Product Information Sheet for NR-19743

Bacillus anthracis Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 19

Catalog No. NR-19743

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Contributor:

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

Manufacturer:

BEI Resources

Product Description:

Clone plates are replicated using a BioMek® FX robot. 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 only confirms the clone plate orientation and viability of randomly picked clones. BEI Resources does not confirm or validate individual clone identities provided by the contributor.

The *Bacillus anthracis* (*B. anthracis*) Gateway® clone set consists of 58 plates which contain 5341 sequence validated clones from *B. anthracis,* strains Ames (5139 clones), Sterne (107 clones; contains plasmid pXO1 only) and A2012 (95 clones; contains plasmid pXO2 only) cloned in *Escherichia coli* (*E. coli*) DH10B-T1 cells. Each open reading frame was constructed in vector pDONR™221 (Invitrogen™) with an ATG start codon and no 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 a Harvard-modified *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-19743.

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-19743 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 containing 50 µg/mL kanamycin
LB agar containing 50 µg/mL kanamycin
Incubation:
Temperature: 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 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Bacillus anthracis* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 19, NR-19743."

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:

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References:

1. Read, T. D., et al. "The Genome Sequence of *Bacillus anthracis* Ames and Comparison to Closely Related Bacteria." Nature 423 (2003): 81-86. PubMed: 12721629.
2. Read, T. D., et al. "Comparative Genome Sequencing for Discovery of Novel Polymorphisms in *Bacillus anthracis*." Science 296 (2002): 2028-2033. PubMed: 12004073.

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Support Provided by NIAID

Table 1: *Bacillus anthracis*, Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 19 (QMG002860)[1]

Clone	Well Position	Locus ID	Description	Source	Accession Number	FLEX Clone ID
47952	A02	BA4773	hypothetical protein	Chromosome (NC_003997)	NP_846979.1	245908
48469	A03	BA2431	hypothetical protein	Chromosome (NC_003997)	NP_844807.1	245925
51229	A04	BA4804	phenylalanyl-tRNA synthetase, alpha subunit	Chromosome (NC_003997)	NP_847007.1	245934
51445	A05	BA2465	hypothetical protein	Chromosome (NC_003997)	NP_844841.1	245944
49477	A06	BA4320	hypothetical protein	Chromosome (NC_003997)	NP_846553.1	245955
49855	A07	BA0564	ankyrin repeat domain protein	Chromosome (NC_003997)	NP_843098.1	245968
49701	A08	BA1052	transcriptional regulator, TetR family	Chromosome (NC_003997)	NP_843551.1	248186
47802	A09	BA2915	hypothetical protein	Chromosome (NC_003997)	NP_845251.1	248197
47835	A10	BA5251	hypothetical protein	Chromosome (NC_003997)	NP_847430.1	248207
48024	A11	BA2897	hypothetical protein	Chromosome (NC_003997)	NP_845236.1	248219
48312	A12	BA5254	hypothetical protein	Chromosome (NC_003997)	NP_847433.1	248229
47791	B01	BA2433	hypothetical protein	Chromosome (NC_003997)	NP_844809.1	245900
50621	B02	BA2459	hypothetical protein	Chromosome (NC_003997)	NP_844835.1	245911
50908	B03	BA0581	transporter, EamA family	Chromosome (NC_003997)	NP_843115.1	245926
51244	B04	BA2436	aspartate-semialdehyde dehydrogenase	Chromosome (NC_003997)	NP_844812.1	245936
49388	B05	BA4768	hypothetical protein	Chromosome (NC_003997)	NP_846974.1	245945
51768	B06	BA2460	hypothetical protein	Chromosome (NC_003997)	NP_844836.1	245956
50105	B07	BA2440	hypothetical protein	Chromosome (NC_003997)	NP_844816.1	245974
47674	B08	BA1031	hypothetical protein	Chromosome (NC_003997)	NP_843531.1	248187
50208	B09	BA2906	ABC transporter, ATP-binding protein, putative	Chromosome (NC_003997)	NP_845244.1	248198
50518	B10	BA1021	hypothetical protein	Chromosome (NC_003997)	NP_843522.1	248210
48050	B11	BA1043	hypothetical protein	Chromosome (NC_003997)	NP_843542.1	248221
50963	B12	BA1015	glyoxalase family protein	Chromosome (NC_003997)	NP_843516.1	248230
50387	C01	BA4783	hypothetical protein	Chromosome (NC_003997)	NP_846988.1	245901
48148	C02	BA4806	hypothetical protein	Chromosome (NC_003997)	NP_847009.1	245912
48555	C03	BA2462	PTS system, cellobiose-specific IIB component, putative	Chromosome (NC_003997)	NP_844838.1	245927
48685	C04	BA4811	hypothetical protein	Chromosome (NC_003997)	NP_847014.1	245937
49378	C05	BA0563	lipoprotein, putative	Chromosome (NC_003997)	NP_843097.1	245947
49563	C06	BA0556	hypothetical protein	Chromosome (NC_003997)	NP_843091.1	245957
50129	C07	BA4770	hypothetical protein	Chromosome (NC_003997)	NP_846976.1	245978
49744	C08	BA2924	transcriptional regulator, TetR family	Chromosome (NC_003997)	NP_845260.1	248188

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Clone	Well Position	Locus ID	Description	Source	Accession Number	FLEX Clone ID
47801	C09	BA2911	hypothetical protein	Chromosome (NC_003997)	NP_845247.1	248199
47929	C10	BA5259	hypothetical protein	Chromosome (NC_003997)	NP_847438.1	248211
48083	C11	BA1020	hypothetical protein	Chromosome (NC_003997)	NP_843521.1	248223
48328	C12	BA5241	spore coat protein F-related protein	Chromosome (NC_003997)	NP_847420.1	248231
47830	D01	BA2461	hypothetical protein	Chromosome (NC_003997)	NP_844837.1	245902
48305	D02	BA2438	hypothetical protein	Chromosome (NC_003997)	NP_844814.1	245915
50925	D03	BA0567	glycerol-3-phosphate ABC transporter, permease protein, putativ	Chromosome (NC_003997)	NP_843101.1	245928
51301	D04	BA2458	hypothetical protein	Chromosome (NC_003997)	NP_844834.1	245938
51554	D05	BA0579	malate dehydrogenase, putative	Chromosome (NC_003997)	NP_843113.1	245948
51775	D06	BA4790	branched-chain amino acid transport system II carrier protein	Chromosome (NC_003997)	NP_846995.1	245958
49574	D07	BA5244	transcriptional regulator, putative	Chromosome (NC_003997)	NP_847423.1	248176
47721	D08	BA5247	hypothetical protein	Chromosome (NC_003997)	NP_847426.1	248189
50232	D09	BA5245	metallo-beta-lactamase family protein	Chromosome (NC_003997)	NP_847424.1	248200
50582	D10	BA2917	hypothetical protein	Chromosome (NC_003997)	NP_845253.1	248214
50710	D11	BA1041	protein export protein prsA	Chromosome (NC_003997)	NP_843541.1	248224
48375	D12	BA5230	hypothetical protein	Chromosome (NC_003997)	NP_847410.1	248233
50407	E01	BA4784	iron compound ABC transporter, ATP-binding protein	Chromosome (NC_003997)	NP_846989.1	245903
50745	E02	BA2435	transcriptional regulator, LysR family	Chromosome (NC_003997)	NP_844811.1	245916
50943	E03	BA4776	sensor histidine kinase	Chromosome (NC_003997)	NP_846981.1	245930
48847	E04	BA4810	hypothetical protein	Chromosome (NC_003997)	NP_847013.1	245939
49391	E05	BA0587	acetyltransferase, GNAT family	Chromosome (NC_003997)	NP_843121.1	245949
49611	E06	BA4807	HD domain protein	Chromosome (NC_003997)	NP_847010.1	245959
47617	E07	BA5227	hypothetical protein	Chromosome (NC_003997)	NP_847407.1	248179
49890	E08	BA2902	CAAX amino terminal protease family protein	Chromosome (NC_003997)	NP_845241.1	248192
50245	E09	BA2923	hypothetical protein	Chromosome (NC_003997)	NP_845259.1	248202
48014	E10	BA5242	hypothetical protein	Chromosome (NC_003997)	NP_847421.1	248215
48172	E11	BA1023	hypothetical protein	Chromosome (NC_003997)	NP_843524.1	248225
51065	E12	BA1016	glyoxylase family protein	Chromosome (NC_003997)	NP_843517.1	248234
47910	F01	BA2428	hypothetical protein	Chromosome (NC_003997)	NP_844805.1	245904
48347	F02	BA0562	hypothetical protein	Chromosome (NC_003997)	NP_843096.1	245919
48605	F03	BA2432	hypothetical protein	Chromosome (NC_003997)	NP_844808.1	245931
49211	F04	BA4788	hypothetical protein	Chromosome (NC_003997)	NP_846993.1	245941
51560	F05	BA4780	hypothetical protein	Chromosome (NC_003997)	NP_846985.1	245950
49637	F06	BA0565	glycerol uptake operon antiterminator regulatory protein, putat	Chromosome (NC_003997)	NP_843099.1	245961
47650	F07	BA5250	hypothetical protein	Chromosome (NC_003997)	NP_847429.1	248181
47762	F08	BA1018	hypothetical protein	Chromosome (NC_003997)	NP_843519.1	248193
47817	F09	BA2913	hypothetical protein	Chromosome (NC_003997)	NP_845249.1	248203
50579	F10	BA1025	glycerol uptake facilitator protein	Chromosome (NC_003997)	NP_843526.1	248216

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Clone	Well Position	Locus ID	Description	Source	Accession Number	FLEX Clone ID
50758	F11	BA1019	hydrolase, alpha/beta fold family	Chromosome (NC_003997)	NP_843520.1	248226
48473	F12	BA5264	hypothetical protein	Chromosome (NC_003997)	NP_847443.1	248235
47941	G01	BA4778	hypothetical protein	Chromosome (NC_003997)	NP_846983.1	245906
48369	G02	BA2445	hypothetical protein	Chromosome (NC_003997)	NP_844821.1	245921
51088	G03	BA4785	iron compound ABC transporter, permease protein	Chromosome (NC_003997)	NP_846990.1	245932
51411	G04	BA0566	glycerol-3-phosphate ABC transporter, ATP-binding protein, puta	Chromosome (NC_003997)	NP_843100.1	245942
49423	G05	BA0583	acetyltransferase, GNAT family	Chromosome (NC_003997)	NP_843117.1	245951
49766	G06	BA2442	hypothetical protein	Chromosome (NC_003997)	NP_844818.1	245964
49670	G07	BA1013	transcriptional regulator, TetR family	Chromosome (NC_003997)	NP_843514.1	248184
47803	G08	BA2934	hypothetical protein	Chromosome (NC_003997)	NP_845270.1	248195
50342	G09	BA2922	sulfonate ABC transporter, ATP-binding protein, putative	Chromosome (NC_003997)	NP_845258.1	248204
48008	G10	BA2905	hypothetical protein	Chromosome (NC_003997)	NP_845243.1	248217
48202	G11	BA1022	DNA-binding protein	Chromosome (NC_003997)	NP_843523.1	248227
48544	G12	BA5255	conserved hypothetical protein TIGR00106	Chromosome (NC_003997)	NP_847434.1	248236
50457	H01	BA2425	hypothetical protein	Chromosome (NC_003997)	NP_844802.1	245907
50838	H02	BA2439	transcriptional regulator, LysR family	Chromosome (NC_003997)	NP_844815.1	245922
48628	H03	BA4782	hypothetical protein	Chromosome (NC_003997)	NP_846987.1	245933
49331	H04	BA0547	RNA methyltransferase, TrmH family, group 2	Chromosome (NC_003997)	NP_843082.1	245943
49471	H05	BA0580	lipoprotein, putative	Chromosome (NC_003997)	NP_843114.1	245953
49806	H06	BA2427	hypothetical protein	Chromosome (NC_003997)	NP_844804.1	245966
47649	H07	BA5231	hypothetical protein	Chromosome (NC_003997)	NP_847411.1	248185
50098	H08	BA5243	CAAX amino terminal protease family protein	Chromosome (NC_003997)	NP_847422.1	248196
50358	H09	BA5257	hypothetical protein	Chromosome (NC_003997)	NP_847436.1	248206
50609	H10	BA2901	hypothetical protein	Chromosome (NC_003997)	NP_845240.1	248218
50892	H11	BA5253	proline dehydrogenase family protein	Chromosome (NC_003997)	NP_847432.1	248228

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

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