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SUPPORTING INFECTIOUS DISEASE RESEARCH

### *Salmonella enterica* subsp. *enterica*, Strain Ty2 (Serovar Typhi), Gateway<sup>®</sup> Clone Set, Recombinant in *Escherichia coli*, Plate 2

### Catalog No. NR-19523

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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:**

Clone plates are replicated using a BioMek<sup>®</sup> FX robot. Production in the 96-well format has increased risk of crosscontamination 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<sup>®</sup> 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 <u>pDONR<sup>TM</sup>221</u> (Invitrogen<sup>TM</sup>) 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<sup>®</sup> Clones can be obtained from Invitrogen<sup>TM</sup>. 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<sup>TM</sup>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<sup>TM</sup> <u>Gateway<sup>®</sup> Technology Manual</u> for additional details.

Plate orientation and viability were confirmed for NR-19523.

#### Material Provided:

Each inoculated well of the 96-well plate contains approximately 60  $\mu$ L of *E. coli* culture (strain DH10B-T1) in Luria Bertani (LB) broth containing 50  $\mu$ g/mL kanamycin

supplemented with 15% glycerol.

#### Packaging/Storage:

NR-19523 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:**

<u>Media</u>: LB broth or agar containing 50 μg/mL kanamycin. <u>Incubation</u>: Temperature: 37°C Atmosphere: Aerobic <u>Propagation</u>: 1. Scrape top of frozen well with a pipette tip

- 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<sup>®</sup> Clone Set, Recombinant in *Escherichia coli*, Plate 2, NR-19523."

#### **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. <u>Biosafety in</u> <u>Microbiological and Biomedical Laboratories</u>. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see <u>www.cdc.gov/biosafety/publications/bmbl5/index.htm</u>.

#### **Disclaimers:**

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#### **References:**

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

ATCC<sup>®</sup> is a trademark of the American Type Culture Collection



# Table 1: Salmonella enterica subsp. enterica, Strain Ty2 (Serovar Typhi), Gateway<sup>®</sup> Clone Set, Recombinant in Escherichia coli, Plate 2 (ZSTDB)<sup>1</sup>

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
82887	A01	t1026	hypothetical protein t1026	226	NP_804844.1	3
82849	A02	t1548	lipoprotein	226	NP_805332.1	2.9646018
82837	A03	t2475	hypothetical protein t2475	226	NP_806203.1	2.9115044
82845	A04	t1388	hypothetical protein t1388	229	NP_805183.1	3
82939	A05	t0682	hypothetical protein t0682	232	NP_804531.1	3
82909	A06	t0722	hypothetical protein t0722	232	NP_804568.1	2.9956897
82817	A07	t1963	hypothetical protein t1963	232	NP_805727.1	3
82861	A08	t2267	hypothetical protein t2267	232	NP_806009.1	2.7327586
82865	A09	t3547	hypothetical protein t3547	232	NP_807194.1	1.9827586
82853	A10	t4219	hypothetical protein t4219	232	NP_807821.1	2.9956897
82831	A11	t4416	hypothetical protein t4416	232	NP_808005.1	3
82805	A12	t0319	hypothetical protein t0319	235	NP_804194.1	3
82885	B01	t0375	hypothetical protein t0375	235	NP_804244.1	3
82859	B02	t4049	hypothetical protein t4049	235	NP_807656.1	3
82879	B03	t4334	hypothetical protein t4334	235	NP_807928.1	2.8765957
82785	B04	t0577	hypothetical protein t0577	238	NP_804434.1	2.7016807
82834	B05	t1430	hypothetical protein t1430	238	NP_805223.1	2
82915	B06	t2950	hypothetical protein t2950	238	NP_806643.1	1.6008403
82963	B07	t3117	glycogen synthesis protein GlgS	238	NP_806800.1	3
82779	B08	t3281	hypothetical protein t3281	238	NP_806956.1	2.7184874
82951	B09	t3896	hypothetical protein t3896	238	NP_807511.1	2.7521008
82857	B10	t3831	hypothetical protein t3831	241	NP_807452.1	3
82847	B11	t2767	hypothetical protein t2767	244	NP_806468.1	2.9918033
82913	B12	t0613	heme exporter protein D1	247	NP_804469.1	2.6882591
82801	C01	t0882	cold shock protein	247	NP_804712.1	1.8785425
82923	C02	t1256	hypothetical protein t1256	247	NP_805059.1	2.9959514
82877	C03	t2322	hypothetical protein t2322	247	NP_806056.1	-
82901	C04	t3522	50S ribosomal protein L31	247	NP_807169.1	-
82890	C05	t3791	50S ribosomal protein L28	202	NP_807412.1	2
82784	C06	t4034	hypothetical protein t4034	202	NP_807643.1	2
82934	C07	t1120	hypothetical protein t1120	205	NP_804933.1	1.8731707
82956	C08	t3043	hypothetical protein t3043	205	NP_806729.1	2
82864	C09	t4026	tryptophanyl-tRNA synthetase	205	NP_807635.1	1.9853659
82928	C10	t4487	hypothetical protein t4487	205	NP_808074.1	2
82836	C11	t0874	hypothetical protein t0874	208	NP_804706.1	1.7932692

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Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
82920	C12	t1068	hypothetical protein t1068	208	NP_804885.1	1.8028846
82930	D01	t1606	hypothetical protein t1606	208	NP_805385.1	2
82948	D02	t0875	hypothetical protein t0875	211	NP_804707.1	2
82820	D03	t1018	hypothetical protein t1018	211	NP_804837.1	2
82852	D04	t2701	hypothetical protein t2701	211	NP_806408.1	1.9763033
82962	D05	t1054	hypothetical protein t1054	214	NP_804871.1	-
82826	D06	t4083	50S ribosomal protein L30	214	NP_807690.1	1.9345794
82954	D07	t1640	hypothetical protein t1640	217	NP_805418.1	2
82872	D08	t1944	hypothetical protein t1944	217	NP_805710.1	1.9815668
82810	D09	t1152	hypothetical protein t1152	220	NP_804963.1	2
82904	D10	t2727	carbon storage regulator	220	NP_806428.1	2
82960	D11	t3033	hypothetical protein t3033	223	NP_806721.1	2
82788	D12	t3411	hypothetical protein t3411	223	NP 807074.1	2
82882	E01	t4354	hypothetical protein t4354	223	NP 807947.1	1.941704
82796	E02	t0938	hypothetical protein t0938	226	NP 804763.1	1.8451327
82936	E03	t1013	hypothetical protein t1013	226	NP 804833.1	2
82942	E04	t3001	hypothetical protein t3001	226	NP 806693.1	-
82844	E05	t4073	50S ribosomal protein L29	226	NP 807680.1	2
82926	E06	t0084	hypothetical protein t0084	229	NP 803968.1	2
82828	E07	t4061	bacterioferritin-associated ferredoxin	229	NP 807668.1	1,9868996
82782	E08	t1215	50S ribosomal protein L35	232	NP 805021.1	1.9224138
82874	E09	t1987	hypothetical protein t1987	232	NP 805750.1	2
82814	E10	t0936	hypothetical protein t0936	235	NP 804761 1	2
82808	E10	t0620	virulence protein MsgA-like protein	238	NP 804476 1	2
82822	E11	t2235	twin arginine translocase F	238	NP 805978 1	1 9453782
82950	E12	t4581	hypothetical protein t4581	238	NP 808157 1	2
82868	F02	t1211	hypothetical protein t1211	200	NP 805017.1	1 8755187
82912	F03	t2168	hypothetical protein t2168	241	NP 805919.1	1.9460581
82798	F04	t3044	hypothetical protein t3044	241	NP 806730 1	-
82884	F05	t1041	cold shock-like protein CspC	244	NP 804858 1	2
82824	F06	t2013	hypothetical protein t2013	244	NP 805776 1	2
82794	F07	t4538	regulatory protein	244	NP 808118 1	2
82792	F08	t1115	cold shock protein	247	NP 804928 1	2
83105	F09	t3870	cold-shock protein	247	NP 807/88 1	2 0716500
83120	F10	t/1/6	stress-response protein	247	NP 807750 1	2.9710333
83043	F11	t4368	hypothetical protein t4368	247	NP 807961 1	2.0000007
83055	F12	t1392	hypothetical protein (1392	250	NP 805187.1	3
83127	G01	t1395	hypothetical protein (1395	250	NP 805190.1	3
83071	G02	t1/30	hypothetical protein (1665	250	NP 805232.1	2
83119	G02	t1400	biofilm-dependent modulation protein	250	NP 805268 1	2
82007	G04	t2/85	hypothetical protein t2485	250	NP 806213.1	3
83000	G05	t3/23	secretory protein	250	NP 807086 1	2 708
82083	G06	t/315	secretion protein	250	NP 807910.1	2.700
83073	G07	t1619		253	NP 805306 1	5
82015	607	1010	hypothetical protein t2281	200	ND 806022 1	2 0060/7/
03043	600	12201	hypothetical protein (2201	200	ND 206270 4	2.33004/4
03001	609	12009		203	INF_0003/0.1	1.9003/94
82991	G10	t3445	transcription	253	NP_807107.1	2
83089	G11	t4042	hypothetical protein t4042	253	NP 807650 1	1.9881423
83147	G12	t4294	positive regulator of late gene transcription	253	NP_807891.1	3

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Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
83133	H01	t4326	hypothetical protein t4326	253	NP_807921.1	2.9683794
82971	H02	t1495	lipoprotein	256	NP_805281.1	2
83111	H03	t1990	cold shock-like protein CspD	256	NP_805753.1	2.984375
83005	H04	t3305	lipoprotein	256	NP_806978.1	3
83027	H05	t0927	hypothetical protein t0927	259	NP_804755.1	3
83121	H06	t2513	hypothetical protein t2513	259	NP_806239.1	3
83065	H07	t3405	hypothetical protein t3405	259	NP_807068.1	3
83143	H08	t0430	hypothetical protein t0430	262	NP_804300.1	2.6793893
83021	H09	t1009	DNA-binding protein	262	NP_804829.1	2.8206107
83051	H10	t1802	hypothetical protein t1802	262	NP_805575.1	3
83025	H11	t2944	hypothetical protein t2944	262	NP_806637.1	3
83047	H12	t3045	hypothetical protein t3045	262	NP_806731.1	2.9198473

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