Vibrio cholerae Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 39

Catalog No. NR-19717

This reagent is the tangible property of the U.S. Government.

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 El 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 *att*B substrate (*att*B-PCR product or a linearized *att*B expression clone) with an *att*P substrate (pDONR™221) to create an *att*L-containing entry clone. The entry clone contains recombinational cloning sites, *att*L1 and *att*L2 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-19717.

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-19717 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 39, NR-19717."

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/bmbl5/index.htm.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals

contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

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.

Support Provided by NIAID

Table 1: *Vibrio cholerae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 39[1]

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
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

BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

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

[1]All information in this table was provided by J. Craig Venter Institute at the time of deposition.

BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898