Salmonella enterica subsp. *enterica*, Strain Ty2 (Serovar Typhi), Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 11

Catalog No. NR-19532

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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-19532.

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-19532 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 11, NR-19532."

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 11 (ZSTDK)[1]

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
86742	A01	t0312	DNA-binding transcriptional regulator IscR	529	NP_804187.1	1.839319
86782	A02	t0529	hypothetical protein t0529	529	NP_804386.1	2
87117	A03	t2561	lipoprotein	529	NP_806281.1	1.994329
87145	A04	t0943	ferritin	532	NP_804768.1	2
87401	A05	t1890	bacteriophage protein	532	NP_805658.1	2
87137	A06	t1909	bacteriophage protein	532	NP_805677.1	2
87313	A07	t4139	chorismate pyruvate lyase	532	NP_807743.1	2
87133	A08	t0049	lipoprotein signal peptidase	535	NP_803933.1	1.942056
87229	A09	t3258	ClpXP protease specificity-enhancing factor	535	NP_806933.1	1.566355
87462	A10	t1641	hypothetical protein t1641	538	NP_805419.1	2
87205	A11	t2057	DNA starvation/stationary phase protection protein Dps	538	NP_805820.1	2
87105	A12	t4082	30S ribosomal protein S5	538	NP_807689.1	2
87445	B01	t1642	hypothetical protein t1642	541	NP_805420.1	2
87385	B02	t3132	G/U mismatch-specific DNA glycosylase	541	NP_806815.1	1.889094
87157	B03	t0424	PTS system glucose-specific transporter subunit	544	NP_804293.1	2
87213	B04	t4098	peptide deformylase	544	NP_807705.1	2
87241	B05	t4281	hypothetical protein t4281	544	NP_807879.1	2
87389	B06	t1821	4-hydroxyphenylacetate 3-monooxygenase coupling protein	547	NP_805593.1	2
87217	B07	t2936	hypothetical protein t2936	547	NP_806629.1	2
87413	B08	t1500	acetyltransferase	550	NP_805286.1	2
87353	B09	t1563	O-6-alkylguanine-DNA:cysteine-protein methyltransferase	550	NP_805345.1	2
87365	B10	t2004	lipoprotein	550	NP_805767.1	2
87301	B11	t2055	outer membrane protein X	550	NP_805818.1	2
87237	B12	t2443	phosphatidylglycerophosphatase A	550	NP_806173.1	2
87453	C01	t2714	S-ribosylhomocysteinase	550	NP_806420.1	2
87249	C02	t3566	membrane transporter	550	NP_807210.1	2
87429	C03	t3618	hypothetical protein t3618	550	NP_807259.1	2
87309	C04	t3627	molybdopterin-guanine dinucleotide biosynthesis protein B	550	NP_807268.1	2
87225	C05	t0488	lipoprotein	553	NP_804345.1	2
87425	C06	t2315	fimbrial protein	553	NP_806049.1	2

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
87209	C07	t3189	hypothetical protein t3189	553	NP_806867.1	2
87193	C08	t0979	Holliday junction resolvase	556	NP_804802.1	2
87322	C09	t1114	lipoprotein	556	NP_804927.1	2
87345	C10	t1308	superoxide dismutase	556	NP_805109.1	2
87289	C11	t1362	tail core protein	556	NP_805158.1	2
87421	C12	t1730	hypothetical protein t1730	556	NP_805505.1	2
87221	D01	t2515	hypothetical protein t2515	559	NP_806241.1	2
87109	D02	t3047	hypothetical protein t3047	559	NP_806733.1	1.971377
87397	D03	t1355	bacteriophage baseplate protein	562	NP_805151.1	2
87169	D04	t1435	competence damage-inducible protein A	562	NP_805228.1	2
87173	D05	t2514	transcriptional regulator	562	NP_806240.1	2
87441	D06	t2693	hypothetical protein t2693	562	NP_806401.1	2
87341	D07	t2805	hypothetical protein t2805	562	NP_806505.1	2
87406	D08	t2579	hypothetical protein t2579	529	NP_806297.1	2
87182	D09	t2595	hypothetical protein t2595	529	NP_806312.1	2
87418	D10	t3067	hydrogenase 2 maturation endopeptidase	529	NP_806753.1	2
87114	D11	t3074	hypothetical protein t3074	529	NP_806759.1	2
87246	D12	t4636	hypothetical protein t4636	529	NP_808205.1	2
87258	E01	t0139	SecA regulator SecM	532	NP_804022.2	2
87142	E02	t2731	competence damage-inducible protein A	532	NP_806432.1	1.898496
87466	E03	t3004	hypothetical protein t3004	532	NP_806696.1	2
87190	E04	t3141	hypothetical protein t3141	532	NP_806822.1	2
87198	E05	t3476	50S ribosomal protein L10	532	NP_807132.1	2
87474	E06	t0539	NADH dehydrogenase subunit E	535	NP_804396.1	2
87450	E07	t1605	hypothetical protein t1605	535	NP_805384.1	2
87122	E08	t2729	recombination regulator RecX	535	NP_806430.1	2
87458	E09	t3559	periplasmic repressor CpxP	535	NP_807204.1	2
87254	E10	t4258	hypothetical protein t4258	535	NP_807856.1	2
87394	E11	t0945	ferritin	538	NP_804770.1	2
87326	E12	t0957	purine-binding chemotaxis protein	538	NP_804781.1	2
87278	F01	t3039	hypothetical protein t3039	538	NP_806725.1	2
87262	F02	t3192	acetyltransferase	538	NP_806870.1	2
87126	F03	t1586	thiol peroxidase	541	NP_805368.1	2
87162	F04	t1804	secreted copper-sensitivity suppressor D	541	NP_805577.1	2
87374	F05	t2859	fimbrial subunit	541	NP_806555.1	2
87370	F06	t1849	SOS cell division inhibitor	544	NP_805618.1	2
87282	F07	t2327	phosphoribosylaminoimidazole carboxylase catalytic subunit	544	NP_806061.1	2
87286	F08	t3404	regulatory protein cII	544	NP_807067.1	2
87438	F09	t4335	phage regulatory protein	544	NP_807929.1	2
87274	F10	t2084	molybdenum cofactor biosynthesis protein B	547	NP_805842.1	2
87178	F11	t4188	formate-dependent nitrite reductase complex subunit NrfF	547	NP_807792.1	1.923218
87150	F12	t0316	co-chaperone HscB	550	NP_804191.1	2
87266	G01	t2665	major tail tube protein	550	NP_806376.1	2
87318	G02	t4147	zinc uptake transcriptional repressor	550	NP_807751.1	-
87350	G03	t4507	hypothetical protein t4507	550	NP_808094.1	2
87306	G04	t0027	fimbrial subunit	553	NP_803911.1	2
87334	G05	t1853	3-hydroxydecanoyl-ACP dehydratase	553	NP_805622.1	2
87298	G06	t1867	bacteriophage tail protein	553	NP_805635.1	2

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
87378	G07	t2626	hypothetical protein t2626	553	NP_806337.1	2
87382	G08	t3235	lipopolysaccharide transport periplasmic protein LptA	553	NP_806911.1	2
87294	G09	t0832	diol dehydratase small subunit	556	NP_804671.1	2
87154	G10	t0872	hypothetical protein t0872	556	NP_804705.1	1.938849
87330	G11	t2963	flavodoxin FldB	556	NP_806655.1	2
87130	G12	t4019	shikimate kinase I	556	NP_807629.1	2
87202	H01	t3193	hypothetical protein t3193	559	NP_806871.1	2
87434	H02	t1792	membrane transporter, partial	562	NP_805565.1	2
87338	H03	t3421	capsid completion protein	562	NP_807084.1	2
87537	H04	t1070	disulfide bond formation protein B	565	NP_804887.1	2
87625	H05	t1782	hypothetical protein t1782	565	NP_805556.1	2
87565	H06	t1892	hypothetical protein t1892	565	NP_805660.1	2
87509	H07	t3651	ATP synthase F0F1 subunit delta	568	NP_807288.1	2
87665	H08	t4391	outer membrane lipoprotein Blc	568	NP_807982.1	1.445423
87677	H09	t1514	DNA-binding protein	571	NP_805300.1	2
87645	H10	t2861	fimbrial subunit	571	NP_806557.1	2
87589	H11	t2942	hypothetical protein t2942	571	NP_806635.1	2
87837	H12	t4435	PTS system transporter subunit IIB	571	NP_808022.1	-

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

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