0147		transcriptional regulator, putative	N/A
197924	G08	411	VC1758		integrase, phage family	NP_231394.1
197933	G09	N/A	VCA0168		hypothetical protein	N/A
197946	G10	N/A	VCA0155		NADH dehydrogenase, putative	N/A
198434	G11	N/A	VCA0034		conserved hypothetical protein	N/A
198450	G12	328	VC1602	cheV-1	chemotaxis protein CheV	NP_231242.1
200792	H01	169	VC2265	pgpA	phosphatidylglycerophosphatase A	NP_231896.1
200807	H02	451	VC2283		sodium-dependent transporter	NP_231914.1
200823	H03	300	VC1093	oppC	oligopeptide ABC transporter, permease protein	NP_230738.1
197876	H04	N/A	VCA0181		hypothetical protein	N/A
197890	H05	N/A	VCA0172		conserved hypothetical protein	N/A
197907	H06	93	VC1744		conserved hypothetical protein	NP_231380.1
197917	H07	N/A	VCA0156		conserved hypothetical protein	N/A
197925	H08	N/A	VCA0154		conserved hypothetical protein	N/A
197935	H09	192	VC1755		conserved hypothetical protein	NP_231391.1
197947	H10	N/A	VCA0178	frnE	frnE protein	N/A
198436	H11	N/A	VCA0049		GGDEF family protein	N/A

Table 9: *Vibrio cholerae* Gateway® Clones, Plate 9 (NR-19687)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198462	A02	N/A	VCA0047		conserved hypothetical protein	N/A
198470	A03	N/A	VCA0036		sodium-dicarboxylate symporter	N/A
198479	A04	N/A	VCA0067		hypothetical protein	N/A
198509	A05	261	VC1589	aldC	alpha-acetolactate decarboxylase	NP_231229.1
199644	A06	258	VC1457	ctxA	cholera enterotoxin, A subunit	NP_231100.1
199662	A07	312	VC2697		GGDEF family protein	NP_232325.1
199677	A08	122	VC0862		hypothetical protein	NP_230509.1
199691	A09	147	VC0857		fimbrial assembly protein PilE, putative	NP_230504.1
199700	A10	427	VC1460		hypothetical protein	NP_231103.1
199723	A11	N/A	VCA0992	grx2	glutaredoxin 2	N/A
200206	A12	N/A	VCA0887		conserved hypothetical protein, authentic frameshift	N/A
198451	B01	N/A	VCA0028		hypothetical protein	N/A
198463	B02	127	VC1574		hypothetical protein	NP_231214.1
198471	B03	147	VC1663	hslJ	heat shock protein HslJ	NP_231299.1
198481	B04	N/A	VCA0032		hypothetical protein	N/A
198511	B05	N/A	VCA0056		transcriptional regulator, MerR family	N/A
199646	B06	N/A	VCA1025	nagB	glucosamine-6-phosphate isomerase	N/A
199664	B07	N/A	VCA0994		hypothetical protein	N/A
199678	B08	359	VC1454	rstA1	RstA1 protein	NP_231097.1
199692	B09	413	VC0860		hypothetical protein	NP_230507.1
199703	B10	158	VC2695		rRNA methylase, SpoU family	NP_232323.1
199725	B11	167	VC2694	sodA	superoxide dismutase, Mn	NP_232322.1
200207	B12	64	VC1351		hypothetical protein	NP_230995.1
198452	C01	330	VC1570	qxtB	quinol oxidase, subunit II	NP_231210.1
198464	C02	382	VC1664		ABC transporter, periplasmic substrate-binding protein, putative	NP_231300.1
198473	C03	N/A	VCA0037		conserved hypothetical protein	N/A
198491	C04	229	VC1600		hypothetical protein	NP_231240.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198515	C05	273	VC1577		hypothetical protein	NP_231217.1
199648	C06	N/A	VCA1001		transcriptional regulator, AraC-XylS family	N/A
199665	C07	N/A	VCA1003		hypothetical protein	N/A
199680	C08	N/A	VCA0993	nemA	N-ethylmaleimide reductase	N/A
199693	C09	148	VC0317		hypothetical protein	NP_229971.1
199704	C10	438	VC0305	rhIB	ATP-dependent RNA helicase RhIB	NP_229960.1
200192	C11	N/A	VCA0894		conserved hypothetical protein	N/A
200208	C12	286	VC2532		conserved hypothetical protein	NP_232160.1
198454	D01	338	VC1563		conserved hypothetical protein	NP_231203.1
198465	D02	N/A	VCA0048		conserved hypothetical protein	N/A
198474	D03	417	VC1658	sdaC-2	serine transporter	NP_231295.1
198493	D04	233	VC1568		ABC transporter, ATP-binding protein	NP_231208.1
198517	D05	274	VC1598		ABC transporter, periplasmic substrate-binding protein-related protein	NP_231238.1
199650	D06	N/A	VCA1027		maltose operon periplasmic protein, putative	N/A
199666	D07	330	VC0308		hypothetical protein	NP_229963.1
199682	D08	381	VC0856	dnaJ	dnaJ protein	NP_230503.1
199694	D09	N/A	VCA1028	ompS	maltoporin	N/A
199707	D10	167	VC2691		periplasmic protein cpxP, putative	NP_232319.1
200194	D11	N/A	VCA0910	tonB1	tonB1 protein	N/A
200209	D12	87	VC2543		hypothetical protein	NP_232171.1
198455	E01	N/A	VCA0043		conserved hypothetical protein	N/A
198466	E02	404	VC1566		conserved hypothetical protein	NP_231206.1
198475	E03	152	VC1575		hypothetical protein	NP_231215.1
198499	E04	N/A	VCA0029		transcriptional regulator, putative	N/A
198519	E05	N/A	VCA0035		phosphatidylglycerophosphatase B, putative	N/A
199652	E06	N/A	VCA1010		conserved hypothetical protein	N/A
199668	E07	N/A	VCA1008		outer membrane protein, putative	N/A
199683	E08	127	VC1462	rstB2	RstB2 protein	NP_231105.1
199696	E09	419	VC0307	rho	transcription termination factor Rho	NP_229962.1
199711	E10	N/A	VCA0999		transcriptional regulator, TetR family	N/A
200196	E11	251	VC1359		amino acid ABC transporter, ATP-binding protein	NP_231003.1
200212	E12	N/A	VCA0889		transcriptional regulator, LysR family	N/A
198457	F01	105	VC1576		conserved hypothetical protein	NP_231216.1
198467	F02	N/A	VCA0039		hypothetical protein	N/A
198476	F03	419	VC1565		outer membrane protein TolC, putative	NP_231205.1
198501	F04	N/A	VCA0053	deoD-2	purine nucleoside phosphorylase	N/A
199634	F05	228	VC2692	cpxR	transcriptional regulator CpxR	NP_232320.1
199654	F06	302	VC2690		conserved hypothetical protein	NP_232318.1
199671	F07	112	VC1455	rstR-1	transcriptional repressor RstR	NP_231098.1
199684	F08	N/A	VCA1026		conserved hypothetical protein	N/A
199697	F09	N/A	VCA1005		transcriptional regulator, MarR family	N/A
199713	F10	200	VC0859		hypothetical protein	NP_230506.1
200200	F11	N/A	VCA0913	hutB	hemin ABC transporter, periplasmic hemin-binding protein HutB	N/A
200214	F12	315	VC1955		transcriptional regulator, LysR family	NP_231589.1
198458	G01	353	VC1599		GGDEF family protein	NP_231239.1
198468	G02	405	VC1595	galK	galactokinase	NP_231235.1
198477	G03	171	VC1583	sodC	superoxide dismutase, Cu-Zn	NP_231223.1
198503	G04	N/A	VCA0042		hypothetical protein	N/A
199636	G05	236	VC0312		NAD(P)H-flavin reductase	NP_229966.1
199656	G06	295	VC2685	metF	5,10-methylenetetrahydrofolate reductase	NP_232313.2
199672	G07	335	VC2688	glpX	glpX protein	NP_232316.1
199685	G08	N/A	VCA1016		hypothetical protein	N/A

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199698	G09	425	VC2681		malate oxidoreductase, putative	NP_232309.1
199715	G10	N/A	VCA1004		conserved hypothetical protein	N/A
200202	G11	N/A	VCA0902		hypothetical protein	N/A
200216	G12	323	VC1956		lytic murein transglycosylase, putative	NP_231590.1
198460	H01	354	VC1596	galT	galactose-1-phosphate uridylyltransferase	NP_231236.2
198469	H02	146	VC1587		conserved hypothetical protein	NP_231227.1
198478	H03	425	VC1567		conserved hypothetical protein	NP_231207.1
198507	H04	258	VC1603		hypothetical protein	NP_231243.1
199642	H05	N/A	VCA1013		conserved hypothetical protein	N/A
199660	H06	N/A	VCA0991		transcriptional regulator, LysR family	N/A
199673	H07	N/A	VCA1024		hypothetical protein	N/A
199687	H08	137	VC0861		type IV pilin, putative	NP_230508.1
199699	H09	N/A	VCA1012		conserved hypothetical protein	N/A
199721	H10	N/A	VCA1011		glutaredoxin-related protein	N/A
200204	H11	285	VC0201		iron(III) ABC transporter, ATP-binding protein	NP_229858.1

Table 10: *Vibrio cholerae* Gateway® Clones, Plate 10 (NR-19688)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200228	A02	N/A	VCA0885	tdh	threonine 3-dehydrogenase	N/A
200242	A03	N/A	VCA0903		conserved hypothetical protein	N/A
200256	A04	421	VC2554		conserved hypothetical protein	NP_232182.1
200378	A05	282	VC1296	thiD	phosphomethylpyrimidine kinase	NP_230941.1
200400	A06	362	VC2487		conserved hypothetical protein	NP_232116.1
200412	A07	402	VC2475	ubiH	ubiH protein	NP_232104.1
200423	A08	N/A	VCA0854		conserved hypothetical protein	N/A
200438	A09	N/A	VCA0832		methyltransferase, putative	N/A
200009	A10	N/A	VCA0397		hypothetical protein	N/A
200031	A11	N/A	VCA0368		hypothetical protein	N/A
200047	A12	N/A	VCA0370		hypothetical protein	N/A
200217	B01	N/A	VCA0919		conserved hypothetical protein	N/A
200230	B02	N/A	VCA0884		hypothetical protein	N/A
200243	B03	173	VC2555		hypothetical protein	NP_232183.1
200259	B04	N/A	VCA0901		hypothetical protein	N/A
200380	B05	292	VC1311		conserved hypothetical protein	NP_230955.1
200402	B06	363	VC2491	leuB	3-isopropylmalate dehydrogenase	NP_232120.1
200413	B07	409	VC2481	serA	D-3-phosphoglycerate dehydrogenase	NP_232110.1
200424	B08	164	VC2482	ilvH	acetolactate synthase III, small subunit	NP_232111.1
200440	B09	211	VC2489		transcriptional regulator, TetR family	NP_232118.1
200013	B10	N/A	VCA0406	blc-3	lipoprotein Blc	N/A
200033	B11	N/A	VCA0405		hypothetical protein	N/A
200049	B12	N/A	VCA0356		hypothetical protein	N/A
200218	C01	330	VC2539	tbpA	thiamin ABC transporter, periplasmic thiamin-binding protein	NP_232167.1
200232	C02	365	VC1360		amino acid ABC transporter, permease protein	NP_231004.1
200245	C03	N/A	VCA0907	hutZ	heme-binding protein HutZ	N/A
200263	C04	212	VC2549	msrA	peptide methionine sulfoxide reductase	NP_232177.1
200382	C05	N/A	VCA0833		transcriptional regulator, LysR family	N/A
200404	C06	372	VC1628		conserved hypothetical protein	NP_231265.1
200414	C07	135	VC1637		hypothetical protein	NP_231274.1
200425	C08	407	VC1312		alanine racemase, putative	NP_230956.2
200444	C09	218	VC2480	rpiA	ribose-5-phosphate isomerase	NP_232109.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200019	C10	184	VC0263		galactosyl-transferase, putative	NP_229919.1
200035	C11	N/A	VCA0355		conserved hypothetical protein	N/A
200050	C12	N/A	VCA0386		hypothetical protein	N/A
200220	D01	336	VC2544	fbp	fructose-1,6-bisphosphatase	NP_232172.1
200235	D02	148	VC2531	ptsN	PTS system, nitrogen regulatory IIA component	NP_232159.1
200246	D03	N/A	VCA0905		conserved hypothetical protein	N/A
200266	D04	453	VC2534	mgtE-2	magnesium transporter	NP_232162.1
200384	D05	306	VC1317		conserved hypothetical protein	NP_230961.1
200405	D06	102	VC2478		conserved hypothetical protein	NP_232107.1
200416	D07	157	VC1310		hypothetical protein	NP_230954.1
200427	D08	N/A	VCA0837		hemolysin, putative	N/A
200446	D09	219	VC1638		DNA-binding response regulator	NP_231275.1
200023	D10	190	VC0266		conserved hypothetical protein	NP_229922.1
200037	D11	N/A	VCA0388		hypothetical protein	N/A
200051	D12	244	VC0274		hypothetical protein	NP_229930.1
200221	E01	102	VC1957		conserved hypothetical protein	NP_231294.1
200237	E02	157	VC1350		antioxidant, putative	NP_230994.1
200247	E03	176	VC2545	ppa	inorganic pyrophosphatase	NP_232173.1
200267	E04	220	VC1959	minC	septum site-determining protein MinC	NP_231296.1
200388	E05	N/A	VCA0834		hypothetical protein	N/A
200406	E06	382	VC1627	nhaA	Na ⁺ -H ⁺ antiporter protein	NP_231264.1
200418	E07	157	VC2476		conserved hypothetical protein	NP_232105.1
200430	E08	414	VC1621		agglutination protein	NP_231260.1
200448	E09	N/A	VCA0856		hypothetical protein	N/A
200025	E10	N/A	VCA0361		hypothetical protein	N/A
200039	E11	222	VC0268		conserved hypothetical protein	NP_229924.1
200053	E12	N/A	VCA0396		hypothetical protein	N/A
200222	F01	339	VC1346		conserved hypothetical protein	NP_230990.1
200238	F02	369	VC1344	hppD	4-hydroxyphenylpyruvate dioxygenase	NP_230988.1
200248	F03	N/A	VCA0886	kbl	2-amino-3-ketobutyrate coenzyme A ligase	N/A
200273	F04	N/A	VCA0915	hutD	hemin ABC transporter, ATP-binding protein HutD	N/A
200390	F05	321	VC2485		transcriptional regulator, LysR family	NP_232114.1
200409	F06	122	VC1299		6-pyruvoyl tetrahydrobiopterin synthase, putative	NP_230944.1
200419	F07	414	VC1624		conserved hypothetical protein	NP_231263.1
200431	F08	194	VC2479		conserved hypothetical protein	NP_232108.1
200454	F09	231	VC1635		ribosomal small subunit pseudouridine synthase A	NP_231272.1
200026	F10	42	VC0279		hypothetical protein	NP_229935.1
200041	F11	223	VC0299		DNA polymerase III, epsilon subunit, putative	NP_229944.1
200055	F12	N/A	VCA0395		conserved hypothetical protein	N/A
200224	G01	342	VC1362		amino acid ABC transporter, periplasmic amino acid-binding protein	NP_231006.1
200239	G02	N/A	VCA0917		transcriptional regulator, TetR family	N/A
200249	G03	179	VC2527		conserved hypothetical protein	NP_232155.1
200274	G04	487	VC2529	rpoN	RNA polymerase sigma-54 factor	NP_232157.1
200410	G06	401	VC1634		multidrug resistance protein	NP_231271.1
200420	G07	158	VC1316		chemotaxis protein CheY, putative	NP_230960.1
200433	G08	200	VC2493	leuD	3-isopropylmalate dehydratase, small subunit	NP_232122.1
200462	G09	257	VC1641		conserved hypothetical protein	NP_231278.1
200027	G10	N/A	VCA0380		hypothetical protein	N/A
200043	G11	225	VC0283		hypothetical protein	NP_229939.1
200056	G12	90	VC0273	hupA	DNA-binding protein HU	NP_229929.1
200227	H01	N/A	VCA0890		glyoxylase I family protein	N/A
200240	H02	N/A	VCA0883		hypothetical protein	N/A
200252	H03	405	VC1953		NupC family protein	NP_231290.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200283	H04	244	VC2537		thiamine ABC transporter, ATP-binding protein, putative	NP_232165.1
200398	H05	N/A	VCA0851		conserved hypothetical protein	N/A
200411	H06	133	VC1642		hypothetical protein	NP_231279.1
200421	H07	417	VC1301	sdaC-1	serine transporter	NP_230946.1
200435	H08	N/A	VCA0846		conserved hypothetical protein	N/A
200464	H09	N/A	VCA0850		response regulator	N/A
200029	H10	201	VC0285	eda	4-hydroxy-2-oxoglutarate aldolase-2-dehydro-3-deoxyphosphogluconate aldolase	NP_229940.1
200045	H11	N/A	VCA0363		hypothetical protein	N/A

Table 11: *Vibrio cholerae* Gateway® Clones, Plate 11 (NR-19689)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200074	A02	N/A	VCA0391		killer protein, putative	N/A
200091	A03	N/A	VCA0358		hypothetical protein	N/A
199556	A04	277	VC1992	purU	formyltetrahydrofolate deformylase	NP_231626.1
199578	A05	337	VC1995	ansA	L-asparaginase I	NP_231629.1
199594	A06	404	VC1977		aspartate aminotransferase, putative	NP_231611.1
199607	A07	N/A	VCA0442		acetyltransferase, putative	N/A
198988	A08	259	VC1509	cobB	nicotinate mononucleotide:5,6-dimethylbenzimidazole phosphoribosyltransferase	NP_231150.1
199007	A09	N/A	VCA1058		transcriptional regulator, LysR family	N/A
199017	A10	310	VC2740		conserved hypothetical protein	NP_232366.1
199033	A11	N/A	VCA1046	mtlD	mannitol-1-phosphate 5-dehydrogenase	N/A
199053	A12	N/A	VCA1054		conserved hypothetical protein	N/A
200057	B01	N/A	VCA0371	orfB	transposase OrfAB, subunit B	N/A
200075	B02	N/A	VCA0374		hypothetical protein	N/A
200095	B03	N/A	VCA0400		acetyltransferase, putative	N/A
199557	B04	68	VC0351		conserved hypothetical protein	NP_230005.1
199580	B05	357	VC0318	murB	UDP-N-acetylenolpyruvoylglucosamine reductase	NP_229972.1
199596	B06	426	VC1921	clpX	ATP-dependent Clp protease, ATP-binding subunit ClpX	NP_231555.1
199609	B07	164	VC0330	rsd	regulator of sigma D	NP_229984.1
198990	B08	N/A	VCA1038		amino acid ABC transporter, permease protein	N/A
199008	B09	107	VC2745		hypothetical protein	NP_232371.1
199018	B10	140	VC1510		hypothetical protein	NP_231151.1
199034	B11	N/A	VCA1053		conserved hypothetical protein	N/A
199060	B12	221	VC2727	epsJ	general secretion pathway protein J	NP_232354.1
200063	C01	307	VC0267		D-isomer specific 2-hydroxyacid dehydrogenase family protein	NP_229923.1
200076	C02	352	VC0271		conserved hypothetical protein	NP_229927.1
199540	C03	232	VC1928		C4-dicarboxylate transport protein DctQ, putative	NP_231562.1
199558	C04	284	VC1986		conserved hypothetical protein	NP_231620.1
199581	C05	118	VC0357		conserved hypothetical protein	NP_230011.1
199597	C06	N/A	VCA0432		hypothetical protein	N/A
199611	C07	N/A	VCA0443	blc-4	lipoprotein Blc	N/A
198994	C08	N/A	VCA1039		amino acid ABC transporter, periplasmic amino acid-binding protein	N/A
199009	C09	301	VC2722	cysQ	cysQ protein	NP_232349.1
199020	C10	N/A	VCA1051		conserved hypothetical protein	N/A
199036	C11	184	VC2743		hypothetical protein	NP_232369.1
199061	C12	232	VC1524		ABC transporter, permease protein	NP_231164.1
200064	D01	N/A	VCA0392		antidote protein, putative	N/A
200078	D02	399	VC0269	manA-1	mannose-6-phosphate isomerase	NP_229925.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199542	D03	233	VC1978		conserved hypothetical protein	NP_231612.1
199561	D04	N/A	VCA0426		conserved hypothetical protein	N/A
199583	D05	N/A	VCA0423		conserved hypothetical protein	N/A
199598	D06	429	VC0348	hflX	GTP-binding protein HflX	NP_230002.1
199613	D07	N/A	VCA0436		acetyltransferase, putative	N/A
198996	D08	286	VC1505		hypothetical protein	NP_231146.1
199010	D09	117	VC2728	epsI	general secretion pathway protein I	NP_232355.1
199024	D10	158	VC1518		hypothetical protein	NP_231158.1
199037	D11	395	VC1507	aroH	phospho-2-dehydro-3-deoxyheptonate aldolase, trp-sensitive	NP_231148.1
199063	D12	238	VC1495		hypothetical protein	NP_231136.1
200065	E01	N/A	VCA0366		hypothetical protein	N/A
200080	E02	412	VC0265		conserved hypothetical protein	NP_229921.1
199546	E03	237	VC1989		conserved hypothetical protein	NP_231623.1
199562	E04	285	VC0339	psd	phosphatidylserine decarboxylase	NP_229993.1
199587	E05	N/A	VCA0431		hypothetical protein	N/A
199599	E06	145	VC1991		hypothetical protein	NP_231625.1
199621	E07	200	VC1980		conserved hypothetical protein	NP_231614.1
199000	E08	296	VC2736		conserved hypothetical protein	NP_232362.1
199012	E09	127	VC2735		conserved hypothetical protein	NP_232361.1
199025	E10	336	VC2726	epsK	general secretion pathway protein K	NP_232353.1
199040	E11	N/A	VCA1047	mtlR	mannitol operon repressor	N/A
199067	E12	N/A	VCA1037		amino acid ABC transporter, ATP-binding protein	N/A
200069	F01	331	VC0291		NifR3-Smm1 family protein	NP_229946.1
200082	F02	429	VC0275	purD	phosphoribosylamine--glycine ligase	NP_229931.1
199552	F03	259	VC0354	fkpA	peptidyl-prolyl cis-trans isomerase, FKBP-type	NP_230008.1
199564	F04	N/A	VCA0441		hypothetical protein	N/A
199588	F05	382	VC0335		NlpD-related protein	NP_229989.1
199604	F06	441	VC1979	dgt	deoxyguanosinetriphosphate triphosphohydrolase	NP_231613.1
199625	F07	202	VC1987		outer membrane lipoprotein Slp, putative	NP_231621.1
199002	F08	297	VC2742	rbn	ribonuclease BN	NP_232368.1
199014	F09	N/A	VCA1042		Ccm2-related protein	N/A
199026	F10	158	VC1506		hypothetical protein	NP_231147.1
199044	F11	N/A	VCA1062	potE	putrescine-ornithine antiporter	N/A
199070	F12	N/A	VCA1052		conserved hypothetical protein	N/A
200071	G01	332	VC0289	gntR	gluconate utilization system gnt-I transcriptional repressor	NP_229944.1
200084	G02	445	VC0280		cadaverine-lysine antiporter CadB, putative	NP_229936.1
199553	G03	N/A	VCA0435		hypothetical protein	N/A
199565	G04	87	VC0347		host factor-I, putative	NP_230001.1
199590	G05	389	VC1912		conserved hypothetical protein	NP_231546.1
199605	G06	156	VC0360	rpsG	ribosomal protein S7	NP_230014.1
199627	G07	222	VC1981		hypothetical protein	NP_231615.1
199004	G08	298	VC1503		conserved hypothetical protein	NP_231144.1
199015	G09	N/A	VCA1050		hypothetical protein	N/A
199027	G10	337	VC1519	fdhD	formate dehydrogenase accessory protein	NP_231159.1
199046	G11	N/A	VCA1033		extracellular solute-binding protein, putative	N/A
199915	G12	69	VC1375		hypothetical protein	NP_231019.1
200072	H01	N/A	VCA0408		hypothetical protein	N/A
200089	H02	N/A	VCA0382		conserved hypothetical protein	N/A
199554	H03	269	VC0331		MutT-nudix family protein	NP_229985.1
199567	H04	90	VC1919	hupB	DNA-binding protein HU-beta	NP_231553.1
199592	H05	395	VC0349	hflK	hflK protein	NP_230003.1
199606	H06	446	VC1926	dctD-1	C4-dicarboxylate transport transcriptional regulatory protein	NP_231560.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199629	H07	229	VC1916	cmk	cytidylate kinase	NP_231550.1
199006	H08	N/A	VCA1035		hypothetical protein	N/A
199016	H09	N/A	VCA1032		hypothetical protein	N/A
199031	H10	357	VC1511	fdhI	formate dehydrogenase, cytochrome B556 subunit	NP_231152.1
199047	H11	202	VC1512	fdhB	formate dehydrogenase, iron-sulfur subunit	NP_231153.1

Table 12: *Vibrio cholerae* Gateway® Clones, Plate 12 (NR-19690)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199939	A02	291	VC1964		hypothetical protein	NP_231598.1
199966	A03	160	VC2569		hypothetical protein	NP_232197.1
199980	A04	181	VC1968		transcriptional regulator, HTH_3 family	NP_231602.1
200294	A05	308	VC1336	prpB	carboxyphosphoenolpyruvate phosphonmutase	NP_230980.1
200317	A06	334	VC2508	argF	ornithine carbamoyltransferase	NP_232137.1
200338	A07	431	VC1941		hypothetical protein	NP_231575.1
200371	A08	245	VC2505	rluA-1	ribosomal large subunit pseudouridine synthase A	NP_232134.1
198260	A09	283	VC2175	kdsA	2-dehydro-3-deoxyphosphooctonate aldolase	NP_231806.1
198280	A10	333	VC0538	cysP	thiosulfate ABC transporter, periplasmic thiosulfate-binding protein	NP_230189.1
198294	A11	376	VC0541	cysA	sulfate ABC transporter, ATP-binding protein	NP_230192.1
174208	A12	165	VC0440	folA	dihydrofolate reductase	NP_230094.1
199917	B01	245	VC1365		conserved hypothetical protein	NP_231009.1
199941	B02	288	VC1973	menB	naphthoate synthase	NP_231607.2
199967	B03	N/A	VCA0930		conserved hypothetical protein	N/A
199986	B04	193	VC2619	pabA	para-aminobenzoate synthase glutamine amidotransferase, component II	NP_232247.1
200296	B05	309	VC1947		transcriptional regulator, LysR family	NP_231581.1
200324	B06	377	VC1337	prpC	methylcitrate synthase	NP_230981.1
200341	B07	160	VC1323		hypothetical protein	NP_230967.1
198242	B08	263	VC0531	surE	survival protein SurE	NP_230182.1
198262	B09	287	VC0540	cysW	sulfate ABC transporter, permease protein	NP_230191.1
198281	B10	139	VC0974		transcriptional regulator, MerR family	NP_230621.1
198301	B11	169	VC0964	crr	PTS system, glucose-specific IIA component	NP_230611.1
174212	B12	432	VC0626	hemL	glutamate-1-semialdehyde 2,1-aminomutase	NP_230275.1
199923	C01	N/A	VCA0937		transcriptional regulator, AraC-XylS family	N/A
199942	C02	82	VC1368		hypothetical protein	NP_231012.1
199969	C03	339	VC2617		arginine-ornithine succinyltransferase, putative	NP_232245.2
199988	C04	196	VC2607		NAD(P)H oxidoreductase, putative	NP_232235.1
200298	C05	310	VC1936		phosphatidate cytidyltransferase, putative	NP_231570.1
200325	C06	N/A	VCA0880		hypothetical protein	N/A
200345	C07	163	VC2518		conserved hypothetical protein	NP_232147.1
198246	C08	270	VC2176		conserved hypothetical protein	NP_231807.1
198264	C09	291	VC0970	zipA	cell division protein ZipA	NP_230617.1
198283	C10	145	VC2167		hypothetical protein	NP_231798.1
198308	C11	417	VC2171	uraA	uracil permease	NP_231802.1
174216	C12	167	VC0593	folK-2	2-amino-4-hydroxy-6-hydroxymethylidihydropteridine pyrophosphokinase	NP_230243.1
199925	D01	263	VC2615		conserved hypothetical protein	NP_232243.1
199943	D02	299	VC2561	cysG	uroporphyrin-III C-methyltransferase	NP_232189.1
199972	D03	163	VC1962		lipoprotein	NP_231596.1
199990	D04	196	VC1965		hypothetical protein	NP_231599.1
200300	D05	311	VC1942	folD	methylenetetrahydrofolate dehydrogenase-methenyltetrahydrofolate cyclohydrolase	NP_231576.1
200326	D06	N/A	VCA0873	cydB-2	cytochrome d ubiquinol oxidase, subunit II	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200361	D07	N/A	VCA0867	ompW	outer membrane protein OmpW	N/A
198248	D08	270	VC0522		beta-ketoadipate enol-lactone hydrolase, putative	NP_230173.1
198266	D09	294	VC0984	toxR	cholera toxin transcriptional activator	NP_230630.1
198285	D10	147	VC0519		conserved hypothetical protein	NP_230170.1
198309	D11	186	VC2166	wrbA	Trp repressor-binding protein	NP_231797.1
174220	D12	434	VC0465	tyrS-1	tyrosyl-tRNA synthetase	NP_230119.1
199927	E01	263	VC1974		conserved hypothetical protein	NP_231608.1
199947	E02	312	VC1363		siroheme synthase component enzyme	NP_231007.1
199973	E03	392	VC1372		GGDEF family protein	NP_231016.1
199994	E04	209	VC2568	fkfB	peptidyl-prolyl cis-trans isomerase, FKBP-type	NP_232196.1
200302	E05	N/A	VCA0876	dscC	D-serine deaminase activator	N/A
200328	E06	400	VC1339		conserved hypothetical protein	NP_230983.1
200363	E07	220	VC1940		conserved hypothetical protein	NP_231574.1
198250	E08	271	VC0973		hypothetical protein	NP_230620.1
198273	E09	116	VC2165	arsC	arsenate reductase	NP_231796.1
198287	E10	147	VC0509		hypothetical protein	NP_230160.1
174144	E11	129	VC2771	atpI	ATP synthase protein I	NP_232397.1
174083	E12	91	VC0358		conserved hypothetical protein	NP_230012.1
199931	F01	273	VC1364		conserved hypothetical protein	NP_231008.1
199954	F02	N/A	VCA0415		conserved hypothetical protein	N/A
199974	F03	165	VC1963		conserved hypothetical protein	NP_231597.1
200288	F04	267	VC2520		ABC transporter, ATP-binding protein	NP_232149.1
200304	F05	N/A	VCA0870	pbpG	D-alanyl-D-alanine endopeptidase	N/A
200330	F06	N/A	VCA0862	fadL-3	long-chain fatty acid transport protein	N/A
200365	F07	223	VC1937		conserved hypothetical protein	NP_231571.1
198254	F08	275	VC0979		oxidoreductase, short-chain dehydrogenase-reductase family	NP_230626.1
198275	F09	122	VC0505		hypothetical protein	NP_230156.1
198288	F10	354	VC2162		permease PerM, putative	NP_231794.1
174188	F11	420	VC2398	ftsA	cell division protein FtsA	NP_232028.1
174111	F12	103	VC0850		conserved hypothetical protein	NP_230497.1
199935	G01	277	VC2626	dam	DNA adenine methylase	NP_232254.1
199963	G02	338	VC1369		conserved hypothetical protein	NP_231013.1
199978	G03	N/A	VCA0417		acetyltransferase, putative	N/A
200290	G04	275	VC1330		hypothetical protein	NP_230974.1
200310	G05	325	VC2504		2-hydroxyacid dehydrogenase family protein	NP_232133.1
200335	G06	155	VC2511	pyrI	aspartate carbamoyltransferase, regulatory subunit	NP_232140.1
200367	G07	234	VC1320		DNA-binding response regulator	NP_230964.1
198256	G08	N/A	VCA0255		hypothetical protein	N/A
198278	G09	324	VC0987	hemH	ferrochelatase	NP_230633.1
198289	G10	147	VC0508		hypothetical protein	NP_230159.1
174196	G11	421	VC1001	folC	folylpolyglutamate synthase-dihydrofolate synthase	NP_230647.1
174119	G12	109	VC1356		sulfite reductase, gamma subunit-related protein	NP_231000.1
199937	H01	289	VC2613	prkB	phosphoribulokinase	NP_232241.1
199964	H02	154	VC1379		hypothetical protein	NP_231023.1
199979	H03	443	VC1370		GGDEF family protein	NP_231014.1
200292	H04	287	VC1944	pvcB	PvcB protein	NP_231578.1
200314	H05	332	VC2522		conserved hypothetical protein	NP_232151.1
200337	H06	156	VC1933		hypothetical protein	NP_231567.1
200369	H07	235	VC1335		transcriptional regulator, GntR family	NP_230979.1
198258	H08	283	VC0539	cysT	sulfate ABC transporter, permease protein	NP_230190.1
198279	H09	129	VC0524		dihydroneopterin aldolase FolB, putative	NP_230175.1
198291	H10	155	VC2160	bcp	bacterioferritin comigratory protein	NP_231791.1
174204	H11	422	VC0760	hisS	histidyl-tRNA synthetase	NP_230409.1

Table 13: *Vibrio cholerae* Gateway® Clones, Plate 13 (NR-19691)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174254	A02	459	VC1848	cysS	cysteinyl-tRNA synthetase	NP_231482.1
174442	A03	435	VC1110	serS	seryl-tRNA synthetase	NP_230656.1
174127	B01	N/A	VCA0290	rplT	ribosomal protein L20	N/A
174262	B02	461	VC0560	ffh	signal recognition particle protein	NP_230211.1
175196	B03	107	VC0750		hesB family protein	NP_230399.1
174135	C01	120	VC1801		hypothetical protein	NP_231436.1
174582	C02	209	VC2596	rplC	ribosomal protein L3	NP_232224.1
174588	D02	236	VC2625	rpe	ribulose-phosphate 3-epimerase	NP_232253.1
174531	E01	144	VC2577	rplO	ribosomal protein L15	NP_232185.1
174685	E02	356	VC2499		conserved hypothetical protein	NP_232128.1
174555	F01	167	VC2579	rpsE	ribosomal protein S5	NP_232207.1
174717	F02	370	VC2036	asd	aspartate-semialdehyde dehydrogenase	NP_231670.1
174564	G01	177	VC2581	rplF	ribosomal protein L6	NP_232209.1
175022	G02	240	VC0710		conserved hypothetical protein	NP_230359.1
174235	H01	440	VC2242	mesJ	mesJ protein	NP_231873.1
175038	H02	253	VC0708		conserved hypothetical protein	NP_230357.1

Table 14: *Vibrio cholerae* Gateway® Clones, Plate 14 (NR-19692)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200588	A04	N/A	VCA0686		iron(III) ABC transporter, permease protein	N/A
200599	A05	881	VC2262	glnD	protein-P-II uridylyltransferase	NP_231893.1
200607	A06	N/A	VCA0574		conserved hypothetical protein	N/A
200617	A07	948	VC2438	glnE	glutamate-ammonia-ligase adenyllyltransferase	NP_232067.1
200635	A08	760	VC1740		oxidoreductase, acyl-CoA dehydrogenase family	NP_231376.1
198146	A09	235	VC2198	flgD	basal-body rod modification protein FlgD	NP_231829.1
198164	A10	264	VC0999	truA	tRNA pseudouridine synthase A	NP_230645.1
198181	A11	N/A	VCA0277	gcvH	glycine cleavage system H protein	N/A
198190	A12	367	VC0568		conserved hypothetical protein	NP_230219.1
200558	B01	672	VC1898		methyl-accepting chemotaxis protein	NP_231532.1
200569	B02	793	VC1769		DNA methylase HsdM, putative	NP_231404.1
200578	B03	691	VC1888		hemolysin-related protein	NP_231522.1
200590	B04	701	VC0723	ppk	polyphosphate kinase	NP_230372.1
200608	B06	714	VC1097	pta	phosphate acetyltransferase	NP_230742.1
200619	B07	708	VC1047	yfcX	fatty oxidation complex, alpha subunit	NP_230692.2
200636	B08	764	VC0603		conserved hypothetical protein	NP_230253.1
198148	B09	N/A	VCA0274	cah	carbonic anhydrase	N/A
198166	B10	267	VC0559		conserved hypothetical protein	NP_230210.1
198182	B11	312	VC2192	flgJ	flagellar protein FlgJ	NP_231823.1
198191	B12	138	VC2199	flgC	flagellar basal-body rod protein FlgC	NP_231830.1
200559	C01	787	VC1212	polB	DNA polymerase II	NP_230857.1
200570	C02	N/A	VCA0141		C4-dicarboxylate transport sensor protein, putative	N/A
200581	C03	820	VC0601	hrpB	ATP-dependent helicase HrpB	NP_230251.1
200601	C05	883	VC2217	chb-2	beta-N-acetylhexosaminidase	NP_231848.1
200609	C06	915	VC2215		cation transport ATPase, E1-E2 family	NP_231846.1
200622	C07	1021	VC1198		conserved hypothetical protein	NP_230843.1
200637	C08	768	VC1033		cation transport ATPase, E1-E2 family	NP_230678.1
198150	C09	243	VC1006	rnt	ribonuclease T	NP_230652.1
198168	C10	275	VC2201	cheR-2	chemotaxis protein methyltransferase CheR	NP_231832.1
198183	C11	N/A	VCA0265		hypothetical protein	N/A
198192	C12	376	VC0551	oadB-1	oxaloacetate decarboxylase, beta subunit	NP_230202.1
200571	D02	801	VC0612		cellobiose-cellobextrin-phosphorylase, putative	NP_230261.1
200593	D04	N/A	VCA0736	luxQ	sensor histidine kinase LuxQ	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200602	D05	706	VC2319	recD	exodeoxyribonuclease V, 67 kDa subunit	NP_231950.1
200610	D06	718	VC0200		iron(III) compound receptor	NP_229857.1
200628	D07	738	VC2451	relA	GTP pyrophosphokinase	NP_232080.1
200638	D08	1155	VC1886	mfd	transcription-repair coupling factor	NP_231520.1
198152	D09	247	VC0563	trmD	tRNA (guanine-N1)-methyltransferase	NP_230214.1
198172	D10	294	VC1008	motY	sodium-type flagellar protein MotY	NP_230654.1
198184	D11	337	VC0552		quinone oxidoreductase	NP_230203.1
198194	D12	377	VC2187	flaC	flagellin FlaC	NP_231818.1
200562	E01	N/A	VCA0805	rnb	exoribonuclease II	N/A
200572	E02	685	VC0658		c-di-GMP phosphodiesterase A-related protein	NP_230307.1
200583	E03	819	VC2364	thrA	aspartokinase I-homoserine dehydrogenase, threonine-sensitive	NP_231994.2
200594	E04	691	VC1855		ATP-dependent helicase, DinG family	NP_231489.2
200603	E05	886	VC2414	aceE	pyruvate dehydrogenase, E1 component	NP_232044.1
200612	E06	N/A	VCA0146		conserved hypothetical protein	N/A
200630	E07	741	VC1141	icd	isocitrate dehydrogenase, NADP-dependent, monomeric type	NP_230786.1
200639	E08	777	VC0602	mrcB	penicillin-binding protein 1B	NP_230252.1
198154	E09	249	VC2196	flgF	flagellar basal-body rod protein FlgF	NP_231827.1
198174	E10	295	VC2182		kinase, GHMP family	NP_231813.1
198186	E11	352	VC0565	degS	protease DegS	NP_230216.1
198195	E12	143	VC2205		hypothetical protein	NP_231836.1
200574	F02	687	VC1770		hypothetical protein	NP_231405.1
200584	F03	N/A	VCA0576	hutA	heme transport protein HutA	N/A
200595	F04	865	VC0604	acnB	aconitate hydratase 2	NP_230254.1
200604	F05	706	VC1764		hypothetical protein	NP_231399.1
200614	F06	723	VC0190	uvrD	DNA helicase II	NP_229847.1
200632	F07	748	VC0672	ptsP	phosphoenolpyruvate-protein phosphotransferase	NP_230321.1
200640	F08	1177	VC0622		sensory box sensor histidine kinase-response regulator	NP_230271.1
198156	F09	255	VC2203		flagellar protein, putative	NP_231834.1
198177	F10	N/A	VCA0271		hypothetical protein	N/A
198187	F11	131	VC2200	flgB	flagellar basal-body rod protein FlgB	NP_231831.1
198196	F12	N/A	VCA0267	emrD-3	multidrug resistance protein D	N/A
200565	G01	789	VC1711		conserved hypothetical protein	NP_231347.1
200585	G03	829	VC0130		GGDEF family protein	NP_229788.1
200605	G05	N/A	VCA0157		NADH dehydrogenase, putative	N/A
200615	G06	940	VC1760		helicase, putative	NP_231395.1
200633	G07	1073	VC0629		multidrug resistance protein, putative	NP_230278.1
200641	G08	779	VC2344		hypothetical protein	NP_231974.1
198158	G09	N/A	VCA0266		transcriptional regulator, AraC-XylS family	N/A
198178	G10	308	VC2202	cheV-3	chemotaxis protein CheV	NP_231833.1
198188	G11	361	VC2193	flgI	flagellar P-ring protein FlgI	NP_231824.1
198197	G12	145	VC2206		conserved hypothetical protein	NP_231837.1
200566	H01	N/A	VCA0624	tktA-2	transketolase 1	N/A
200576	H02	687	VC2211	viuA	ferric vibriobactin receptor	NP_231842.1
200586	H03	N/A	VCA0717	helD	helicase IV	N/A
200598	H04	704	VC1211		conserved hypothetical protein	NP_230856.1
200606	H05	N/A	VCA0165		GGDEF family protein	N/A
200616	H06	N/A	VCA0728		hypothetical protein	N/A
200634	H07	756	VC1144	clpA	ATP-dependent Clp protease, ATP-binding subunit ClpA	NP_230789.1
200642	H08	1208	VC2320	recB	exodeoxyribonuclease V, 135 kDa subunit	NP_231951.1
198162	H09	262	VC2195	flgG	flagellar basal-body rod protein FlgG	NP_231826.1
198179	H10	117	VC0564	rplS	ribosomal protein L19	NP_230215.1
198189	H11	N/A	VCA0262		hypothetical protein	N/A

Table 15: *Vibrio cholerae* Gateway® Clones, Plate 15 (NR-19693)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198208	A02	397	VC2190	flgL	flagellar hook-associated protein FlgL	NP_229752.2
198217	A03	N/A	VCA0263		acetyltransferase, putative	NP_229958.1
198229	A04	209	VC1013		RnfG-related protein	NP_230048.1
200646	A05	N/A	VCA0016	glgB	1,4-alpha-glucan branching enzyme	NP_230083.1
200670	A07	697	VC2069	flhA	flagellar biosynthetic protein FlhA	NP_230186.1
200679	A08	708	VC1488		conserved hypothetical protein	NP_230194.1
200703	A10	753	VC0901		hypothetical protein	NP_230198.1
200721	A11	1147	VC0303		sensor histidine kinase	NP_230201.1
200733	A12	1297	VC0869	purL	phosphoribosylformylglycinamide synthase	NP_230208.1
198198	B01	379	VC2188	flaA	flagellin core protein A	NP_230209.1
198209	B02	163	VC1003		bacteriocin production protein	NP_230213.1
198218	B03	441	VC1005		conserved hypothetical protein	NP_230218.1
200647	B05	N/A	VCA0013	malP	maltodextrin phosphorylase	NP_230516.1
200659	B06	849	VC2750		GGDEF family protein	NP_230548.1
200671	B07	869	VC2621		extracellular nuclease-related protein	NP_230584.1
200680	B08	N/A	VCA0011	malT	malT regulatory protein	NP_230648.1
200705	B10	758	VC2077	feoB	ferrous iron transport protein B	NP_230649.1
200723	B11	1163	VC1416	vgrG-1	vgrG protein	NP_230650.1
198894	B12	253	VC1553	glpR	glycerol-3-phosphate regulon repressor	NP_230651.1
198199	C01	145	VC0567		conserved hypothetical protein	NP_230655.1
198210	C02	412	VC0543	recA	recA protein	NP_230656.1
198219	C03	184	VC0562	rimM	16S rRNA processing protein RimM	NP_230657.1
198231	C04	211	VC2181	lolB	outer membrane lipoprotein LolB	NP_230659.1
200649	C05	818	VC1710		conserved hypothetical protein	NP_230661.1
200660	C06	677	VC1521		sensor histidine kinase	NP_230662.1
200672	C07	N/A	VCA1084		toxin secretion ATP-binding protein	NP_230666.1
200681	C08	N/A	VCA0064	hutR	heme receptor HutR	NP_231059.1
200707	C10	761	VC1704	metE	5-methyltetrahydropteroyltrimethylglutamate--homocysteine methyltransferase	NP_231080.1
200724	C11	786	VC1920	lon	ATP-dependent protease LA	NP_231091.1
198895	C12	33	VC1559		hypothetical protein	NP_231129.1
198200	D01	363	VC2185		GTP-binding protein	NP_231135.1
198212	D02	426	VC0558		hemolysin, putative	NP_231161.1
198220	D03	455	VC1021	luxO	LuxO repressor protein	NP_231193.1
198234	D04	597	VC0550	oadA-1	oxaloacetate decarboxylase, alpha subunit	NP_231199.1
200650	D05	666	VC1993	fadH	2,4-dienoyl-CoA reductase	NP_231328.1
200661	D06	854	VC0429		conserved hypothetical protein	NP_231340.1
200674	D07	705	VC2710	spoT	guanosine-3,5-bis(diphosphate) 3-pyrophosphohydrolase	NP_231345.1
200682	D08	922	VC1709		zinc protease, insulinase family	NP_231346.1
200696	D09	N/A	VCA0985		oxidoreductase-iron-sulfur cluster-binding protein	NP_231554.1
200725	D11	N/A	VCA0120		lcmF-related protein	NP_231627.1
198896	D12	257	VC2773		ParA family protein	NP_231667.1
198202	E01	N/A	VCA0270	dacA-2	D-alanyl-D-alanine carboxypeptidase	NP_231701.1
198213	E02	N/A	VCA0258		hypothetical protein	NP_231709.1
198221	E03	184	VC1010	gloA	lactoylglutathione lyase	NP_231759.1
198235	E04	213	VC1011	nth	endonuclease III	NP_231812.1
200651	E05	820	VC1692	torA	trimethylamine-N-oxide reductase	NP_231816.2
200662	E06	N/A	VCA1092		methyl-accepting chemotaxis protein	NP_231819.1
200675	E07	876	VC2646	ppc	phosphoenolpyruvate carboxylase	NP_231821.1
200683	E08	N/A	VCA1095	cheA-3	chemotaxis protein CheA	NP_231822.1
200697	E09	N/A	VCA0014	malQ	4-alpha-glucanotransferase	NP_231828.1
200726	E11	N/A	VCA0975		ATP-dependent protease LA-related protein	NP_232227.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198898	E12	N/A	VCA1100		ABC transporter, permease protein	NP_232249.1
198203	F01	146	VC1009		conserved hypothetical protein	NP_232263.1
198214	F02	434	VC2197	flgE	flagellar hook protein FlgE	NP_232274.2
198223	F03	195	VC1016		RnfB-related protein	NP_232312.1
198236	F04	624	VC2191	flgM	flagellar hook-associated protein FlgM	NP_232337.1
200653	F05	821	VC2599	vacB	ribonuclease R	NP_232376.1
200663	F06	862	VC0535	mutS	DNA mismatch repair protein MutS	NP_232380.1
200676	F07	N/A	VCA0511	nrdD	anaerobic ribonucleoside-triphosphate reductase	NP_232399.1
200685	F08	N/A	VCA1063	speF	ornithine decarboxylase, inducible	N/A
200698	F09	N/A	VCA0510		hypothetical protein	N/A
200716	F10	N/A	VCA1056		methyl-accepting chemotaxis protein	N/A
200729	F11	790	VC1437		cation transport ATPase, E1-E2 family	N/A
198900	F12	N/A	VCA1091	cheR-3	chemotaxis protein methyltransferase CheR	N/A
198204	G01	N/A	VCA0264		transcriptional regulator, putative	N/A
198215	G02	172	VC0557	luxS	autoinducer-2 production protein	N/A
198225	G03	198	VC1002	dedD	dedD protein	N/A
198238	G04	N/A	VCA0268		methyl-accepting chemotaxis protein	N/A
200655	G05	835	VC2635	mrcA	penicillin-binding protein 1A	N/A
200667	G06	868	VC1494	pepN	aminopeptidase N	N/A
200677	G07	894	VC2033	adhE	alcohol dehydrogenase-acetaldehyde dehydrogenase	N/A
200686	G08	940	VC0394	uvrA	excinuclease ABC, subunit A	N/A
200699	G09	737	VC0937		exopolysaccharide biosynthesis protein, putative	N/A
200731	G11	803	VC2684	metL	aspartokinase II-homoserine dehydrogenase, methionine-sensitive	N/A
198903	G12	48	VC2754		hypothetical protein	N/A
198206	H01	395	VC0547		aspartokinase, alpha and beta subunits	N/A
198216	H02	N/A	VCA0278	glyA-2	serine hydroxymethyltransferase	N/A
198226	H03	504	VC1004	purF	amidophosphoribosyltransferase	N/A
200645	H04	808	VC0093	plsB	glycerol-3-phosphate acyltransferase	N/A
200656	H05	674	VC2128		flagellar hook-length control protein FliK, putative	N/A
200668	H06	N/A	VCA0018	vgrG-2	vgrG protein	N/A
200678	H07	N/A	VCA1112		conserved hypothetical protein	N/A
200687	H08	720	VC1448	rtxB	RTX toxin transporter	N/A
200720	H10	801	VC1015		RnfC-related protein	N/A
200732	H11	N/A	VCA0987	ppsA	phosphoenolpyruvate synthase	N/A

Table 16: *Vibrio cholerae* Gateway® Clones, Plate 16 (NR-19694)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198915	A02	85	VC2769	atpE	ATP synthase F0, C subunit	NP_232395.1
198927	A03	N/A	VCA1096	cheY-4	chemotaxis protein CheY	N/A
198938	A04	N/A	VCA1088		methyl-accepting chemotaxis protein	N/A
198959	A05	203	VC1526	mobA	molybdopterin-guanine dinucleotide biosynthesis protein A	NP_231166.1
198968	A06	N/A	VCA1098		ABC transporter, periplasmic substrate-binding protein	N/A
198984	A07	631	VC2775	gidA	glucose inhibited division protein A	NP_232401.1
200483	A08	319	VC1611	metA	homoserine O-succinyltransferase	NP_231251.1
200505	A09	387	VC1608		conserved hypothetical protein	NP_231248.1
200520	A10	171	VC0810		hypothetical protein	NP_230459.1
200531	A11	464	VC0003	thdF	thiophene and furan oxidation protein ThdF	NP_062587.1
200542	A12	225	VC2461	rnc	ribonuclease III	NP_232090.1
198904	B01	282	VC1542	ligA-2	DNA ligase	NP_231182.1
198916	B02		VC2760		transcriptional regulator, LysR family	NP_232386.1
198928	B03	N/A	VCA1078		transcriptional regulator, LuxR family	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198939	B04	N/A	VCA0010		conserved hypothetical protein	N/A
198960	B05	N/A	VCA1080		secretion protein, HlyD family	N/A
198970	B06	530	VC1535		methyl-accepting chemotaxis protein	NP_231175.1
198985	B07	252	VC1548		hypothetical protein	NP_231188.1
200485	B08	321	VC2465	rseB	sigma-E factor regulatory protein RseB	NP_232094.1
200511	B09	408	VC1609		conserved hypothetical protein	NP_231249.1
200521	B10	440	VC1284	celF	6-phospho-beta-glucosidase	NP_230929.1
200532	B11	212	VC2466	rseA	sigma-E factor negative regulatory protein RseA	NP_232095.1
200543	B12	541	VC0819	aldA-1	aldehyde dehydrogenase	NP_230467.1
198905	C01	53	VC1530		hypothetical protein	NP_231170.1
198917	C02	91	VC1531		hypothetical protein	NP_231171.1
198929	C03	126	VC1528		hypothetical protein	NP_231168.1
198942	C04	387	VC2759	fadA	fatty oxidation complex, beta subunit	NP_232385.1
198961	C05	N/A	VCA0003		hypothetical protein	N/A
198986	C07	N/A	VCA0002		hypothetical protein	N/A
200495	C08	335	VC1266		hypothetical protein	NP_230911.1
200512	C09	156	VC2464	rseC	sigma-E factor regulatory protein RseC	NP_232093.1
200522	C10	177	VC1274		conserved hypothetical protein	NP_230919.1
200534	C11	216	VC1277		transcriptional regulator, LuxR family	NP_230922.1
198908	D01	288	VC2765	atpG	ATP synthase F1, gamma subunit	NP_232391.1
198919	D02	N/A	VCA0005		hypothetical protein	N/A
198930	D03	327	VC1541		hypothetical protein	NP_231181.1
198944	D04	390	VC1562		beta-lactamase-related protein	NP_231202.1
200469	D07	238	VC1271		hypothetical protein	NP_230916.1
200497	D08	340	VC1286		transcriptional regulator, LacI family	NP_230931.1
200514	D09	159	VC1278		transcriptional regulator, MarR family	NP_230923.1
200523	D10	446	VC1282	celB	PTS system, cellobiose-specific IIC component	NP_230927.1
200535	D11	524	VC1268		conserved hypothetical protein	NP_230913.1
200546	D12	227	VC0807		hypothetical protein	NP_230456.1
198910	E01	228	VC1539		conserved hypothetical protein	NP_231179.1
198920	E02	304	VC1534		conserved hypothetical protein	NP_231174.1
198932	E03	344	VC1557		transcriptional regulator, LacI family	NP_231197.1
198945	E04	166	VC1537	nlpC	lipoprotein NlpC	NP_231177.1
198963	E05	206	VC1544	tonB2	tonB2 protein	NP_231184.1
200471	E07	241	VC2459	recO	DNA repair protein RecO	NP_232088.1
200499	E08	360	VC1267		hypothetical protein	NP_230912.1
200515	E09	427	VC1275		conserved hypothetical protein	NP_230920.1
200524	E10	182	VC1619		hypothetical protein	NP_231259.1
200536	E11	216	VC1263	ribA	GTP cyclohydrolase II	NP_230908.1
200548	E12	228	VC1604		response regulator	NP_231244.1
198911	F01	N/A	VCA1070		hypothetical protein	N/A
198924	F02	N/A	VCA0007		3-hydroxyisobutyrate dehydrogenase, putative	N/A
198935	F03	141	VC1529		hypothetical protein	NP_231169.1
198954	F04	457	VC1547		biopolymer transport protein ExbB-related protein	NP_231187.1
198964	F05	N/A	VCA1101		ABC transporter, ATP-binding protein	N/A
198981	F06	N/A	VCA0006		conserved hypothetical protein	N/A
200475	F07	245	VC0008		amino acid ABC transporter, ATP-binding protein	NP_062592.1
200500	F08	126	VC2457	acpS	holo-(acyl-carrier-protein) synthase	NP_232086.1
200516	F09	159	VC0814		transcriptional regulator, putative	NP_230463.1
200526	F10	182	VC1269		conserved hypothetical protein	NP_230914.1
200537	F11	538	VC1605		sensor kinase citA, putative	NP_231245.1
198912	G01	293	VC1550	ugpA	glycerol-3-phosphate ABC transporter, permease protein	NP_231190.1
198925	G02	120	VC1556		conserved hypothetical protein	NP_231196.1
198936	G03	N/A	VCA1075		hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198957	G04	180	VC1546	exbB2	TonB system transport protein ExbB2	NP_231186.1
198965	G05	210	VC2774	gidB	glucose inhibited division protein B	NP_232400.1
200477	G07	252	VC1285		conserved hypothetical protein	NP_230930.1
200501	G08	362	VC1614		conserved hypothetical protein	NP_231254.1
200517	G09	431	VC1280		hypothetical protein	NP_230925.1
200527	G10	456	VC0815		hypothetical protein	NP_230464.1
200539	G11	538	VC0806		conserved hypothetical protein	NP_230455.1
200551	G12	589	VC0809		hypothetical protein	NP_230458.1
198914	H01	293	VC2772		ParB family protein	NP_232398.1
198926	H02	N/A	VCA1099		ABC transporter, permease protein	N/A
198937	H03	143	VC1538		hypothetical protein	NP_231178.1
198958	H04	478	VC1558	bglA	6-phospho-beta-glucosidase	NP_231198.1
198966	H05	N/A	VCA1071	putP	sodium-proline symporter	N/A
198983	H06	245	VC1533		conserved hypothetical protein	NP_231173.1
200481	H07	296	VC1617		transcriptional regulator, LysR family	NP_231257.1
200503	H08	379	VC0821		hypothetical protein	NP_230469.1
200518	H09	170	VC1615		conserved hypothetical protein	NP_231255.1
200530	H10	192	VC0813		tellurite resistance protein-related protein	NP_230462.1
200541	H11	540	VC1279		transporter, BCCT family	NP_230924.1

Table 17: *Vibrio cholerae* Gateway® Clones, Plate 17 (NR-19695)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198716	A02	282	VC0443	ksgA	dimethyladenosine transferase	NP_230097.1
198742	A03	128	VC0897		conserved hypothetical protein	NP_230544.1
198758	A04	N/A	VCA0538		cytochrome b561, putative	N/A
198769	A05	431	VC2092	gltA	citrate synthase	NP_231724.1
198781	A06	N/A	VCA0540		formate transporter 1, putative	N/A
198792	A07	257	VC2094		hypothetical protein	NP_231726.1
198530	A08	N/A	VCA0207	nadE	NH(3)-dependent NAD(+) synthetase	N/A
198549	A09	95	VC2149		hypothetical protein	NP_231780.1
198565	A10	118	VC2147		hypothetical protein	NP_231778.1
198586	A11	N/A	VCA0218		thermolabile hemolysin	N/A
198597	A12	214	VC0494		conserved hypothetical protein	NP_230148.1
200552	B01	236	VC1290		DNA polymerase III, epsilon subunit, putative	NP_230935.1
198718	B02	284	VC0447		DnaJ-related protein	NP_230101.1
198745	B03	N/A	VCA0527		conserved hypothetical protein	N/A
198759	B04	372	VC0917	wecB	UDP-N-acetylglucosamine 2-epimerase	NP_230564.1
198771	B05	431	VC0445	surA	survival protein SurA	NP_230099.1
198794	B07	258	VC0904		conserved hypothetical protein	NP_230551.1
198532	B08	N/A	VCA0222		lipase activator protein, putative	N/A
198551	B09	N/A	VCA0236		hypothetical protein	N/A
198567	B10	131	VC2150		conserved hypothetical protein	NP_231781.1
198587	B11	N/A	VCA0208		conserved hypothetical protein	N/A
198600	B12	N/A	VCA0210		response regulator, putative	N/A
200553	C01	111	VC1289		methyl-accepting chemotaxis protein	NP_230934.1
198720	C02	281	VC0902		conserved hypothetical protein	NP_230549.2
198746	C03	143	VC0457		hypothetical protein	NP_230111.1
198761	C04	382	VC0920		exopolysaccharide biosynthesis protein EpsF, putative	NP_230567.1
198772	C05	200	VC0456		HAM1 protein	NP_230110.1
198784	C06	236	VC2088	sdhB	succinate dehydrogenase, iron-sulfur protein	NP_231720.1
198796	C07	260	VC2083	znuB	zinc ABC transporter, permease protein	NP_231715.1
198534	C08	291	VC0959		hemolysin, putative	NP_230606.1
198554	C09	N/A	VCA0221	hlyC	lactonizing lipase	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198572	C10	377	VC2152	dapE	succinyl-diaminopimelate desuccinylase	NP_231783.1
198589	C11	N/A	VCA0237		hypothetical protein	N/A
198602	C12	N/A	VCA0213		conserved hypothetical protein	N/A
200554	D01	237	VC1612		fimbrial biogenesis and twitching motility protein, putative	NP_231252.1
198751	D03	345	VC0462	pilT-1	twitching motility protein PilT	NP_230116.1
198762	D04	185	VC0459		conserved hypothetical protein	NP_230113.1
198773	D05	457	VC0899		conserved hypothetical protein	NP_230546.1
198785	D06	515	VC0894	thil	thiamin biosynthesis protein Thil	NP_230541.1
198797	D07	588	VC2089	sdhA	succinate dehydrogenase, flavoprotein subunit	NP_231721.1
198539	D08	N/A	VCA0209		hypothetical protein	N/A
198557	D09	105	VC0952		conserved hypothetical protein	NP_230599.1
198574	D10	377	VC2143	flaD	flagellin FlaD	NP_231774.1
198591	D11	199	VC0496		hypothetical protein	NP_230150.1
198604	D12	N/A	VCA0220	hylB	hemolysin secretion protein HylB	N/A
200555	E01	637	VC1291		conserved hypothetical protein	NP_230936.1
198725	E02	290	VC2084	sucD	succinyl-CoA synthase, alpha subunit	NP_231716.1
198754	E03	N/A	VCA0543		conserved hypothetical protein	N/A
198776	E05	225	VC0906		ABC transporter, permease protein	NP_230553.1
198786	E06	239	VC0453		conserved hypothetical protein	NP_230107.1
198799	E07	N/A	VCA0529	kup	potassium uptake protein, Kup system	N/A
198540	E08	N/A	VCA0241		hexulose-6-phosphate isomerase SgbU, putative	N/A
198558	E09	N/A	VCA0212		hypothetical protein	N/A
198576	E10	378	VC2144	flaE	flagellin FlaE	NP_231775.1
198605	E12	224	VC0495		conserved hypothetical protein	NP_230149.1
198710	F01	269	VC0441	apaH	bis(5'-nucleosyl)-tetrphosphatase	NP_230095.1
198735	F02	316	VC0454		glutaminase family protein	NP_230108.1
198755	F03	353	VC0452	mutY	A-G-specific adenine glycosylase	NP_230106.1
198766	F04	N/A	VCA0539		conserved hypothetical protein	N/A
198777	F05	469	VC0921		polysaccharide export protein, putative	NP_230568.1
198522	F07	263	VC0948		rare lipoprotein A, putative	NP_230595.1
198542	F08	302	VC2145		tyrA protein	NP_231776.1
198560	F09	351	VC2136	flrB	flagellar regulatory protein B	NP_231767.1
198580	F10	391	VC0947	dacA-1	D-alanyl-D-alanine carboxypeptidase	NP_230594.1
198593	F11	N/A	VCA0240		hypothetical protein	N/A
198606	F12	N/A	VCA0238		sensor histidine kinase	N/A
198712	G01	272	VC0460	proC	pyrroline-5-carboxylate reductase	NP_230114.1
198738	G02	N/A	VCA0535		hypothetical protein	N/A
198756	G03	177	VC2096	seqA	seqA protein	NP_231728.1
198767	G04	413	VC0918	epsD	UDP-N-acetyl-D-mannosaminuronic acid dehydrogenase	NP_230565.1
198778	G05	229	VC2100		conserved hypothetical protein	NP_231732.1
198790	G06	257	VC2097		esterase-lipase YbfF, putative	NP_231729.1
198526	G07	N/A	VCA0243		conserved hypothetical protein	N/A
198544	G08	N/A	VC0501		transposase, authentic frameshift	N/A
198562	G09	N/A	VCA0231		transcriptional regulator, AraC-XylS family	N/A
198581	G10	156	VC0951		conserved hypothetical protein	NP_230598.1
198594	G11	474	VC0962		conserved hypothetical protein	NP_230609.1
198607	G12	N/A	VCA0244		sugar isomerase SgaE, AraD-FucA family	N/A
198714	H01	269	VC0905	yaeC	lipoprotein YaeC	NP_230552.2
198739	H02	N/A	VCA0546		conserved hypothetical protein	N/A
198757	H03	N/A	VCA0550		hypothetical protein	N/A
198768	H04	N/A	VCA0549	phnA	phnA protein	N/A
198779	H05	478	VC0910	treB	PTS system, trehalose-specific IIBC component	NP_230557.1
198791	H06	548	VC2095	pgm	phosphoglucomutase	NP_231727.1
198528	H07	N/A	VC0499	orfB	transposase OrfAB, subunit B authentic point mutation	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198546	H08	N/A	VCA0228	vctD	vibriobactin and enterobactin ABC transporter, permease protein	N/A
198564	H09	N/A	VCA0217		GGDEF family protein	N/A
198596	H11	479	VC2135	flrC	flagellar regulatory protein C	NP_231766.1

Table 18: *Vibrio cholerae* Gateway® Clones, Plate 18 (NR-19696)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198868	A02	239	VC2064	cheZ	chemotaxis protein CheZ	NP_231696.1
198800	A03	313	VC2067		MinD-related protein	NP_231699.1
198820	A04	377	VC2062	cheB-2	protein-glutamate methyltransferase CheB	NP_231694.1
198836	A05	468	VC0433		arginine-ornithine antiporter	NP_230087.1
198849	A06	N/A	VCA1111		thermostable hemolysin	N/A
198632	A08	318	VC0468	gshB	glutathione synthetase	NP_230122.1
198652	A09	368	VC0463	pilT-2	twitching motility protein PilT	NP_230117.1
198672	A10		VC0922		hypothetical protein	NP_230569.1
198687	A11	187	VC0467		conserved hypothetical protein	NP_230121.2
198701	A12	250	VC0927	cpsF	UDP-N-acetyl-D-mannosamine transferase	NP_230574.1
198608	B01	580	VC2133	fliF	flagellar M-ring protein FliF	NP_231764.1
198870	B02	N/A	VCA0021		hypothetical protein	N/A
198804	B03	430	VC0430		immunogenic protein	NP_230084.1
198821	B04	145	VC0870	tnpA	IS1004 transposase	NP_230517.1
198840	B05	481	VC0422	tldD	tldD protein	NP_230076.1
198850	B06	530	VC0866		transglycosylase, Slt family	NP_230513.1
198616	B07	N/A	VCA0194		potassium channel protein, putative	N/A
198634	B08	N/A	VCA0559		hypothetical protein	N/A
198654	B09	N/A	VCA0200		hypothetical protein	N/A
198674	B10	408	VC0929		hypothetical protein	NP_230576.1
198688	B11	465	VC0934		capsular polysaccharide biosynthesis glycosyltransferase, putative	NP_230581.1
198609	C01	249	VC2153		D,D-carboxypeptidase-related protein	NP_231784.1
198873	C02	244	VC2066	fliA	RNA polymerase sigma factor for flagellar operon FliA	NP_231698.1
198805	C03	103	VC0887		conserved hypothetical protein	NP_230534.1
198827	C04	150	VC0407	mshF	MSHA biogenesis protein MshF	NP_230061.1
198842	C05	489	VC0419	cafA	cytoplasmic axial filament protein	NP_230073.1
198851	C06	203	VC0411	mshD	MSHA pilin protein MshD	NP_230065.1
198618	C07	287	VC0480		conserved hypothetical protein	NP_230134.1
198636	C08	N/A	VCA0192	ldhA	D-lactate dehydrogenase	N/A
198660	C09	341	VC0476	epd	D-erythrose-4-phosphate dehydrogenase	NP_230130.2
198676	C10	N/A	VCA0554		oxalate-formate antiporter	N/A
198690	C11	N/A	VCA0557		GGDEF family protein	N/A
198706	C12	652	VC0475	irgA	enterobactin receptor	NP_230129.1
198612	D01	N/A	VCA0211		sensory box sensor histidine kinase	N/A
198877	D02	256	VC0412		hypothetical protein	NP_230066.1
198806	D03	N/A	VCA0024		conserved hypothetical protein	N/A
198829	D04	157	VC2070	sixA	phosphohistidine phosphatase	NP_231702.1
198844	D05	495	VC2068		flagellar biosynthetic protein FliF, putative	NP_231700.1
198620	D07	N/A	VCA0201		hypothetical protein	N/A
198638	D08	338	VC2107		aspartate-semialdehyde dehydrogenase, putative	NP_231739.1
198662	D09	387	VC2108	pdxB	erythronate-4-phosphate dehydrogenase	NP_231740.1
198678	D10	N/A	VCA0560		GGDEF family protein	N/A
198692	D11	470	VC0485	pykF	pyruvate kinase I	NP_230139.1
198708	D12	653	VC0490		conserved hypothetical protein	NP_230144.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198860	E01	214	VC0873		conserved hypothetical protein	NP_230520.1
198881	E02	265	VC0425		hypothetical protein	NP_230079.1
198808	E03	338	VC2060		conserved hypothetical protein	NP_231692.1
198830	E04	407	VC0406	mshG	MSHA biogenesis protein MshG	NP_230060.1
198845	E05	196	VC0408	mshB	MSHA pilin protein MshB	NP_230062.1
198853	E06	205	VC0418	maf	maf protein	NP_230072.1
198622	E07	292	VC2103		transcriptional regulator, LysR family	NP_231735.1
198640	E08	N/A	VCA0197	guaC	GMP reductase	N/A
198664	E09	390	VC0926		hypothetical protein	NP_230573.1
198681	E10	N/A	VCA0556		hypothetical protein	N/A
198694	E11	N/A	VCA0191		conserved hypothetical protein	N/A
200104	E12	227	VC0258	rfbT	rfbT protein	NP_229914.1
198862	F01	N/A	VCA1105		DNA-binding response regulator	N/A
198883	F02	N/A	VCA1108		oxidoreductase, short-chain dehydrogenase-reductase family	N/A
198812	F03	345	VC0886		hypothetical protein	NP_230533.1
198833	F04	162	VC0410	mshC	MSHA pilin protein MshC	NP_230064.1
198846	F05	N/A	VCA1110		long-chain-fatty-acid--CoA ligase, putative	N/A
198854	F06	559	VC0402	mshL	MSHA biogenesis protein MshL	NP_230056.1
198626	F07	298	VC0474	irgB	iron-regulated virulence regulatory protein IrgB	NP_230128.1
198642	F08	349	VC2126	fliM	flagellar motor switch protein FliM	NP_231757.1
198665	F09	N/A	VCA0190		hypothetical protein	N/A
198682	F10	406	VC0924		capK protein, putative	NP_230571.1
198695	F11	235	VC0938		hypothetical protein	NP_230585.1
200106	F12	247	VC0230		hypothetical protein	NP_229887.1
198864	G01	231	VC0876		conserved hypothetical protein	NP_230523.1
198889	G02	N/A	VCA0019		hypothetical protein	N/A
198813	G03	N/A	VCA0022		glutathione S-transferase-related protein	N/A
198834	G04	N/A	VCA0025		transporter, NadC family	N/A
198847	G05	198	VC2073		conserved hypothetical protein	NP_231705.1
198855	G06	207	VC0884		acetyltransferase-related protein	NP_230531.1
198628	G07	299	VC2123	fliP	flagellar biosynthetic protein FliP	NP_231754.1
198644	G08	358	VC0478	fbaA	fructose-bisphosphate aldolase, class II	NP_230132.1
198667	G09	162	VC0471		sprT protein, putative	NP_230125.1
198684	G10	N/A	VCA0193		Na ⁺ -H ⁺ antiporter, putative	N/A
198697	G11	238	VC0483		conserved hypothetical protein	NP_230137.1
200108	G12	251	VC0227		conserved hypothetical protein	NP_229884.1
198866	H01	N/A	VCA1109		hypothetical protein	N/A
198891	H02	296	VC0416	mreC	rod shape-determining protein MreC	NP_230070.1
198818	H03	311	VC0432	mdh	malate dehydrogenase	NP_230086.2
198835	H04	167	VC2058		hypothetical protein	NP_231690.1
198856	H06	575	VC0405	mshE	MSHA biogenesis protein MshE	NP_230059.1
198630	H07	314	VC2118		adenine-specific methylase, putative	NP_231749.1
198648	H08	361	VC2116	aroC	chorismate synthase	NP_231747.1
198668	H09	398	VC0935		hypothetical protein	NP_230582.1
198686	H10	N/A	VCA0564	pntB	NAD(P) transhydrogenase, beta subunit	N/A

Table 19: *Vibrio cholerae* Gateway® Clones, Plate 19 (NR-19697)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200129	A02	305	VC0206		GckR family protein	200129
200145	A03	N/A	VCA0927		conserved hypothetical protein	200145
200167	A04	N/A	VCA0340		hypothetical protein	200167
200177	A05	N/A	VCA0351		hypothetical protein	200177

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200190	A06	N/A	VCA0924		conserved hypothetical protein	200190
198277	A07	127	VC2177		conserved hypothetical protein	198277
198296	A08	378	VC0994	nagA-1	N-acetylglucosamine-6-phosphate deacetylase	198296
198307	A09	180	VC2159		glycine cleavage system transcriptional repressor, putative	198307
198324	A10	554	VC0991	asnB	asparagine synthetase B, glutamine-hydrolyzing	198324
199730	A11	253	VC0839	tcpJ	leader peptidase TcpJ	199730
199752	A12	N/A	VCA0979		methyl-accepting chemotaxis protein	199752
200110	B01	238	VC0210	rph	ribonuclease PH	200110
200131	B02	309	VC0229		hypothetical protein	200131
200146	B03	346	VC0236	rfaF	ADP-heptose--LPS heptosyltransferase II	200146
200169	B04	N/A	VCA0928		hypothetical protein	200169
198240	B06	N/A	VCA0247		transcriptional regulator, DeoR family	198240
198282	B07	335	VC0534	rpoS	RNA polymerase sigma-38 factor	198282
198297	B08	160	VC2172		conserved hypothetical protein	198297
198311	B09	189	VC0981		conserved hypothetical protein	198311
199732	B11	256	VC0841	acfC	accessory colonization factor AcfC	199732
199754	B12	N/A	VCA0982		transcriptional regulator, LysR family	199754
200112	C01	259	VC0224		lipopolysaccharide biosynthesis glycosyltransferase	200112
200133	C02	318	VC0213	htrB	lipid A biosynthesis lauroyl acyltransferase	200133
200170	C04	463	VC0242	rfbB	phosphomannomutase	200170
198252	C06	271	VC0513		transcriptional regulator, AraC-XylS family	198252
198284	C07	N/A	VC0980	rcp	rcp protein, authentic frameshift	198284
198315	C09	195	VC0525	foK-1	2-amino-4-hydroxy-6-hydroxymethyldihydropteridine pyrophosphokinase	198315
199736	C11	267	VC1430		bax protein, putative	199736
199756	C12	N/A	VCA0964		glycine cleavage operon activator, putative	199756
200118	D01	N/A	VCA0334		hypothetical protein	200118
200139	D02	N/A	VCA0342		hypothetical protein	200139
200154	D03	N/A	VCA0328		biphenyl-2,3-diol 1,2-dioxygenase III-related protein	200154
200172	D04	465	VC0241	rfbA	mannose-1-phosphate guanylyltransferase	200172
198261	D06	69	VC0967		hypothetical protein	198261
198286	D07	349	VC0972		porin, putative	198286
198299	D08	165	VC0990		transcriptional activator RfaH, putative	198299
198316	D09	514	VC0988		proton-peptide symporter family protein	198316
198327	D10	232	VC0528		CDP-ribitol pyrophosphorylase-related protein	198327
199738	D11	276	VC0838	tcpN-toxT	TCP pilus virulence regulatory protein	199738
199759	D12	305	VC2673	menA	1,4-dihydroxy-2-naphthoate octaprenyltransferase	199759
200119	E01	269	VC0221	mutM	formamidopyrimidine-DNA glycosylase	NP_229878.1
200140	E02	325	VC0212	msbB	lipid A biosynthesis (kdo)2-(lauroyl)-lipid IVA acyltransferase	NP_229869.1
200155	E03	367	VC0244	rfbE	perosamine synthase	NP_229901.1
200173	E04	188	VC0252		acetyltransferase RfbO, CysE-LacA-LpxA-NodL family	NP_229909.1
200183	E05	N/A	VCA0345		conserved hypothetical protein	N/A
198268	E06	295	VC0537	cysM	cysteine synthase B	NP_230188.1
198290	E07	N/A	VCA0248		conserved hypothetical protein	N/A
198302	E08	404	VC0993	nagC	N-acetylglucosamine repressor	NP_230639.1
198317	E09	208	VC0532	pcm	protein-L-isoaspartate O-methyltransferase	NP_230183.1
198328	E10	623	VC2161		methyl-accepting chemotaxis protein	NP_231792.1
199740	E11	N/A	VCA0986		conserved hypothetical protein	N/A
199761	E12	N/A	VCA0963		hypothetical protein	N/A
200121	F01	271	VC0247	rfbI	lipopolysaccharide-O-antigen transport protein	NP_229904.1
200142	F02	N/A	VCA0337	mccF-1	microcin immunity protein MccF	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200160	F03	N/A	VCA0346		H-REV 107-related protein	N/A
200174	F04	471	VC0249	rfbL	rfbL protein	NP_229906.1
198270	F06	306	VC0977		conserved hypothetical protein	NP_230624.1
198303	F08	173	VC0983	toxS	regulatory protein ToxS	NP_230629.1
198318	F09	528	VC0992		glutathione-regulated potassium-efflux system protein KefB, putative	NP_230638.1
199744	F11	281	VC1429		hypothetical protein	NP_231072.1
199762	F12	144	VC2654		conserved hypothetical protein	NP_232282.1
200123	G01	282	VC0204		conserved hypothetical protein	NP_229861.1
200143	G02	114	VC0256	orfA	transposase OrfAB, subunit A	NP_229912.1
200162	G03	N/A	VCA0330		hypothetical protein	N/A
200175	G04	188	VC0238		transferase, hexapeptide repeat family	NP_229895.1
200186	G05	N/A	VCA0923		methyl-accepting chemotaxis protein	N/A
198272	G06	306	VC0976		conserved hypothetical protein	NP_230623.1
198293	G07	157	VC0510		DNA repair protein RadC-related protein	NP_230161.1
198305	G08	N/A	VCA0249		cytochrome b561, putative	N/A
198319	G09	208	VC0523		conserved hypothetical protein	NP_230174.1
198331	G10	350	VC0969	cysZ	cysZ protein	NP_230616.1
199748	G11	286	VC1427	potB	spermidine-putrescine ABC transporter, permease protein	NP_231070.1
199763	G12	310	VC1432		conserved hypothetical protein	NP_231075.1
200127	H01	290	VC0257	orfB	transposase OrfAB, subunit B	NP_229913.1
200144	H02	345	VC0223		ADP-heptose-LPS heptosyltransferase II, putative	NP_229880.1
200164	H03	399	VC0237		conserved hypothetical protein	NP_229894.1
200188	H05	653	VC0203		iron(III) ABC transporter, permease protein	NP_229860.1
198276	H06	322	VC0968	cysK	cysteine synthase A	NP_230615.1
198295	H07	158	VC0529		conserved hypothetical protein	NP_230180.1
198306	H08	413	VC0516		phage integrase	NP_230167.1
198320	H09	529	VC0512		methyl-accepting chemotaxis protein	NP_230163.1
198332	H10	635	VC0985	htpG	heat shock protein HtpG	NP_230631.1
199749	H11	116	VC2669		5-carboxymethyl-2-hydroxyumuconate delta isomerase, putative	NP_232297.1

Table 20: *Vibrio cholerae* Gateway® Clones, Plate 20 (NR-19698)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199776	A02	154	VC2653	secB	protein-transport protein SecB	NP_232281.1
199800	A03	206	VC1441	ccoO	cytochrome c oxidase, subunit CcoO	NP_231084.1
199817	A04	602	VC2656	frdA	fumarate reductase, flavoprotein subunit	NP_232284.1
199108	A05	289	VC0091		O-methyltransferase-related protein	NP_229750.1
199127	A06	136	VC0097		flagellar protein FliL, putative	NP_229756.1
199143	A07	169	VC1481		conserved hypothetical protein	NP_231122.1
199156	A08	N/A	VCA0516	fruA-2	PTS system, fructose-specific IIBC component	N/A
199827	A09	N/A	VCA0940		transcriptional regulator, DeoR family	N/A
199845	A10	312	VC0823		hypothetical protein	NP_230471.1
199886	A11	199	VC2632		fimbrial assembly protein PilO, putative	NP_232260.1
199905	A12	595	VC1405		methyl-accepting chemotaxis protein	NP_231048.1
199764	B01	146	VC0849		conserved hypothetical protein	NP_230496.1
199778	B02	157	VC0842		conserved hypothetical protein	NP_230490.1
199801	B03	477	VC1442	ccoN	cytochrome c oxidase, subunit CcoN	NP_231085.1
199078	B04	223	VC2706		conserved hypothetical protein	NP_232333.1
199112	B05	N/A	VCA0508	orfB	transposase OrfAB, subunit B	N/A
199129	B06	N/A	VCA0506		conserved hypothetical protein	N/A
199144	B07	506	VC2705		sodium-solute symporter, putative	NP_232332.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199158	B08	581	VC2703		conserved hypothetical protein	NP_232330.1
199829	B09	262	VC2643	argB	acetylglutamate kinase	NP_232271.1
199890	B11	200	VC1408		transcriptional regulator, TetR family	NP_231051.1
199906	B12	224	VC0828	tcpA	toxin co-regulated pilin	NP_230476.1
199765	C01	315	VC1433		conserved hypothetical protein	NP_231076.1
199782	C02	161	VC0848	smpB	small protein B	NP_230495.1
199802	C03	N/A	VCA0980		hypothetical protein	N/A
199084	C04	229	VC2708	gmk	guanylate kinase	NP_232335.1
199115	C05	N/A	VCA0507	orfA	transposase OrfAB, subunit A	N/A
199132	C06	398	VC0080		conserved hypothetical protein	NP_229739.1
199146	C07	513	VC0082		conserved hypothetical protein	NP_229741.1
199159	C08	194	VC1465		hypothetical protein	NP_231108.1
199833	C09	274	VC2593	rplB	ribosomal protein L2	NP_232221.1
199849	C10	N/A	VCA0956		GGDEF family protein	N/A
199893	C11	511	VC1411	vceB	multidrug resistance protein VceB	NP_231054.1
199908	C12	N/A	VCA0952		transcriptional regulator, LuxR family	N/A
199767	D01	326	VC1439	ccoP	cytochrome c oxidase, subunit CcoP	NP_231082.1
199784	D02	N/A	VCA0976		hypothetical protein	N/A
199092	D04	250	VC0088		conserved hypothetical protein	NP_229747.1
199117	D05	117	VC1477	orfA	transposase OrfAB, subunit A	NP_231118.1
199133	D06	153	VC0071	asnC	transcriptional regulator AsnC	NP_229730.1
199149	D07	181	VC0078	ftn	ferritin	NP_229737.1
199162	D08	639	VC1486		ABC transporter, ATP-binding protein	NP_231127.1
199861	D10	397	VC1407	rhIE-1	ATP-dependent RNA helicase RhIE	NP_231050.1
199895	D11	520	VC1402		purine-binding chemotaxis protein Chew, putative	NP_231045.1
199770	E01	151	VC0832	tcpR	toxin co-regulated pilus biosynthesis protein R	NP_230480.1
199788	E02	183	VC2676		cell division protein FtsN, putative	NP_232304.1
199093	E04	68	VC2054	ccmD	heme exporter protein D	NP_231686.1
199119	E05	119	VC1479		hypothetical protein	NP_231120.1
199134	E06	N/A	VCA0518	fruB	PTS system, fructose-specific IIA-FPR component	N/A
199150	E07	522	VC1469	cri-1	phage replication protein Cri	NP_231112.1
199163	E08	207	VC0084		conserved hypothetical protein	NP_229743.1
199869	E10	N/A	VCA0945	malE	maltose ABC transporter, periplasmic maltose-binding protein	N/A
198058	E12	915	VC2212		hypothetical protein	NP_231843.1
199771	F01	340	VC2661		conserved hypothetical protein	NP_232289.1
199790	F02	185	VC2675	hslV	protease HslVU, subunit HslV	NP_232303.1
199094	F04	250	VC2055	ccmC	heme exporter protein C	NP_231687.1
199120	F05	N/A	VCA0517	fruK	1-phosphofructokinase	N/A
199136	F06	N/A	VCA0513		amino acid biosynthesis aminotransferase	N/A
199151	F07	N/A	VC1476	tlcR-2	tlcR protein	N/A
199164	F08	651	VC2052	ccmF	cytochrome c-type biogenesis protein CcmF	NP_231684.1
199839	F09	N/A	VCA0943	malG	maltose ABC transporter, permease protein	N/A
199874	F10	N/A	VCA0947	speG	spermidine n1-acetyltransferase	N/A
199899	F11	N/A	VCA0944	malF	maltose ABC transporter, permease protein	N/A
198060	F12	245	VC0575	petC	ubiquinol--cytochrome c reductase, cytochrome c1	NP_230226.1
199772	G01	152	VC0834	tcpS	toxin co-regulated pilus biosynthesis protein S	NP_230482.1
199794	G02	191	VC2662		conserved hypothetical protein	NP_232290.1
199810	G03	N/A	VC0846		integrase, degenerate	N/A
199095	G04	80	VC1487		conserved hypothetical protein	NP_231128.1
199122	G05	N/A	VCA0519	fruR	fructose repressor	N/A
199141	G06	165	VC2717		hypothetical protein	NP_232344.1
199152	G07	N/A	VC2049	ccmH	cytochrome c-type biogenesis protein CcmH, authentic frameshift	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199821	G08	247	VC2598		RNA methyltransferase, TrmH family	NP_232226.1
199841	G09	297	VC2636		transcriptional regulator, LysR family	NP_232264.1
199876	G10	N/A	VCA0955		transcriptional regulator, MarR family	N/A
199900	G11	212	VC1421		conserved hypothetical protein	NP_231064.1
198068	G12	258	VC1034	udp-1	uridine phosphorylase	NP_230679.1
199775	H01	345	VC1424	potD-1	spermidine-putrescine ABC transporter, periplasmic spermidine-putrescine-binding protein	NP_231067.1
199799	H02	467	VC1447	rtxD	RTX toxin transporter	NP_231090.1
199106	H04	286	VC2719		ComF-related protein	NP_232346.1
199126	H05	336	VC1491	pyrD	dihydroorotate dehydrogenase	NP_231132.1
199142	H06	480	VC2712		xanthine-uracil permease family protein	NP_232339.1
199825	H08	247	VC2637		peroxiredoxin family protein-glutaredoxin	NP_232265.1
199881	H10	458	VC2641	argH	argininosuccinate lyase	NP_232269.1
199901	H11	578	VC1413		methyl-accepting chemotaxis protein	NP_231056.1

Table 21: *Vibrio cholerae* Gateway® Clones, Plate 21 (NR-19699)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198094	A02	305	VC0589		ABC transporter, ATP-binding protein	NP_230239.1
198110	A03	368	VC1050		response regulator	NP_230695.1
198136	A04	512	VC2224		GGDEF family protein	NP_231855.1
200332	A05	414	VC1644		hypothetical protein	NP_231281.1
200348	A06	N/A	VCA0864		methyl-accepting chemotaxis protein	N/A
200364	A07	548	VC1649		trypsin, putative	NP_231286.1
199259	A08	N/A	VCA0459		hypothetical protein	N/A
199279	A09	269	VC0370		conserved hypothetical protein	NP_230024.1
199303	A10	N/A	VCA0472		IS5 transposase	N/A
199336	A11	149	VC0369	rplI	ribosomal protein L9	NP_230023.1
200428	A12	N/A	VCA0847		conserved hypothetical protein	N/A
198070	B01	N/A	VCA0583		hypothetical protein	N/A
198095	B02	150	VC1028	moaE	molybdenum cofactor biosynthesis protein E	NP_230673.1
198113	B03	188	VC1045		RNA polymerase sigma-70 factor, ECF subfamily	NP_230690.1
200349	B06	185	VC2524		conserved hypothetical protein	NP_232153.1
200368	B07	596	VC1643		methyl-accepting chemotaxis protein	NP_231280.1
199261	B08	196	VC2011		hypothetical protein	NP_231645.1
199281	B09	274	VC1997		hypothetical protein	NP_231631.1
199305	B10	326	VC0026		zinc-binding alcohol dehydrogenase	NP_229685.1
199337	B11	500	VC2013	ptsG	PTS system, glucose-specific IIBC component	NP_231647.1
200432	B12	449	VC1315		sensor histidine kinase	NP_230959.1
198076	C01	271	VC2210	viuB	vibriobactin utilization protein ViuB	NP_231841.1
198096	C02	321	VC2213	ompA	outer membrane protein OmpA	NP_231844.1
198114	C03	377	VC2208		hypothetical protein	NP_231839.1
198144	C04	653	VC0581		lipoprotein, putative	NP_230232.1
200350	C06	N/A	VCA0871		transcriptional regulator, GntR family	N/A
199263	C08	N/A	VCA0455		conserved hypothetical protein	N/A
199283	C09	267	VC2018	pabC	4-amino-4-deoxychorismate lyase	NP_231652.2
199307	C10	327	VC0379		NifR3-Smm1 family protein	NP_230033.1
199344	C11	158	VC0365	bfr	bacterioferritin	NP_230019.1
200434	C12	453	VC1300	sdaA-1	L-serine dehydratase 1	NP_230945.1
198080	D01	288	VC0582		conserved hypothetical protein	NP_230233.1
198097	D02	155	VC1041		phosphotyrosine protein phosphatase	NP_230686.1
198115	D03	189	VC0578		hemolysin, putative	NP_230229.1
200306	D04	323	VC1334		conserved hypothetical protein	NP_230978.1
200352	D06	487	VC1945		FAD monooxygenase, PheA-TfdB family	NP_231579.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200372	D07	632	VC1340	prpE	prpE protein	NP_230984.1
199265	D08	200	VC0034	tpcG	thiol:disulfide interchange protein	NP_229693.1
199287	D09	280	VC0039		SpoOM-related protein	NP_229698.1
199309	D10	N/A	VCA0454	sbp	sulfate-binding protein, authentic frameshift	N/A
200436	D12	457	VC1306		conserved hypothetical protein	NP_230951.1
198082	E01	293	VC0591	panC	pantoate--beta-alanine ligase	NP_230241.1
198099	E02	158	VC0577	sspB	stringent starvation protein B	NP_230228.1
198118	E03	N/A	VCA0281		integrase, putative	N/A
200343	E05	160	VC2498		conserved hypothetical protein	NP_232127.1
200373	E07	252	VC1935		CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase-related protein	NP_231569.1
199269	E08	N/A	VCA0457		hypothetical protein	N/A
199289	E09	N/A	VCA0458		hypothetical protein	N/A
199311	E10	330	VC0021	glyQ	glycyl-tRNA synthetase, alpha chain	NP_229680.1
200386	E11	N/A	VCA0859		oxidoreductase, aldo-keto reductase 2 family	N/A
200437	E12	458	VC1303	pabB	para-aminobenzoate synthase, component I	NP_230948.1
198083	F01	N/A	VCA0571		hypothetical protein	N/A
198100	F02	N/A	VCA0282		IS5 transposase	N/A
198121	F03	N/A	VCA0580		conserved hypothetical protein	N/A
200344	F05	458	VC2507		conserved hypothetical protein	NP_232136.1
200374	F07	637	VC1647		conserved hypothetical protein	NP_231284.1
199271	F08	221	VC0381		hypothetical protein	NP_230035.1
199293	F09	296	VC2001		conserved hypothetical protein	NP_231635.1
199313	F10	331	VC2000	gapA-1	glyceraldehyde 3-phosphate dehydrogenase	NP_231634.1
200394	F11	N/A	VCA0835		conserved hypothetical protein	N/A
200439	F12	458	VC1631		conserved hypothetical protein	NP_231268.1
198090	G01	298	VC2220		conserved hypothetical protein	NP_231851.1
198104	G02	334	VC1024	moaA	molybdenum cofactor biosynthesis protein A	NP_230669.1
198127	G03	197	VC0573	petA	ubiquinol--cytochrome c reductase, iron-sulfur subunit	NP_230224.1
200346	G05	465	VC1342		MutT-nudix family protein	NP_230986.1
200360	G06	514	VC1327	mgIA	galactoside ABC transporter, ATP-binding protein	NP_230971.1
200375	G07	258	VC2519		conserved hypothetical protein	NP_232148.1
199273	G08	N/A	VCA0447		haemagglutinin associated protein	N/A
199295	G09	314	VC2006	cheV-2	chemotaxis protein CheV	NP_231640.1
199315	G10	334	VC2002		hypothetical protein	NP_231636.1
200441	G12	462	VC1639		sensor histidine kinase	NP_231276.1
198091	H01	146	VC1031		inosine monophosphate dehydrogenase-related protein	NP_230676.1
198105	H02	170	VC1025	moaB	molybdenum cofactor biosynthesis protein B	NP_230670.1
198135	H03	N/A	VCA0585		glutathione S-transferase, putative	N/A
200347	H05	183	VC1333		hypothetical protein	NP_230977.1
200362	H06	N/A	VCA0872	cydA-2	cytochrome d ubiquinol oxidase, subunit I	N/A
200376	H07	655	VC1934		GGDEF family protein	NP_231568.1
199275	H08	248	VC0010		amino acid ABC transporter, periplasmic amino acid-binding portion	NP_062594.1
199297	H09	319	VC0029	ilvE	branched-chain amino acid aminotransferase	NP_229688.1

Table 22: *Vibrio cholerae* Gateway® Clones, Plate 22 (NR-19700)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200457	A02	516	VC2490	leuA	2-isopropylmalate synthase	NP_232119.1
200067	A04	326	VC0270		ROK family protein	NP_229926.1
200093	A05	150	VC0297	aroQ	3-dehydroquinate dehydratase	NP_229952.1
199946	A06	N/A	VCA0422		conserved hypothetical protein	N/A
199981	A07	450	VC1386		heat shock protein 70 family protein	NP_231030.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200002	A08	226	VC2624	gph	phosphoglycolate phosphatase	NP_232252.1
200789	A09	428	VC1111	bioA	adenosylmethionine-8-amino-7-oxononanoate aminotransferase	NP_230756.1
200805	A10	449	VC1108		conserved hypothetical protein	NP_230753.1
199019	A11	N/A	VCA1048		oxidoreductase, Gfo-Idh-MocA family	N/A
199051	A12	208	VC1497		conserved hypothetical protein	NP_231138.1
200442	B01	212	VC1622		outer membrane protein, putative	NP_231261.1
200458	B02	N/A	VCA0853		hypothetical protein	N/A
200040	B03	N/A	VCA0381		hypothetical protein	N/A
200068	B04	N/A	VCA0385		conserved hypothetical protein	N/A
200094	B05	541	VC0278		transcriptional activator CadC, putative	NP_229934.1
199950	B06	116	VC1380		hypothetical protein	NP_231024.1
199983	B07	N/A	VCA0931		conserved hypothetical protein	N/A
200003	B08	631	VC1374		DnaK-related protein	NP_231018.1
200791	B09	430	VC2278		conserved hypothetical protein	NP_231909.1
200811	B10	489	VC1104		GGDEF family protein	NP_230749.1
200443	C01	467	VC2492	leuC	3-isopropylmalate dehydratase, large subunit	NP_232121.1
200459	C02	543	VC1313		methyl-accepting chemotaxis protein	NP_230957.1
200046	C03	N/A	VCA0353		hypothetical protein	N/A
200070	C04	N/A	VCA0372	orfA	transposase OrfAB, subunit A	N/A
199951	C06	316	VC1390		transcriptional regulator, LysR family	NP_231034.1
200004	C08	226	VC1371		hypothetical protein	NP_231015.1
200813	C10	505	VC2285		GGDEF family protein	NP_231916.1
199056	C12	530	VC1520		ABC transporter, ATP-binding protein	NP_231160.1
200445	D01	478	VC1632		conserved hypothetical protein	NP_231269.1
200461	D02	543	VC1298		methyl-accepting chemotaxis protein	NP_230943.1
200077	D04	N/A	VCA0369		hypothetical protein	N/A
200097	D05	N/A	VCA0409		hypothetical protein	N/A
199952	D06	N/A	VCA0935		hypothetical protein	N/A
199991	D07	476	VC2559	cysN	sulfate adenylate transferase, subunit 1	NP_232187.1
200815	D10	534	VC2279	pepD	aminoacyl-histidine dipeptidase	NP_231910.1
199042	D11	194	VC2729	epsH	general secretion pathway protein H	NP_232356.1
199057	D12	542	VC2738	pckA	phosphoenolpyruvate carboxykinase	NP_232364.1
200449	E01	492	VC1295		conserved hypothetical protein	NP_230940.1
200463	E02	573	VC2483	ilvI	acetolactate synthase III, large subunit	NP_232112.1
200059	E03	N/A	VCA0399		hypothetical protein	N/A
200083	E04	133	VC0277		transcriptional regulator, MerR family	NP_229933.1
200098	E05	607	VC0300		conserved hypothetical protein	NP_229955.1
199995	E07	485	VC2616	aruD	succinylglutamate 5-semialdehyde dehydrogenase	NP_232244.1
200006	E08	231	VC1366	exsB	exsB protein	NP_231010.1
200797	E09	439	VC1084		sensory box sensor histidine kinase	NP_230729.1
200817	E10	534	VC1088		sensor histidine kinase	NP_230733.1
199043	E11	419	VC1500		PqiA family protein	NP_231141.1
199062	E12	N/A	VCA1041		phosphomannomutase, putative	N/A
200451	F01	505	VC1304		fumarate hydratase, class I, putative	NP_230949.1
200465	F02	601	VC2484		long-chain-fatty-acid--CoA ligase, putative	NP_232113.1
200060	F03	N/A	VCA0359		plasmid stabilization element ParE, putative	N/A
200086	F04	447	VC0295	accC	acetyl-CoA carboxylase, biotin carboxylase	NP_229950.1
200099	F05	N/A	VCA0360		hypothetical protein	N/A
199959	F06	332	VC1972	menC	o-succinylbenzoate-CoA synthase	NP_231606.1
199996	F07	210	VC2614		cyclic AMP receptor protein	NP_232242.1
200007	F08	664	VC2608		ABC transporter, ATP-binding protein	NP_232236.1
200802	F09	198	VC1107	lolA	outer membrane lipoproteins carrier protein	NP_230752.1
200819	F10	536	VC1086		response regulator	NP_230731.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199048	F11	468	VC2749	ntrC	nitrogen regulation protein NR(I)	NP_232375.1
199064	F12	609	VC2744	typA	GTP-binding protein TypA	NP_232370.1
200453	G01	N/A	VCA0843	gapA-2	glyceraldehyde 3-phosphate dehydrogenase	N/A
200467	G02	657	VC1636		helicase-related protein	NP_231273.1
200061	G03	295	VC0293	prmA	ribosomal protein L11 methyltransferase	NP_229948.1
200088	G04	455	VC0264		conserved hypothetical protein	NP_229920.1
200100	G05	598	VC0288	edd	phosphogluconate dehydratase	NP_229943.2
199970	G06	161	VC2609		hypothetical protein	NP_232237.1
199997	G07	504	VC1392		deoxyribodipyrimidine photolyase, putative	NP_231036.1
200767	G08	360	VC2287	dinP	DNA-damage-inducible protein P	NP_231918.1
200803	G09	447	VC1087		response regulator	NP_230732.1
200821	G10	543	VC1091	oppA	oligopeptide ABC transporter, periplasmic oligopeptide-binding protein	NP_230736.1
199049	G11	182	VC2721		MutT-nudix family protein	NP_232348.2
199066	G12	610	VC1499		ABC transporter, ATP-binding protein	NP_231140.1
200455	H01	513	VC1308	tyrR	transcriptional regulator TyrR	NP_230952.1
200017	H02	N/A	VCA0402		acetyltransferase, putative	N/A
200062	H03	N/A	VCA0362		hypothetical protein	N/A
200092	H04	530	VC0276	purH	phosphoribosylaminoimidazolecarboxamide formyltransferase-IMP cyclohydrolase	NP_229932.1
199919	H05	257	VC2622		hypothetical protein	NP_232250.1
199976	H06	176	VC1377		conserved hypothetical protein	NP_231021.1
200787	H08	417	VC2273	proA	gamma-glutamyl phosphate reductase	NP_231904.1
200824	H10	N/A	VCA0646		conserved hypothetical protein-hemolysin, putative	N/A
199050	H11	469	VC2746	glnA	glutamate--ammonia ligase	NP_232372.1

Table 23: *Vibrio cholerae* Gateway® Clones, Plate 23 (NR-19701)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200254	A02	418	VC1354		conserved hypothetical protein	NP_230998.1
200276	A03	N/A	VCA0896	zwf	glucose-6-phosphate 1-dehydrogenase	N/A
199695	A04	N/A	VCA1019		conserved hypothetical protein	N/A
199720	A05	613	VC0309		conserved hypothetical protein	NP_229964.1
197648	A06	474	VC1234	sbcB	exodeoxyribonuclease I	NP_230879.1
197678	A07	N/A	VCA0804	deaD	ATP-dependent RNA helicase DeaD	N/A
197840	A08	462	VC2300		ampG protein, putative	NP_231931.1
198351	A09	77	VC1677	pspB	phage shock protein B	NP_231313.1
198412	A10	N/A	VCA0128	rbsA	ribose ABC transporter, ATP-binding protein	N/A
197561	A11	461	VC1814	phrB-1	deoxyribodipyrimidine photolyase	NP_231448.1
197583	A12	621	VC1822	frwABC	PTS system, fructose-specific IIABC component	NP_231456.1
199069	B01	N/A	VCA1069		methyl-accepting chemotaxis protein	N/A
200257	B02	195	VC2557		hypothetical protein	NP_232185.1
199705	B04	161	VC2696	fsxA	fsxA protein	NP_232324.1
199724	B05	N/A	VCA0996		ABC transporter, ATP-binding protein	N/A
197662	B06	534	VC0799	citF	citrate lyase, alpha subunit	NP_230448.1
197779	B07	269	VC1121		conserved hypothetical protein	NP_230766.1
197842	B08	205	VC2308	thiJ	4-methyl-5-(B-hydroxyethyl)-thiazole monophosphate biosynthesis enzyme	NP_231939.1
198418	B10	540	VC1680	sapA	peptide ABC transporter, periplasmic peptide-binding protein	NP_231316.1
197570	B11	224	VC1853		conserved hypothetical protein	NP_231487.1
197693	B12	N/A	VCA0696		hypothetical protein	N/A
199073	C01	665	VC1496	prc	tail-specific protease	NP_231137.1
200258	C02	441	VC1348		response regulator	NP_230992.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200280	C03	N/A	VCA0906		methyl-accepting chemotaxis protein	N/A
199706	C04	435	VC2699	dcuA	C4-dicarboxylate transporter, anaerobic	NP_232327.2
199726	C05	N/A	VCA1029	glgX	glycogen operon protein GlgX	N/A
197664	C06	N/A	VCA0786		conserved hypothetical protein	N/A
197807	C07	352	VC0667		oxidoreductase Tas, aldo-keto reductase family	NP_230316.1
197849	C08	N/A	VCA0657	glpD	aerobic glycerol-3-phosphate dehydrogenase	N/A
198378	C09	394	VC1693	torC	cytochrome c-type protein TorC	NP_231329.1
198420	C10	N/A	VCA0077		sulfate permease family protein	N/A
197572	C11	225	VC1861		amino acid ABC transporter, permease protein	NP_231495.1
197697	C12	327	VC2334		conserved hypothetical protein	NP_231965.1
200210	D01	N/A	VCA0900		hypothetical protein	N/A
200260	D02	447	VC2535	pmbA	pmbA protein	NP_232163.1
200284	D03	608	VC1949	pvcA	pvcA protein	NP_231583.1
199708	D04	N/A	VCA1018	ada	ada regulatory protein	N/A
197595	D05	296	VC0798	citE	citrate lyase, beta subunit	NP_230447.1
197666	D06	562	VC2424	pilB	type IV pilus assembly protein PilB	NP_232054.1
198388	D09	415	VC1688		hypothetical protein	NP_231324.1
198422	D10	N/A	VCA0110		hypothetical protein	N/A
197574	D11	227	VC1839	tolQ	tolQ protein	NP_231473.1
197699	D12	329	VC1160		hypothetical protein	NP_230805.1
200262	E02	N/A	VCA0904		permease	N/A
199638	E03	N/A	VCA1002		AziC family protein	N/A
199714	E04	483	VC2698	aspA	aspartate ammonia-lyase	NP_232326.1
197612	E05	N/A	VCA0774	galE-2	UDP-glucose 4-epimerase	N/A
197810	E07	142	VC1118		transcriptional regulator, putative	NP_230763.1
198400	E09	448	VC1669		sodium-dependent transporter, putative	NP_231305.1
198424	E10	N/A	VCA0103		sulfate permease family protein	N/A
197702	E12	76	VC1142	cspD	cold shock-like protein CspD	NP_230787.1
200226	F01	N/A	VCA0914		hemin ABC transporter, permease protein, putative	N/A
197819	F07	427	VC2294	nqrB	NADH:ubiquinone oxidoreductase, Na translocating, hydrophobic membrane protein NqrB	NP_231925.1
197857	F08	N/A	VCA0658		methyl-accepting chemotaxis protein	N/A
198402	F09	N/A	VCA0076		conserved hypothetical protein	N/A
197523	F10	335	VC1244		vitamin B12 ABC transporter, permease protein BtuC, putative	NP_230889.1
197747	F12	494	VC0687		carbon starvation protein A, putative	NP_230336.1
200270	G02	N/A	VCA0891		conserved hypothetical protein	N/A
199718	G04	600	VC2701	dsbD	thiol:disulfide interchange protein DsbD	NP_232328.1
197642	G05	448	VC0795	citS	citrate-sodium symporter	NP_230444.1
197670	G06	579	VC2417	recJ	single-stranded-DNA-specific exonuclease RecJ	NP_232047.2
197831	G07	193	VC0671		MutT-nudix family protein	NP_230320.1
197862	G08	N/A	VCA0663		methyl-accepting chemotaxis protein	N/A
198404	G09	N/A	VCA0119		hypothetical protein	N/A
197553	G10	N/A	VCA0706		phosphoglycerate transport regulatory protein PgtC, putative	N/A
197579	G11	563	VC2341		long-chain-fatty-acid--CoA ligase, putative	NP_231971.1
197751	G12	536	VC1248		methyl-accepting chemotaxis protein	NP_230893.1
200250	H01	401	VC1361		amino acid ABC transporter, permease protein	NP_231005.1
200272	H02	N/A	VCA0898	gnd	6-phosphogluconate dehydrogenase, decarboxylating	N/A
199686	H03	388	VC2683	metB	cystathionine gamma-synthase	NP_232311.1
197646	H05	471	VC1235		sodium-dicarboxylate symporter	NP_230880.1
197677	H06	271	VC2450	mazG	mazG protein	NP_232079.2
197834	H07	444	VC0665		sigma-54 dependent transcriptional regulator	NP_230314.1
198339	H08	N/A	VCA0089		hypothetical protein	N/A

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198410	H09	N/A	VCA0112		hypothetical protein	N/A
197559	H10	459	VC2343	radA	DNA repair protein RadA	NP_231973.1
197580	H11	N/A	VCA0725	modB	molybdenum ABC transporter, permease protein	N/A

Table 24: *Vibrio cholerae* Gateway® Clones, Plate 24 (NR-19702)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175010	A02	535	VC0157		alkaline serine protease	NP_229814.1
175074	A03	611	VC0199		hemolysin secretion ATP-binding protein, putative	NP_229856.1
198497	A04	N/A	VCA0050		hypothetical protein	N/A
174482	A06	495	VC0642	nusA	N utilization substance protein A	NP_230291.1
199616	A07	566	VC1985	fadD	long-chain-fatty-acid--CoA ligase	NP_231619.1
175412	A08	530	VC1901	nhaB	Na ⁺ -H ⁺ antiporter	NP_231535.1
197870	A09	278	VC1775		conserved hypothetical protein	NP_231410.1
174980	A11	494	VC0162	ilvC	ketol-acid reductoisomerase	NP_229819.1
197758	B01	237	VC0693		response regulator	NP_230342.1
175018	B02	542	VC0171		peptide ABC transporter, periplasmic peptide-binding protein	NP_229828.1
175082	B03	611	VC0156	btuB	vitamin B12 receptor	NP_229813.1
198498	B04	516	VC1581		NADH dehydrogenase, putative	NP_231221.1
174426	B05	398	VC2402	ftsW	cell division protein FtsW	NP_232032.1
174486	B06	117	VC2580	rplR	ribosomal protein L18	NP_232208.1
199618	B07	570	VC1975	menD	2-succinyl-6-hydroxy-2,4-cyclohexadiene-1-carboxylate synthase-2-oxoglutarate decarboxylase	NP_231609.1
175428	B08	N/A	VCA0747	glpA	anaerobic glycerol-3-phosphate dehydrogenase, subunit A	N/A
197904	B09	373	VC1750		hypothetical protein	NP_231386.1
197954	B10	N/A	VCA0171		conserved hypothetical protein	N/A
174984	B11	222	VC0191		conserved hypothetical protein	NP_229848.1
174617	B12	298	VC2462	lepB	signal peptidase I	NP_232091.1
197761	C01	N/A	VCA0688	phaC	polyhydroxyalkanoic acid synthase	N/A
175026	C02	562	VC0184		hypothetical protein	NP_229841.1
175090	C03	611	VC0196	recQ	ATP-dependent DNA helicase RecQ	NP_229853.2
198502	C04	N/A	VCA0031		methyl-accepting chemotaxis protein	N/A
174434	C05	416	VC0941	glyA-1	serine hydroxymethyltransferase	NP_230588.2
199548	C06	240	VC0355		conserved hypothetical protein	NP_230012.1
199624	C07	615	VC1983		peptidase, putative	NP_231617.1
175436	C08	565	VC1203	hutU	urocanate hydratase	NP_230848.1
174918	C10	187	VC0177		hypothetical protein	NP_229834.1
174988	C11	523	VC0722	ppx	exopolyphosphatase	NP_230371.1
174621	C12	315	VC0045	fnt	methionyl-tRNA formyltransferase	NP_229704.1
197763	D01	599	VC0689		conserved hypothetical protein	NP_230338.1
175042	D02	573	VC1180	cydC	transport ATP-binding protein CydC	NP_230825.1
198441	D03	46	VC1657		hypothetical protein	NP_231294.1
198510	D04	567	VC1590	ilvK	acetolactate synthase	NP_231230.1
174446	D05	90	VC2709	rpoZ	DNA-directed RNA polymerase, omega subunit	NP_232336.1
199568	D06	315	VC0346	miaA	tRNA delta(2)-isopentenylpyrophosphate transferase	NP_230000.1
199628	D07	619	VC1918	ppiD	peptidyl-prolyl cis-trans isomerase D	NP_231552.1
175440	D08	262	VC0774		hypothetical protein	NP_230423.1
197932	D09	N/A	VCA0151		oxidoreductase, putative	N/A
174937	D10	436	VC0179		hypothetical protein	NP_229836.1
174999	D11	229	VC0719	phoB	DNA-binding response regulator PhoB	NP_230368.1
197769	E01	N/A	VCA0697		sensory box-GDEF family protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
175050	E02	584	VC0180		conserved hypothetical protein	NP_229837.1
198443	E03	N/A	VCA0060		hypothetical protein	N/A
174450	E05	444	VC2576	secY	preprotein translocase, SecY subunit	NP_232204.1
199589	E06	131	VC0322	secE	preprotein translocase, SecE subunit	NP_229976.1
199632	E07	653	VC0345	mutL	DNA mismatch repair protein MutL	NP_229999.1
175444	E08	616	VC0752	hscA	chaperone protein HscA	NP_230401.1
197934	E09	N/A	VCA0142	dctD-2	C4-dicarboxylate transport transcriptional regulatory protein	N/A
174945	E10	454	VC0186	gor	glutathione reductase	NP_229843.1
174592	E11	694	VC0473	tktA-1	transketolase 1	NP_230127.1
174636	E12	795	VC1220	pheT	phenylalanyl-tRNA synthetase, beta chain	NP_230865.1
197770	F01	284	VC1148		conserved hypothetical protein	NP_230793.1
198480	F03	429	VC1593		GGDEF family protein	NP_231233.1
198518	F04	N/A	VCA0033		hypothetical protein	N/A
174454	F05	101	VC2583	rpsN	ribosomal protein S14	NP_232211.1
199593	F06	N/A	VCA0428		hypothetical protein	N/A
175384	F07	236	VC1206	hutC	histidine utilization repressor	NP_230851.1
175447	F08	264	VC1210		hypothetical protein	NP_230855.1
197942	F09	483	VC1762		hypothetical protein	NP_231397.1
174595	F11	260	VC0486		transcriptional regulator, DeoR family	NP_230140.1
174645	F12	860	VC0545	alaS	alanyl-tRNA synthetase	NP_230196.1
175062	G02	265	VC0158	murl	glutamate racemase	NP_229815.1
198488	G03	461	VC1573	fumC	fumarate hydratase, class II, aerobic	NP_231213.1
198520	G04	N/A	VCA0063	ptrB	protease II	N/A
174458	G05	456	VC1126	purB	adenylosuccinate lyase	NP_230771.1
199608	G06	453	VC1927	dctM	C4-dicarboxylate transport protein	NP_231561.1
175388	G07	N/A	VCA0773		methyl-accepting chemotaxis protein	N/A
175451	G08	617	VC0743	secD-1	protein-export membrane protein SecD	NP_230392.1
197950	G09	547	VC1754	pqiB	paraquat-inducible protein B	NP_231390.1
174968	G10	213	VC0152		transcriptional regulator, TetR family	NP_229810.1
174599	G11	698	VC0361	fusA-1	elongation factor G	NP_230015.1
174649	G12	338	VC2017		conserved hypothetical protein	NP_231651.1
175066	H02	595	VC1181	cydD	transport ATP-binding protein CydD	NP_230826.1
198490	H03	N/A	VCA0057	phrB-2	deoxyribodipyrimidine photolyase	N/A
174418	H04	391	VC0147	ftsY	cell division protein FtsY	NP_229805.1
174462	H05	103	VC2650		hypothetical protein	NP_232278.1
199614	H06	556	VC1915	rpsA	ribosomal protein S1	NP_231549.1
175404	H07	511	VC1202	hutH	histidine ammonia-lyase	NP_230847.1
197952	H09	N/A	VCA0176		methyl-accepting chemotaxis protein	N/A
174972	H10	469	VC1171	trpC-F	indole-3-glycerol phosphate synthase-phosphoribosylanthranilate isomerase	NP_230816.1
174607	H11	709	VC0647	pnp	polyribonucleotide nucleotidyltransferase	NP_230296.1

Table 25: *Vibrio cholerae* Gateway® Clones, Plate 25 (NR-19703)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174494	A02	118	VC2574	rpsM	ribosomal protein S13	NP_232202.1
197988	A03	N/A	VCA0131	rbsK	ribokinase	N/A
174749	A04	289	VC1165		conserved hypothetical protein	NP_230810.1
174878	A05	135	VC0168	cycB	cytochrome c5	NP_229825.1
174386	A06	635	VC0855	dnaK	dnaK protein	NP_230502.1
175488	A07	259	VC1224		hypothetical protein	NP_230869.1
174653	B01	343	VC2329	dapD	2,3,4,5-tetrahydropyridine-2,6-dicarboxylate N-succinyltransferase	NP_231960.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174499	B02	123	VC2586	rplN	ribosomal protein L14	NP_232214.1
197991	B03	N/A	VCA0619		hypothetical protein	N/A
174757	B04	290	VC1177		conserved hypothetical protein	NP_230822.1
174882	B05	359	VC0704		spermidine-putrescine ABC transporter, periplasmic spermidine-putrescine-binding protein, putative	NP_230353.1
174394	B06	N/A	VCA0287	thrS	threonyl-tRNA synthetase	N/A
175512	B07	293	VC0771	vibB	vibriobactin-specific isochorismatase	NP_230420.1
174282	B08	278	VC0638	folP	dihydropteroate synthase	NP_230287.1
174657	C01	894	VC1258	gyrA	DNA gyrase, subunit A	NP_230903.1
174503	C02	525	VC0680	mviN	MviN protein	NP_230329.1
198012	C03	355	VC1061		cysteine synthase-cystathionine beta-synthase family protein	NP_230706.1
174765	C04	298	VC0161	ilvY	transcriptional activator IlvY	NP_229818.1
174906	C05	391	VC0705	pheA	chorismate mutase-prephenate dehydratase	NP_230354.1
176113	C06	N/A	VCA0820	groEL-2	chaperonin, 60 Kd subunit	N/A
175536	C07	305	VC0764		hypothetical protein	NP_230413.1
200919	C08	649	VC0298	acs-1	acetyl-CoA synthase	NP_229953.2
174673	D01	903	VC2394	secA	preprotein translocase, SecA subunit	NP_232024.1
174507	D02	128	VC2570	rplQ	ribosomal protein L17	NP_232198.1
198026	D03	405	VC1727	glgC-1	glucose-1-phosphate adenyltransferase	NP_231363.1
174781	D04	304	VC0718		conserved hypothetical protein	NP_230367.1
175216	D05	323	VC2385		RNA-directed DNA polymerase	NP_232015.1
176121	D06	548	VC0725	pstA-1	phosphate ABC transporter, permease protein	NP_230374.1
175728	D07	489	VC0767	guaB	inosine-5'-monophosphate dehydrogenase	NP_230416.1
200920	D08	979	VC0812		helicase-related protein	NP_230461.1
174677	E01	354	VC2401	murG	UDP-N-acetylglucosamine--N-acetylmuramyl-(pentapeptide) pyrophosphoryl-undecaprenol N-acetylglucosamine transferase	NP_232031.1
174511	E02	544	VC0085		ubiquinone biosynthesis protein AarF, putative	NP_229744.1
198036	E03	N/A	VCA0605		aminotransferase, class III	N/A
174799	E04	65	VC0713		hypothetical protein	NP_230362.1
175220	E05	129	VC1895		conserved hypothetical protein	NP_231529.1
176135	E06	644	VC1872		conserved hypothetical protein	NP_231506.1
175743	E07	517	VC0768	guaA	GMP synthase	NP_230417.1
175647	E08	N/A	VCA0732		conserved hypothetical protein	N/A
174693	F01	338	VC2623	trpS	tryptophanyl-tRNA synthetase	NP_232251.2
198038	F03	N/A	VCA0137	glpT	glycerol-3-phosphate transporter	N/A
174811	F04	321	VC1179		pseudouridine synthase family 1 protein	NP_230824.1
175224	F05	325	VC0776	viuP	vibriobactin and enterobactin ABC transporter, periplasmic ferric vibriobactin-enterobactin-binding protein	NP_230425.1
175104	F06	276	VC2381		conserved hypothetical protein	NP_232011.1
175765	F07	556	VC0734	aceB	malate synthase A	NP_230383.1
175698	F08	446	VC0766	xseA	exodeoxyribonuclease VII, large subunit	NP_230415.1
174709	G01	367	VC2289	apbE	thiamin biosynthesis lipoprotein ApbE	NP_231920.1
174539	G02	146	VC2730	epsG	general secretion pathway protein G	NP_232357.1
198044	G03	532	VC2237	mltD	membrane-bound lytic murein transglycosylase D	NP_231868.1
174819	G04	323	VC1163		conserved hypothetical protein	NP_230808.1
175112	G06	279	VC1900	fadR	fatty acid metabolism regulator protein	NP_231534.1
174180	G07	419	VC2180	hemA	glutamyl-tRNA reductase	NP_231712.1
174721	H01	1375	VC0328	rpoB	DNA-directed RNA polymerase, beta subunit	NP_229982.1
174543	H02	600	VC2041		conserved hypothetical protein	NP_231675.1
198046	H03	N/A	VCA0601		ABC transporter, permease protein	N/A
174843	H04	325	VC0721		ABC transporter, periplasmic phosphate-binding protein	NP_230370.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174338	H05	334	VC2266	thiL	thiamin-monophosphate kinase	NP_231897.1
175120	H06	279	VC0779	viuC	vibriobactin and enterobactin ABC transporter, ATP-binding protein	NP_230428.1
174228	H07	439	VC0233	kdtA	3-deoxy-D-manno-octulosonic-acid transferase	NP_229890.1
175361	H08	224	VC1232		conserved hypothetical protein	NP_230877.1

Table 26: *Vibrio cholerae* Gateway® Clones, Plate 26 (NR-19704)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200673	A02	879	VC1501		conserved hypothetical protein	NP_231142.1
200700	A03	N/A	VCA0521		exonuclease SbcC, putative	N/A
200712	A04	N/A	VCA0065		hypothetical protein	N/A
198923	A05	N/A	VCA1097		conserved hypothetical protein	N/A
198952	A06	434	VC1549	ugpB	glycerol-3-phosphate ABC transporter, periplasmic glycerol-3-phosphate-binding protein	NP_231189.1
198973	A07	N/A	VCA1072		conserved hypothetical protein	N/A
199835	A08	286	VC1417		hypothetical protein	NP_231060.1
199865	A09	404	VC2642	argG	argininosuccinate synthase	NP_232270.1
199884	A10	196	VC2633		fimbrial assembly protein PilN, putative	NP_232261.1
199086	A11	230	VC1473		hypothetical protein	NP_231115.1
199116	A12	295	VC0075	madN	MadN protein	NP_229734.1
200652	B01	N/A	VC1660		ABC transporter, ATP-binding protein, putative, authentic frameshift	N/A
200684	B02	939	VC2072		peptidase, insulinase family	NP_231704.1
200701	B03	N/A	VCA0219	hlyA	haemolysin	N/A
200715	B04	N/A	VCA0020		hypothetical protein	N/A
198931	B05	134	VC1545	exbD2	TonB system transport protein ExbD2	NP_231185.1
198953	B06	N/A	VCA1094	cheW-3	purine-binding chemotaxis protein CheW	N/A
198974	B07	N/A	VCA0008		methyl-accepting chemotaxis protein	N/A
199837	B08	288	VC1399	cheR-1	chemotaxis protein methyltransferase CheR	NP_231042.1
199867	B09	406	VC1410	vceA	multidrug resistance protein VceA	NP_231053.1
199885	B10	484	VC1409		multidrug resistance protein, putative	NP_231052.1
199090	B11	240	VC2714	ompR	transcriptional regulator OmpR,	NP_232341.1
199118	B12	303	VC0081		conserved hypothetical protein	NP_229740.1
200657	C01	N/A	VCA0027	chiA-2	chitinase	N/A
200688	C02	N/A	VC1513		formate dehydrogenase, alpha subunit, putative, authentic frameshift	N/A
200702	C03	N/A	VCA0123	vgrG-3	vgrG protein	N/A
200717	C04	1121	VC2080		transcriptional regulator, AraC-XylS family	NP_231712.1
198943	C05	N/A	VCA1093	cheW-2	purine-binding chemotaxis protein CheW	N/A
198955	C06	177	VC2767	atpH	ATP synthase F1, delta subunit	NP_232393.1
198976	C07	N/A	VCA1085		conserved hypothetical protein	N/A
199840	C08	N/A	VCA0953	ppiC	peptidyl-prolyl cis-trans isomerase C	N/A
199872	C09	172	VC2631		fimbrial assembly protein PilP, putative	NP_232259.1
199889	C10	491	VC2627		DamX-related protein	NP_232255.1
199096	C11	254	VC2048	vacJ	vacJ lipoprotein	NP_231682.1
199128	C12	359	VC1463	rstA2	RstA2 protein	NP_231106.1
200658	D01	674	VC2110		conserved hypothetical protein	NP_231741.1
200689	D02	721	VC1446		toxin secretion transporter, putative	NP_231089.1
200704	D03	1036	VC0914		multidrug resistance protein, putative	NP_230561.1
200718	D04	773	VC2716		conserved hypothetical protein	NP_232343.1
198946	D05	392	VC1543		hypothetical protein	NP_231183.1
198962	D06	485	VC2756	trkH-2	potassium uptake protein TrkH	NP_232382.1
198977	D07	N/A	VCA1083		conserved hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199843	D08	N/A	VCA0954		chemotaxis protein CheV, putative	N/A
199873	D09	430	VC0829	tcpB	toxin co-regulated pilus biosynthesis protein B	NP_230477.1
199896	D10	N/A	VCA0949		SM-20-related protein	N/A
199098	D11	260	VC0083	ubiE	ubiquinone-menaquinone biosynthesis methylytransferase UbiE	NP_229742.1
199131	D12	141	VC0076	uspA	universal stress protein A	NP_229735.1
200664	E01	N/A	VCA0522	luxN	sensor histidine kinase-response regulator LuxN	N/A
200690	E02	952	VC0554		protease, insulinase family-protease, insulinase family	NP_230205.1
200706	E03	1037	VC1673		transporter, AcrB-D-F family	NP_231309.1
200719	E04	1146	VC1653	vieS	sensory box sensor histidine kinase-response regulator VieS	NP_231290.1
198947	E05	170	VC1555		conserved hypothetical protein	NP_231195.1
198967	E06	210	VC2757		conserved hypothetical protein	NP_232383.1
198978	E07	N/A	VCA1086		response regulator	N/A
199847	E08	338	VC2634		fimbrial assembly protein PilM, putative	NP_232262.1
199875	E09	438	VC1406		methyl-accepting chemotaxis protein	NP_231049.1
199909	E10	622	VC2600		conserved hypothetical protein	NP_232228.1
199102	E11	277	VC0099	glpG	glpG protein	NP_229758.1
199137	E12	16	VC2053	ccmE	cytochrome c-type biogenesis protein CcmE	NP_231685.1
200665	F01	862	VC1582		conserved hypothetical protein	NP_231222.1
200693	F02	723	VC2758	fadB	fatty oxidation complex, alpha subunit	NP_232384.1
200708	F03	N/A	VCA1073	putA	proline dehydrogenase-delta-1-pyrroline-5-carboxylate dehydrogenase, authentic point mutation	N/A
200722	F04	785	VC2063	cheA-2	chemotaxis protein CheA	NP_231695.1
198948	F05	393	VC1552	ugpC	glycerol-3-phosphate ABC transporter, ATP-binding protein	NP_231192.1
198969	F06	N/A	VCA1079	pdxH	pyridoxamine 5'-phosphate oxidase	N/A
198979	F07	237	VC1554		glycerophosphoryl diester phosphodiesterase, putative	NP_231194.1
199853	F08	358	VC1401	cheB-1	protein-glutamate methyltransferase CheB	NP_231044.1
199877	F09	N/A	VCA0960		GGDEF family protein	N/A
199910	F10	233	VC2590	rpsC	ribosomal protein S3	NP_232218.1
199104	F11	284	VC0094	ubiA	4-hydroxybenzoate octaprenyltransferase	NP_229753.1
199138	F12	438	VC2713	envZ	osmolarity sensor protein EnvZ	NP_232340.1
200666	G01	692	VC2711	recG	ATP-dependent DNA helicase RecG	NP_232338.1
200694	G02	957	VC0930		hemolysin-related protein	NP_230577.1
200709	G03	761	VC1397	cheA-1	chemotaxis protein CheA	NP_231040.1
200728	G04	787	VC0446	imp	organic solvent tolerance protein	NP_230100.1
198950	G05	400	VC2761		multidrug resistance protein	NP_232387.2
198971	G06	N/A	VCA1081		hypothetical protein	N/A
198980	G07	N/A	VCA1077		conserved hypothetical protein	N/A
199859	G08	378	VC2645	argE	acetylornithine deacetylase	NP_232273.1
199879	G09	458	VC1422		sodium-alanine symporter	NP_231065.1
199913	G10	641	VC1403		methyl-accepting chemotaxis protein	NP_231046.1
199113	G11	112	VC1464	rstR-2	transcriptional repressor RstR	NP_231107.1
199139	G12	161	VC2715	greB	transcription elongation factor GreB	NP_232342.1
200669	H01	N/A	VCA0116	clpB-2	clpB protein	N/A
200695	H02	724	VC1560	perA	catalase-peroxidase	NP_231200.1
200710	H03	N/A	VCA0552		fatty acid cis-trans isomerase	N/A
198921	H04	N/A	VCA1087		anti-sigma F factor antagonist, putative	N/A
198951	H05	174	VC2755	hemG	protoporphyrinogen oxidase	NP_232381.1
198972	H06	N/A	VCA1102		conserved hypothetical protein	N/A
198982	H07	606	VC1527	moeA-1	molybdopterin biosynthesis MoeA protein	NP_231167.1
199863	H08	N/A	VCA0962		hypothetical protein	N/A
199883	H09	484	VC2638		pyridine nucleotide-disulfide oxidoreductase, class I	NP_232266.1

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199080	H10	226	VC2047		oxidoreductase, short-chain dehydrogenase-reductase family	NP_231681.1
199114	H11	292	VC0073		conserved hypothetical protein	NP_229732.1

Table 27: *Vibrio cholerae* Gateway® Clones, Plate 27 (NR-19705)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200561	A02	787	VC1866	pf1B	formate acetyltransferase	NP_231500.1
200582	A03	695	VC2342	fusA-2	elongation factor G	NP_231972.1
200623	A04	731	VC0724	pstC-1	phosphate ABC transporter, permease protein	NP_230373.1
199194	A05	278	VC0056	aroE	shikimate 5-dehydrogenase	NP_229715.1
199236	A06	444	VC0389		Na ⁺ -H ⁺ antiporter, putative	NP_230043.1
199255	A07	645	VC0061	thiC	thiamin biosynthesis protein ThiC	NP_229720.1
200156	A08	N/A	VCA0347		conserved hypothetical protein	N/A
200178	A09	527	VC0231		hypothetical protein	NP_229888.1
199294	A10	82	VC0024		conserved hypothetical protein	NP_229683.1
199329	A11	414	VC2019	fabF	3-oxoacyl-(acyl-carrier-protein) synthase II	NP_231653.1
199348	A12	N/A	VCA0451		hypothetical protein	N/A
199147	B01	180	VC1490		conserved hypothetical protein	NP_231131.1
200563	B02	N/A	VCA0705		phosphoglycerate transport regulatory protein PgtB, putative	N/A
200591	B03	857	VC0711	clpB-1	clpB protein	NP_230360.1
199207	B05	315	VC2028	rluC	ribosomal large subunit pseudouridine synthase C	NP_231662.1
199238	B06	458	VC0043	trkA	potassium uptake protein TrkA	NP_229702.1
199257	B07	647	VC2043	topB	DNA topoisomerase III	NP_231677.1
200157	B08	373	VC0243	rfbD	GDP-mannose 4,6-dehydratase	NP_229900.1
200179	B09	N/A	VCA0920		hypothetical protein	N/A
199310	B10	N/A	VCA0468		hypothetical protein	N/A
199333	B11	481	VC2008	pykA-1	pyruvate kinase II	NP_231642.1
199351	B12	614	VC0384	cysJ	sulfite reductase (NADPH) flavoprotein alpha-component	NP_230038.1
199148	C01	522	VC1475	cri-2	phage replication protein Cri	NP_231117.1
200564	C02	680	VC0188	prlC	oligopeptidase A	NP_229845.1
200596	C03	703	VC1039	asmA	asmA protein	NP_230684.1
200625	C04	1036	VC0164		multidrug resistance protein, putative	NP_229821.1
199211	C05	327	VC0068		transcriptional regulator, LysR family	NP_229727.1
199240	C06	479	VC0399	msh1	MSHA biogenesis protein Msh1	NP_230053.1
200114	C07	262	VC0234		conserved hypothetical protein	NP_229891.1
200159	C08	374	VC0250		iron-containing alcohol dehydrogenase family protein RfbM	NP_229907.1
200180	C09	564	VC0216		methyl-accepting chemotaxis protein	NP_229873.1
199312	C10	N/A	VCA0460		hypothetical protein	N/A
199339	C11	507	VC0032		ComM-related protein	NP_229691.1
198056	C12	222	VC2207		hypothetical protein	NP_231838.1
199154	D01	564	VC1485		hypothetical protein	NP_231126.1
200568	D02	684	VC0653		c-di-GMP phosphodiesterase A-related protein	NP_230302.1
200600	D03	706	VC1859		methyl-accepting chemotaxis protein	NP_231493.1
200629	D04	N/A	VCA0700		chitodextrinase	N/A
199215	D05	N/A	VCA0490		lipase, GDXX family	N/A
199244	D06	N/A	VCA0487		conserved hypothetical protein	N/A
200136	D07	319	VC0202		iron(III) ABC transporter, periplasmic iron-compound-binding protein	NP_229859.1
200163	D08	N/A	VCA0929		TrmA family RNA methyltransferase, putative	N/A
200181	D09	N/A	VCA0922		hypothetical protein	N/A
199317	D10	328	VC0035		conserved hypothetical protein	NP_229694.2

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199342	D11	155	VC0378		zinc uptake regulation protein, putative	NP_230032.1
198062	D12	N/A	VCA0566		transcriptional regulator	N/A
199157	E01	184	VC2051	dsbE	thiol:disulfide interchange protein DsbE	NP_231683.1
200573	E02	803	VC2252		surface antigen	NP_231883.1
200611	E03	927	VC2453		sensor histidine kinase-response regulator	NP_232082.1
200631	E04	N/A	VCA0638		transporter, AcrB-D-F family	N/A
199217	E05	341	VC2024	plsX	fatty acid-phospholipid synthesis protein PlsX	NP_231658.1
199245	E06	481	VC0042	trkH-1	potassium uptake protein TrkH	NP_229701.1
200138	E07	323	VC0262	galE-1	UDP-glucose 4-epimerase	NP_229918.1
200165	E08	162	VC0208		conserved hypothetical protein	NP_229865.1
200182	E09	590	VC0239		conserved hypothetical protein	NP_229896.1
199319	E10	363	VC0014	recF	recF protein	NP_062598.1
199343	E11	527	VC2012		sodium-dependent transporter	NP_231646.1
198064	E12	253	VC1044		hypothetical protein	NP_230689.1
199161	F01	N/A	VCA0505		acetyltransferase, putative	N/A
200575	F02	807	VC1784	nanH	neuraminidase	NP_231419.1
200618	F03	1016	VC1757		transporter, AcrB-D-F family	NP_231393.1
199168	F04	194	VC2045	sodB	superoxide dismutase, Fe	NP_231679.1
199219	F05	370	VC0066	thiH	thiH protein	NP_229725.1
199247	F06	521	VC2031		sulfate permease family protein	NP_231665.1
200148	F07	349	VC0235		lipopolysaccharide biosynthesis protein, putative	NP_229892.1
200166	F08	410	VC0259	rfbV	lipopolysaccharide biosynthesis protein RfbV	NP_229915.1
200184	F09	621	VC0260	rfbU	mannosyl-transferase	NP_229916.1
199320	F10	N/A	VCA0463		biphenyl-2,3-diol 1,2-dioxygenase III-related protein	N/A
199345	F11	548	VC0031	ilvG	acetolactate synthase II, large subunit	NP_229690.1
198074	F12	264	VC0592	panB	3-methyl-2-oxobutanoate hydroxymethyltransferase	NP_230242.1
199166	G01	659	VC0098		methyl-accepting chemotaxis protein	NP_229757.1
200577	G02	814	VC2231		oxidoreductase, acyl-CoA dehydrogenase family	NP_231862.1
200620	G03	N/A	VCA0709	torS	sensor protein TorS	N/A
199172	G04	214	VC0396		transcriptional regulator, LuxR family	NP_230050.1
199232	G05	434	VC0044	sun	sun protein	NP_229703.1
199249	G06	577	VC0385	cysl	sulfite reductase (NADPH) hemoprotein beta-component	NP_230039.1
200151	G07	357	VC0225		lipopolysaccharide biosynthesis protein, putative	NP_229882.1
200168	G08	463	VC0245	rfbG	rfbG protein	NP_229902.1
200189	G09	N/A	VCA0331		hypothetical protein	N/A
199322	G10	N/A	VCA0465		hypothetical protein	N/A
199346	G11	163	VC0016		hypothetical protein	NP_229675.1
198078	G12	281	VC2229		conserved hypothetical protein	NP_231860.1
200557	H01	785	VC2369	fexB	sensor histidine kinase FexB	NP_231999.1
200579	H02	N/A	VCA0781		conserved hypothetical protein	N/A
200621	H03	N/A	VCA0718		conserved hypothetical protein	N/A
199186	H04	248	VC2021	fabG	3-oxoacyl-(acyl-carrier-protein) reductase	NP_231655.1
199234	H05	440	VC0062	thiE	thiamin-phosphate pyrophosphorylase	NP_229721.1
199252	H06	188	VC0054		Sua5-YciO-YrdC family protein	NP_229713.1
200153	H07	N/A	VCA0926		transcriptional regulator, AraC-XylS family	N/A
200176	H08	482	VC0207		PTS system, sucrose-specific IIBC component, putative	NP_229864.1
199267	H09	200	VC0022		conserved hypothetical protein	NP_229681.1
199327	H10	405	VC2007		transcriptional regulator, ROK family	NP_231641.1
199347	H11	550	VC0374	pgi	glucose-6-phosphate isomerase	NP_230028.1

Table 28: *Vibrio cholerae* Gateway® Clones, Plate 28 (NR-19706)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198124	A02	419	VC2232		hypothetical protein	NP_231863.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199777	A03	349	VC2655	yjeA	lysyl-tRNA synthetase-related protein	NP_232283.1
199811	A04	N/A	VCA0974		methyl-accepting chemotaxis protein	N/A
198680	A05	438	VC0931		conserved hypothetical protein	NP_230578.1
198703	A06	260	VC2121	fliR	flagellar biosynthetic protein FliR	NP_231752.1
197652	A07	N/A	VCA0779		hypothetical protein	N/A
197676	A08	660	VC0783		conserved hypothetical protein	NP_230432.1
197835	A09	N/A	VCA0651		conserved hypothetical protein	N/A
198552	A10	339	VC2156	nlpB	lipoprotein-34 NlpB	NP_231787.1
198598	A11	488	VC2137	fliA	flagellar regulatory protein A	NP_231768.1
199600	A12	433	VC1923	tig	trigger factor	NP_231557.1
198092	B01	299	VC1049		transcriptional regulator, LysR family	NP_230694.1
198128	B02	428	VC1043	fadL-2	long-chain fatty acid transport protein	NP_230688.1
199779	B03	366	VC1425	potD-2	spermidine-putrescine ABC transporter, periplasmic spermidine-putrescine-binding protein	NP_231068.1
199816	B04	N/A	VCA0981		hypothetical protein	N/A
198683	B05	186	VC2119		conserved hypothetical protein	NP_231750.1
198704	B06	N/A	VCA0199		hypothetical protein	N/A
197658	B07	N/A	VCA0809		conserved hypothetical protein	N/A
197774	B08	30	VC0669		hypothetical protein	NP_230318.1
197845	B09	N/A	VCA0653	scrA	PTS system, sucrose-specific IIBC component	N/A
198556	B10	348	VC2132	fliG	flagellar motor switch protein FliG	NP_231763.1
198603	B11	N/A	VCA0239		transcriptional regulator	N/A
199610	B12	478	VC0338		transporter, putative	NP_229992.1
198101	C01	N/A	VCA0582		conserved hypothetical protein	N/A
198129	C02	N/A	VCA0586		conserved hypothetical protein	N/A
199791	C03	N/A	VCA0972		conserved hypothetical protein	N/A
199818	C04	250	VC1434	fnr	fumarate and nitrate reduction regulatory protein	NP_231077.1
198689	C05	207	VC2115		conserved hypothetical protein	NP_231746.1
198705	C06	267	VC0464		transcriptional regulator, LuxR family	NP_230018.1
197661	C07	N/A	VCA0808		NodN-related protein	N/A
197793	C08	304	VC1132	hisG	ATP phosphoribosyltransferase	NP_230777.1
197851	C09	N/A	VCA0667		sodium-solute symporter	N/A
198573	C10	153	VC2141	fliA	flagellin FlaG	NP_231772.1
198611	C11	N/A	VCA0230	vctC	vibriobactin and enterobactin ABC transporter, ATP-binding protein	N/A
199612	C12	510	VC0336	yibO	phosphoglycerate mutase, 2,3-bisphosphoglycerate-independent	NP_229990.1
198102	D01	N/A	VCA0572	ddlA	D-alanine--D-alanine ligase	N/A
198138	D02	N/A	VCA0588		peptide ABC transporter, ATP-binding protein, putative	N/A
199795	D03	N/A	VCA0989		conserved hypothetical protein	N/A
199819	D04	626	VC0840	acfB	accessory colonization factor AcfB	NP_230488.1
198693	D05	231	VC0470	dns	extracellular deoxyribonuclease	NP_230024.1
197604	D06	92	VC1254		iron-sulfur cluster-binding protein, putative	NP_230899.1
197663	D07	N/A	VCA0777		conserved hypothetical protein	N/A
197808	D08	137	VC1130	vicH	DNA-binding protein VicH	NP_230775.1
197853	D09	531	VC0659	prfC	peptide chain release factor 3	NP_230308.1
198579	D10	156	VC0957		conserved hypothetical protein	NP_230604.1
198613	D11	N/A	VCA0225		conserved hypothetical protein	N/A
199615	D12	181	VC0341	orn	oligoribonuclease	NP_229995.1
198116	E01	382	VC1037	mrp	mrp protein	NP_230682.1
199742	E02	278	VC0833	tcpD	toxin co-regulated pilus biosynthesis protein D	NP_230481.1
199803	E03	503	VC0835	tcpT	toxin co-regulated pilus biosynthesis protein T	NP_230483.1
198624	E04	298	VC0482	iciA	chromosome initiation inhibitor	NP_230136.1
198696	E05	N/A	VCA0565		sensor histidine kinase	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197608	E06	N/A	VCA0803		serine protease, putative	N/A
197667	E07	N/A	VCA0776		conserved hypothetical protein	N/A
197811	E08	N/A	VCA0650		hypothetical protein	N/A
197854	E09	N/A	VCA0662		CbbY family protein	N/A
198582	E10	N/A	VCA0235	ackA-2	acetate kinase	N/A
199574	E11	327	VC0353		conserved hypothetical protein	NP_230007.1
199617	E12	182	VC0323	nusG	transcription antitermination protein NusG	NP_229977.1
198117	F01	191	VC2230	lpcA	phosphoheptose isomerase	NP_231861.1
199750	F02	294	VC0853		conserved hypothetical protein	NP_230500.1
199805	F03	N/A	VCA0988		methyl-accepting chemotaxis protein	N/A
198655	F04	140	VC0466		conserved hypothetical protein	NP_230020.1
198699	F05	243	VC0469		conserved hypothetical protein	NP_230023.1
197628	F06	408	VC2425	pilC	type IV pilin biogenesis protein PilC	NP_232055.1
197671	F07	256	VC2444		general secretion pathway protein B, putative	NP_232073.1
197829	F08	188	VC1124		conserved hypothetical protein	NP_230769.1
197855	F09	533	VC1131		conserved hypothetical protein	NP_230776.1
198583	F10	164	VC2129		flagellar protein FliJ, putative	NP_231760.1
199576	F11	N/A	VCA0439	mccF-2	microcin immunity protein MccF	N/A
199620	F12	581	VC0344	amiB	N-acetylmuramoyl-L-alanine amidase	NP_229998.1
198119	G01	192	VC2222		conserved hypothetical protein	NP_231853.1
199758	G02	302	VC0843	tagE-1	tagE protein	NP_230491.1
199807	G03	N/A	VCA0977		ABC transporter, ATP-binding protein	N/A
198656	G04	376	VC2120	flhB	flagellar biosynthetic protein FlhB	NP_231751.1
198700	G05	N/A	VCA0558		gamma-glutamyltranspeptidase, putative	N/A
197638	G06	N/A	VCA0801	gsk-2	inosine-guanosine kinase	N/A
197672	G07	N/A	VCA0785		GGDEF family protein	N/A
197830	G08	434	VC1129	gsk-1	inosine-guanosine kinase	NP_230774.1
197859	G09	N/A	VCA0655	cscA	sucrose-6-phosphate dehydrogenase	N/A
198590	G10	N/A	VCA0205	dcuB	C4-dicarboxylate transporter, anaerobic	N/A
199582	G11	369	VC0342		iron-sulfur cluster-binding protein	NP_229996.1
199622	G12	597	VC1925	dctB	C4-dicarboxylate transport sensor protein	NP_231559.1
198120	H01	N/A	VCA0568		hypothetical protein	N/A
199769	H02	338	VC0837	tcpF	toxin co-regulated pilus biosynthesis protein F	NP_230485.1
199809	H03	554	VC0852	recN	DNA repair protein RecN	NP_230499.1
198671	H04	175	VC0936		polysaccharide export-related protein	NP_230583.1
198702	H05	586	VC0489		hemolysin, putative	NP_230143.1
197644	H06	N/A	VCA0790		hypothetical protein	N/A
197674	H07	N/A	VCA0802		conserved hypothetical protein	N/A
197832	H08	437	VC0662	brnQ	branched chain amino acid transport system II carrier protein	NP_230311.1
198524	H09	270	VC2131		flagellar assembly protein FliH, putative	NP_231762.1
198592	H10	N/A	VCA0204	rhIE-2	ATP-dependent RNA helicase RhIE	N/A
199585	H11	124	VC0359	rpsL	ribosomal protein S12	NP_230013.1

Table 29: *Vibrio cholerae* Gateway® Clones, Plate 29 (NR-19707)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199669	A02	108	VC0306	trxA	thioredoxin	NP_229961.1
198875	A03	254	VC0892	pomA	chemotaxis protein PomA	NP_230539.1
198848	A04	519	VC0863		conserved hypothetical protein	NP_230510.1
199961	A05	338	VC1388	lplA	lipote-protein ligase A	NP_231032.1
200922	A06	N/A	VC0284		TonB system receptor, authentic point mutation	N/A
200942	A07	969	VC2506	hepA	RNA polymerase-associated protein HepA	NP_232135.1
200342	A08	N/A	VCA0875	dsdA	D-serine dehydratase	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200509	A09	405	VC1618		multidrug resistance protein, putative	NP_231258.1
198176	A10	296	VC1023		conserved hypothetical protein	NP_230668.1
198237	A11	230	VC1012		RnfE-related protein	NP_230658.1
198787	A12	524	VC0900		GGDEF family protein	NP_230547.1
199626	B01	616	VC1994	sppA	protease IV	NP_231628.1
199676	B02	N/A	VCA0998		NADH-dependent flavin oxidoreductase, Oye family	N/A
198810	B03	N/A	VCA1113		spermidine-putrescine ABC transporter, periplasmic spermidine-putrescine-binding protein	N/A
198852	B04	534	VC0880		conserved hypothetical protein	NP_230527.1
199975	B05	403	VC2618	argD	acetylornithine aminotransferase	NP_232246.1
200923	B06	1023	VC1321		hypothetical protein	NP_230965.1
200943	B07	976	VC1353		GGDEF family protein	NP_230997.1
200354	B08	503	VC2501	pepA	aminopeptidase A-I	NP_232130.1
200529	B09	461	VC1265		hypothetical protein	NP_230910.1
198180	B10	308	VC1000	accD	acetyl-CoA carboxylase, carboxyl transferase beta subunit	NP_230646.1
198744	B11	130	VC2091	sdhC	succinate dehydrogenase, cytochrome b556 subunit	NP_231723.1
198789	B12	541	VC0449		methyl-accepting chemotaxis protein	NP_230103.1
199630	C01	646	VC1990		ATP-dependent helicase, DinG family	NP_231624.1
199702	C02	N/A	VCA0990		ATP-dependent RNA helicase, DEAD box family	N/A
198814	C03	N/A	VCA0023		hypothetical protein	N/A
198857	C04	N/A	VCA0026		conserved hypothetical protein	N/A
199984	C05	190	VC2567		conserved hypothetical protein	NP_232195.1
200924	C06	684	VC1967		methyl-accepting chemotaxis protein	NP_231601.1
200308	C07	324	VC1325	mgIB	galactoside ABC transporter, periplasmic D-galactose-D-glucose-binding protein	NP_230969.1
200356	C08	508	VC1931		conserved hypothetical protein	NP_231268.1
200533	C09	476	VC1606		conserved hypothetical protein	NP_231246.1
198205	C10	152	VC0544	recX	regulatory protein RecX	NP_230195.1
198748	C11	161	VC0439		conserved hypothetical protein	NP_230093.1
198492	C12	477	VC1597		multidrug transporter, putative	NP_231237.1
199633	D01	31	VC0313		hypothetical protein	NP_229967.1
199710	D02	464	VC2693	cpxA	sensor protein CpxA	NP_232321.1
198815	D03	140	VC0424		conserved hypothetical protein	NP_230078.1
198858	D04	599	VC0793m	oadA-2	oxaloacetate decarboxylase, alpha subunit	NP_230442.1
199987	D05	468	VC1391		multidrug transporter, putative	NP_231035.1
200930	D06	815	VC1950	bisZ	biotin sulfoxide reductase	NP_231584.1
200311	D07	N/A	VCA0874		hypothetical protein	N/A
200359	D08	213	VC2517		conserved hypothetical protein	NP_232146.1
200540	D09	223	VC0009		amino acid ABC transporter, permease protein	NP_062593.1
198207	D10	153	VC0553		conserved hypothetical protein	NP_230204.1
198750	D11	166	VC0916		phosphotyrosine protein phosphatase	NP_230563.1
198494	D12	N/A	VCA0066		hypothetical protein	N/A
199651	E01	68	VC0301		hypothetical protein	NP_229956.1
199712	E02	N/A	VCA1015	nhaD	Na ⁺ -H ⁺ antiporter	N/A
198822	E03	N/A	VCA0523		aminotransferase, class II	N/A
199930	E04	60	VC1378		hypothetical protein	NP_231022.1
199993	E05	476	VC1971	menE	o-succinylbenzoic acid--CoA ligase	NP_231605.1
200934	E06	825	VC0251		acyl protein synthase-acyl-CoA reductase RfbN	NP_229908.1
200334	E07	417	VC2497		conserved hypothetical protein	NP_232126.1
200370	E08	N/A	VCA0865	hap	hemagglutinin-protease	N/A
200545	E09	541	VC0004	yidC	inner membrane protein, 60 kDa	NP_062588.1
198211	E10	168	VC0542		CinA-related protein	NP_230193.1
198763	E11	391	VC0455		oxygen-independent coproporphyrinogen III oxidase, putative	NP_230109.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198500	E12	N/A	VCA0052		hypothetical protein	N/A
199657	F01	80	VC2686		conserved hypothetical protein	NP_232314.1
199716	F02	497	VC0304	gppA	guanosine-5-triphosphate,3-diphosphate pyrophosphatase	NP_229959.1
198824	F03	389	VC0404	mshN	MSHA biogenesis protein MshN	NP_230058.1
199945	F04	N/A	VCA0936		hypothetical protein	N/A
200000	F05	N/A	VCA0413		hypothetical protein	N/A
200935	F06	836	VC1629		conserved hypothetical protein	NP_231266.1
200336	F07	419	VC2514	murA	UDP-N-acetylglucosamine 1-carboxyvinyltransferase	NP_232143.1
200473	F08	243	VC2458	pdxJ	pyridoxal phosphate biosynthetic protein PdxJ	NP_232087.1
200547	F09	545	VC1288	mdoG	periplasmic glucans biosynthesis protein MdoG	NP_230933.1
198227	F10	N/A	VCA0279		transcriptional regulator, HTH_3 family	N/A
198765	F11	396	VC0450	mltC	membrane-bound lytic murein transglycosylase C	NP_230104.1
198504	F12	N/A	VCA0068		methyl-accepting chemotaxis protein	N/A
199659	G01	82	VC1461	cep	colonization factor	NP_231104.1
199717	G02	209	VC2702		transcriptional regulator, LuxR family	NP_232329.1
198828	G03	407	VC0423	arcA	arginine deiminase	NP_230077.1
199953	G04	N/A	VCA0939		sensory box-GGDEF family protein	N/A
200005	G05	600	VC2606	kefB	glutathione-regulated potassium-efflux system protein	NP_232234.2
200937	G06	868	VC1338	acnA	aconitate hydratase 1	NP_230982.1
200339	G07	158	VC1341		acetyltransferase, putative	NP_230985.1
200493	G08	327	VC0817		transposase, putative	NP_230466.1
200549	G09	550	VC2469	nadB	l-aspartate oxidase	NP_232098.1
198230	G10	524	VC0556	gshA	glutamate--cysteine ligase	NP_230207.1
198782	G11	236	VC0461		conserved hypothetical protein	NP_230115.1
198505	G12	252	VC1591		oxidoreductase, short-chain dehydrogenase-reductase family	NP_231231.1
199663	H01	97	VC1459	ace	accessory cholera enterotoxin	NP_231102.1
199719	H02	N/A	VCA1000		conserved hypothetical protein	N/A
198832	H03	N/A	VCA1115		ParA family protein	N/A
199957	H04	329	VC2610		conserved hypothetical protein	NP_232238.1
200921	H05	667	VC1367		GGDEF family protein	NP_231011.1
200939	H06	948	VC1373		DnaK-related protein	NP_231017.1
200340	H07	440	VC1319		sensor histidine kinase	NP_230963.1
200507	H08	401	VC1273		extracellular solute-binding protein, family 7	NP_230918.1
198161	H09	N/A	VCA0260		hypothetical protein	N/A
198232	H10	N/A	VCA0269		decarboxylase, group II	N/A
198783	H11	N/A	VCA0531		sensor histidine kinase	N/A

Table 30: *Vibrio cholerae* Gateway® Clones, Plate 30 (NR-19708)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200796	A02	156	VC2268	ribH	riboflavin synthase, beta subunit	NP_231899.2
199068	A03	240	VC1525		ABC transporter, ATP-binding protein	NP_231165.1
197544	A04	157	VC1811		conserved hypothetical protein	NP_231445.1
174697	A05	953	VC2503	valS	valyl-tRNA synthetase	NP_232132.1
197759	A06	558	VC1145		conserved hypothetical protein	NP_230790.1
198259	A07	58	VC0507		hypothetical protein	NP_230158.1
174342	A08	571	VC0875	proS	prolyl-tRNA synthetase	NP_230522.1
198357	A09	89	VC1699		hypothetical protein	NP_231335.1
200426	A10	178	VC2488		conserved hypothetical protein	NP_232117.1
200096	A11	556	VC0282		methyl-accepting chemotaxis protein	NP_229938.1
200278	A12	530	VC2538		thiamine ABC transporter, permease protein, putative	NP_232166.1
198508	B01	566	VC1665		ABC transporter, permease protein, putative	NP_231301.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200804	B02	209	VC1106		preprotein translocase SecA subunit-related protein	NP_230751.1
199071	B03	N/A	VCA1045	mtlA	PTS system, mannitol-specific IIBC component	N/A
197563	B04	467	VC1821	frwBC	PTS system, fructose-specific IIBC component	NP_231455.1
174705	B05	960	VC1903		cell division protein FtsK, putative	NP_231537.1
197771	B06	648	VC0700	sit	soluble lytic murein transglycosylase	NP_230349.1
198292	B07	361	VC0530		conserved hypothetical protein	NP_230181.1
174358	B08	599	VC2074	argS	arginyl-tRNA synthetase	NP_231706.1
198406	B09	484	VC1670	cls	cardiolipin synthase	NP_231306.1
198022	B10	N/A	VCA0615		peptide methionine sulfoxide reductase	N/A
174914	B11	396	VC1170	trpB	tryptophan synthase, beta subunit	NP_230815.1
174490	B12	503	VC2732	epsE	general secretion pathway protein E	NP_232359.1
198512	C01	567	VC1585	katB	catalase	NP_231225.1
200812	C02	N/A	VCA0634		conserved hypothetical protein	N/A
174578	C03	688	VC0020	glyS	glycyl-tRNA synthetase, beta chain	NP_229679.1
197569	C04	N/A	VCA0727	cobQ	cobyrinic acid synthase	N/A
174713	C05	1164	VC2245	dnaE	DNA polymerase III, alpha subunit	NP_231876.1
175003	C06	532	VC0175		deoxycytidylate deaminase-related protein	NP_229832.1
198298	C07	382	VC2168		hypothetical protein	NP_231799.1
174374	C08	625	VC0517	rpoD	RNA polymerase sigma factor RpoD	NP_230168.1
198414	C09	N/A	VCA0101		conserved hypothetical protein	N/A
198023	C10	206	VC2246	mhB	ribonuclease HII	NP_231877.1
174960	C11	209	VC0144		conserved hypothetical protein	NP_229802.1
174519	C12	544	VC2664	groEL-1	chaperonin, 60 Kd subunit	NP_232292.1
198513	D01	267	VC1601		hypothetical protein	NP_231241.1
200826	D02	651	VC0637	ftsH	cell division protein FtsH	NP_230286.1
174586	D03	692	VC1054	dnaZX	DNA polymerase III, subunits gamma and tau	NP_230699.1
197575	D04	506	VC1819	aldA-2	aldehyde dehydrogenase	NP_231453.1
174728	D05	1401	VC0329	rpoC	DNA-directed RNA polymerase, beta subunit	NP_229983.1
175014	D06	240	VC0715	frp	NADPH-flavin oxidoreductase	NP_230364.1
198325	D07	N/A	VCA0253		antibiotic acetyltransferase	N/A
200873	D08	N/A	VCA0291	intI4	site-specific recombinase IntI4	N/A
198416	D09	N/A	VCA0117		sigma-54 dependent transcriptional regulator	N/A
198028	D10	N/A	VCA0617	moeA-2	molybdopterin biosynthesis MoeA protein	N/A
174991	D11	226	VC2359	ung	uracil-DNA glycosylase	NP_231989.1
174559	D12	626	VC2431	parE	topoisomerase IV, subunit B	NP_232061.1
198516	E01	N/A	VCA0246	sgaT	SgaT protein	N/A
198992	E02	275	VC1523		conserved hypothetical protein	NP_231163.1
174609	E03	276	VC0126	dapF	diaminopimelate epimerase	NP_229784.2
197577	E04	541	VC1844	cydA-1	cytochrome d ubiquinol oxidase, subunit I	NP_231478.1
197745	E05	483	VC2333		ribosomal protein S6 modification protein-related protein	NP_231964.1
175030	E06	246	VC1164		conserved hypothetical protein	NP_230809.1
198326	E07	573	VC0965	ptsI	phosphoenolpyruvate-protein phosphotransferase	NP_230612.1
200897	E08	346	VC1791		conserved hypothetical protein	NP_231426.1
198426	E09	N/A	VCA0080		GGDEF family protein	N/A
198048	E10	N/A	VCA0614	fhs	formate--tetrahydrofolate ligase	N/A
174995	E11	523	VC1174	trpE	anthranilate synthase component I	NP_230819.1
197911	E12	N/A	VCA0153		conserved hypothetical protein	N/A
200778	F01	151	VC0641		conserved hypothetical protein	NP_230290.1
199028	F02	N/A	VCA1068		transcriptional regulator, AsnC family	N/A
174613	F03	734	VC2678	priA	primosomal protein N'	NP_232306.1
197581	F04	587	VC1817		sigma-54 dependent transcriptional regulator	NP_231451.1
197749	F05	N/A	VCA0683	uhpB	sensor protein UhpB	N/A
175034	F06	571	VC0170		peptide ABC transporter, ATP-binding protein	NP_229827.1
198329	F07	244	VC0506		hypothetical protein	NP_230157.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200901	F08	380	VC1081		response regulator	NP_230726.1
200392	F09	N/A	VCA0848		GGDEF family protein	N/A
200058	F10	98	VC0290	fis	factor-for-inversion stimulation protein	NP_229945.1
200234	F11	368	VC1951	yeoK	cytochrome c-type protein YeoK	NP_231585.1
197953	F12	240	VC1781		conserved hypothetical protein	NP_231416.1
200788	G01	156	VC2267	nusB	N utilization substance protein B	NP_231898.1
199041	G02	407	VC2725	epsL	general secretion pathway protein L	NP_232352.1
174623	G03	761	VC1256	nrdA	ribonucleoside-diphosphate reductase, alpha subunit	NP_230901.1
174665	G04	898	VC0643	infB	initiation factor IF-2	NP_230292.1
197753	G05	548	VC1149		glutamate decarboxylase, putative	NP_230794.1
175054	G06	262	VC1909		hypothetical protein	NP_231543.1
174326	G07	556	VC0997	glnS	glutaminyl-tRNA synthetase	NP_230643.1
200907	G08	411	VC1071		transporter, putative	NP_230716.1
200417	G09	N/A	VCA0852		hypothetical protein	N/A
200073	G10	N/A	VCA0367		hypothetical protein	N/A
200241	G11	N/A	VCA0893		hypothetical protein	N/A
197956	G12	663	VC1766		conserved hypothetical protein	NP_231401.1
200794	H01	N/A	VCA0631		hypothetical protein	N/A
199054	H02	503	VC1502		Sun-nucleolar protein family protein	NP_231143.1
174631	H03	761	VC2430	parC	topoisomerase IV, subunit A	NP_232060.1
174689	H04	949	VC0682	ileS	isoleucyl-tRNA synthetase	NP_230331.1
197755	H05	555	VC0698		ABC transporter, ATP-binding protein	NP_230347.1
175058	H06	588	VC0194	ggt	gamma-glutamyltranspeptidase	NP_229851.1
174334	H07	562	VC0911	treC	trehalose-6-phosphate hydrolase	NP_230558.1
200917	H08	585	VC1799		hypothetical protein	NP_231434.1
200422	H09	N/A	VCA0840		deoxycytidylate deaminase, putative	N/A
200079	H10	N/A	VCA0379		hypothetical protein	N/A
200244	H11	378	VC1345		oxidoreductase, putative	NP_230989.1

Table 31: *Vibrio cholerae* Gateway® Clones, Plate 31 (NR-19709)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174306	A02	314	VC0240	rfaD	ADP-L-glycero-D-mannoheptose-6-epimerase	NP_229897.1
175164	A03	64	VC0754		conserved hypothetical protein	NP_230403.1
175396	B01	N/A	VCA0744	gplK	glycerol kinase	N/A
174839	B02	102	VC0176		transcriptional regulator, putative	NP_229833.1
175232	B03	336	VC1204	hutG	formiminoglutamase	NP_230849.1
175420	C01	540	VC2386		conserved hypothetical protein	NP_232016.1
174859	C02	342	VC0172		peptide ABC transporter, permease protein	NP_229829.1
175293	C03	N/A	VCA0753		conserved hypothetical protein	N/A
175459	D01	634	VC2416		2',3'-cyclic-nucleotide 2'-phosphodiesterase, putative	NP_232046.1
175872	D02	260	VC0119	hemD	uroporphyrinogen-III synthase	NP_229778.1
175504	D03	291	VC1229		conserved hypothetical protein	NP_230874.1
175751	E01	543	VC0772	vibE	vibriobactin-specific 2,3-dihydroxybenzoate-AMP ligase	NP_230421.1
175996	E02	417	VC0125	lysA	diaminopimelate decarboxylase	NP_229783.1
175579	E03	81	VC1225		hypothetical protein	NP_230870.1
175758	F01	N/A	VCA0763		conserved hypothetical protein	N/A
176147	F02	N/A	VCA0815	speA	biosynthetic arginine decarboxylase	N/A
175781	G01	579	VC2370		sensory box-GGDEF family protein	NP_232000.1
174422	G02	84	VC2587	rpsQ	ribosomal protein S17	NP_232215.1
174246	H01	453	VC2762	glmU	UDP-N-acetylglucosamine pyrophosphorylase	NP_232388.1
174734	H02	286	VC0150	rpoH	RNA polymerase sigma-32 factor	NP_229808.1

Table 32: *Vibrio cholerae* Gateway® Clones, Plate 32 (NR-19710)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200836	A02	N/A	VCA0316		acetyltransferase, putative	N/A
200846	A03	N/A	VCA0300	cat	chloramphenicol acetyltransferase	N/A
200856	A04	N/A	VCA0309		conserved hypothetical protein	N/A
200865	A05	N/A	VCA0319		conserved hypothetical protein	N/A
200878	A06	114	VC1790	orfA	transposase OrfAB, subunit A	NP_231425.1
200894	A07	124	VC1796		middle operon regulator-related protein	NP_231431.1
200910	A08	148	VC1805		hypothetical protein	NP_231440.1
198054	A09	222	VC0586		carbonic anhydrase, putative	NP_230236.1
198071	A10	N/A	VCA0569		conserved hypothetical protein	N/A
198103	A11	160	VC1026	moaC	molybdenum cofactor biosynthesis protein C	NP_230671.1
199826	A12	42	VC2648		hypothetical protein	NP_232276.1
200827	B01	N/A	VCA0296		hypothetical protein	N/A
200837	B02	N/A	VCA0315		hypothetical protein	N/A
200847	B03	N/A	VCA0297		hypothetical protein	N/A
200857	B04	78	VC1802		hypothetical protein	NP_231437.1
200867	B05	N/A	VCA0314		hypothetical protein	N/A
200880	B06	N/A	VCA0286		hypothetical protein	N/A
200896	B07	125	VC1793		hypothetical protein	NP_231428.1
200912	B08	N/A	VCA0322		hypothetical protein	N/A
198055	B09	35	VC2228		hypothetical protein	NP_231889.1
198073	B10	65	VC1032		hypothetical protein	NP_230677.1
198109	B11	181	VC1053	apt	adenine phosphoribosyltransferase	NP_230698.1
199828	B12	N/A	VCA0950		hypothetical protein	N/A
200828	C01	165	VC1070		phosphatase, putative	NP_230715.1
200838	C02	180	VC1075		conserved hypothetical protein	NP_230720.1
200849	C03	N/A	VCA0295		hypothetical protein	N/A
200859	C04	N/A	VCA0312		hypothetical protein	N/A
200868	C05	280	VC2259	tsf	elongation factor Ts	NP_231890.1
200882	C06	119	VC1792		conserved hypothetical protein	NP_231427.1
200898	C07	126	VC0605		conserved hypothetical protein	NP_230255.1
200914	C08	153	VC1803		hypothetical protein	NP_231438.1
198057	C09	N/A	VCA0577		hypothetical protein	N/A
198075	C10	N/A	VCA0579		hypothetical protein	N/A
198126	C11	421	VC0574	petB	ubiquinol--cytochrome c reductase, cytochrome B	NP_230225.1
199831	C12	273	VC2649	cysE	serine acetyltransferase	NP_232277.1
200829	D01	N/A	VCA0321		hypothetical protein	N/A
200839	D02	N/A	VCA0320		hypothetical protein	N/A
200850	D03	N/A	VCA0285		hypothetical protein	N/A
200860	D04	247	VC1066		hypothetical protein	NP_230711.1
200869	D05	100	VC1065		methylated-DNA--protein-cysteine methyltransferase-related protein	NP_230710.1
200884	D06	121	VC1082		response regulator	NP_230727.1
200900	D07	N/A	VCA0313		MutT-nudix family protein	N/A
200916	D08	153	VC1797		hypothetical protein	NP_231432.1
198059	D09	37	VC2218		hypothetical protein	NP_231452.1
198079	D10	N/A	VCA0570		Sui1 family protein	N/A
198133	D11	N/A	VC0583		hemagglutinin-protease regulatory protein, authentic frameshift	N/A
199832	D12	63	VC2588	rpmC	ribosomal protein L29	NP_232216.1
200832	E01	N/A	VCA0317	blc-1	lipoprotein Blc	N/A
200840	E02	N/A	VCA0288	infC	initiation factor IF3	N/A
200851	E03	N/A	VCA0289	rpml	ribosomal protein L35	N/A
200861	E04	N/A	VCA0298		hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200870	E05	281	VC1808		hypothetical protein	NP_231442.1
200886	E06	121	VC1080		hypothetical protein	NP_230725.1
200902	E07	129	VC0621		hypothetical protein	NP_230270.1
200918	E08	162	VC1077		hypothetical protein	NP_230722.1
198063	E09	38	VC2219		hypothetical protein	NP_231453.1
198081	E10	122	VC0580		conserved hypothetical protein	NP_230231.1
198137	E11	208	VC2225	upp	uracil phosphoribosyltransferase	NP_231886.1
199834	E12	N/A	VCA0948		conserved hypothetical protein	N/A
200833	F01	46	VC1078		hypothetical protein	NP_230723.1
200841	F02	N/A	VCA0306		hypothetical protein	N/A
200853	F03	67	VC1810		hypothetical protein	NP_231444.1
200862	F04	N/A	VCA0301		oxidoreductase, short-chain dehydrogenase-reductase family	N/A
200871	F05	104	VC1804		hypothetical protein	NP_231439.1
200888	F06	121	VC0606	glnB-1	nitrogen regulatory protein P-II	NP_230256.1
200904	F07	N/A	VCA0303		hypothetical protein	N/A
198051	F08	30	VC1030		hypothetical protein	NP_230675.1
198065	F09	41	VC0572		hypothetical protein	NP_230223.1
198084	F10	N/A	VCA0575		transcriptional regulator, LysR family	N/A
198139	F11	211	VC0576	sspA	stringent starvation protein A	NP_230227.1
199836	F12	86	VC1396		hypothetical protein	NP_231039.1
200834	G01	N/A	VCA0284		hypothetical protein	N/A
200842	G02	192	VC1794		hypothetical protein	NP_231429.1
200854	G03	231	VC1788		hypothetical protein	NP_231423.1
200863	G04	N/A	VCA0292		hypothetical protein	N/A
200872	G05	106	VC1795		transcriptional regulator, putative	NP_231430.1
200890	G06	N/A	VCA0310		hypothetical protein	N/A
200906	G07	143	VC1064		lipoprotein-related protein	NP_230709.1
198052	G08	N/A	VCA0584		glutathione S-transferase, putative	N/A
198067	G09	43	VC1051		hypothetical protein	NP_230696.1
198085	G10	N/A	VCA0587		conserved hypothetical protein	N/A
199820	G11	35	VC2639		hypothetical protein	NP_232267.1
199844	G12	N/A	VCA0942		hypothetical protein	N/A
200835	H01	47	VC1072		hypothetical protein	NP_230717.1
200843	H02	N/A	VCA0304		hypothetical protein	N/A
200855	H03	76	VC1809		transcriptional regulator, putative	NP_231443.1
200864	H04	276	VC1074		hypothetical protein	NP_230719.1
200876	H05	113	VC1068		transcriptional regulator, ArsR family	NP_230713.1
200892	H06	N/A	VCA0294		hypothetical protein	N/A
200908	H07	N/A	VCA0299		hypothetical protein	N/A
198053	H08	33	VC0588		hypothetical protein	NP_230238.1
198069	H09	46	VC2221		hypothetical protein	NP_231882.1
198087	H10	130	VC0571	rpsI	ribosomal protein S9	NP_230222.1
199824	H11	40	VC1404		hypothetical protein	NP_231047.1

Table 33: *Vibrio cholerae* Gateway® Clones, Plate 33 (NR-19711)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199880	A02	179	VC2647		conserved hypothetical protein	NP_232275.1
198615	A03	31	VC0479		hypothetical protein	NP_230133.1
198645	A04	124	VC2105		hypothetical protein	NP_231737.1
198675	A05	176	VC2113		conserved hypothetical protein	NP_231744.1
198867	A06	38	VC2071		hypothetical protein	NP_231703.1
198886	A07	86	VC0436	rpmA	ribosomal protein L27	NP_230090.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198831	A08	162	VC0417	mreD	rod shape-determining protein MreD	NP_230071.1
199278	A09	48	VC1999		hypothetical protein	NP_231633.1
199324	A10	139	VC0373		conserved hypothetical protein	NP_230027.1
199087	A11	55	VC1471		hypothetical protein	NP_231113.1
199109	A12	107	VC0079		conserved hypothetical protein	NP_229738.1
199851	B01	333	VC2644	argC	N-acetyl-gamma-glutamyl-phosphate reductase	NP_232272.2
199882	B02	179	VC2584	rplE	ribosomal protein L5	NP_232212.1
198617	B03	38	VC2114		hypothetical protein	NP_231745.1
198647	B04	N/A	VCA0196		hypothetical protein	N/A
198677	B05	178	VC0491		hypothetical protein	NP_230145.1
198869	B06	40	VC0867		hypothetical protein	NP_230514.1
198888	B07	N/A	VCA0597	-	hypothetical protein	N/A
198841	B08	178	VC0409	mshA	MSHA pilin protein MshA	NP_230063.1
199285	B09	272	VC2003	rrmA	rRNA (guanine-N1-)-methyltransferase	NP_231637.2
199326	B10	N/A	VCA0448		hypothetical protein	N/A
199088	B11	230	VC1467		hypothetical protein	NP_231110.1
199111	B12	110	VC1480		hypothetical protein	NP_231121.1
199854	C01	124	VC1398	cheY-2	chemotaxis protein CheY	NP_231041.1
199888	C02	200	VC2595	rplD	ribosomal protein L4	NP_232223.1
198619	C03	N/A	VCA0555		hypothetical protein	N/A
198653	C04	138	VC2125	fliN	flagellar motor switch protein FliN	NP_231756.1
198679	C05	N/A	VCA0195		hypothetical protein	N/A
198871	C06	41	VC0879		ribosomal protein L36, putative	NP_230526.1
198892	C07	99	VC0882		conserved hypothetical protein	NP_230529.1
199262	C08	36	VC0363		hypothetical protein	NP_230017.1
199290	C09	62	VC0364	bfd	bacterioferritin-associated ferredoxin	NP_230018.1
199334	C10	147	VC1998		PilB-related protein	NP_231632.1
199097	C11	882	VC0086	tatA-1	tatA protein	NP_229745.1
199123	C12	129	VC0074		hypothetical protein	NP_229733.1
199862	D01	136	VC2589	rplP	ribosomal protein L16	NP_232217.1
199892	D02	N/A	VCA0961		hypothetical protein	N/A
198623	D03	45	VC2102		hypothetical protein	NP_231734.1
198657	D04	143	VC0923		serine acetyltransferase-related protein	NP_230570.1
198685	D05	198	VC0940		conserved hypothetical protein	NP_230587.1
198872	D06	43	VC0865		hypothetical protein	NP_230512.1
198801	D07	100	VC0885		hypothetical protein	NP_230532.1
199266	D08	38	VC0017		hypothetical protein	NP_229676.1
199292	D09	66	VC0025		hypothetical protein	NP_229684.1
199074	D10	31	VC0077		hypothetical protein	NP_229736.1
199099	D11	88	VC2704		hypothetical protein	NP_232331.1
198711	D12	N/A	VCA0541		hypothetical protein	N/A
199864	E01	150	VC0830	tcpQ	toxin co-regulated pilus biosynthesis protein Q	NP_230478.1
199894	E02	N/A	VCA0957		malate synthase-related protein	N/A
198631	E03	N/A	VCA0203	rfbP	rfbP protein, authentic frameshift	N/A
198659	E04	144	VC0939		hypothetical protein	NP_230586.1
198691	E05	211	VC0481		LysE-YggA family protein	NP_230135.1
198876	E06	63	VC0871		hypothetical protein	NP_230518.1
198802	E07	N/A	VCA1114		ParB family protein	N/A
199268	E08	40	VC0380		hypothetical protein	NP_230034.1
199296	E09	85	VC0023		NADH dehydrogenase subunit II-related protein	NP_229682.1
199075	E10	209	VC0092	lexA	LexA repressor	NP_229751.1
199100	E11	268	VC2718	bioH	bioH protein	NP_232345.1
198713	E12	N/A	VCA0525		hypothetical protein	N/A
199866	F01	N/A	VCA0941		acyl-CoA thioester hydrolase-related protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199898	F02	211	VC2601	motX	sodium-type flagellar protein MotX	NP_232229.1
198635	F03	89	VC2122	fliQ	flagellar biosynthetic protein FliQ	NP_231753.1
198663	F04	146	VC2101		conserved hypothetical protein	NP_231733.1
198859	F05	32	VC0877		hypothetical protein	NP_230524.1
198878	F06	67	VC0872		conserved hypothetical protein	NP_230519.1
198803	F07	103	VC0435	rplU	ribosomal protein L21	NP_230089.1
199274	F08	42	VC0011		hypothetical protein	NP_062595.1
199306	F09	N/A	VCA0469		conserved hypothetical protein	N/A
199077	F10	N/A	VCA0515		hypothetical protein	N/A
199103	F11	94	VC1474		conserved hypothetical protein	NP_231116.1
198719	F12	N/A	VCA0548		hypothetical protein	N/A
199870	G01	172	VC1415	hcp-1	hcp protein	NP_231058.1
199902	G02	218	VC1400		hypothetical protein	NP_231043.1
198637	G03	N/A	VCA0562		hypothetical protein	N/A
198669	G04	167	VC2127		flagellar protein FliL, putative	NP_231758.1
198861	G05	N/A	VCA1103		hypothetical protein	N/A
198882	G06	80	VC0891	xseB	exodeoxyribonuclease, small subunit	NP_230538.1
198811	G07	130	VC2065	cheY-3	chemotaxis protein CheY	NP_231697.1
199276	G08	N/A	VCA0456		hypothetical protein	N/A
199314	G09	118	VC2005		hypothetical protein	NP_231639.1
199082	G10	N/A	VCA0514		hypothetical protein	N/A
199105	G11	94	VC1468		conserved hypothetical protein	NP_231111.1
198723	G12	N/A	VCA0547		hypothetical protein	N/A
199871	H01	411	VC1394		methyl-accepting chemotaxis protein	NP_231038.1
199912	H02	245	VC1420		hypothetical protein	NP_231063.1
198643	H03	N/A	VCA0561		hypothetical protein	N/A
198673	H04	175	VC2111		conserved hypothetical protein	NP_231742.1
198863	H05	36	VC0427		hypothetical protein	NP_230081.1
198884	H06	85	VC0878		ribosomal protein, L31P family	NP_230525.1
198823	H07	147	VC2075		histidine triad family protein	NP_231707.1
199277	H08	255	VC2014		conserved hypothetical protein	NP_231648.1
199316	H09	122	VC0366	rpsF	ribosomal protein S6	NP_230020.1
199083	H10	43	VC1489		hypothetical protein	NP_231130.1
199107	H11	94	VC0070		hypothetical protein	NP_229729.1

Table 34: *Vibrio cholerae* Gateway® Clones, Plate 34 (NR-19712)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198764	A02	186	VC0908		histidinol phosphatase-related protein	NP_230555.1
199559	A03	75	VC0352	slyX	slyX protein	NP_230006.2
199577	A04	101	VC1988		hypothetical protein	NP_231622.1
200107	A05	N/A	VCA0335		hypothetical protein	N/A
200150	A06	126	VC0232		hypothetical protein	NP_229889.1
198151	A07	N/A	VCA0259		hypothetical protein	N/A
198175	A08	133	VC1022	luxU	phosphorelay protein	NP_230667.1
200215	A09	95	VC2530		sigma-54 modulation protein, putative	NP_232158.1
200277	A10	N/A	VCA0897	devB	devB protein	N/A
200028	A11	N/A	VCA0404		hypothetical protein	N/A
200476	A12	55	VC0001		hypothetical protein	NP_062585.1
198727	B01	297	VC2081	znuA	zinc ABC transporter, periplasmic zinc-binding protein	NP_231713.1
198770	B02	198	VC0903	syd	syd protein	NP_230550.1
199560	B03	N/A	VCA0433		hypothetical protein	N/A
199586	B04	381	VC1984	rnd	ribonuclease D	NP_231618.1
200120	B05	73	VC0255		rfbT-related protein	NP_229911.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200158	B06	N/A	VCA0344		hypothetical protein	N/A
198153	B07	43	VC2186		hypothetical protein	NP_231817.1
198185	B08	N/A	VCA0272		hypothetical protein	N/A
200219	B09	101	VC2551		conserved hypothetical protein	NP_232179.1
200279	B10	241	VC2528		ABC transporter, ATP-binding protein	NP_232156.1
200030	B11	N/A	VCA0411		hypothetical protein	N/A
200478	B12	60	VC0816		hypothetical protein	NP_230465.1
198728	C01	76	VC2076		hypothetical protein	NP_231708.1
198780	C02	N/A	VCA0532		DNA-binding response regulator	N/A
199563	C03	N/A	VCA0445		conserved hypothetical protein	N/A
199591	C04	139	VC1924		hypothetical protein	NP_231558.1
200124	C05	78	VC0218	rpmB	ribosomal protein L28	NP_229875.1
200171	C06	N/A	VCA0350	blc-2	lipoprotein Blc	N/A
198155	C07	N/A	VCA0273		hypothetical protein	N/A
198193	C08	142	VC0570	rplM	ribosomal protein L13	NP_230221.1
200223	C09	115	VC2546		conserved hypothetical protein	NP_232174.1
200008	C10	30	VC0292		hypothetical protein	NP_229947.1
200032	C11	54	VC0272		hypothetical protein	NP_229928.1
200482	C12	74	VC1613		hypothetical protein	NP_231253.1
198732	D01	90	VC0451		conserved hypothetical protein	NP_230105.1
198788	D02	256	VC2093		conserved hypothetical protein	NP_231725.1
199566	D03	313	VC0337		conserved hypothetical protein	NP_229991.1
199601	D04	N/A	VCA0440		hypothetical protein	N/A
200125	D05	288	VC0209		conserved hypothetical protein	NP_229866.1
200185	D06	196	VC0214		transcriptional regulator, TetR family	NP_229871.2
198163	D07	65	VC0548	csrA	carbon storage regulator	NP_230199.1
198201	D08	N/A	VCA0275	tnpA	IS1004 transposase	N/A
200231	D09	N/A	VCA0892		hypothetical protein	N/A
200010	D10	N/A	VCA0384		hypothetical protein	N/A
200042	D11	N/A	VCA0357		hypothetical protein	N/A
200484	D12	77	VC2473		conserved hypothetical protein	NP_232102.1
198740	E01	126	VC0442	apaG	apaG protein	NP_230096.1
198798	E02	262	VC2082	znuC	zinc ABC transporter, ATP-binding protein	NP_231714.1
199569	E03	92	VC1914	hipB	integration host factor, beta subunit	NP_231548.1
199619	E04	188	VC0343		conserved hypothetical protein	NP_229997.1
200126	E05	80	VC0248		acyl carrier protein, putative	NP_229905.1
200187	E06	213	VC0211	pyrE	orotate phosphoribosyltransferase	NP_229868.2
198167	E07	69	VC0569		hypothetical protein	NP_230220.1
200199	E08	39	VC1357		hypothetical protein	NP_231001.1
200255	E09	193	VC2536		conserved hypothetical protein	NP_232164.1
200012	E10	N/A	VCA0390		hypothetical protein	N/A
200044	E11	N/A	VCA0407		hypothetical protein	N/A
200490	E12	86	VC2471		conserved hypothetical protein	NP_232100.1
198743	F01	N/A	VCA0524		conserved hypothetical protein	N/A
199543	F02	36	VC1982		hypothetical protein	NP_231616.1
199570	F03	319	VC0334		hypothetical protein	NP_229988.1
200101	F04	N/A	VC0253		IS1004 transposase-related protein	N/A
200128	F05	N/A	VCA0333		hypothetical protein	N/A
198145	F06	33	VC0555		hypothetical protein	NP_230206.1
198169	F07	117	VC0549		hypothetical protein	NP_230200.1
200201	F08	41	VC1958		hypothetical protein	NP_231592.1
200269	F09	223	VC1358		conserved hypothetical protein	NP_231002.1
200016	F10	N/A	VCA0373		hypothetical protein	N/A
200054	F11	N/A	VCA0364		hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
200492	F12	101	VC1281	celA	PTS system, cellobiose-specific IIB component	NP_230926.1
198749	G01	344	VC0907		ABC transporter, ATP-binding protein	NP_230554.1
199545	G02	N/A	VCA0438		hypothetical protein	N/A
199573	G03	95	VC1996		conserved hypothetical protein	NP_231630.1
200102	G04	224	VC0217	radC	DNA repair protein RadC	NP_229874.1
200130	G05	N/A	VCA0343		hypothetical protein	N/A
198147	G06	33	VC0996		hypothetical protein	NP_230642.1
198170	G07	286	VC2178	hemK	hemK protein	NP_231809.1
200203	G08	N/A	VCA0899		hypothetical protein	N/A
200271	G09	N/A	VCA0911	exbB1	TonB system transport protein ExbB1	N/A
200018	G10	N/A	VCA0394		hypothetical protein	N/A
200081	G11	N/A	VCA0376		hypothetical protein	N/A
200496	G12	111	VC1283	celC	PTS system, cellobiose-specific IIA component	NP_230928.1
198760	H01	184	VC0919		serine acetyltransferase-related protein	NP_230566.1
199555	H02	N/A	VCA0446		haemagglutinin	N/A
199575	H03	N/A	VCA0444	relE	relE protein	N/A
200103	H04	31	VC0226		hypothetical protein	NP_229883.1
200132	H05	N/A	VCA0329		hypothetical protein	N/A
198149	H06	39	VC0546		hypothetical protein	NP_230197.1
198171	H07	107	VC2204		negative regulator of flagellin synthesis FlgM, putative	NP_231835.1
200213	H08	94	VC1355		acylphosphatase	NP_230999.1
200275	H09	238	VC2553		ABC transporter, ATP-binding protein	NP_232181.1
200020	H10	38	VC0294		hypothetical protein	NP_229949.1
200470	H11	33	VC1292		hypothetical protein	NP_230937.1

Table 35: *Vibrio cholerae* Gateway® Clones, Plate 35 (NR-19713)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198247	A02	36	VC2170		hypothetical protein	NP_231801.1
198300	A03	397	VC0963		VisC-related protein	NP_230610.1
199982	A04	189	VC2563		hypothetical protein	NP_232191.1
198569	A05	136	VC2138	fliS	flagellar protein FliS	NP_231769.1
200391	A06	N/A	VCA0858		hypothetical protein	N/A
198483	A07	188	VC1584	ankB	ankB protein	NP_231224.1
198907	A08	N/A	VCA0009		hypothetical protein	N/A
197508	A09	48	VC1243		hypothetical protein	NP_230888.1
199248	A10	178	VC2046		hypothetical protein	NP_231680.1
175820	A11	34	VC0141		hypothetical protein	NP_229799.1
199667	A12	105	VC2682	metJ	met repressor	NP_232310.1
200502	B01	132	VC0802		hypothetical protein	NP_230451.1
198249	B02	36	VC2169		hypothetical protein	NP_231800.1
199924	B03	43	VC1383		hypothetical protein	NP_231027.1
199989	B04	470	VC2620		conserved hypothetical protein	NP_232248.1
198577	B05	154	VC0960		conserved hypothetical protein	NP_230607.1
200397	B06	61	VC1305		hypothetical protein	NP_230950.1
198486	B07	N/A	VCA0061		ATP-dependent RNA helicase, DEAD box family	N/A
198909	B08	N/A	VCA0004		hypothetical protein	N/A
197510	B09	169	VC2351		hypothetical protein	NP_231981.1
199256	B10	193	VC2027		Maf-YceF-YhdE family protein	NP_231661.1
175828	B11	37	VC0109		hypothetical protein	NP_229768.1
199675	B12	N/A	VCA1021		conserved hypothetical protein	N/A
200506	C01	144	VC0002	mioC	mioC protein	NP_062586.1
198251	C02	N/A	VCA0251		hypothetical protein	N/A
199928	C03	59	VC1389		hypothetical protein	NP_231033.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199998	C04	215	VC2558	cysC	adenylylsulfate kinase	NP_232186.1
198599	C05	N/A	VCA0242		hexulose-6-phosphate synthase SgbH, putative	N/A
200407	C06	N/A	VCA0845		hypothetical protein	N/A
198487	C07	206	VC1667		conserved hypothetical protein	NP_231303.1
198933	C08	140	VC2763	atpC	ATP synthase F1, epsilon subunit	NP_232389.1
197514	C09	71	VC1816		hypothetical protein	NP_231450.1
197957	C10	33	VC0598		hypothetical protein	NP_230248.1
175844	C11	39	VC0138		hypothetical protein	NP_229796.1
174730	C12	30	VC1175		hypothetical protein	NP_230820.1
200528	D01	190	VC2467	rpoE	RNA polymerase sigma-E factor	NP_232096.1
198253	D02	38	VC0978		hypothetical protein	NP_230625.1
199932	D03	N/A	VCA0418		hypothetical protein	N/A
198531	D04	N/A	VCA0226		hypothetical protein	N/A
198601	D05	219	VC0944	lipB	lipoate-protein ligase B	NP_230591.1
200456	D06	245	VC1633		hypothetical protein	NP_231270.1
198489	D07	220	VC1666		ABC transporter, ATP-binding protein, putative	NP_231302.1
198949	D08	N/A	VCA0017	hcp-2	hcp protein	N/A
199173	D09	39	VC0388		hypothetical protein	NP_230042.1
197973	D10	44	VC1728		hypothetical protein	NP_231364.1
175852	D11	44	VC0110		hypothetical protein	NP_229769.1
174737	D12	30	VC0712		hypothetical protein	NP_230361.1
200550	E01	234	VC0811		hypothetical protein	NP_230460.1
198255	E02	39	VC0511		hypothetical protein	NP_230162.1
199940	E03	N/A	VCA0933		cold shock domain family protein	N/A
198533	E04	N/A	VCA0206		hypothetical protein	N/A
200381	E05	33	VC2486		hypothetical protein	NP_232115.1
198435	E06	36	VC1654		hypothetical protein	NP_231291.1
198893	E07	N/A	VCA0012		hypothetical protein	N/A
197492	E08	30	VC1813		hypothetical protein	NP_231447.1
199177	E09	N/A	VCA0502		hypothetical protein	N/A
197977	E10	N/A	VCA0609		hypothetical protein	N/A
175892	E11	46	VC0102		hypothetical protein	NP_229761.1
174745	E12	31	VC0193		hypothetical protein	NP_229850.1
198239	F01	33	VC0536		hypothetical protein	NP_230187.1
198257	F02	49	VC0989		hypothetical protein	NP_230635.1
199944	F03	87	VC1961	minE	cell division topological specificity factor	NP_231595.1
198536	F04	291	VC0493		hypothetical protein	NP_230147.1
200383	F05	39	VC2495		hypothetical protein	NP_232124.1
198437	F06	N/A	VCA0046		hypothetical protein	N/A
198897	F07	N/A	VCA1076		hypothetical protein	N/A
197496	F08	33	VC1818		hypothetical protein	NP_231452.1
199185	F09	56	VC2025	rpmF	ribosomal protein L32	NP_231659.1
197979	F10	83	VC1057		proteinase inhibitor, putative	NP_230702.1
199635	F11	N/A	VCA1007		hypothetical protein	N/A
174761	F12	45	VC1176		hypothetical protein	NP_230821.1
198241	G01	34	VC2158		hypothetical protein	NP_231789.1
198263	G02	71	VC0520	rpsU	ribosomal protein S21	NP_230171.1
199962	G03	149	VC2565	elaA	elaA protein	NP_232193.1
198553	G04	N/A	VCA0224		hypothetical protein	N/A
200385	G05	N/A	VCA0841		hypothetical protein	N/A
198445	G06	N/A	VCA0054		hypothetical protein	N/A
198899	G07	N/A	VCA0001		hypothetical protein	N/A
197500	G08	35	VC1829		hypothetical protein	NP_231463.1
199220	G09	126	VC0060	crcB	crcB protein	NP_229719.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
197981	G10	N/A	VCA0594	hly	hemolysin	N/A
199639	G11	N/A	VCA0995		hypothetical protein	N/A
174785	G12	49	VC1908		hypothetical protein	NP_231542.1
198243	H01	N/A	VCA0252		hypothetical protein	N/A
198265	H02	75	VC0504		hypothetical protein	NP_230155.1
199968	H03	160	VC1384		hypothetical protein	NP_231028.1
198563	H04	N/A	VC0500	orfA	transposase OrfAB, subunit A, authentic frameshift	N/A
200389	H05	N/A	VCA0857		hypothetical protein	N/A
198453	H06	88	VC1662		conserved hypothetical protein	NP_231298.1
198902	H07	280	VC1551	ugpE	glycerol-3-phosphate ABC transporter, permease protein	NP_231191.1
197506	H08	47	VC2354		hypothetical protein	NP_231984.1
199246	H09	177	VC0397	ssb	single-strand binding protein	NP_230051.1
197985	H10	107	VC2241		cytochrome c554	NP_231872.1
199641	H11	34	VC2687		hypothetical protein	NP_232315.1

Table 36: *Vibrio cholerae* Gateway® Clones, Plate 36 (NR-19714)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199743	A02	96	VC2665	groES-1	chaperonin, 10 Kd subunit	NP_232293.1
197590	A03	N/A	VCA0787		hypothetical protein	N/A
197704	A04	139	VC0794		hypothetical protein	NP_230443.1
174637	A05	325	VC2460	era	GTP-binding protein Era	NP_232089.1
174091	A06	96	VC0527		conserved hypothetical protein	NP_230178.1
200307	B01	62	VC1324		hypothetical protein	NP_230968.1
199746	B02	N/A	VCA0969		pirin-related protein	N/A
197596	B03	46	VC2449		hypothetical protein	NP_232078.1
197776	B04	31	VC2315		hypothetical protein	NP_231946.1
175492	B05	38	VC1218		hypothetical protein	NP_230863.1
200313	C01	67	VC1646		hypothetical protein	NP_231283.1
198995	C02	N/A	VCA1044		hypothetical protein	N/A
197651	C03	N/A	VCA0783		arylesterase	N/A
197788	C04	48	VC0670		hypothetical protein	NP_230319.1
175520	C05	295	VC1231	cdd	cytidine deaminase	NP_230876.1
200315	D01	71	VC1322		conserved hypothetical protein	NP_230966.1
198997	D02	49	VC2737		hypothetical protein	NP_232363.1
197867	D03	N/A	VCA0138		hypothetical protein	N/A
197858	D04	226	VC2301		transcriptional activator, putative	NP_231932.1
175900	D05	48	VC0121		hypothetical protein	NP_229780.1
200316	E01	N/A	VCA0868		hypothetical protein	N/A
199055	E02	N/A	VCA1060	ribB	3,4-dihydroxy-2-butanone 4-phosphate synthase	N/A
197893	E03	N/A	VCA0166	cspA	cold shock transcriptional regulator CspA	N/A
200740	E04	47	VC1090		hypothetical protein	NP_230735.1
174827	E05	324	VC0709	rluD	ribosomal large subunit pseudouridine synthase D	NP_230358.1
200318	F01	N/A	VCA0861		hypothetical protein	N/A
174398	F02	37	VC2575	rpmJ	ribosomal protein L36	NP_232203.1
197895	F03	N/A	VCA0163		conserved hypothetical protein	N/A
200744	F04	77	VC2288		conserved hypothetical protein	NP_231919.1
175140	F05	N/A	VCA0742		hypothetical protein	N/A
199729	G01	34	VC2663		hypothetical protein	NP_232291.1
174406	G02	58	VC2578	rpmD	ribosomal protein L30	NP_232206.1
197679	G03	N/A	VCA0698		hypothetical protein	N/A
200776	G04	N/A	VCA0632		MutT-nudix family protein	N/A
175617	G05	106	VC2408	ftsL	cell division protein FtsL	NP_232038.1
199731	H01	N/A	VCA0967		hypothetical protein	N/A

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174438	H02	89	VC0646	rpsO	ribosomal protein S15	NP_230295.1
197698	H03	61	VC2318		hypothetical protein	NP_231949.1
174627	H04	317	VC0120	hemC	porphobilinogen deaminase	NP_229779.1
175791	H05	231	VC1197		hypothetical protein	NP_230742.1

Table 37: *Vibrio cholerae* Gateway® Clones, Plate 37 (NR-19715)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199198	A02	291	VC2032		hypothetical protein	NP_231666.1
199735	A03	54	VC1436		FixS-related protein	NP_231079.1
199645	A04	47	VC2680		hypothetical protein	NP_232308.1
197891	A05	N/A	VCA0184		cold shock DNA-binding domain protein	N/A
200286	A06	261	VC2513	plsC	1-acyl-sn-glycerol-3-phosphate acyltransferase	NP_232142.1
199335	A07	495	VC0036		FixG-related protein	NP_229695.1
200452	A08	227	VC1630		ABC transporter, ATP-binding protein	NP_231267.1
199855	A09	366	VC2628	aroB	3-dehydroquinate synthase	NP_232256.1
175614	A10	379	VC0741	tgt	queuine tRNA-ribosyltransferase	NP_230390.1
174535	A11	597	VC2463	lepA	GTP-binding protein LepA	NP_232092.1
175478	A12	35	VC1192		hypothetical protein	NP_230837.1
199170	B01	212	VC2035		conserved hypothetical protein	NP_231669.1
199202	B02	305	VC0055	hemF	coproporphyrinogen III oxidase, aerobic	NP_229714.1
199751	B03	119	VC1449		hypothetical protein	NP_231092.1
199661	B04	89	VC0311		ferredoxin	NP_229965.1
197903	B05	82	VC1731		conserved hypothetical protein	NP_231367.1
200293	B06	N/A	VCA0869		hypothetical protein	N/A
199338	B07	153	VC0377		conserved hypothetical protein	NP_230031.1
200466	B08	263	VC2494		hypothetical protein	NP_232123.1
199887	B09	489	VC0831	tcpC	toxin co-regulated pilus biosynthesis outer membra	NP_230479.1
197784	B10	36	VC2304		hypothetical protein	NP_231935.1
198707	B11	271	VC0928		hypothetical protein	NP_230575.1
174823	B12	88	VC0145		conserved hypothetical protein	NP_229803.1
199174	C01	215	VC0040		hemolysin, putative	NP_229699.1
199205	C02	312	VC2022	fabD	malonyl CoA-acyl carrier protein transacylase	NP_231656.1
199753	C03	119	VC2667		hypothetical protein	NP_232295.1
199679	C04	124	VC1456	ctxB	cholera enterotoxin, B subunit	NP_231099.1
197905	C05	N/A	VCA0188		hypothetical protein	N/A
200301	C06	51	VC1326		hypothetical protein	NP_230970.1
198267	C07	78	VC2163		conserved hypothetical protein	NP_231794.1
198447	C08	73	VC1661		hypothetical protein	NP_231297.1
199907	C09	620	VC0825	tcpI	toxin co-regulated pilus biosynthesis protein I	NP_230473.1
197820	C10	N/A	VCA0676	napF	iron-sulfur cluster-binding protein NapF	N/A
175156	C11	55	VC2393		hypothetical protein	NP_232023.1
199110	C12	290	VC1478	orfB	transposase OrfAB, subunit B	NP_231119.1
199176	D01	216	VC0400	mshJ	MSHA biogenesis protein MshJ	NP_230054.1
199209	D02	316	VC2023	fabH-1	3-oxoacyl-(acyl-carrier-protein) synthase III	NP_231657.1
199766	D03	146	VC2668		conserved hypothetical protein	NP_232296.1
199681	D04	124	VC1453	rstB1	RstB1 protein	NP_231096.1
197961	D05	34	VC2243		hypothetical protein	NP_231874.1
200303	D06	N/A	VCA0878		integrase-related protein	N/A
198269	D07	85	VC0966	ptsH	phosphocarrier protein HPr	NP_230613.1
198482	D08	445	VC1571	qxtA	quinol oxidase, subunit I	NP_231211.1
197516	D09	77	VC2357		hypothetical protein	NP_231987.1
197824	D10	175	VC0654		conserved hypothetical protein	NP_230303.1
199933	D11	276	VC1960	minD	septum site-determining protein MinD	NP_231594.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199178	E01	218	VC0041		conserved hypothetical protein	NP_229700.1
199225	E02	377	VC0051	purK	phosphoribosylaminoimidazole carboxylase, ATPase s	NP_229710.1
199774	E03	153	VC1450	rtxC	RTX toxin activating protein	NP_231093.1
199701	E04	N/A	VCA1017	ogt	methylated-DNA--protein-cysteine S-methyltransfera	N/A
197967	E05	N/A	VCA0613		hypothetical protein	N/A
200327	E06	129	VC2512		conserved hypothetical protein	NP_232141.1
198271	E07	97	VC0982		selenoprotein W-related protein	NP_230628.1
198485	E08	N/A	VCA0038		Sco1-related protein	N/A
197555	E09	450	VC1836	tolB	tolB protein	NP_231470.1
174414	E10	83	VC0163		conserved hypothetical protein	NP_229820.1
200936	E11	846	VC1952	chiA-1	chitinase	NP_231586.1
199180	F01	N/A	VCA0483		hypothetical protein	N/A
199231	F02	N/A	VCA0479		acetyltransferase, putative	N/A
199789	F03	422	VC0847		integrase, phage family	NP_230494.1
197863	F04	34	VC1734		hypothetical protein	NP_231370.1
197971	F05	N/A	VCA0598		hypothetical protein	N/A
199299	F06	324	VC2015	holB	DNA polymerase III, delta prime subunit	NP_231649.1
198312	F07	N/A	VCA0250	amy1	alpha-amylase	N/A
199011	F08	305	VC2734	epsC	general secretion pathway protein C	NP_232360.1
197571	F09	N/A	VCA0708	pykA-2	pyruvate kinase II	N/A
174430	F10	86	VC0679	rpsT	ribosomal protein S20	NP_230328.1
200756	F11	113	VC0627		hesB family protein	NP_230276.1
199184	G01	N/A	VCA0474		acetyltransferase, putative	N/A
199253	G02	597	VC0393		hypothetical protein	NP_230047.1
199793	G03	443	VC2674	hslU	protease HslVU, ATPase subunit HslU	NP_232302.1
197879	G04	45	VC1742		hypothetical protein	NP_231378.1
197983	G05	103	VC1724		hypothetical protein	NP_231360.1
199301	G06	325	VC2004		conserved hypothetical protein	NP_231638.1
200403	G07	92	VC1640	rplY	ribosomal protein L25	NP_231277.1
199030	G08	160	VC1508		conserved hypothetical protein	NP_231149.1
175557	G09	65	VC1193		hypothetical protein	NP_230838.1
198343	G10	N/A	VCA0093		hypothetical protein	N/A
197757	G11	558	VC0694		conserved hypothetical protein	NP_230343.1
199192	H01	258	VC0063	thiF	thiF protein	NP_229722.1
199727	H02	N/A	VCA0968		hypothetical protein	N/A
199643	H03	N/A	VCA1009		hypothetical protein	N/A
197883	H04	N/A	VCA0177		hypothetical protein	N/A
198013	H05	178	VC1062		transcriptional regulator, AsnC family	NP_230707.1
199330	H06	N/A	VCA0470		acetyltransferase, putative	N/A
200450	H07	N/A	VCA0855		ABC transporter, ATP-binding protein	N/A
199058	H08	221	VC1517		hypothetical protein	NP_231157.1
175571	H09	78	VC1223		hypothetical protein	NP_230868.1
198421	H10	N/A	VCA0097		conserved hypothetical protein	N/A
198726	H11	76	VC2078	feoA	ferrous iron transport protein A	NP_231710.1

Table 38: *Vibrio cholerae* Gateway® Clones, Plate 38 (NR-19716)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
218793	A02	633	VC1826	fruA-1	PTS system, fructose-specific IIABC component	NP_231460.1
218813	A03	35	VC2331		hypothetical protein	NP_231962.1
218828	A04	N/A	VCA0106		hypothetical protein	N/A
218845	A05	104	VC2139		flagellar rod protein FlaI, putative	NP_231770.1
218863	A06	103	VC1917		conserved hypothetical protein	NP_231551.1
218613	A07	423	VC0660	srmB	ATP-dependent RNA helicase SrmB	NP_230309.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
218630	A08	324	VC1029		GGDEF family protein	NP_230674.1
218648	A09	39	VC2752		hypothetical protein	NP_232378.1
218665	A10	144	VC2741		conserved hypothetical protein	NP_232367.1
218867	A11	200	VC1922	clpP	ATP-dependent Clp protease, proteolytic subunit	NP_231556.1
218882	A12	396	VC0302		conserved hypothetical protein	NP_229957.1
218779	B01	31	VC1830		hypothetical protein	NP_231464.1
218795	B02	32	VC0785		hypothetical protein	NP_230434.1
218815	B03	N/A	VCA0696		hypothetical protein	N/A
218831	B04	31	VC2151		hypothetical protein	NP_231782.1
218849	B05	146	VC0498		ribonuclease HI, putative	NP_230152.1
218597	B06	30	VC2306		hypothetical protein	NP_231937.1
218616	B07	183	VC0655		acetyltransferase, putative	NP_230304.1
218632	B08	340	VC2223		pseudouridine synthase family 1 protein	NP_231854.1
218651	B09	N/A	VCA1065		conserved hypothetical protein	N/A
218669	B10	192	VC1498		conserved hypothetical protein	NP_231139.1
218869	B11	231	VC1911	pyrF	orotidine 5'-phosphate decarboxylase	NP_231545.1
218885	B12	N/A	VCA1019		conserved hypothetical protein	N/A
218781	C01	35	VC1842		conserved hypothetical protein	NP_231476.1
218797	C02	N/A	VCA0796		hypothetical protein	N/A
218817	C03	65	VC2429		conserved hypothetical protein	NP_232059.1
218833	C04	32	VC2148		hypothetical protein	NP_231779.1
218850	C05	638	VC0950	mrda	penicillin-binding protein 2	NP_230597.1
218600	C06	N/A	VCA0668		hypothetical protein	N/A
218618	C07	194	VC2299	ppiA	peptidyl-prolyl cis-trans isomerase A	NP_231930.1
218633	C08	182	VC1048		conserved hypothetical protein	NP_230693.1
218653	C09	N/A	VCA1064		hypothetical protein	N/A
218671	C10	419	VC1500		PqiA family protein	NP_231141.1
218870	C11	N/A	VCA1014		hypothetical protein	N/A
218887	C12	31	VC1969		hypothetical protein	NP_231603.1
218783	D01	N/A	VCA0713		hypothetical protein	N/A
218799	D02	403	VC2446	cca	tRNA nucleotidyltransferase	NP_232075.1
218819	D03	N/A	VCA0682	uhpA	transcriptional regulator UhpA	N/A
218835	D04	N/A	VCA0234		hypothetical protein	N/A
218853	D05	N/A	VCA0202	tnpA	IS1004 transposase	N/A
218602	D06	N/A	VCA0672		hypothetical protein	N/A
218620	D07	198	VC2291	nqrE	NADH:ubiquinone oxidoreductase, Na translocating,	NP_231922.1
218635	D08	N/A	VCA0283		hypothetical protein	N/A
218655	D09	N/A	VCA1061		hypothetical protein	N/A
218673	D10	196	VC2747		hypothetical protein	NP_232373.1
218873	D11	N/A	VCA1009		hypothetical protein	N/A
218889	D12	32	VC1387		hypothetical protein	NP_231031.1
218784	E01	N/A	VCA0701		hypothetical protein	N/A
218805	E02	31	VC0686		hypothetical protein	NP_230335.1
218821	E03	32	VC1691		hypothetical protein	NP_231327.1
218837	E04	55	VC0946		hypothetical protein	NP_230593.1
218854	E05	N/A	VCA0429		hypothetical protein	N/A
218606	E06	54	VC2317		hypothetical protein	NP_231948.1
218622	E07	256	VC0590		permease, putative	NP_230240.1
218638	E08	196	VC0579		phosphoheptose isomerase, putative	NP_230230.1
218656	E09	65	VC1514		hypothetical protein	NP_231154.1
218677	E10	N/A	VCA1057		oxidoreductase, short-chain dehydrogenase-reductas	N/A
218875	E11	47	VC2680		hypothetical protein	NP_232308.1
218891	E12	N/A	VCA0934		hypothetical protein	N/A
218787	F01	70	VC1858		conserved hypothetical protein	NP_231492.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
218806	F02	32	VC1251		hypothetical protein	NP_230896.1
218823	F03	N/A	VCA0081		hypothetical protein	N/A
218839	F04	66	VC0497		transcriptional regulator	NP_230151.1
218857	F05	N/A	VCA0437		hypothetical protein	N/A
218608	F06	N/A	VCA0664		hypothetical protein	N/A
218624	F07	N/A	VCA0567		hypothetical protein	N/A
218643	F08	548	VC0587		sulfate permease family protein	NP_230237.1
218659	F09	78	VC1493		hypothetical protein	NP_231134.1
218679	F10	252	VC2723	epsN	general secretion pathway protein N	NP_232350.1
218877	F11	50	VC0316		hypothetical protein	NP_229970.1
218893	F12	33	VC2611		hypothetical protein	NP_232239.1
218789	G01	N/A	VCA0715		hypothetical protein	N/A
218809	G02	32	VC2327		hypothetical protein	NP_231958.1
218825	G03	N/A	VCA0087		hypothetical protein	N/A
218841	G04	74	VC2154		hypothetical protein	NP_231785.1
218859	G05	93	VC1913		conserved hypothetical protein	NP_231547.1
218610	G06	69	VC1116		hypothetical protein	NP_230761.1
218626	G07	297	VC1035		hypothetical protein	NP_230680.1
218645	G08	212	VC2227	purN	phosphoribosylglycinamide formyltransferase	NP_231858.1
218661	G09	N/A	VCA1066		hypothetical protein	N/A
218680	G10	35	VC2034		hypothetical protein	NP_231668.1
218879	G11	65	VC0314		hypothetical protein	NP_229968.1
218895	G12	36	VC1385		hypothetical protein	NP_231029.1
218791	H01	N/A	VCA0707		regulatory protein UhpC, putative	N/A
218811	H02	33	VC2321		hypothetical protein	NP_231952.1
218827	H03	N/A	VCA0093		hypothetical protein	N/A
218843	H04	92	VC0945		conserved hypothetical protein	NP_230592.1
218861	H05	326	VC0350	hflC	hflC protein	NP_230004.1
218612	H06	144	VC2310		conserved hypothetical protein	NP_231941.1
218628	H07	132	VC1052		conserved hypothetical protein	NP_230697.1
218647	H08	N/A	VCA0578		conserved hypothetical protein	N/A
218663	H09	N/A	VCA1030		hypothetical protein	N/A
218685	H10	N/A	VCA0499		hypothetical protein	N/A
218881	H11	331	VC2689	pfkA	6-phosphofructokinase, isozyme I	NP_232317.1

Table 39: *Vibrio cholerae* Gateway® Clones, Plate 39 (NR-19717)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
218912	A02	N/A	VCA0412		hypothetical protein	N/A
218933	A03	368	VC1343		peptidase, M20A family	NP_230987.1
218951	A04	N/A	VCA0831		hypothetical protein	N/A
218703	A05	N/A	VCA0484		hypothetical protein	N/A
218727	A06	400	VC0069		multidrug resistance protein, putative	NP_229728.1
218747	A07	264	VC0246	rfbH	lipopolysaccharide-O-antigen transport protein	NP_229903.1
218765	A08	N/A	VCA0879		hypothetical protein	N/A
218537	A09	32	VC2263		hypothetical protein	NP_231894.1
218560	A10	N/A	VCA0256		transcriptional regulator	N/A
218580	A11	N/A	VCA0512	nrdG	anaerobic ribonucleoside-triphosphate reductase ac	N/A
214578	A12	N/A	VCA0461		hypothetical protein	N/A
218897	B01	N/A	VCA0932		hypothetical protein	N/A
218917	B02	N/A	VCA0379		hypothetical protein	N/A
218935	B03	N/A	VCA0908	hutX	hutX protein	N/A
218687	B04	71	VC2040		conserved hypothetical protein	NP_231674.1
218709	B05	105	VC0401	mshK	MSHA biogenesis protein MshK	NP_230055.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
218729	B06	N/A	VCA0493	tnpA	IS1004 transposase	N/A
218749	B07	N/A	VCA0336		hypothetical protein	N/A
218767	B08	56	VC1932		hypothetical protein	NP_231566.1
218540	B09	33	VC2284		hypothetical protein	NP_231915.1
218562	B10	N/A	VCA0069		hypothetical protein	N/A
218582	B11	N/A	VCA0462		hypothetical protein	N/A
214583	B12	N/A	VCA0466		hypothetical protein	N/A
218899	C01	69	VC2605		hypothetical protein	NP_232240.1
218919	C02	30	VC1352		hypothetical protein	NP_230996.1
218936	C03	211	VC2541	ubiX	3-octaprenyl-4-hydroxybenzoate carboxy-lyase	NP_232169.1
218689	C04	79	VC2029		hypothetical protein	NP_231663.1
218710	C05	333	VC2039		conserved hypothetical protein	NP_231673.1
218731	C06	N/A	VCA0491		hypothetical protein	N/A
218750	C07	N/A	VCA0339		hypothetical protein	N/A
218768	C08	63	VC2521		hypothetical protein	NP_232150.1
218544	C09	323	VC1105		conserved hypothetical protein	NP_230750.1
218564	C10	33	VC1586		hypothetical protein	NP_231226.1
218584	C11	92	VC0037		conserved hypothetical protein	NP_229696.1
214586	C12	294	VC0033		conserved hypothetical protein	NP_229692.1
218900	D01	69	VC2612		conserved hypothetical protein	NP_232240.1
218921	D02	N/A	VCA0918		hypothetical protein	N/A
218938	D03	242	VC2552		hypothetical protein	NP_232180.1
218691	D04	85	VC0064	thiS	thiS protein	NP_229723.1
218713	D05	N/A	VCA0473		acetyltransferase, putative	N/A
218733	D06	158	VC0049	smg	smg protein	NP_229708.1
218755	D07	30	VC1943		hypothetical protein	NP_231577.1
218771	D08	N/A	VCA0866		hypothetical protein	N/A
218545	D09	N/A	VCA0637		oxygen-insensitive NAD(P)H nitroreductase	N/A
218566	D10	33	VC1569		hypothetical protein	NP_231209.1
218586	D11	N/A	VCA0464		hypothetical protein	N/A
214595	D12	389	VC2009		conserved hypothetical protein	NP_231643.1
218903	E01	69	VC1381		hypothetical protein	NP_231025.1
218923	E02	N/A	VCA0916		hypothetical protein	N/A
218940	E03	30	VC2496		hypothetical protein	NP_232125.1
218693	E04	N/A	VCA0488		conserved hypothetical protein	N/A
218715	E05	110	VC2044		conserved hypothetical protein	NP_231678.1
218737	E06	N/A	VCA0498		hypothetical protein	N/A
218757	E07	31	VC2509		hypothetical protein	NP_232138.1
218773	E08	84	VC2515		BoIA-YrbA family protein	NP_232144.1
218548	E09	47	VC1007		hypothetical protein	NP_230653.1
218568	E10	N/A	VCA0062		hypothetical protein	N/A
218588	E11	77	VC1616		glutaredoxin, putative	NP_231256.1
214599	E12	392	VC0376		conserved hypothetical protein	NP_230030.1
218905	F01	N/A	VCA0421		hypothetical protein	N/A
218927	F02	63	VC1948		hypothetical protein	NP_231582.1
218945	F03	N/A	VCA0839		hypothetical protein	N/A
218695	F04	N/A	VCA0482		conserved hypothetical protein	N/A
218717	F05	N/A	VCA0501		hypothetical protein	N/A
218739	F06	174	VC2026		conserved hypothetical protein	NP_231660.1
218758	F07	31	VC1930		hypothetical protein	NP_231564.1
218774	F08	158	VC1341		acetyltransferase, putative	NP_230985.1
218550	F09	59	VC2189		hypothetical protein	NP_231820.1
218572	F10	275	VC0421		conserved hypothetical protein	NP_230075.1
218590	F11	N/A	VC0818		transposase, putative authentic point mutation	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214602	F12	N/A	VCA0449		hypothetical protein, authentic frameshift	N/A
218909	G01	N/A	VCA0383		hypothetical protein	N/A
218928	G02	130	VC2540		hypothetical protein	NP_232168.1
218947	G03	N/A	VCA0842		hypothetical protein	N/A
218696	G04	N/A	VCA0477		conserved hypothetical protein	N/A
218719	G05	372	VC0392		aminotransferase, class V	NP_230046.1
218741	G06	190	VC0050		DNA topoisomerase I-related protein	NP_229709.1
218761	G07	31	VC1648		hypothetical protein	NP_231285.1
218777	G08	187	VC2525		hypothetical protein	NP_232154.1
218556	G09	189	VC0975		conserved hypothetical protein	NP_230622.1
218574	G10	193	VC0864	yfhC	yfhC protein	NP_230511.1
218591	G11	N/A	VCA0530	ydbK	pyruvate-flavoredoxin oxidoreductase	N/A
214606	G12	418	VC0019	avtA	valine-pyruvate aminotransferase	NP_229678.1
218911	H01	N/A	VCA0398		hypothetical protein	N/A
218930	H02	N/A	VCA0912	exbD1	TonB system transport protein ExbD1	N/A
218949	H03	61	VC1294		hypothetical protein	NP_230939.1
218701	H04	91	VC0057		conserved hypothetical protein	NP_229716.1
218723	H05	N/A	VCA0476		conserved hypothetical protein	N/A
218743	H06	N/A	VCA0326		hypothetical protein	N/A
218763	H07	35	VC1946		hypothetical protein	NP_231580.1
218535	H08	31	VC1109		hypothetical protein	NP_230754.1
218558	H09	214	VC0986	adk	adenylate kinase	NP_230632.1
218576	H10	N/A	VCA1074		transcriptional regulator, AraC-XylS family	N/A
218592	H11	1252	VC0414		hypothetical protein	NP_230068.1

Table 40: *Vibrio cholerae* Gateway® Clones, Plate 40 (NR-19718)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214643	A02	399	VC1458	zot	zona occludens toxin	NP_231101.1
214677	A03	524	VC1414		thermostable carboxypeptidase 1	NP_231057.1
214714	A04	N/A	VCA0414		hypothetical protein	N/A
214747	A05	N/A	VCA0393		hypothetical protein	N/A
214509	A06	63	VC0874		hypothetical protein	NP_230521.1
214563	A07	172	VC1483	fabA	3-hydroxydecanoyl-(acyl-carrier-protein) dehydrata	NP_231124.1
214979	A08	311	VC0533	nlpD	lipoprotein NlpD	NP_230184.1
215011	A09	374	VC1690		alpha-1,6-galactosidase, putative	NP_231326.1
214787	A10	212	VC1329		opacity protein-related protein	NP_230973.1
214822	A11	451	VC1276		sensor histidine kinase	NP_230921.1
215166	A12	N/A	VCA0434		hypothetical protein	N/A
214610	B01	510	VC0027	ilvA	threonine dehydratase	NP_229686.1
214647	B02	184	VC0858		type IV pilin, putative	NP_230505.1
214683	B03	221	VC0826	tcpP	toxin co-regulated pilus biosynthesis protein P	NP_230474.1
214718	B04	387	VC1970	benE	benzoate transport protein	NP_231604.1
214754	B05	N/A	VCA0389		hypothetical protein	N/A
214515	B06	258	VC2061		ParA family protein	NP_231693.1
214567	B07	183	VC0095	ubiC	chorismate--pyruvate lyase	NP_229754.1
214983	B08	410	VC0515		conserved hypothetical protein	NP_230166.1
215015	B09	N/A	VCA0075		hypothetical protein	N/A
214790	B10	553	VC1651	vieB	response regulator VieB	NP_231288.1
214826	B11	218	VC1270		glyoxylase II family protein	NP_230915.1
215168	B12	375	VC0320	coaA	pantothenate kinase	NP_229974.1
214615	C01	613	VC0028	ilvD	dihydroxy-acid dehydratase	NP_229687.1
214655	C02	247	VC1419		hypothetical protein	NP_231062.1
214687	C03	641	VC1418		hypothetical protein	NP_231061.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214723	C04	432	VC2602	purA	adenylosuccinate synthetase	NP_232230.1
214766	C05	N/A	VCA0882		hypothetical protein	N/A
214518	C06	N/A	VCA1107		hypothetical protein	N/A
214571	C07	207	VC2057	ccmA	heme exporter protein A	NP_231689.1
214987	C08	426	VC0503		conserved hypothetical protein	NP_230154.1
215026	C09	303	VC1580		transcriptional regulator, LysR family	NP_231220.1
214795	C10	65	VC2468		hypothetical protein	NP_232097.1
214831	C11	N/A	VCA1034		methyl-accepting chemotaxis protein	N/A
215172	C12	N/A	VCA0425		hypothetical protein	N/A
214618	D01	N/A	VCA0450		hypothetical protein	N/A
214659	D02	104	VC1393	sugE	sugE protein	NP_231037.1
214691	D03	N/A	VCA0419		hypothetical protein	N/A
214727	D04	460	VC2564	dbpA	ATP-dependent RNA helicase DbpA	NP_232192.1
214491	D05	108	VC0678	hlyU	transcriptional activator HlyU	NP_230327.1
214523	D06	143	VC0413		hypothetical protein	NP_230067.1
214575	D07	35	VC0375		hypothetical protein	NP_230029.1
214990	D08	553	VC2174	ushA	UDP-sugar hydrolase	NP_231805.1
215039	D09	N/A	VCA0041	glts	sodium-glutamate symporter	N/A
214799	D10	118	VC0006	rnpA	ribonuclease P protein component	NP_062590.1
214841	D11	N/A	VCA0276	gcvP	glycine cleavage system P protein, authentic frame	N/A
215176	D12	N/A	VCA0888		transcriptional regulator, LuxR family	N/A
214620	E01	N/A	VCA0997		hypothetical protein	N/A
214662	E02	N/A	VC1395	cheY-1	chemotaxis protein CheY, authentic frameshift	N/A
214693	E03	269	VC2566		conserved hypothetical protein	NP_232194.1
214730	E04	201	VC2604	slyD	peptidyl-prolyl cis-trans isomerase, FKBP-type	NP_232232.1
214495	E05	135	VC0656	holD	DNA polymerase III, psi subunit	NP_230305.1
214527	E06	149	VC0881		conserved hypothetical protein	NP_230528.1
214955	E07	201	VC1040	cobA	cob(I)alamin adenosyltransferase	NP_230685.1
214995	E08	31	VC1705		hypothetical protein	NP_231341.1
215041	E09	235	VC1668		pseudouridine synthase Rlu family protein	NP_231304.1
214803	E10	141	VC1272		hypothetical protein	NP_230917.1
214854	E11	N/A	VC2700	pu1A	pullulanase, authentic frameshift	N/A
215186	E12	451	VC2542	mpl	UDP-N-acetylmuramate:L-alanyl-gamma-D-glutamyl-mes	NP_232170.1
214627	F01	72	VC2679	rpmE	ribosomal protein L31	NP_232307.1
214667	F02	130	VC2582	rpsH	ribosomal protein S8	NP_232210.1
214703	F03	302	VC2560	cysD	sulfate adenylyl transferase, subunit 2	NP_232188.2
214734	F04	626	VC1966		conserved hypothetical protein	NP_231600.1
214499	F05	193	VC2303		conserved hypothetical protein	NP_231934.1
214532	F06	174	VC2059	cheW-1	purine-binding chemotaxis protein CheW	NP_231691.1
214959	F07	261	VC2194	flgH	flagellar L-ring protein FlgH	NP_231825.1
214998	F08	N/A	VCA0115		hypothetical protein	N/A
214771	F09	109	VC2516		anti-sigma B factor antagonist, putative	NP_232145.1
214807	F10	148	VC2470		hypothetical protein	NP_232099.1
215147	F11	334	VC2751	add	adenosine deaminase	NP_232377.1
215188	F12	N/A	VCA0909	hutW	hutW protein	N/A
214635	G01	335	VC2677		transcriptional repressor, LacI family	NP_232305.1
214671	G02	174	VC2629	aroK	shikimate kinase	NP_232257.1
214707	G03	326	VC2603		asparaginase, putative	NP_232231.1
214739	G04	N/A	VCA0387		toxin resistance protein	N/A
214503	G05	512	VC0664	lysU	lysyl-tRNA synthetase, heat inducible	NP_230313.1
214551	G06	55	VC1466		hypothetical protein	NP_231109.1
214967	G07	193	VC1017		RnfA-related protein	NP_230663.2
215003	G08	331	VC1683	sapD	peptide ABC transporter, ATP-binding protein	NP_231319.1
214775	G09	149	VC2502	holC	DNA polymerase III, chi subunit	NP_232131.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214811	G10	149	VC1610		hypothetical protein	NP_231250.1
215152	G11	406	VC2731	epsF	general secretion pathway protein F	NP_232358.1
215195	G12	582	VC2548		conserved hypothetical protein	NP_232176.1
214639	H01	N/A	VCA1006		organic hydroperoxide resistance protein, putative	N/A
214675	H02	N/A	VCA0958		hypothetical protein	N/A
214709	H03	N/A	VCA0420		hypothetical protein	N/A
214743	H04	N/A	VCA0354		hypothetical protein	N/A
214507	H05	N/A	VCA0674	narP	nitrate-nitrite response regulator NarP, authentic	N/A
214558	H06	454	VC0090	dinF	DNA-damage-inducible protein F	NP_229749.1
214968	H07	267	VC0526		undecaprenol kinase, putative	NP_230177.1
215007	H08	N/A	VCA0078		hypothetical protein	N/A
214779	H09	206	VC1939		conserved hypothetical protein	NP_231573.1
214815	H10	409	VC2474	visC	visC protein	NP_232103.1
215160	H11	N/A	VCA0430		hypothetical protein	N/A

Table 41: *Vibrio cholerae* Gateway® Clones, Plate 41 (NR-19719)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214867	A02	254	VC1834		conserved hypothetical protein	NP_231468.1
214910	A03	213	VC2427		conserved hypothetical protein	NP_232057.1
175102	A04	33	VC2410		hypothetical protein	NP_232040.1
175135	A05	46	VC1891		hypothetical protein	NP_231525.1
175862	A06	44	VC0104		hypothetical protein	NP_229763.1
215060	A07	N/A	VCA0245		PTS system, IIA component	N/A
175919	A08	59	VC1876		conserved hypothetical protein	NP_231510.1
174753	A09	32	VC0189		hypothetical protein	NP_229846.1
197875	A10	N/A	VCA0187		hypothetical protein	N/A
175503	A11	39	VC1230		hypothetical protein	NP_230875.1
174203	A12	164	VC0222	kdtB	lipopolysaccharide core biosynthesis protein KdtB	NP_229879.1
215203	B01	387	VC1623	nspC	carboxynorspermidine decarboxylase	NP_231262.1
214870	B02	N/A	VCA0726	modA	molybdenum ABC transporter, periplasmic molybdenum	N/A
214923	B03	327	VC1102		ABC transporter, permease protein, putative	NP_230747.1
175108	B04	N/A	VCA0770		hypothetical protein	N/A
175146	B05	286	VC2383		transcriptional regulator, LysR family	NP_232013.1
175867	B06	258	VC0728		conserved hypothetical protein	NP_230377.1
215064	B07	213	VC0954	rlpB	rare lipoprotein B	NP_230601.1
175924	B08	62	VC0133		hypothetical protein	NP_229791.1
174756	B09	32	VC0189		hypothetical protein	NP_229846.1
197881	B10	N/A	VCA0158		hypothetical protein	N/A
175519	B11	39	VC0733		hypothetical protein	NP_230382.1
176070	B12	480	VC0116	hemN	oxygen-independent coproporphyrinogen III oxidase	NP_229775.1
215207	C01	396	VC1293	aspC	aspartate aminotransferase	NP_230938.2
214875	C02	353	VC1833	nadA	quinolinate synthetase A	NP_231467.1
214931	C03	149	VC2272		conserved hypothetical protein	NP_231903.2
175110	C04	N/A	VCA0770		hypothetical protein	N/A
175804	C05	819	VC2364.1		Thr operon leader peptide	NP_231994.2
175871	C06	45	VC0107		hypothetical protein	NP_229766.1
215076	C07	365	VC0925		polysaccharide biosynthesis protein, putative	NP_230572.1
175927	C08	62	VC0133		hypothetical protein	NP_229791.1
174771	C09	39	VC0160		hypothetical protein	NP_229817.1
197887	C10	68	VC1785		transcriptional regulator	NP_231420.1
197963	C11	36	VC1729		hypothetical protein	NP_231365.1
176130	C12	626	VC1868		methyl-accepting chemotaxis protein	NP_231502.1
215209	D01	487	VC1314		transporter, putative	NP_230958.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
214880	D02	302	VC2419	xerD	integrase-recombinase XerD	NP_232049.1
214935	D03	38	VC0584		hypothetical protein	NP_230234.1
175116	D04	N/A	VCA0750		hypothetical protein	N/A
175807	D05	819	VC2364.1		Thr operon leader peptide	NP_231994.2
175876	D06	N/A	VCA0810		hypothetical protein	N/A
215117	D07	302	VC1532		ROK family protein	NP_231172.1
175935	D08	N/A	VCA0821		hypothetical protein	N/A
174780	D09	42	VC0707		hypothetical protein	NP_230356.1
197901	D10	N/A	VCA0185		conserved hypothetical protein	N/A
197965	D11	N/A	VCA0622		hypothetical protein	N/A
176150	D12	N/A	VCA0815	speA	biosynthetic arginine decarboxylase	N/A
215213	E01	N/A	VCA0855		ABC transporter, ATP-binding protein	N/A
214887	E02	N/A	VCA0780	ugd	UDP-glucose 6-dehydrogenase	N/A
214939	E03	81	VC1027	moaD	molybdenum cofactor biosynthesis protein D	NP_230672.1
175119	E04	N/A	VCA0750		hypothetical protein	N/A
175812	E05	33	VC0729		hypothetical protein	NP_230378.1
175879	E06	N/A	VCA0810		hypothetical protein	N/A
215133	E07	N/A	VCA1090		chemotaxis protein CheD, putative	N/A
175967	E08	104	VC0123	cyaY	cyaY protein	NP_229782.1
174791	E09	312	VC0173		peptide ABC transporter, permease protein	NP_229830.1
175465	E10	33	VC0735		hypothetical protein	NP_230384.1
197969	E11	37	VC0599		hypothetical protein	NP_230249.1
200285	E12	30	VC1943		hypothetical protein	NP_231577.1
215217	F01	N/A	VCA0863		lipase, putative	N/A
214888	F02	516	VC0784		sodium-alanine symporter	NP_230433.1
214943	F03	150	VC2216		conserved hypothetical protein	NP_231847.1
175124	F04	44	VC2411		hypothetical protein	NP_232041.1
175815	F05	33	VC0729		hypothetical protein	NP_230378.1
215046	F06	292	VC2157	dapA	dihydrodipicolinate synthase	NP_231788.1
215138	F07	N/A	VCA1049		hypothetical protein	N/A
175978	F08	399	VC0118		uroporphyrin-III C-methyltransferase, putative	NP_229777.1
174795	F09	55	VC0169		hypothetical protein	NP_229826.1
175470	F10	34	VC0738		hypothetical protein	NP_230387.1
197975	F11	N/A	VCA0611		hypothetical protein	N/A
200291	F12	31	VC1648		hypothetical protein	NP_231285.1
215225	G01	N/A	VCA0148		TagA-related protein	N/A
214895	G02	565	VC0791	citA	sensor kinase citA	NP_230440.1
175092	G03	N/A	VCA0771		hypothetical protein	N/A
175127	G04	44	VC2411		hypothetical protein	NP_232041.1
175836	G05	N/A	VCA0826		hypothetical protein	N/A
215051	G06	N/A	VCA0229	vctG	vibriobactin and enterobactin ABC transporter, per	N/A
175908	G07	N/A	VCA0816		hypothetical protein	N/A
174744	G08	286	VC2360	nfo	endonuclease IV	NP_231990.1
197865	G09	N/A	VCA0149		hypothetical protein	N/A
175472	G10	34	VC0738		hypothetical protein	NP_230387.1
174155	G11	131	VC0356		conserved hypothetical protein	NP_230010.1
200299	G12	N/A	VCA0879		hypothetical protein	N/A
214862	H01	245	VC1162		hypothetical protein	NP_230807.1
214900	H02	170	VC1249		conserved hypothetical protein	NP_230894.1
175100	H03	33	VC2410		hypothetical protein	NP_232040.1
175132	H04	46	VC1891		hypothetical protein	NP_231525.1
175839	H05	N/A	VCA0826		hypothetical protein	N/A
215059	H06	367	VC0961		phoH family protein	NP_230608.1
175911	H07	N/A	VCA0816		hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
174751	H08	289	VC1165		conserved hypothetical protein	NP_230810.1
197871	H09	41	VC1752		hypothetical protein	NP_231388.1
175500	H10	39	VC1230		hypothetical protein	NP_230875.1
174157	H11	402	VC2254	dxr	1-deoxy-D-xylulose 5-phosphate reductoisomerase	NP_231885.1

Table 42: *Vibrio cholerae* Gateway® Clones, Plate 42 (NR-19720)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
198429	A02	33	VC1586		hypothetical protein	NP_231226.1
174642	A03	805	VC0015	gyrB	DNA gyrase, subunit B	NP_062599.1
175191	A04	N/A	VCA0741		conserved hypothetical protein	N/A
197588	A05	N/A	VCA0796		hypothetical protein	N/A
175304	A06	393	VC0758		conserved hypothetical protein	NP_230407.1
175574	B01	78	VC1223		hypothetical protein	NP_230868.1
198433	B02	N/A	VCA0062		hypothetical protein	N/A
174644	B03	330	VC2571	rpoA	DNA-directed RNA polymerase, alpha subunit	NP_232199.1
175276	B04	171	VC0751	hscB	chaperone protein HscB	NP_230400.1
197691	B05	35	VC2331		hypothetical protein	NP_231962.1
174069	B06	75	VC0368	rpsR	ribosomal protein S18	NP_230022.1
175589	C01	87	VC0740		hypothetical protein	NP_230389.1
174275	C02	270	VC2770	atpB	ATP synthase F0, A subunit	NP_232396.1
197494	C03	31	VC1830		hypothetical protein	NP_231464.1
175382	C04	472	VC1896		hypothetical protein	NP_231530.1
197792	C05	54	VC2317		hypothetical protein	NP_231948.1
175593	D01	360	VC2404	mraY	phospho-N-acetylmuramoyl-pentapeptide-transferase	NP_232034.1
174305	D02	505	VC0958	cutE	apolipoprotein N-acyltransferase	NP_230605.1
197498	D03	35	VC1842		conserved hypothetical protein	NP_231476.1
175403	D04	241	VC1201		hypothetical protein	NP_230846.1
199547	D05	N/A	VCA0437		hypothetical protein	N/A
175776	E01	574	VC0769		chitinase, putative	NP_230418.1
200393	E02	N/A	VCA0844		hypothetical protein	N/A
174664	E03	344	VC2651	gpsA	glycerol-3-phosphate dehydrogenase (NAD+)	NP_232279.1
175705	E04	169	VC0737		acetoin utilization protein AcuB, putative	NP_230386.1
199637	E05	N/A	VCA1014		hypothetical protein	N/A
175787	F01	229	VC1196		hypothetical protein	NP_230841.1
200395	F02	N/A	VCA0842		hypothetical protein	N/A
174670	F03	347	VC0105	hemB	delta-aminolevulinic acid dehydratase	NP_229764.1
175715	F04	471	VC2377	gltD-2	glutamate synthase, small subunit	NP_232007.1
174929	F05	192	VC1167	tdk	thymidine kinase	NP_230812.1
175796	G01	N/A	VCA0735		hypothetical protein	N/A
176021	G02	432	VC0137		conserved hypothetical protein	NP_229795.1
200734	G03	31	VC1109		hypothetical protein	NP_230754.1
198989	G04	N/A	VCA1065		conserved hypothetical protein	N/A
175049	G05	258	VC1910	miaE	tRNA-(MS[2]IO[6]A)-hydroxylase	NP_231544.1
198427	H01	N/A	VCA0069		hypothetical protein	N/A
176047	H02	166	VC1871		conserved hypothetical protein	NP_231505.2
200736	H03	32	VC2263		hypothetical protein	NP_231894.1
174554	H04	610	VC0487	glmS	glucosamine--fructose-6-phosphate aminotransferase	NP_230141.1
200193	H05	N/A	VCA0918		hypothetical protein	N/A

Table 43: *Vibrio cholerae* Gateway® Clones, Plate 43 (NR-19721)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
234636	A02	171	VC2672	menG-2	s-adenosylmethionine:2-demethylmenaquinone methyltransferase	NP_232300.1
234655	A03	205	VC2666		conserved hypothetical protein	NP_232294.1
234674	A04	56	VC2652		conserved hypothetical protein	NP_232280.1
234698	A05	N/A	VCA0492		hypothetical protein, interruption	N/A
234250	A06	N/A	VCA0626		hypothetical protein	N/A
234270	A07	36	VC2313		hypothetical protein	NP_231944.1
234286	A08	N/A	VCA0162		hypothetical protein	N/A
234306	A09	N/A	VCA0669		sugar transporter family protein	N/A
234334	A10	470	VC1767		conserved hypothetical protein	NP_231402.1
236345	A11	204	VC1302		MutT-nudix family protein	NP_230947.1
236365	A12	224	VC1741		transcriptional regulator, TetR family	NP_231377.1
234618	B01	31	VC0387		hypothetical protein	NP_230041.1
234638	B02	41	VC0053		hypothetical protein	NP_229712.1
234657	B03	N/A	VCA0427		hypothetical protein	N/A
234678	B04	56	VC0382		hypothetical protein	NP_230036.1
234699	B05	253	VC0386	cysH	phosphoadenosine phosphosulfate reductase	NP_230040.1
234251	B06	319	VC0228		hypothetical protein	NP_229885.1
234271	B07	346	VC2226	purM	phosphoribosylformylglycinamide cyclo-ligase	NP_231857.1
234290	B08	72	VC1737	infA	initiation factor IF-1	NP_231373.1
234307	B09	130	VC2659	frdD	fumarate reductase, 13 kDa hydrophobic protein	NP_232287.1
234336	B10	195	VC2720		conserved hypothetical protein	NP_232347.1
236349	B11	N/A	VCA1059		conserved hypothetical protein	N/A
236366	B12	553	VC1516		iron-sulfur cluster-binding protein	NP_231156.1
234619	C01	N/A	VCA0453		hypothetical protein	N/A
234640	C02	N/A	VC1470	tlcR-1	tlcR protein	N/A
234662	C03	N/A	VCA0467		hypothetical protein	N/A
234682	C04	N/A	VCA0973		hypothetical protein	N/A
234701	C05	87	VC2640		hypothetical protein	NP_232268.1
234253	C06	36	VC0915		hypothetical protein	NP_230562.1
234274	C07	N/A	VCA0660		hypothetical protein	N/A
234291	C08	379	VC2247	lpxB	lipid-A-disaccharide synthase	NP_231878.1
234312	C09	N/A	VCA0838		conserved hypothetical protein	N/A
236331	C10	N/A	VCA0666	sdaA-2	L-serine dehydratase 1	N/A
236350	C11	484	VC1046	hadHB	fatty oxidation complex, beta subunit	NP_230691.1
236369	C12	N/A	VCA0135		cyclic nucleotide binding protein, putative	N/A
234622	D01	N/A	VCA0500		hypothetical protein	N/A
234644	D02	184	VC0058		carbonic anhydrase, family 3	NP_229717.1
234663	D03	219	VC1431		hypothetical protein	NP_231074.1
234684	D04	242	VC0333		transcriptional regulator, TetR family	NP_229987.1
234704	D05	256	VC1426	potC	spermidine-putrescine ABC transporter, permease	NP_231069.1
234255	D06	320	VC0319	birA	birA bifunctional protein	NP_229973.1
234276	D07	N/A	VCA0925	pyrC	dihydroorotase	N/A
234294	D08	98	VC0797	citD	citrate lyase, gamma subunit	NP_230446.1
234313	D09	445	VC2456		hypothetical protein	NP_232085.1
236332	D10	N/A	VCA0573		DamX-related protein	N/A
236355	D11	N/A	VCA0596		transporter, authentic frameshift	N/A
236375	D12	N/A	VCA0644		NADH oxidase, putative	N/A
234624	E01	158	VC1438		hypothetical protein	NP_231081.1
234648	E02	188	VC2660	efp	elongation factor P	NP_232288.1
234666	E03	54	VC1440	ccoQ	cytochrome c oxidase, subunit CcoQ	NP_231083.1
234686	E04	N/A	VCA0494		hypothetical protein, interruption	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
234705	E05	89	VC0383		hypothetical protein	NP_230037.1
234259	E06	316	VC0685	lytB	lytB protein	NP_230334.2
234277	E07	63	VC0205		hypothetical protein	NP_229862.1
234295	E08	N/A	VCA0183	hmpA	ferrisiderophore reductase	N/A
234316	E09	162	VC0220		hypothetical protein	NP_229877.1
236334	E10	N/A	VCA1067		aldehyde dehydrogenase	N/A
236357	E11	218	VC1515		chaperone, formate dehydrogenase-specific, putative	NP_231155.1
236377	E12	N/A	VCA0600		repressor protein PhnR, putative	N/A
234628	F01	161	VC0052	purE	phosphoribosylaminoimidazole carboxylase, catalytic subunit	NP_229711.1
234650	F02	N/A	VCA0471		hypothetical protein	N/A
234668	F03	224	VC1435		conserved hypothetical protein	NP_231078.1
234690	F04	74	VC1452	rstC	RstC protein	NP_231095.1
234708	F05	256	VC0065	thiG	thiG protein	NP_229724.1
234261	F06	N/A	VCA0143		hypothetical protein	N/A
234280	F07	351	VC2250	lpxD	UDP-3-O-3-hydroxymyristoyl glucosamine N-acyltransferase	NP_231881.1
234300	F08	390	VC0437		GTP1-Obg family protein	NP_230091.2
234324	F09	177	VC0585	hpt	hypoxanthine phosphoribosyltransferase	NP_230235.1
236337	F10	196	VC2184	pth	peptidyl-tRNA hydrolase	NP_231815.1
236359	F11	512	VC2406	murE	UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase	NP_232036.1
236379	F12	582	VC1878	msbA	transport ATP-binding protein MsbA	NP_231512.1
234629	G01	38	VC1412		hypothetical protein	NP_231055.1
234652	G02	200	VC0854	grpE	heat shock protein GrpE	NP_230501.1
234670	G03	55	VC0038		hypothetical protein	NP_229697.1
234692	G04	244	VC1423		hypothetical protein	NP_231066.1
234246	G05	32	VC0096		hypothetical protein	NP_229755.1
234264	G06	332	VC1929	dctP-2	C4-dicarboxylate-binding periplasmic protein	NP_231563.1
234282	G07	66	VC1020		hypothetical protein	NP_230665.1
234302	G08	N/A	VCA0410		hypothetical protein	N/A
234330	G09	462	VC2295	nqrA	NADH:ubiquinone oxidoreductase, alpha subunit	NP_231926.1
236339	G10	481	VC2037	yqkl	Na ⁺ -H ⁺ antiporter	NP_231671.1
236361	G11	219	VC1038	udk	uridine kinase	NP_230683.1
236381	G12	244	VC0888		pseudouridine synthase Rlu family protein	NP_230535.1
234633	H01	41	VC2010		hypothetical protein	NP_231644.1
234654	H02	N/A	VCA0959		hypothetical protein	N/A
234672	H03	N/A	VCA0496		glutathione S-transferase, putative	N/A
234696	H04	252	VC2657	frdB	fumarate reductase, iron-sulfur protein	NP_232285.1
234248	H05	306	VC2042		histone deacetylase-AcuC-AphA family protein	NP_231676.1
234268	H06	339	VC0521	gcp	O-sialoglycoprotein endopeptidase, authentic frameshift	NP_230172.2
234284	H07	356	VC1773		conserved hypothetical protein	NP_231408.1
234304	H08	121	VC0327	rplL	ribosomal protein L7-L12	NP_229981.1
234332	H09	191	VC1309	rimJ	ribosomal-protein-alanine acetyltransferase	NP_230953.1
236343	H10	484	VC2164		conserved hypothetical protein	NP_231795.1
236363	H11	523	VC0995	nagE	PTS system, N-acetylglucosamine-specific IIABC component	NP_230641.1

Table 44: *Vibrio cholerae* Gateway® Clones, Plate 44 (NR-19722)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236401	A02	283	VC0898	xni	exodeoxyribonuclease IX	NP_230545.1
234712	A03	N/A	VCA0495		hypothetical protein	N/A
234734	A04	100	VC0367	priB	primosomal replication protein N	NP_230021.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
234752	A05	N/A	VCA0984	lldD	L-lactate dehydrogenase	N/A
234776	A06	460	VC2671		conserved hypothetical protein	NP_232299.1
234795	A07	597	VC0067		aminopeptidase P	NP_229726.1
236172	A08	35	VC2079		hypothetical protein	NP_231711.1
236194	A09	309	VC1561		transcriptional regulator, LysR family	NP_231201.1
236212	A10	57	VC1484	rmf	ribosome modulation factor	NP_231125.1
236242	A11	373	VC0949	rodA	rod shape-determining protein RodA	NP_230596.1
236437	A12	N/A	VCA0807		ABC transporter, periplasmic substrate-binding protein	N/A
236382	B01	N/A	VCA0675	narQ	nitrate-nitrite sensor protein NarQ	N/A
236405	B02	626	VC0889	dxs	1-deoxyxylulose-5-phosphate synthase	NP_230536.1
234714	B03	92	VC2592	rpsS	ribosomal protein S19	NP_232220.1
234736	B04	371	VC0048	smf	smf protein	NP_229707.1
234755	B05	N/A	VCA0520		exonuclease SbcD, putative	N/A
234778	B06	133	VC0087		conserved hypothetical protein	NP_229746.1
234798	B07	N/A	VCA0424		hypothetical protein	N/A
236174	B08	281	VC0403	mshM	MSHA biogenesis protein MshM	NP_230057.1
236196	B09	43	VC0484		hypothetical protein	NP_230138.1
236214	B10	330	VC0444	pdxA	pyridoxal phosphate biosynthetic protein PdxA	NP_230098.1
236246	B11	376	VC2142	flaB	flagellin FlaB	NP_231773.1
236439	B12	36	VC2325		hypothetical protein	NP_231956.1
236385	C01	N/A	VCA0618	moeB	molybdopterin biosynthesis MoeB protein	N/A
236407	C02	290	VC1789	orfB	transposase OrfAB, subunit B	NP_231424.1
234716	C03	291	VC0395	galU	UTP--glucose-1-phosphate uridylyltransferase	NP_230049.1
234739	C04	N/A	VCA0946	malK	maltose-maltodextrin ABC transporter, ATP-binding protein	N/A
234762	C05	N/A	VCA0485		mazG-related protein	N/A
234780	C06	451	VC0391	lysC	aspartokinase III, lysine-sensitive	NP_230045.2
234799	C07	598	VC1482		ATP-dependent protease LA-related protein	NP_231123.1
236176	C08	37	VC0883		hypothetical protein	NP_230530.1
236197	C09	N/A	VCA1043	tagE-2	tagE protein	N/A
236216	C10	N/A	VCA0553		hypothetical protein	N/A
236248	C11	N/A	VCA0551		hypothetical protein	N/A
236443	C12	N/A	VCA0305		hypothetical protein	N/A
236387	D01	562	VC1188	sfcA	malate oxidoreductase	NP_230833.2
236408	D02	626	VC0514		methyl-accepting chemotaxis protein	NP_230165.1
234718	D03	94	VC0030	ilvM	acetolactate synthase II, small subunit	NP_229689.1
234742	D04	N/A	VCA0970		conserved hypothetical protein	N/A
234764	D05	N/A	VCA0965		GGDEF family protein	N/A
234782	D06	136	VC0851	smpA	small protein A	NP_230498.1
236160	D07	31	VC0912		hypothetical protein	NP_230559.1
236178	D08	N/A	VCA0090		conserved hypothetical protein	N/A
236202	D09	N/A	VCA0528		conserved hypothetical protein	N/A
236217	D10	N/A	VCA0227	vctP	vibriobactin and enterobactin ABC transporter, periplasmic vibriobactin-enterobactin-binding protein	N/A
236252	D11	N/A	VCA0533	tatA-2	tatA protein	N/A
236445	D12	291	VC2426	pilD	leader peptidase PilD	NP_232056.1
236389	E01	256	VC0597	sfsA	sugar fermentation stimulation protein	NP_230247.1
236411	E02	N/A	VCA1040		amino acid ABC transporter, permease protein	N/A
234725	E03	N/A	VCA0966		hypothetical protein	N/A
234744	E04	375	VC0372	alr	alanine racemase, biosynthetic	NP_230026.1
234766	E05	126	VC1443		hypothetical protein	NP_231086.1
234783	E06	572	VC1445		sensor histidine kinase-response regulator	NP_231088.1
236164	E07	31	VC2155		hypothetical protein	NP_231786.1
236180	E08	37	VC0448		hypothetical protein	NP_230102.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236204	E09	N/A	VCA0215		hypothetical protein	N/A
236220	E10	58	VC0895		hypothetical protein	NP_230542.1
236423	E11	31	VC0805		hypothetical protein	NP_230454.1
236447	E12	42	VC1331		hypothetical protein	NP_230975.1
236394	F01	610	VC1214	uvrC	excinuclease ABC, subunit C	NP_230859.1
236412	F02	628	VC2739		conserved hypothetical protein	NP_232365.1
234727	F03	333	VC0089	yhjA	cytochrome c551 peroxidase	NP_229748.1
234746	F04	N/A	VCA0951		conserved hypothetical protein	N/A
234768	F05	405	VC1444		hypothetical protein	NP_231087.1
234787	F06	N/A	VCA0983		L-lactate permease, putative	N/A
236166	F07	156	VC0431	argR	arginine repressor	NP_230085.2
236182	F08	N/A	VCA0542		transcriptional regulator, LysR family	N/A
236206	F09	316	VC0909	treR	trehalose operon repressor	NP_230556.1
236228	F10	70	VC0868		hypothetical protein	NP_230515.1
236424	F11	257	VC0803		RNA methyltransferase, TrmH family	NP_230452.1
236448	F12	323	VC1800		hypothetical protein	NP_231435.1
236397	G01	N/A	VCA0581		conserved hypothetical protein	N/A
236415	G02	299	VC1738		hypothetical protein	NP_231374.1
234729	G03	100	VC2594	rpIW	ribosomal protein L23	NP_232222.1
234747	G04	377	VC1428	potA	spermidine-putrescine ABC transporter, ATP-binding protein	NP_231071.1
234769	G05	127	VC2658	frdC	fumarate reductase, 15 kDa hydrophobic protein	NP_232286.1
234790	G06	145	VC0018	ibpA	16 kDa heat shock protein A	NP_229677.1
236168	G07	34	VC0955		hypothetical protein	NP_230602.1
236184	G08	N/A	VCA0509		hypothetical protein	N/A
236208	G09	55	VC1472		hypothetical protein	NP_231114.1
236233	G10	354	VC2748	ntrB	nitrogen regulation protein	NP_232374.1
236430	G11	33	VC1954		hypothetical protein	NP_231588.1
236450	G12	45	VC0007	rpmH	ribosomal protein L34	NP_062591.1
236398	H01	N/A	VCA0591		peptide ABC transporter, periplasmic peptide-binding protein, putative	N/A
236421	H02	637	VC0613	chb-1	beta-N-acetylhexosaminidase	NP_230262.1
234732	H03	340	VC0836	tcpE	toxin co-regulated pilus biosynthesis protein E	NP_230484.1
234750	H04	110	VC2591	rpIV	ribosomal protein L22	NP_232219.1
234772	H05	435	VC1976	menF	menaquinone-specific isochorismate synthase	NP_231610.1
234794	H06	N/A	VCA0971		hypothetical protein	N/A
236169	H07	222	VC2056	ccmB	heme exporter protein B	NP_231688.1
236189	H08	N/A	VCA1055		transcriptional regulator, LysR family	N/A
236210	H09	318	VC0893	pomB	chemotaxis protein PomB	NP_230540.1
236235	H10	74	VC2117		hypothetical protein	NP_231748.1
236435	H11	N/A	VCA0352		hypothetical protein	N/A

Table 45: *Vibrio cholerae* Gateway® Clones, Plate 45 (NR-19273)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236467	A02	55	VC0219	rpmG	ribosomal protein L33	NP_229876.1
236486	A03	N/A	VCA0403		hypothetical protein	N/A
236827	A04	671	VC0167	rep	ATP-dependent DNA helicase Rep	NP_229824.1
236849	A05	N/A	VCA0044		hypothetical protein	N/A
236869	A06	1226	VC0390	metH	5-methyltetrahydrofolate--homocysteine methyltransferase	NP_230044.1
236891	A07	791	VC0703		c-di-GMP phosphodiesterase A-related protein	NP_230352.1
234528	A08	N/A	VCA0724	modC	molybdenum ABC transporter, ATP-binding protein	N/A
234548	A09	431	VC1156		sensor histidine kinase	NP_230801.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
234572	A10	243	VC2356		sodium-alanine symporter	NP_231889.1
234602	A11	281	VC1807		conserved hypothetical protein, authentic frameshift	NP_231442.1
236266	A12	392	VC0477	pgk	phosphoglycerate kinase	NP_230131.1
236453	B01	323	VC2472		conserved hypothetical protein	NP_232101.1
236469	B02	327	VC0617		peptide ABC transporter, ATP-binding protein	NP_230266.1
236489	B03	333	VC1069	gap	glyceraldehyde 3-phosphate dehydrogenase	NP_230714.1
236829	B04	1013	VC0820	tagA	ToxR-activated gene A protein	NP_230468.1
236852	B05	693	VC1067		conserved hypothetical protein	NP_230712.1
236872	B06	733	VC0281	cadA	lysine decarboxylase, inducible	NP_229937.1
236893	B07	1148	VC2376	gltB-2	glutamate synthase, large subunit	NP_231953.1
234530	B08	109	VC0788		DOPA-dioxygenase-related protein	NP_230437.1
234550	B09	N/A	VCA0341		biphenyl-2,3-diol 1,2-dioxygenase III-related protein	N/A
234574	B10	164	VC0824	tagD	tagD protein	NP_230472.1
234605	B11	N/A	VCA0307		hypothetical protein	N/A
236268	B12	N/A	VCA1106		hypothetical protein	N/A
236455	C01	46	VC0261		hypothetical protein	NP_229917.1
236473	C02	328	VC1806		hypothetical protein	NP_231441.1
236493	C03	340	VC0623		conserved hypothetical protein	NP_230272.1
236833	C04	1022	VC1765		type I restriction enzyme HsdR, putative	NP_231400.1
236855	C05	703	VC0183		hypothetical protein	NP_229840.1
236874	C06	1254	VC2547		conserved hypothetical protein	NP_232175.1
236897	C07	1491	VC1714	mukB	cell division protein MukB	NP_231350.1
234532	C08	N/A	VC0254		conserved hypothetical protein, degenerate	N/A
234558	C09	136	VC0827	tcpH	toxin co-regulated pilus biosynthesis protein H	NP_230475.1
234580	C10	505	VC2440		conserved hypothetical protein	NP_232069.1
234607	C11	574	VC0615		endoglucanase-related protein	NP_230264.1
236272	C12	95	VC0932		hypothetical protein	NP_230579.1
236457	D01	324	VC1607		conserved hypothetical protein	NP_231247.1
236476	D02	328	VC0619		peptide ABC transporter, permease protein	NP_230268.1
236497	D03	N/A	VCA0938		conserved hypothetical protein, authentic frameshift	N/A
236835	D04	N/A	VC2733	gspD	general secretion pathway protein D, authentic frameshift	N/A
236858	D05	1112	VC0822		inner membrane protein, putative	NP_230470.1
236876	D06	736	VC1831		sensor histidine kinase	NP_231465.1
236899	D07	N/A	VCA0678	napA	periplasmic nitrate reductase	N/A
234536	D08	N/A	VCA0308		deoxyguanosinetriphosphate triphosphohydrolase-related protein	N/A
234562	D09	N/A	VCA0401		conserved hypothetical protein	N/A
234582	D10	171	VC0287	gntV	thermoresistant gluconokinase	NP_229942.1
234614	D11	243	VC2258	pyrH	uridylate kinase	NP_231889.1
236276	D12	96	VC0458		conserved hypothetical protein	NP_230112.1
236459	E01	N/A	VCA0327		hypothetical protein	N/A
236479	E02	N/A	VCA0775		hypothetical protein	N/A
236499	E03	N/A	VCA0324	dinJ	DNA-damage-inducible protein J	N/A
236839	E04	676	VC1018	uvrB	excinuclease ABC subunit B, authentic frameshift	NP_230664.1
236860	E05	721	VC1287	mdoH	periplasmic glucans biosynthesis protein MdoH	NP_230932.1
236878	E06	1291	VC0420		conserved hypothetical protein	NP_230074.1
236908	E07	876	VC1730	topA	DNA topoisomerase I	NP_231366.1
234538	E08	N/A	VCA0338		conserved hypothetical protein	N/A
234564	E09	458	VC0286		gluconate permease, putative	NP_229941.1
234584	E10	509	VC1332		conserved hypothetical protein	NP_230976.1
234616	E11	N/A	VCA0730		hypothetical protein	N/A
236278	E12	N/A	VCA0214	emrD-2	multidrug resistance protein D	N/A
236461	F01	N/A	VCA0830		transcriptional regulator, LysR family	N/A
236480	F02	329	VC1079		conserved hypothetical protein	NP_230724.1

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236504	F03	343	VC0610		iron(III) ABC transporter, ATP-binding protein	NP_230259.1
236841	F04	1052	VC2030	rne	ribonuclease E	NP_231664.1
236861	F05	103	VC2322	recC	exodeoxyribonuclease V, 125 kDa subunit	NP_231765.2
236880	F06	752	VC1879		Rec2-related protein	NP_231513.1
236909	F07	362	VC2373	gltB-1	glutamate synthase, large subunit	NP_231913.1
234540	F08	N/A	VC0607		ammonium transporter, putative, authentic frameshift	N/A
234566	F09	140	VC1189		hypothetical protein	NP_230834.1
234590	F10	N/A	VCA0836		hexapeptide-repeat containing-acetyltransferase	N/A
236255	F11	87	VC2112		conserved hypothetical protein	NP_231743.1
236279	F12	N/A	VCA0233		hypothetical protein	N/A
236463	G01	50	VC0808		hypothetical protein	NP_230457.1
236482	G02	85	VC0005		conserved hypothetical protein	NP_062589.1
236509	G03	346	VC1134	hisC	histidinol-phosphate aminotransferase	NP_230779.1
236844	G04	681	VC2562	cpdB	2',3'-cyclic-nucleotide 2'-phosphodiesterase	NP_232190.1
236865	G05	1220	VC1771		hypothetical protein	NP_231406.1
236883	G06	768	VC0072		sensory box-GGDEF family protein	NP_229731.1
236913	G07	1613	VC1492		conserved hypothetical protein	NP_231133.1
234544	G08	N/A	VCA0824	ectB	diaminobutyrate--pyruvate aminotransferase	N/A
234568	G09	470	VC0611		phosphoglucosyltransferase-phosphomannomutase, putative	NP_230260.1
234591	G10	529	VC2445	exeA	general secretion pathway protein A	NP_232074.1
236258	G11	388	VC0492		hypothetical protein	NP_230146.1
236283	G12	103	VC2134	fliE	flagellar hook-basal body complex protein FliE	NP_231765.2
236465	H01	325	VC0614		conserved hypothetical protein	NP_230263.1
236485	H02	331	VC0616		peptide ABC transporter, ATP-binding protein	NP_230265.1
236825	H03	N/A	VCA0895		chemotactic transducer-related protein	N/A
236845	H04	476	VC2389	carB	carbamoyl-phosphate synthase, large subunit	NP_231986.1
236868	H05	N/A	VCA0628		SecA-related protein	N/A
236886	H06	1280	VC1382	hrpA	ATP-dependent helicase HrpA	NP_231026.2
234524	H07	87	VC2282		conserved hypothetical protein	NP_231743.1
234545	H08	N/A	VCA0349	relB-1	relB protein	N/A
234570	H09	149	VC1938		conserved hypothetical protein	NP_231572.1
234599	H10	556	VC0620		peptide ABC transporter, periplasmic peptide-binding protein	NP_230269.1
236260	H11	N/A	VCA0216		hypothetical protein	N/A

Table 46: *Vibrio cholerae* Gateway® Clones, Plate 46 (NR-19724)

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236310	A02	N/A	VCA0051		hypothetical protein	N/A
215097	A03	N/A	VCA0534		DedA family protein, authentic frameshift	N/A
215227	A04	N/A	VC1625		aminotransferase, class III-decarboxylase, group II, authentic frameshift	N/A
174366	A05	587	VC0518	dnaG	DNA primase, authentic frameshift	NP_230169.1
200911	A06	541	VC0609		iron(III) ABC transporter, permease protein	NP_230258.1
236891	A07	791	VC0703		c-di-GMP phosphodiesterase A-related protein	NP_230352.1
234528	A08	N/A	VCA0724	modC	molybdenum ABC transporter, ATP-binding protein	N/A
234548	A09	431	VC1156		sensor histidine kinase	NP_230801.1
234572	A10	476	VC2356		sodium-alanine symporter	NP_231986.1
234602	A11	N/A	VC1807		conserved hypothetical protein, authentic frameshift	N/A
236266	A12	392	VC0477	pgk	phosphoglycerate kinase	NP_230131.1
236285	B01	439	VC2130	fliI	flagellum-specific ATP synthase FliI	NP_231761.1
236314	B02	N/A	VCA1031		methyl-accepting chemotaxis protein, authentic frameshift	N/A
215102	B03	N/A	VCA0526		conserved hypothetical protein	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
236919	B04	934	VC0108	poll	DNA polymerase I	NP_229767.1
174681	B05	936	VC2087	sucA	2-oxoglutarate dehydrogenase, E1 component	NP_231719.1
200644	B06	666	VC2140	fliD	flagellar hook-associated protein FliD	NP_231771.1
236893	B07	1487	VC2376	gltB-2	glutamate synthase, large subunit	NP_232006.1
234530	B08	109	VC0788		DOPA-dioxygenase-related protein	NP_230437.1
234550	B09	N/A	VCA0341		biphenyl-2,3-diol 1,2-dioxygenase III-related protein	N/A
234574	B10	164	VC0824	tagD	tagD protein	NP_230472.1
234605	B11	N/A	VCA0307		hypothetical protein	N/A
236268	B12	N/A	VCA1106		hypothetical protein	N/A
236288	C01	114	VC2090	sdhD	succinate dehydrogenase, hydrophobic membrane anchor protein	NP_231722.1
236315	C02	145	VC0428		conserved hypothetical protein	NP_230082.1
215122	C03	N/A	VCA1089	cheB-3	protein-glutamate methyltransferase, authentic frameshift	N/A
236921	C04	2413	VC2209	vibF	nonribosomal peptide synthetase VibF, authentic frameshift	NP_231840.1
175128	C05	N/A	VCA0745	glpF	glycerol uptake facilitator protein, authentic frameshift	N/A
236874	C06	433	VC2547		conserved hypothetical protein	NP_232076.1
236897	C07	1491	VC1714	mukB	cell division protein MukB	NP_231350.1
234532	C08	N/A	VC0254		conserved hypothetical protein, degenerate	N/A
234558	C09	136	VC0827	tcpH	toxin co-regulated pilus biosynthesis protein H	NP_230475.1
234580	C10	505	VC2440		conserved hypothetical protein	NP_232069.1
234607	C11	574	VC0615		endoglucanase-related protein	NP_230264.1
236272	C12	95	VC0932		hypothetical protein	NP_230579.1
236294	D01	457	VC1540		multidrug resistance protein NorM, putative	NP_231180.2
236319	D02	154	VC2146		conserved hypothetical protein	NP_231777.1
214896	D03	N/A	VCA0692	secF-2	protein-export membrane protein SecF, authentic frameshift	N/A
198646	D04	359	VC0488		extracellular solute-binding protein, putative	NP_230142.1
200941	D05	1621	VC0998		hypothetical protein	NP_230644.1
236876	D06	736	VC1831		sensor histidine kinase	NP_231465.1
236899	D07	N/A	VCA0678	napA	periplasmic nitrate reductase	N/A
234536	D08	N/A	VCA0308		deoxyguanosinetriphosphate triphosphohydrolase-related protein	N/A
234562	D09	N/A	VCA0401		conserved hypothetical protein	N/A
234582	D10	171	VC0287	gntV	thermo-resistant gluconokinase	NP_229942.1
234614	D11	243	VC2258	pyrH	uridylate kinase	NP_231889.1
236276	D12	96	VC0458		conserved hypothetical protein	NP_230112.1
236299	E01	126	VC1572		hypothetical protein	NP_231212.1
236322	E02	556	VC1579		enterobactin synthetase component F-related protein	NP_231219.1
214913	E03	599	VC0793	oadA-2	oxaloacetate decarboxylase, alpha subunit, authentic frameshift	NP_230442.1
198670	E04	N/A	VC2109	fabB	3-oxoacyl-(acyl-carrier-protein) synthase I, authentic frameshift	N/A
197767	E05	N/A	VCA0693	secD-2	protein-export membrane protein SecD	N/A
236878	E06	1291	VC0420		conserved hypothetical protein	NP_230074.1
236908	E07	876	VC1730	topA	DNA topoisomerase I	NP_231366.1
234538	E08	N/A	VCA0338		conserved hypothetical protein	N/A
234564	E09	458	VC0286		gluconate permease, putative	NP_229941.1
234584	E10	509	VC1332		conserved hypothetical protein	NP_230976.1
234616	E11	N/A	VCA0730		hypothetical protein	N/A
236278	E12	N/A	VCA0214	emrD-2	multidrug resistance protein D	N/A
236304	F01	127	VC0426		hypothetical protein	NP_230080.1
236327	F02	584	VC1652	vieA	response regulator VieA	NP_231289.1
214944	F03	N/A	VCA0280	gcvT	glycine cleavage system T protein, authentic frameshift	N/A

Master Clone List for NR-19279

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
199227	F04	391	VC0047		conserved hypothetical protein	NP_229706.1
200627	F05	N/A	VC2338	lacZ	beta-galactosidase, authentic frameshift	N/A
236880	F06	752	VC1879		Rec2-related protein	NP_231513.1
236909	F07	1530	VC2373	gltB-1	glutamate synthase, large subunit	NP_232003.1
234540	F08	N/A	VC0607		ammonium transporter, putative, authentic frameshift	N/A
234566	F09	140	VC1189		hypothetical protein	NP_230834.1
234590	F10	N/A	VCA0836		hexapeptide-repeat containing-acetyltransferase	N/A
236255	F11	87	VC2112		conserved hypothetical protein	NP_231743.1
236279	F12	N/A	VCA0233		hypothetical protein	N/A
236305	G01	N/A	VCA0108		conserved hypothetical protein	N/A
215068	G02	N/A	VCA0232		enterobactin receptor VctA, authentic frameshift	N/A
215197	G03	N/A	VC1307		conserved hypothetical protein, authentic frameshift	N/A
199239	G04	N/A	VCA0481		conserved hypothetical protein	N/A
198838	G05	N/A	VCA1104		sensor histidine kinase, authentic frameshift	N/A
236883	G06	768	VC0072		sensory box-GGDEF family protein	NP_229731.1
236913	G07	1613	VC1492		conserved hypothetical protein	NP_231133.1
234544	G08	N/A	VCA0824	ectB	diaminobutyrate--pyruvate aminotransferase	N/A
234568	G09	470	VC0611		phosphoglucomutase-phosphomannomutase, putative	NP_230260.1
234591	G10	529	VC2445	exeA	general secretion pathway protein A	NP_232074.1
236258	G11	388	VC0492		hypothetical protein	NP_230146.1
236283	G12	103	VC2134	fliE	flagellar hook-basal body complex protein FliE	NP_231765.2
236308	H01	129	VC2124	fliO	flagellar protein FliO	NP_231755.1
215092	H02	N/A	VCA0563	pntA	NAD(P) transhydrogenase, alpha subunit	N/A
215219	H03	1331	VC1349		sensory box sensor histidine kinase-response regulator	NP_230993.1
174350	H04	591	VC1166	aspS	aspartyl-tRNA synthetase	NP_230811.1
218801	H05	N/A	VC2437		sugar kinase, pfkB family, authentic frameshift	N/A
236886	H06	1280	VC1382	hrpA	ATP-dependent helicase HrpA	NP_231026.2
234524	H07	362	VC2282		conserved hypothetical protein	NP_231913.1
234545	H08	N/A	VCA0349	relB-1	relB protein	N/A
234570	H09	149	VC1938		conserved hypothetical protein	NP_231572.1
234599	H10	556	VC0620		peptide ABC transporter, periplasmic peptide-binding protein	NP_230269.1
236260	H11	N/A	VCA0216		hypothetical protein	N/A