

***Vibrio cholerae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 8**

Catalog No. NR-19686

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For research use only. Not for human use.

Contributor:

Pathogen Functional Genomics Resource Center at the J. Craig Venter Institute

Manufacturer:

BEI Resources

Product Description:

Production in the 96-well format has increased risk of cross-contamination between adjacent wells. Individual clones should be purified (e.g. single colony isolation and purification using good microbiological practices) and sequence-verified prior to use. BEI Resources does not confirm or validate individual mutants provided by the contributor.

The *Vibrio cholerae* (*V. cholerae*) Gateway® clone set consists of 46 plates which contain 3813 sequence validated clones from *V. cholerae*, strain EI Tor N16961 cloned in *Escherichia coli* (*E. coli*) DH10B-T1 cells. Each open reading frame was constructed in vector [pDONR™221](#) with a native start codon and stop codon. The library was independently cloned and sequence verified by the Harvard Institute of Proteomics. Detailed information about each clone is shown in Table 1.

Information related to the use of Gateway® Clones can be obtained from [Invitrogen™](#). Recombination was facilitated through an *attB* substrate (*attB*-PCR product or a linearized *attB* expression clone) with an *attP* substrate (pDONR™221) to create an *attL*-containing entry clone. The entry clone contains recombinational cloning sites, *attL1* and *attL2* to facilitate gene transfer into a destination vector, M13 forward and reverse priming sites for sequencing and a kanamycin resistance gene for selection. Please refer to the [Invitrogen™ Gateway® Technology Manual](#) for additional details.

Material Provided:

Each inoculated well of the 96-well plate contains approximately 60 µL of *E. coli* culture (strain DH10B-T1) in Luria Bertani (LB) broth containing 50 µg/mL kanamycin supplemented with 15% glycerol.

Packaging/Storage:

NR-19686 was packaged aseptically in a 96-well plate. The product is provided frozen and should be stored at -80°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Media:

LB broth or agar containing 50 µg/mL kanamycin

Incubation:

Temperature: *E. coli*, strain DH10B-T1 clones should be grown at 37°C.

Atmosphere: Aerobic

Propagation:

1. Scrape top of frozen well with a pipette tip and streak onto agar plate.
2. Incubate the plates at 37°C for 1 day.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Vibrio cholerae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 8, NR-19686.”

Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. [Biosafety in Microbiological and Biomedical Laboratories](#). 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmb15/index.htm.

Disclaimers:

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References:

1. Heidelberg, J. F., et al. "DNA Sequence of both Chromosomes of the Cholera Pathogen *Vibrio cholera*." Nature 406 (2000): 477-483. PubMed. 10952301.

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Table 1: *Vibrio cholerae* Gateway® Clones, Plate 8

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
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-acetylneuraminate 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, Na translocating, 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

Clone ID	Well Position	ORF Length	Locus ID	Symbol	Product	Accession Number
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
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