

***Mycobacterium tuberculosis* Gateway®
Clone Set, Recombinant in *Escherichia coli*, Plate 9**

Catalog No. NR-19645

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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 *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-19645.

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-19645 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: *Mycobacterium tuberculosis* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 9, NR-19645."

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:

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

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Genome Sequence." *Nature* 393 (1998): 537-544. PubMed: 9634230.

- Camus, J. C., et al. "Re-Annotation of the Genome Sequence of *Mycobacterium tuberculosis* H37Rv." *Microbiology* 148 (2002): 2967-2973. PubMed: 12368430.

References:

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

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Table 1: *Mycobacterium tuberculosis*, Gateway® Clones, Plate 9 (ZMTDI)¹

Clone	Well Position	ORF Length	Locus ID	Description	Accession Number	Average Depth of Coverage
76473	A01	205	MT3284	hypothetical protein MT3284	NP_337811.1	1.11707317
76205	A02	208	MT2334.1	hypothetical protein MT2334.1	NP_336804.1	2
76309	A03	208	MT2405	hypothetical protein MT2405	NP_336884.1	2
76373	A04	208	MT2558	hypothetical protein MT2558	NP_337048.1	2
76493	A05	217	MT2361.1	hypothetical protein MT2361.1	NP_336833.1	2
76692	A06	220	MT0555	hypothetical protein MT0555	NP_334964.1	2
76733	A07	220	MT2330.1	hypothetical protein MT2330.1	NP_336799.1	2
76657	A08	220	MT3878	hypothetical protein MT3878	NP_338429.1	2
76884	A09	223	MT0328	hypothetical protein MT0328	NP_334736.1	2
76591	A10	223	MT4019	hypothetical protein MT4019	NP_338570.1	1.85201794
76706	A11	226	MT2779	hypothetical protein MT2779	NP_337281.1	2
76565	A12	229	MT2283	hypothetical protein MT2283	NP_336754.1	1.82969432
76886	B01	232	MT2142	hypothetical protein MT2142	NP_336610.1	2
76686	B02	232	MT2502	hypothetical protein MT2502	NP_336985.1	2
76571	B03	235	MT3631	hypothetical protein MT3631	NP_338178.1	3.28510638
76890	B04	241	MT1747	hypothetical protein MT1747	NP_336203.1	2
76874	B05	247	MT1025.3	hypothetical protein MT1025.3	NP_335461.1	2
76915	B06	247	MT3279	hypothetical protein MT3279	NP_337806.1	2
76671	B07	250	MT0066.2	hypothetical protein MT0066.2	NP_334476.1	3.312
76683	B08	250	MT0085.1	hypothetical protein MT0085.1	NP_334496.1	2.444
76664	B09	250	MT4026.1	hypothetical protein MT4026.1	NP_338577.1	2
76837	B10	253	MT1479.1	hypothetical protein MT1479.1	NP_335930.1	2
76633	B11	253	MT3013	hypothetical protein MT3013	NP_337526.1	2
76946	B12	256	MT1172.1	hypothetical protein MT1172.1	NP_335617.1	2
76893	C01	256	MT2316	hypothetical protein MT2316	NP_336784.1	2
76761	C02	262	MT1409	hypothetical protein MT1409	NP_335858.1	2
76757	C03	265	MT2285.2	hypothetical protein MT2285.2	NP_336757.1	2
76605	C04	265	MT2617	hypothetical protein MT2617	NP_337114.1	2
76769	C05	268	MT1535	hypothetical protein MT1535	NP_335988.1	2
76938	C06	268	MT3532.1	hypothetical protein MT3532.1	NP_338057.1	2
76802	C07	271	MT2122	CopG family DNA-binding protein	NP_336588.1	2
76861	C08	277	MT2593.2	hypothetical protein MT2593.2	NP_337086.1	2
76810	C09	280	MT0772.2	hypothetical protein MT0772.2	NP_335196.1	1.99642857
76929	C10	280	MT2544	hypothetical protein MT2544	NP_337030.1	2
76853	C11	283	MT0968.1	hypothetical protein MT0968.1	NP_335402.1	2
76638	C12	283	MT2501	hypothetical protein MT2501	NP_336984.1	2
76642	D01	283	MT3755	hypothetical protein MT3755	NP_338302.1	2
76628	D02	313	MT0717.1	hypothetical protein MT0717.1	NP_335130.1	2
76777	D03	313	MT1148	hypothetical protein MT1148	NP_335591.1	2
76813	D04	319	MT2726	hypothetical protein MT2726	NP_337226.1	2
76714	D05	319	MT2991	acylphosphatase	NP_337504.1	2
76821	D06	322	MT2401.1	hypothetical protein MT2401.1	NP_336880.1	2
76654	D07	325	MT4035.1	hypothetical protein MT4035.1	NP_338587.1	2

Clone	Well Position	ORF Length	Locus ID	Description	Accession Number	Average Depth of Coverage
76918	D08	328	MT2837	hypothetical protein MT2837	NP_337342.1	2.18292683
76928	D09	331	MT3269	hypothetical protein MT3269	NP_337794.1	2
76865	D10	337	MT1040.1	hypothetical protein MT1040.1	NP_335477.1	1.95845697
76789	D11	340	MT1182	hypothetical protein MT1182	NP_335626.1	2
76788	D12	340	MT1305.1	drug transporter	NP_335733.1	2
76749	E01	340	MT3858	hypothetical protein MT3858	NP_338408.1	1.95882353
76826	E02	343	MT0543	hypothetical protein MT0543	NP_334952.1	2
76898	E03	346	MT0025	hypothetical protein MT0025	NP_334433.1	-
76614	E04	358	MT2554.2	hypothetical protein MT2554.2	NP_337044.1	2
76718	E05	361	MT2637.1	hypothetical protein MT2637.1	NP_337136.1	2
76730	E06	364	MT0692.1	hypothetical protein MT0692.1	NP_335104.1	2
76617	E07	364	MT2123	hypothetical protein MT2123	NP_336589.1	1.99450549
76782	E08	391	MT2807	hypothetical protein MT2807	NP_337314.1	2
76721	E09	394	MT1534	hypothetical protein MT1534	NP_335987.1	2
76912	E10	394	MT1775	hypothetical protein MT1775	NP_336234.1	2
76944	E11	406	MT1329	hypothetical protein MT1329	NP_335776.1	2
76836	E12	412	MT0270.1	hypothetical protein MT0270.1	NP_334675.1	2
76674	F01	418	MT0066.1	hypothetical protein MT0066.1	NP_334475.1	2
76582	F02	421	MT3974.1	hypothetical protein MT3974.1	NP_338529.1	2
76610	F03	424	MT1083.1	hypothetical protein MT1083.1	NP_335522.1	-
76650	F04	424	MT1849.1	hypothetical protein MT1849.1	NP_336307.1	2
76901	F05	430	MT2944	hypothetical protein MT2944	NP_337455.1	2
76585	F06	442	MT1170	hypothetical protein MT1170	NP_335614.1	1.95022624
76698	F07	442	MT3139.1	hypothetical protein MT3139.1	NP_337657.1	-
76737	F08	448	MT2694	hypothetical protein MT2694	NP_337196.1	1.99553571
76799	F09	451	MT3037	hypothetical protein MT3037	NP_337549.1	3.12416851
76696	F10	451	MT3270.1	hypothetical protein MT3270.1	NP_337796.1	2
76850	F11	457	MT2291	hypothetical protein MT2286	NP_336758.1	2
76742	F12	460	MT2721	hypothetical protein MT2721	NP_337221.1	2
76678	G01	463	MT3573.12	hypothetical protein MT3573.12	NP_338112.1	2
76793	G02	466	MT0383	hypothetical protein MT0383	NP_334790.1	1.56866953
76593	G03	478	MT0487	hypothetical protein MT0487	NP_334896.1	1.37656904
76646	G04	481	MT2138.2	hypothetical protein MT2138.2	NP_336606.1	2
76934	G05	493	MT2520.1	hypothetical protein MT2520.1	NP_337005.1	2
76848	G06	505	MT2871	hypothetical protein MT2871	NP_337378.1	2
76908	G07	508	MT0407	hypothetical protein MT0407	NP_334816.1	2
76878	G08	517	MT0608	hypothetical protein MT0608	NP_335017.1	2
76966	G09	523	MT0173	hypothetical protein MT0173	NP_334580.1	1.8585086
77119	G10	532	MT0655	hypothetical protein MT0655	NP_335065.1	2.0018797
77105	G11	541	MT1555.1	hypothetical protein MT1555.1	NP_336007.1	2
77061	G12	556	MT3876	hypothetical protein MT3876	NP_338426.1	2
77143	H01	586	MT0250	hypothetical protein MT0250	NP_334654.1	3.24232082
77013	H02	592	MT0470	hypothetical protein MT0470	NP_334879.1	2
76971	H03	595	MT2626	hypothetical protein MT2626	NP_337123.1	2
77145	H04	616	MT0392	hypothetical protein MT0392	NP_334800.1	1.62824675
76953	H05	616	MT2113	hypothetical protein MT2113	NP_336578.1	2
77137	H06	631	MT1264.1	hypothetical protein MT1264.1	NP_335708.1	1.97305864
77129	H07	634	MT0525	hypothetical protein MT0525	NP_334934.1	2
77122	H08	646	MT0614	hypothetical protein MT0614	NP_335024.1	3.53869969
77007	H09	646	MT2488.1	hypothetical protein MT2488.1	NP_336971.1	1.46594427
77025	H10	655	MT1029	hypothetical protein MT1029	NP_335465.1	1.99541985
76957	H11	658	MT2958.1	hypothetical protein MT2958.1	NP_337470.1	1.54711246
77098	H12	664	MT0610	hypothetical protein MT0610	NP_335020.1	1.37650602

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