

***Vibrio cholerae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 16**

Catalog No. NR-19694

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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-19694 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 16, NR-19694.”

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 cholerae*." *Nature* 406 (2000): 477-483. PubMed: 10952301

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Table 1: *Vibrio cholerae* Gateway® Clones, Plate 16

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
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, Lacl 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

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