

***Vibrio cholerae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 7**

Catalog No. NR-19685

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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.

Plate orientation and viability were confirmed for NR-19685.

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-19685 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 7, NR-19685.”

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 7

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
198350	B02	N/A	VCA0070	pstS	phosphate 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

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