

***Salmonella enterica* subsp. *enterica*, Strain Ty2 (Serovar Typhi), Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 6**

Catalog No. NR-19527

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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 *Salmonella enterica* subsp. *enterica* (*S. enterica* subsp. *enterica*), strain Ty2 (serovar Typhi), Gateway® clone set consists of approximately 3380 sequence validated clones from *S. enterica* subsp. *enterica*, strain Ty2, 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 sequence was validated by full length sequencing of each 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-19527.

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-19527 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:

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: *Salmonella enterica* subsp. *enterica*, Strain Ty2 (Serovar Typhi), Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 6, NR-19527."

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. Deng, W., et al. "Comparative Genomics of *Salmonella enterica* serovar Typhi strains Ty2 and CT18." *J. Bacteriol.* 185 (2003): 2330-2337. PubMed: 12644504.

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Table 1: *Salmonella enterica* subsp. *enterica*, Strain Ty2 (Serovar Typhi), Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 6 (ZSTDF)¹

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
84710	A01	t4171	DNA-binding transcriptional regulator SoxS	358	NP_807775.1	2
84746	A02	t0866	hypothetical protein t0866	361	NP_804699.1	2
84742	A03	t1425	hypothetical protein t1425	361	NP_805219.1	2
84674	A04	t2952	hypothetical protein t2952	361	NP_806645.1	2
84678	A05	t3988	thiosulfate sulfurtransferase	361	NP_807598.1	2
84738	A06	t4030	nitrite reductase small subunit	361	NP_807639.1	1.99446
84726	A07	t4622	Trp operon repressor	361	NP_808194.1	2
84606	A08	t0406	hypothetical protein t0406	364	NP_804275.1	2
84794	A09	t1835	sulfur transfer protein TusE	364	NP_805606.1	2
84610	A10	t2420	cytochrome o ubiquinol oxidase subunit IV	364	NP_806150.1	2
84486	A11	t2519	hypothetical protein t2519	364	NP_806245.1	1.956044
84570	A12	t2978	Z-ring-associated protein	364	NP_806670.1	2
84865	B01	t3539	autoinducer-2 (AL-2) modifying protein LsrG	364	NP_807186.1	2.879121
84945	B02	t4430	biofilm stress and motility protein A	364	NP_808017.1	2.994505
85021	B03	t1064	hypothetical protein t1064	367	NP_804881.1	3
84997	B04	t2187	lipoprotein	367	NP_805937.1	2.599455
85213	B05	t2457	preprotein translocase subunit YajC	367	NP_806187.1	2.741144
84993	B06	t3210	preprotein translocase subunit SecG	367	NP_806886.1	3
85137	B07	t3215	RNA-binding protein YhbY	367	NP_806891.1	3
85041	B08	t4275	hypothetical protein t4275	367	NP_807873.1	2
85049	B09	t0318	ferredoxin	370	NP_804193.1	2
84873	B10	t0389	ethanolamine utilization protein EutS	370	NP_804258.1	2
84877	B11	t0718	hypothetical protein t0718	370	NP_804564.1	2.989189
85069	B12	t0944	lipoprotein	370	NP_804769.1	2
85053	C01	t1360	hypothetical protein t1360	370	NP_805156.1	1.864865
85121	C02	t1876	hypothetical protein t1876	370	NP_805644.1	3
84981	C03	t2159	hypothetical protein t2159	370	NP_805910.1	2.791892
85089	C04	t3708	hypothetical protein t3708	370	NP_807343.1	2
85005	C05	t4196	hypothetical protein t4196	370	NP_807800.1	2.997297
85141	C06	t1367	hypothetical protein t1367	373	NP_805163.1	2.871314
85057	C07	t1570	hypothetical protein t1570	373	NP_805352.1	2.906166
85093	C08	t2620	translation inhibitor protein RaiA	373	NP_806331.1	2.892761
85173	C09	t2639	hypothetical protein t2639	373	NP_806350.1	1.908847
85013	C10	t4158	hypothetical protein t4158	373	NP_807762.1	2.887399

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
84985	C11	t1424	hypothetical protein t1424	376	NP_805218.1	3
84925	C12	t2218	truncated hydrolase, partial	376	NP_805961.1	2.99734
85065	D01	t2287	transcriptional activator RamA	376	NP_806028.1	3
84917	D02	t3065	hydrogenase nickel incorporation protein HybF	376	NP_806751.1	2.976064
85033	D03	t3391	hypothetical protein t3391	376	NP_807055.1	2.941489
84929	D04	t3406	hypothetical protein t3406	376	NP_807069.1	3
84957	D05	t4333	hypothetical protein t4333	376	NP_807927.1	3
85085	D06	t0015	hypothetical protein t0015	379	NP_803900.1	2.730871
84897	D07	t0635	hypothetical protein t0635	379	NP_804487.1	3
85025	D08	t1055	hypothetical protein t1055	379	NP_804872.1	2
84969	D09	t2762	hypothetical protein t2762	379	NP_806463.1	2.664908
85073	D10	t3767	hypothetical protein t3767	379	NP_807391.1	3
85161	D11	t4465	hypothetical protein t4465	379	NP_808052.1	2
85105	D12	t1157	hypothetical protein t1157	382	NP_804968.1	2.971204
85177	E01	t1301	hypothetical protein t1301	382	NP_805102.1	2.856021
85153	E02	t2143	succinate dehydrogenase cytochrome b556 small membrane subunit	382	NP_805897.1	3
84881	E03	t2628	50S ribosomal protein L19	382	NP_806339.1	2.730366
84909	E04	t2964	hypothetical protein t2964	382	NP_806656.1	3
85113	E05	t4375	divalent-cation tolerance protein CutA	382	NP_807966.1	2.829843
85061	E06	t0952	transcriptional activator FlhD	385	NP_804776.1	2.958442
85169	E07	t2697	hypothetical protein t2697	385	NP_806405.1	3
84885	E08	t2781	chaperone	385	NP_806482.1	3
85201	E09	t4539	GerE family regulatory protein	385	NP_808119.1	2.98961
84893	E10	t0910	hypothetical protein t0910	388	NP_804739.1	2
85129	E11	t1004	hypothetical protein t1004	388	NP_804827.1	3
84977	E12	t3353	hypothetical protein t3353	388	NP_807021.1	2.997423
84853	F01	t3860	hypothetical protein t3860	388	NP_807480.1	3
84989	F02	t0377	hypothetical protein t0377	391	NP_804246.1	3
85133	F03	t1216	50S ribosomal protein L20	391	NP_805022.1	3
84961	F04	t2756	hydrogenase nickel incorporation protein	391	NP_806457.1	2
85185	F05	t2833	hypothetical protein t2833	391	NP_806530.1	2.943734
84937	F06	t2864	hypothetical protein t2864	391	NP_806560.1	3
84953	F07	t3912	phage-like lysozyme	391	NP_807526.1	2.703325
84941	F08	t4055	sulfur relay protein TusC	391	NP_807662.1	2.723785
84861	F09	t4087	30S ribosomal protein S13	391	NP_807694.1	3
85209	F10	t4157	hypothetical protein t4157	391	NP_807761.1	2.7289
84933	F11	t0362	arsenate reductase	394	NP_804232.1	1.715736
85109	F12	t1715	purine nucleoside phosphoramidase	394	NP_805491.1	-
84966	G01	t4070	50S ribosomal protein L22	367	NP_807677.1	2
84890	G02	t0815	hypothetical protein t0815	370	NP_804655.1	2
85098	G03	t0295	nitrogen regulatory protein P-II 1	373	NP_804171.1	2
84858	G04	t1556	multidrug transporter	373	NP_805339.1	1.903485
84902	G05	t2397	nitrogen regulatory protein P-II 2	373	NP_806127.1	1.86059
85166	G06	t4474	hypothetical protein t4474	373	NP_808061.1	1.997319
85046	G07	t1069	hypothetical protein t1069	376	NP_804886.1	2
84850	G08	t1123	lysozyme inhibitor	376	NP_804935.1	2
85146	G09	t1829	cell invasion protein	376	NP_805601.1	1.944149
85218	G10	t1535	hypothetical protein t1535	379	NP_805319.1	1.746702
84922	G11	t0172	hypothetical protein t0172	382	NP_804055.1	2

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
85194	G12	t1354	bacteriophage baseplate protein	382	NP_805150.1	2
85158	H01	t1916	DNA-binding protein	382	NP_805683.1	2
84870	H02	t2452	hypothetical protein t2452	382	NP_806182.1	2
84974	H03	t0819	propanediol utilization protein PduU	385	NP_804659.1	2
85206	H04	t0830	PduH protein	385	NP_804669.1	2
85102	H05	t1678	hypothetical protein t1678	388	NP_805454.1	2
85190	H06	t1871	bacteriophage protein	388	NP_805639.1	2
85030	H07	t3357	hypothetical protein t3357	388	NP_807025.1	2
85126	H08	t4081	50S ribosomal protein L18	388	NP_807688.1	2
85018	H09	t1436	hypothetical protein t1436	391	NP_805229.1	2
84906	H10	t1342	hypothetical protein t1342	394	NP_805141.1	2
84950	H11	t1447	hypothetical protein t1447	394	NP_805240.1	2
84914	H12	t1593	DNA-binding transcriptional activator PspC	394	NP_805375.1	2

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