Streptococcus pneumoniae Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 15

Catalog No. NR-19582

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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 *Streptococcus pneumoniae* (*S. pneumoniae*) Gateway® clone set consists of approximately 2029 sequence validated clones from *S. pneumonia*, strain TIGR4 cloned in *Escherichia coli* (*E. coli*) DH10B-T1 cells.[1] Each open reading frame was constructed in vector pDONR™221 (Invitrogen™) with a native 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-19582.

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-19582 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 containing 50 µg/mL kanamycin
LB 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 18 to 24 hours.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Streptococcus pneumoniae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 15, NR-19582."

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. Kwon, K., et al. "A Correlation Analysis of Protein Characteristics Associated with Genome-Wide High Throughput Expression and Solubility of *Streptococcus pneumoniae* Proteins." Protein Expr. Purif. 55 (2007): 368-378. PubMed: 17703947.

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Support Provided by NIAID

Table 1: *Streptococcus pneumoniae* Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 15 (YSPCP)[1]

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
67073	A01	SP1091	hypothetical protein SP_1091	1062	NP_345563.1	9.31638
66917	A02	SP0196	hypothetical protein SP_0196	294	NP_344736.1	4.73469
66873	A03	SP0269	hypothetical protein SP_0269	348	NP_344807.1	3.68391
67109	A04	SP0809	hypothetical protein SP_0809	786	NP_345305.1	8.85878
66861	A05	SP1211	hypothetical protein SP_1211	1221	NP_345678.1	7.54136
66837	A06	SP1303	hypothetical protein SP_1303	1344	NP_345766.1	11.7262
67077	A07	SP1819	hypothetical protein SP_1819	238	NP_346252.1	2
67053	A08	SP1843	hypothetical protein SP_1843	301	NP_346276.1	2
66961	A09	SP1921	hypothetical protein SP_1921	634	NP_346349.1	2
66902	A10	SP2025	hypothetical protein SP_2025	1045	NP_346450.1	1.61435
66825	A11	SP0773	hypothetical protein SP_0773	756	NP_345271.1	7.7209
66969	A12	SP1181	hypothetical protein SP_1181	1188	NP_345650.1	7.84428
66857	B01	SP1929	hypothetical protein SP_1929	700	NP_346357.1	2
67097	B02	SP0059	hypothetical protein SP_0059	185	NP_344608.1	3
66973	B03	SP0361	IS1167, transposase	438	-	2.42009
66937	B04	SP0444	hypothetical protein SP_0444	498	NP_344965.1	3.81124
67021	B05	SP1304	hypothetical protein SP_1304	1344	NP_345767.1	12.4397
66841	B06	SP1718	hypothetical protein SP_1718	1042	NP_346155.1	4.11132
67057	B07	SP1629	hypothetical protein SP_1629	631	NP_346069.1	5.2504
67117	B08	SP1977	hypothetical protein SP_1977	847	NP_346404.1	2
66773	B09	SP0126	hypothetical protein SP_0126	237	NP_344672.1	15.8945
66881	B10	SP0853	hypothetical protein SP_0853	828	NP_345342.1	8.93237
67085	B11	SP1696	hypothetical protein SP_1696	919	NP_346134.1	3.72797
66877	B12	SP1962	hypothetical protein SP_1962	796	NP_346389.1	2
67065	C01	SP1345	hypothetical protein SP_1345	1452	NP_345803.1	17.3354
66966	C02	SP0632	group II intron, maturase	639	-	5.08138
67001	C03	SP1842	hypothetical protein SP_1842	301	NP_346275.1	2
66805	C04	SP1938	hypothetical protein SP_1938	724	NP_346366.1	2
66941	C05	SP0233	50S ribosomal protein L36	315	NP_344773.1	4.76825
67138	C06	SP0534	hypothetical protein SP_0534	567	NP_345051.1	4.12169
66766	C07	SP1199	hypothetical protein SP_1199	1209	NP_345666.1	7.6402
66929	C08	SP0190	transcriptional regulator Spx	288	NP_344731.1	2.76389
67090	C09	SP0367	hypothetical protein SP_0367	441	NP_344895.1	1.97506

Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
67081	C10	SP0542	hypothetical protein SP_0542	570	NP_345059.1	5.63158
67141	C11	SP0759	hypothetical protein SP_0759	741	NP_345257.1	6.4332
67041	C12	SP1109	hypothetical protein SP_1109	1093	NP_345580.1	10.5608
66897	D01	SP1172	hypothetical protein SP_1172	1176	NP_345641.1	8.88946
66817	D02	SP1265	hypothetical protein SP_1265	1293	NP_345729.1	10.3449
67129	D03	SP0009	hypothetical protein SP_0009	96	NP_344562.1	-
66869	D04	SP0223	hypothetical protein SP_0223	309	NP_344763.1	2.69579
67045	D05	SP1579	hypothetical protein SP_1579	343	NP_346025.1	4
67093	D06	SP1866	hypothetical protein SP_1866	382	NP_346298.1	2
67005	D07	SP0854	hypothetical protein SP_0854	828	NP_345343.1	9.61594
67133	D08	SP1835	hypothetical protein SP_1835	274	NP_346268.1	2
67013	D09	SP2237	competence stimulating peptide 2	2431	NP_346644.1	3.96092
66793	D10	SP0164	hypothetical protein SP_0164	264	NP_344706.1	15.7083
67025	D11	SP0511	hypothetical protein SP_0511	552	NP_345029.1	6.74638
67069	D12	SP0528	peptide pheromone BlpC	561	NP_345046.1	3.5098
67030	E01	SP1581	hypothetical protein SP_1581	358	NP_346027.1	4
67101	E02	SP0296	hypothetical protein SP_0296	366	NP_344834.1	4.11202
66813	E03	SP0465	hypothetical protein SP_0465	516	NP_344985.1	3.80039
66989	E04	SP0692	hypothetical protein SP_0692	687	NP_345197.1	13.0888
66905	E05	SP0808	-	783	-	8.39974
67105	E06	SP2005	hypothetical protein SP_2005	911	NP_346432.1	2
66893	E07	SP1058	hypothetical protein SP_1058	1014	NP_345532.1	9.54832
67185	E08	SP1339	hypothetical protein SP_1339	1425	NP_345797.1	16.8414
67349	E09	SP1556	hypothetical protein SP_1556	250	NP_346003.1	-
67189	E10	SP1585	hypothetical protein SP_1585	373	NP_346031.1	4
67434	E11	SP1347	hypothetical protein SP_1347	1464	NP_345805.1	13.623
67213	E12	SP0518	hypothetical protein SP_0518	555	NP_345036.1	6.83423
67241	F01	SP0596	hypothetical protein SP_0596	615	NP_345109.1	4.30081
67229	F02	SP0691	hypothetical protein SP_0691	687	NP_345196.1	13.064
67265	F03	SP0712	lactate oxidase	699	-	12.5908
67233	F04	SP1379	hypothetical protein SP_1379	1677	NP_345837.1	11.876
67285	F05	SP1432	hypothetical protein SP_1432	2301	NP_345888.1	11.0756
67409	F06	SP0297	hypothetical protein SP_0297	366	NP_344835.1	2.1694
67361	F07	SP0470	hypothetical protein SP_0470	519	NP_344989.1	5.67823
67453	F08	SP0973	50S ribosomal protein L33	930	NP_345454.1	8.19892
67501	F09	SP2135	50S ribosomal protein L33	1639	NP_346553.1	3.64369
67301	F10	SP1133	hypothetical protein SP_1133	1128	NP_345603.1	10.2686
67505	F11	SP2009	50S ribosomal protein L33	952	NP_346436.1	1.92962
67309	F12	SP1038	hypothetical protein SP_1038	990	NP_345513.1	6.99697
67325	G01	SP0399	-	465	-	4.76774
67178	G02	SP1080	hypothetical protein SP_1080	1041	NP_345553.1	9.93564
67161	G03	SP1643	hypothetical protein SP_1643	676	NP_346083.1	5.72189
67441	G04	SP1660	hypothetical protein SP_1660	751	NP_346099.1	4.42477
67381	G05	SP1936	type II restriction-modification system regulatory protein,	724	NP_346364.1	2
67313	G06	SP1958	hypothetical protein SP_1958	793	NP_346385.1	2
67245	G07	SP0535	hypothetical protein SP_0535	567	NP_345052.1	3.21164
67337	G08	SP0569	type II DNA modification methyltransferase	597	YP_003104753.1	3.80067
67202	G09	SP1183	hypothetical protein SP_1183	1188	NP_345652.1	7.68519

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Clone	Well Position	Locus ID	Description	ORF Length	Accession Number	Average Depth of Coverage
67261	G10	SP0635	hypothetical protein SP_0635	639	NP_345145.1	2.89515
67169	G11	SP1210	hypothetical protein SP_1210	1221	NP_345677.1	6.7543
67385	G12	SP1892	hypothetical protein SP_1892	481	NP_346323.1	2
67181	H01	SP0455	hypothetical protein SP_0455	507	NP_344976.1	4.41223
67469	H02	SP0832	hypothetical protein SP_0832	801	NP_345323.1	8.35581
67298	H03	SP1252	hypothetical protein SP_1252	1269	NP_345717.1	9.22459
67257	H04	SP1307	hypothetical protein SP_1307	1344	NP_345770.1	11.7076
67425	H05	SP1947	hypothetical protein SP_1947	763	NP_346375.1	2
67405	H06	SP0086	IS630-Spn1, transposase Orf1	204	-	1.98529
67322	H07	SP1146	hypothetical protein SP_1146	1143	NP_345616.1	8.55643
67209	H08	SP1836	hypothetical protein SP_1836	280	NP_346269.1	2
67225	H09	SP1756	hypothetical protein SP_1756	1468	NP_346191.1	3.24319
67253	H10	SP0125	hypothetical protein SP_0125	237	NP_344671.1	12.9114
67377	H11	SP0429	hypothetical protein SP_0429	483	NP_344952.1	4.77847
67449	H12	SP0903	-	864	-	9.22569

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

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