

Product Information Sheet for NR-19648

Mycobacterium tuberculosis Gateway[®] Clone Set, Recombinant in Escherichia coli, Plate 12

Catalog No. NR-19648

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

For research use only. Not for use in humans.

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 *Mycobacterium tuberculosis* (*M. tuberculosis*), Gateway[®] clone set consists of 42 plates which contain 3724 sequence validated clones [3294 *M. tuberculosis*, strain H37Rv clones supplemented with 430 unique open reading frames (ORF) from *M. tuberculosis*, strain CDC1551] cloned in *Escherichia coli* (*E. coli*) DH10B-T1 cells. Each ORF was recombined in vector pDONR™221 with an ATG start codon and no stop codon. The sequence was validated by full-length sequencing of each entry clone with greater than 1X coverage and a mutation rate of less than 0.2%. 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-19648.

Material Provided:

Each inoculated well of the 96-well plate contains approximately 60 μ L of culture in Luria Bertani (LB) broth containing 50 μ g/mL kanamycin supplemented with 15% glycerol.

Packaging/Storage:

NR-19648 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: 37°C Atmosphere: Aerobic

Propagation:

- 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: *Mycobacterium tuberculosis* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 12, NR-19648."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

Disclaimers:

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References:

 Cole, S. T., et al. "Deciphering the Biology of Mycobacterium tuberculosis from the Complete Genome

- Sequence." <u>Nature</u> 393 (1998): 537-544. PubMed: 9634230.
- Camus, J. C., et al. "Re-Annotation of the Genome Sequence of Mycobacterium tuberculosis H37Rv." <u>Microbiology</u> 148 (2002): 2967-2973. PubMed: 12368430.

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Table 1: Mycobacterium tuberculosis, Gateway® Clones, Plate 12 (ZMTLB)1

Clone	Well	ORF		Description	Accession	Average Depth
	Position	Length	Locus ID	Description	Number	of Coverage
40120	A01	286	Rv1741	hypothetical protein	NP_216257.1	2
40128	A02	289	Rv2517c	hypothetical protein	NP_217033.1	2
40126	A03	289	Rv1960c	hypothetical protein	NP_216476.1	2
40127	A04	289	Rv2076c	hypothetical protein	NP_216592.1	2
40129	A05	289	Rv3112	molybdenum cofactor biosynthesis protein D	YP_177928.1	1.626297578
10046	A06	289	Rv2094c	twin arginine translocase protein A	NP_216610.1	4.166089965
9950	A07	289	Rv0634A	hypothetical protein	YP_177629.1	1.775086505
40131	A08	292	Rv0623	hypothetical protein	NP_215137.1	2
40130	A09	292	Rv0055	30S ribosomal protein S18	YP_177688.1	2
40134	A10	292	Rv2104c	hypothetical protein	NP_216620.1	2
40139	A11	292	Rv3219	transcriptional regulatory protein WHIB-like WHIB1	NP_217735.1	2
40136	B01	292	Rv2664	hypothetical protein Rv2664	NP 217180.1	2.284246575
9952	B02	292	Rv3198A	ATP-dependent DNA helicase II UVRD2	NP 217714.1	2.657534247
10092	B03	292	Rv0590A	MCE family-like protein	YP 177627.1	2.366438356
40146	B04	295	Rv1107c	exodeoxyribonuclease VII small subunit	NP 215623.1	2
40162	B05	295	Rv3358	hypothetical protein	NP 217875.1	2
40159	B06	295	Rv2871	hypothetical protein	NP 217387.1	2.379661017
40150	B07	295	Rv1831	hypothetical protein	NP 216347.1	1.983050847
40156	B08	295	Rv2706c	hypothetical protein	NP 217222.1	2.644067797
40143	B09	295	Rv0596c	hypothetical protein	NP 215110.1	1.610169492
40157	B10	295	Rv2808	hypothetical protein	NP 217324.1	2
40161	B12	295	Rv3346c	hypothetical protein	NP 217863.1	2.613559322
10122	C01	295	Rv1638A	hypothetical protein	YP 177650.1	2.762711864
40167	C02	298	Rv2657c	phiRv2 prophage protein	NP 217173.1	2
40163	C03	298	Rv0626	hypothetical protein	NP 215141.1	2
40165	C04	298	Rv2412	30S ribosomal protein S20	NP 216928.1	2
40164	C05	298	Rv1241	hypothetical protein	NP 215757.1	2
40166	C06	298	Rv2441c	50S ribosomal protein L27	NP 216957.1	2
40173	C07	301	Rv2866	hypothetical protein	NP 217382.1	2
40169	C08	301	Rv0476	transmembrane protein	NP 214990.1	2
40170	C09	301	Rv0898c	hypothetical protein	NP 215413.1	3.485049834
40172	C10	301	Rv1839c	hypothetical protein	NP 216355.1	2
40168	C11	301	Rv0033	acyl carrier protein AcpA	NP 214547.1	2
40177	C12	304	Rv1083	hypothetical protein	NP 215599.1	3.289473684
40178	D01	304	Rv2055c	30S ribosomal protein S18	NP 216571.1	2
40174	D02	304	Rv0550c	hypothetical protein	NP 215064.1	2
40175	D03	304	Rv0569	hypothetical protein	NP 215083.1	2
40176	D04	304	Rv0616c	hypothetical protein	NP 215130.1	2
40179	D05	304	Rv2758c	hypothetical protein	NP 217274.1	1.644736842
9946	D06	304	Rv3566A	hypothetical protein	YP 177990.1	3.161184211
40185	D07	307	Rv3260c	transcriptional regulatory protein WHIB-like WHIB2	NP 217777.1	2
40181	D08	307	Rv1519	hypothetical protein	NP 216035.1	2
40182	D09	307	Rv2312	hypothetical protein	NP 216828.1	2

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A0198	40180	D10	307	Rv1247c	hypothetical protein	NP_215763.1	1.993485342
40196	40184	D11	307	Rv2785c		NP_217301.1	2
A01912 EO3 310					hypothetical protein		
40191 E03 310	40186	E01		Rv0664	hypothetical protein	NP_215178.1	2.396774194
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¹All information in this table was provided by the J. Craig Venter Institute at the time of deposition.

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