

***Staphylococcus aureus* (MRSA), Strain COL Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 1**

Catalog No. NR-19497

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For research use only. Not for use in humans.

Contributor:

Pathogen Functional Genomics Resource Center at the J. Craig Venter Institute

Manufacturer:

BEI Resources

Product Description:

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 does not confirm or validate individual mutants provided by the contributor.

The methicillin-resistant *Staphylococcus aureus* (*S. aureus*), strain COL Gateway® clone set consists of 25 plates which contain 2343 sequence validated clones from *S. aureus* strain COL cloned in *Escherichia coli* (*E. coli*) DH10B-T1 cells. Each open reading frame was constructed in vector pDONR™221 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 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-19497.

Material Provided:

Each inoculated well of the 96-well plate contains approximately 60 µL of culture in Luria Bertani (LB) broth containing 50 µg/mL kanamycin supplemented with 15% glycerol.

Packaging/Storage:

NR-19497 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 1 day.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Staphylococcus aureus* (MRSA), Strain COL Gateway® Clone Set, Recombinant in *Escherichia coli*, Plate 1, NR-19497.”

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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

Disclaimers:

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References:

- Gill, S. R., et al. "Insights on Evolution of Virulence and Resistance from the Complete Genome Analysis of an Early Methicillin-Resistant *Staphylococcus aureus* Strain and a Biofilm-Producing Methicillin-Resistant *Staphylococcus epidermidis* Strain." *J. Bacteriol.* 187 (2005): 2426-2438. PubMed: 15774886.

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Table 1: *Staphylococcus aureus*, Strain COL Gateway® Clones, Plate 1 (ZSAJA)¹

Clone	Well Position	ORF Length	Locus ID	Description	Accession Number	Average Depth of Coverage
1	A01	100	SACOL2693	hypothetical protein	YP_187479.1	3
5	A02	127	SACOL0039	hypothetical protein	YP_184950.1	3
7	A03	127	SACOL0057	hypothetical protein	YP_184963.1	2
10	A04	127	SACOL0393	hypothetical protein	YP_185285.1	-
11	A05	127	SACOL0561	hypothetical protein	YP_185449.1	2.976377953
15	A06	127	SACOL0852	hypothetical protein	N/A	3.960629921
19	A07	127	SACOL1953	hypothetical protein	YP_186778.1	2.992125984
23	A08	127	SACOL2372	hypothetical protein	YP_187176.1	3
25	A09	127	SACOL2640	hypothetical protein	YP_187428.1	3.992125984
27	A10	130	SACOL1027	hypothetical protein	YP_185893.1	3
29	A11	130	SACOL1156	hypothetical protein	YP_186019.1	2
31	A12	130	SACOL1237	hypothetical protein	N/A	2.976923077
35	B01	130	SACOL1463	hypothetical protein	N/A	3.9
37	B02	130	SACOL2200	hypothetical protein	YP_187011.1	4
41	B03	130	SACOL2629	hypothetical protein	YP_187418.1	3
43	B04	130	SACOL2637	hypothetical protein	YP_187425.1	3
45	B05	133	SACOL0226	hypothetical protein	N/A	4
47	B06	133	SACOL0923	hypothetical protein	N/A	1.992481203
49	B07	133	SACOL0990	hypothetical protein	YP_185858.1	3
51	B08	133	SACOL1246	hypothetical protein	YP_186106.1	3
53	B09	133	SACOL1379	hypothetical protein	YP_186232.1	1.962406015
55	B10	133	SACOL1391	hypothetical protein	N/A	3.789473684
58	B11	133	SACOL1559	hypothetical protein	YP_186400.1	2
60	B12	133	SACOL1757	hypothetical protein	YP_186591.1	1.92481203
63	C01	133	SACOL1999	conserved hypothetical protein	YP_186823.1	3
65	C02	133	SACOL2336	hypothetical protein	YP_187143.1	4
67	C03	133	SACOL2406	hypothetical protein	YP_187209.1	3
69	C04	133	SACOL2468	hypothetical protein	N/A	3.992481203
71	C05	133	SACOL2543	hypothetical protein	YP_187335.1	2
73	C06	136	SACOL0060	hypothetical protein	N/A	3.977941176
75	C07	136	SACOL0066	conserved domain protein	YP_184971.1	4
77	C08	136	SACOL0174	hypothetical protein	YP_185073.1	-
79	C09	136	SACOL0475	hypothetical protein	YP_185365.1	3.955882353
81	C10	136	SACOL0642	hypothetical protein	YP_185527.1	3
83	C11	136	SACOL1341	hypothetical protein	YP_186195.1	2
85	C12	136	SACOL1713	hypothetical protein	N/A	3
87	D01	136	SACOL1856	hypothetical protein	N/A	4
89	D02	136	SACOL2649	conserved hypothetical protein	YP_187437.1	3
91	D03	139	SACOL0133	hypothetical protein	N/A	2.985611511
96	D04	139	SACOL0817	hypothetical protein	YP_185691.1	2
97	D05	139	SACOL0866	hypothetical protein	YP_185739.1	4
99	D06	139	SACOL1050	hypothetical protein	YP_185915.1	4
101	D07	139	SACOL1336	hypothetical protein	YP_186190.1	2

Clone	Well Position	ORF Length	Locus ID	Description	Accession Number	Average Depth of Coverage
103	D08	139	SACOL1372	hypothetical protein	YP_186225.1	1.978417266
105	D09	139	SACOL2414	conserved hypothetical protein	YP_187217.1	3.90647482
107	D10	139	SACOL2417	hypothetical protein	N/A	3
110	D11	139	SACOL2444	hypothetical protein	N/A	2
111	D12	142	SACOL0087	hypothetical protein	YP_184992.1	3
113	E01	142	SACOL0661	hypothetical protein	YP_185545.1	3.971830986
115	E02	142	SACOL0819	hypothetical protein	YP_185693.1	2.992957746
118	E03	142	SACOL1037	hypothetical protein	YP_185902.1	1.964788732
119	E04	142	SACOL1165	hypothetical protein	YP_186028.1	3
125	E05	142	SACOL2027	hypothetical protein	N/A	1.971830986
127	E06	142	SACOL2139	hypothetical protein	YP_186954.1	2.584507042
129	E07	142	SACOL2432	hypothetical protein	N/A	4
131	E08	142	SACOL2433	hypothetical protein	YP_187234.1	2
133	E09	142	SACOL2595	hypothetical protein	YP_187386.1	2
135	E10	145	SACOL0910	hypothetical protein	YP_185781.1	3
137	E11	145	SACOL0933	hypothetical protein	YP_185803.1	3
139	E12	145	SACOL1061	hypothetical protein	N/A	2.993103448
142	F01	145	SACOL1334	hypothetical protein	YP_186188.1	2
144	F02	145	SACOL1890	hypothetical protein	YP_186716.1	1.965517241
145	F03	145	SACOL1949	hypothetical protein	YP_186774.1	2
147	F04	145	SACOL2069	K ⁺ -transporting ATPase, F subunit	YP_186885.1	5
151	F05	145	SACOL2677	hypothetical protein	YP_187465.1	4
153	F06	148	SACOL0227	hypothetical protein	N/A	3
157	F07	148	SACOL0878	hypothetical protein	N/A	3
161	F08	148	SACOL1330	hypothetical protein	N/A	2.945945946
163	F09	148	SACOL2216	ribosomal protein L36	YP_187026.1	3
165	F10	148	SACOL2331	hypothetical protein	YP_187138.1	2.97972973
168	F11	148	SACOL2642	hypothetical protein	YP_187430.1	1.972972973
169	F12	151	SACOL0500	hypothetical protein	YP_185388.1	5
171	G01	151	SACOL1517	hypothetical protein	N/A	2
175	G02	151	SACOL1884	hypothetical protein	N/A	3.947019868
177	G03	151	SACOL2065	hypothetical protein	YP_186881.1	2.98013245
179	G04	151	SACOL2187	hypothetical protein	YP_186998.1	2.947019868
182	G05	151	SACOL2370	hypothetical protein	N/A	2
185	G06	154	SACOL0729	hypothetical protein	N/A	1.993506494
187	G07	154	SACOL1527	hypothetical protein	N/A	2
189	G08	154	SACOL1815	hypothetical protein	YP_186647.1	1.980519481
192	G09	154	SACOL2254	hypothetical protein	N/A	2
193	G10	154	SACOL2454	hypothetical protein	YP_187253.1	3
197	G11	157	SACOL0094	hypothetical protein	YP_184999.1	3
199	G12	157	SACOL0112	hypothetical protein	YP_185016.1	-
201	H01	157	SACOL0390	lipase precursor, interruption-C	YP_185282.1	2
203	H02	157	SACOL1730	hypothetical protein	N/A	2
205	H03	157	SACOL1978	hypothetical protein	YP_186802.1	2
207	H04	157	SACOL2380	hypothetical protein	YP_187184.1	-
209	H05	157	SACOL2489	conserved hypothetical protein	YP_187285.1	2
211	H06	157	SACOL2492	hypothetical protein	YP_187287.1	2
213	H07	157	SACOL2510	hypothetical protein	YP_187305.1	2
215	H08	160	SACOL0223	hypothetical protein	YP_185121.1	2
217	H09	160	SACOL1258	hypothetical protein	N/A	-
221	H10	160	SACOL1508	hypothetical protein	YP_186352.1	-
223	H11	160	SACOL2032	hypothetical protein	N/A	3
225	H12	160	SACOL2191	hypothetical protein	YP_187002.1	-

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