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

Catalog No. NR-19522

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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 *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-19522.

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-19522 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 1, NR-19522."

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.

Support Provided by NIAID

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

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
82725	A01	t0803	his operon leader peptide, partial	76	NP_804645.1	2
82681	A02	t1217	phenylalanyl-tRNA synthetase operon leader peptide, partial	79	NP_805023.1	-
82675	A03	t0001	thr operon leader peptide	100	NP_803886.1	-
82671	A04	t2947	hypothetical protein t2947	106	NP_806640.1	2
82680	A05	t0118	leu operon leader peptide	121	NP_804001.1	1.69421
82711	A06	t1124		124	n/a	2.95161
82643	A07	t0634	hypothetical protein t0634	133	NP_804486.1	2.90977
82691	A08	t0723	hypothetical protein t0723	133	NP_804569.1	3
82689	A09	t2590	hypothetical protein t2590	133	NP_806307.1	2.97744
82763	A10	t3398	ilvG operon leader peptide	133	NP_807062.1	3
82751	A11	t3721	ilvB operon leader peptide	133	NP_807354.1	2.33835
82769	A12	t2505	hypothetical protein t2505	136	NP_806233.1	2.97794
82667	B01	t4496	pyrBI operon leader peptide	136	NP_808083.1	2
82589	B02	t0694	hypothetical protein t0694	142	NP_804542.1	2
82717	B03	t1967	hypothetical protein t1967	142	NP_805731.1	2.88028
82747	B04	t1826	hypothetical protein t1826	145	NP_805598.1	2.84828
82719	B05	t1761	hypothetical protein t1761	148	NP_805536.1	3
82775	B06	t2553	hypothetical protein t2553	148	NP_806275.1	3
82625	B07	t2738	hypothetical protein t2738	148	NP_806439.1	3
82723	B08	t4340	hypothetical protein t4340	148	NP_807933.1	2.87838
82649	B09	t0717	hypothetical protein t0717	151	NP_804563.1	3
82699	B10	t0939	hypothetical protein t0939, partial	151	NP_804764.1	1.96026
82607	B11	t0951	hypothetical protein t0951	151	NP_804775.1	3
82639	B12	t3929	hypothetical protein t3929	151	NP_807542.1	2.98013
82753	C01	t4086	50S ribosomal protein L36	151	NP_807693.1	1.98013
82737	C02	t2663	bacteriophage protein	154	NP_806374.1	2.79221
82657	C03	t2680	hypothetical protein t2680	154	NP_806390.1	2
82661	C04	t3032	hypothetical protein t3032	154	NP_806720.1	3
82605	C05	t4298	hypothetical protein t4298	154	NP_807895.1	3
82591	C06	t0646	hypothetical protein t0646	157	NP_804498.1	3
82733	C07	t4378	hypothetical protein t4378	157	NP_807969.1	3
82767	C08	t1126	lipoprotein	160	NP_804938.1	3
82687	C09	t1903	bacteriophage protein	160	NP_805671.1	1.9
82773	C10	t2694	hypothetical protein t2694	160	NP_806402.1	2.98125

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Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
82641	C11	t1118	hypothetical protein t1118	163	NP_804931.1	3
82703	C12	t3000	hypothetical protein t3000	166	NP_806692.1	-
82729	D01	t3881	hypothetical protein t3881	166	NP_807498.1	2.98193
82741	D02	t3891	hypothetical protein t3891	166	NP_807507.1	2
82595	D03	t3956	hypothetical protein t3956	169	NP_807566.1	3
82771	D04	t4387	entericidin A	169	NP_807978.1	2.98225
82759	D05	t0353	hypothetical protein t0353	172	NP_804223.1	3
82627	D06	t0935	hypothetical protein t0935	172	NP_804760.1	3
82743	D07	t1067	hypothetical protein t1067	172	NP_804884.1	3
82731	D08	t1599	hypothetical protein t1599	172	NP_805381.1	2.78488
82601	D09	t1872	bacteriophage protein	172	NP_805640.1	3
82665	D10	t2064	hypothetical protein t2064	175	NP_805826.1	2
82599	D11	t2390	50S ribosomal protein L36	175	NP_806120.1	3
82755	D12	t4638	hypothetical protein t4638	175	NP_808207.1	3
82765	E01	t1038	hypothetical protein t1038	178	NP_804855.1	3
82674	E02	t1040	hypothetical protein t1040	178	NP_804857.1	2
82615	E03	t4365	hypothetical protein t4365	178	NP_807958.1	3
82683	E04	t4571	hypothetical protein t4571	178	NP_808148.1	3
82645	E05	t4182	hypothetical protein t4182	181	NP_807786.1	2.74033
82745	E06	t4388	entericidin B	181	NP_807979.1	3
82637	E07	t1129	hypothetical protein t1129	184	NP_804941.1	2.65761
82761	E08	t2107	hypothetical protein t2107	184	NP_805864.1	2.9837
82619	E09	t3080	hypothetical protein t3080	184	NP_806765.1	1.99457
82631	E10	t0535	hypothetical protein t0535	187	NP_804392.1	2.67914
82735	E11	t2149	hypothetical protein t2149	187	NP_805903.1	2.97861
82647	E12	t3401	hypothetical protein t3401	187	NP_807064.1	1.98396
82727	F01	t4558	hypothetical protein t4558	187	NP_808136.1	3
82655	F02	t0928	hypothetical protein t0928	190	NP_804756.1	2.88947
82617	F03	t1146	hypothetical protein t1146	190	NP_804957.1	3
82597	F04	t1552	hypothetical protein t1552	190	NP_805335.1	2.81579
82651	F05	t2509	hypothetical protein t2509	190	NP_806236.1	3
82749	F06	t4506	tRNA hydroxylase	190	NP_808092.1	2.66842
82713	F07	t0348	hypothetical protein t0348	193	NP_804219.1	2.98964
82697	F08	t2691	hypothetical protein t2691	193	NP_806399.1	3
82677	F09	t0879	hypothetical protein t0879	196	NP_804709.1	2
82707	F10	t1911	bacteriophage protein	196	NP_805679.1	3
82715	F11	t1024	hypothetical protein t1024	199	NP_804842.1	3
82593	F12	t1117	hypothetical protein t1117	199	NP_804930.1	2.98492
82611	G01	t1383	hypothetical protein t1383	199	NP_805179.1	2.91457
82669	G02	t3157	hypothetical protein t3157	199	NP_806838.1	1.87437
82705	G03	t1800	hypothetical protein t1800	202	NP_805573.1	2.98515
82709	G04	t2380	hypothetical protein t2380	202	NP_806110.1	2.9802
82696	G05	t2649	hypothetical protein t2649	202	NP_806360.1	1.92574
82686	G06	t1125		124	n/a	2
82722	G07	t4118	hypothetical protein t4118	136	NP_807722.1	1.61029
82630	G08	t2572	hypothetical protein t2572	142	NP_806291.1	-
82664	G09	t2161	hypothetical protein t2161	166	NP_805912.1	2
82624	G10	t1480	30S ribosomal subunit S22	178	NP_805269.1	2
82740	G11	t1015	hypothetical protein t1015	193	NP_804835.1	2
82702	G12	t0867	hypothetical protein t0867	196	NP_804700.1	1.58163
82634	H01	t1854	ribosome modulation factor	202	NP_805623.1	1.75248

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
82891	H02	t1010	hypothetical protein t1010	208	NP_804830.1	1.98558
82855	H03	t1122	hypothetical protein t1122	208	NP_804934.1	2.88942
82921	H04	t1729	50S ribosomal protein L32	208	NP_805504.1	2.86538
82931	H05	t3470	sulfur carrier protein ThiS	208	NP_807126.1	2.66346
82905	H06	t0575	hypothetical protein t0575	211	NP_804432.1	2.70616
82811	H07	t4605	hypothetical protein t4605	214	NP_808177.1	3
82789	H08	t1434	hypothetical protein t1434	217	NP_805227.1	2.81567
82945	H09	t2808	hypothetical protein t2808	220	NP_806507.1	2.98636
82943	H10	t3040	hypothetical protein t3040	220	NP_806726.1	2.47273
82869	H11	t2658	hypothetical protein t2658	223	NP_806369.1	2.92825
82799	H12	t0144	zinc-binding protein	226	NP_804027.1	1.97788

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

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