

TableS1. Characteristics of the 126 *S. aureus* strains examined in this study

strain name	SC ^a	Sero ^b	agr	CC ^c	ST ^d	MR ^e	comment	length of coa	repeat ^f	reference	Accession No.
1 104	Ia	I	II	Minor group	ST49	MSSA	SC reference strain	2061	7	4	AB158549
2 NVAU02066	Ib	I	I	CC133	ST133	MSSA	isolated from a cat in Japan	2145	8	this study	AB436972
3 NVAU02069	Ib	I	I	CC133	ST133	MSSA	isolated from a cat in Japan	2145	8	this study	AB488502
4 NVAU02072	I	I	I	CC133	ST133	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
5 TSCC10	I	I	I	CC133	ST133	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
6 SD036-1	Ic	I	III	CC91	ST89	MRSA	CA-MRSA isolated in Japan	2037	6	16	AB489888
7 JCSC4762	Ic	I	III	CC91	ST89	MRSA	HA-MRSA isolated in Japan	2037	6	14	AB489876
8 JCSC4766	I	I	III	CC91	ST89	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
9 JCSC4770	I	I	III	CC91	ST89	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
10 SD2:176-3	Ic	I	III	CC91	ST91	MRSA	CA-MRSA isolated in Japan	2037	6	16	AB489889
11 W12	Ic	I	III	CC91	ST91	MRSA	CA-MRSA isolated in Japan	2037	6	16	AB489890
12 JCSC4752	Ic	I	III	CC91	ST91	MRSA	HA-MRSA isolated in Japan	2037	6	14	AB489875
13 JCSC4765	I	I	III	CC91	ST91	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
14 JCSC4769	I	I	III	CC91	ST91	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
15 JCSC4774	Ic	I	III	CC91	ST376	MRSA	HA-MRSA isolated in Japan	2037	6	14	AB489877
16 JCSC4795	I	I	III	CC91	ST376	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
17 JCSC4744	Ic	I	III	CC91	ST379	MRSA	HA-MRSA isolated in Japan	2037	6	14	AB436973
18 JCSC4784	Ic	I	III	CC91	ST379	MRSA	HA-MRSA isolated in Japan	2037	6	14	AB489878
19 Mu3	IIa	II	II	CC5	ST5	MRSA	whole genome-sequenced strain	1977	6	31	AP009324
20 N315	IIa	II	II	CC5	ST5	MRSA	whole genome-sequenced strain	1977	6	29	BA000018
21 Mu50	IIa	II	II	CC5	ST5	MRSA	whole genome-sequenced strain	1977	6	29	BA000017
22 NVAU02075	IIa	II	II	CC5	ST5	MRSA	isolated from a cat in Japan	1977	6	this study	AB488505
23 JCSC6670	IIa	II	II	CC5	ST5	MRSA	isolated in Sweden	1977	6	15	AB489898
24 AIS2002060 (USA800)	IIa	II	II	CC5	ST5	MRSA	major MRSA clones isolated in USA	1977	6	18	AB489886
25 AIS2002053 (USA100)	IIa	II	II	CC5	ST5	MRSA	major MRSA clones isolated in USA	1977	6	18	AB489881
26 NVAU02067	IIa	II	II	CC5	ST5	MSSA	isolated from a cat in Japan	1977	6	this study	AB488501
27 NVAU02076	II	II	II	CC5	ST5	MRSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
28 NVAU02077	II	II	II	CC5	ST5	MRSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
29 NVAU02078	II	II	II	CC5	ST5	MRSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
30 NVAU02073	II	II	II	CC5	ST5	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
31 NVAU02068	II	II	II	CC5	ST5	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
32 TSCC11	II	II	II	CC5	ST5	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
33 SAP260	IIa	II	II	CC5	ST73	MRSA	CA-MRSA isolated in Australia	1977	6	17	AB489891
34 JH1	IIa	- ⁱ	II	CC5	ST105	MRSA	whole genome-sequenced strain	1977	6	30	CP000736
35 JH9	IIa	- ⁱ	II	CC5	ST105	MRSA	whole genome-sequenced strain	1977	6	30	CP000703
36 NVAU02064	IIb	II	I	CC25	ST25	MSSA	isolated from a cat in Japan	1992	5	this study	AB436974
37 NVAU02074	IIb	II	I	CC25	ST25	MSSA	isolated from a cat in Japan	1992	5	this study	AB488504
38 FPR3757 (USA300)	IIIa	III	I	CC8	ST8	MRSA	whole genome-sequenced strain	1830	4	23	CP000255
39 TCH1516 (USA300)	IIIa	- ^j	I	CC8	ST8	MRSA	whole genome-sequenced strain	1830	4	27	CP000730
40 AIS2002055 (USA300)	IIIa	III	I	CC8	ST8	MRSA	major MRSA clones isolated in USA	1830	4	18	AB489883
41 NCTC8325	IIIa	III	I	CC8	ST8	MSSA	whole genome-sequenced strain	1911	5	25	CP000253
42 86/4372	IIIa	III	I	CC8	ST8	MRSA	isolated in UK	1911	5	12	AB436957
43 AIS2002057 (USA500)	IIIa	III	I	CC8	ST8	MRSA	major MRSA clones isolated in USA	1911	5	18	AB489885
44 COL	IIIa	III	I	CC8	ST250	MRSA	whole genome-sequenced strain	1911	5	24	CP000046
45 NCTC10442	IIIa	III	I	CC8	ST250	MRSA	isolated in UK	1911	5	12	AB436955
46 61/6219	IIIa	III	I	CC8	ST250	MRSA	isolated in UK	1911	5	12	AB436956
47 Newman	IIIa	III	I	CC8	ST254	MSSA	whole genome-sequenced strain	1911	5	21	AP009351
48 JCSC6663	IIIa	LP ⁸	I	CC8	ST254	MRSA	isolated in Sweden	1911	5	15	AB489897
49 JCSC4741	IIIa	III	I	CC8	ST380	MRSA	HA-MRSA isolated in Japan	1911	5	14	AB489873
50 NVAU02079	III	III	I	CC8	ST380	MRSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
51 JCSC4746	IIIa	III	I	CC8	ST450	MRSA	HA-MRSA isolated in Japan	1818	4	14	AB489874
52 JCSC4788	III	III	I	CC8	ST451	MRSA	HA-MRSA isolated in Japan	Not Seq ^k	Not Seq ^k	14	Not Seq ^k
53 TSCC26	IIIa	III	I	CC8	ST995	MRSA	isolated from a cat in Japan	1587	1	this study	AB488510
54 TSCC12	IIIa	III	I	CC8	ST1252	MSSA	isolated from a cat in Japan	1911	5	this study	AB488500
55 TSCC14	III	III	I	CC8	ST1253	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
56 NVAU02080	IIIa	III	II	Minor group	ST1251	MSSA	isolated from a cat in Japan	2235	9	this study	AB436975
57 NVAU02070	IIIa	III	II	Minor group	ST1251	MSSA	isolated from a cat in Japan	2235	9	this study	AB488499
58 M9N	IIIa	III	III	CC88	ST78	MRSA	CA-MRSA isolated in Australia	2073	7	17	AB436976
59 M33T	III	III	III	CC88	ST78	MRSA	CA-MRSA isolated in Australia	Not Seq ^k	Not Seq ^k	17	Not Seq ^k
60 W17	IIIa	III	III	CC88	ST88	MRSA	CA-MRSA isolated in Japan	2073	7	16	AB489892
61 85/2082	IVa	IV	I	CC8	ST239	MRSA	isolated in New Zealand	1992	6	12	AB436958
62 85/3907	IVa	IV	I	CC8	ST239	MRSA	isolated in Germany	1992	6	12	AB436959
63 86/961	IVa	IV	I	CC8	ST239	MRSA	isolated in UK	1992	6	12	AB436960
64 stp28	IVa	IV	III	CC30	ST30	MSSA	SC reference strain	1992	6	4	AB158550
65 93/H44	IVa	IV	III	CC30	ST30	MRSA	isolated in Japan	1992	6	12	AB436961
66 85/2232	IVa	IV	III	CC30	ST30	MRSA	isolated in Japan	1992	6	12	AB436962
67 JCSC6673	IVa	IV	III	CC30	ST30	MRSA	isolated in Sweden	1992	6	15	AB489880
68 AIS2002062 (USA1100)	IVa	IV	III	CC30	ST30	MRSA	major MRSA clones isolated in USA	1992	6	18	AB489887
69 TSCC15	IVa	LP ⁸	III	CC30	ST30	MSSA	isolated from a cat in Japan	1992	6	this study	AB488508
70 MRSA252	IVa	IV	III	CC30	ST36	MRSA	whole genome-sequenced strain	1830	4	28	BX571856
71 AIS2002054 (USA200)	IVa	IV	III	CC30	ST36	MRSA	major MRSA clones isolated in USA	1830	4	18	AB489882
72 MR108	IVa	IV	III	CC30	ST74	MRSA	isolated in Japan	1992	6	13	AB436963
73 SH488	IVb	NT ^h	I	CC6	ST6	MSSA	isolated in Japan	Partial seq ^j	Partial seq ^j	20	from Dr Kobayashi

74 No55	Va	V	IV	CC51	ST95	MSSA	SC reference strain	2178	8	4	AB158551
75 Stp-58	Va	V	IV	CC51	ST120	MSSA	isolated in Japan	2178	8	this study	AB489894
76 Stp-24	V	V	IV	CC51	ST120	MSSA	isolated in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
77 Stp-25	Va	V	IV	CC51	ST121	MSSA	isolated in Japan	2178	8	this study	AB489895
78 01093	Vb	V	I	CC8	ST72	MRSA	CA-MRSA isolated in USA	1962	6	17	AB436978
79 AIS2002059 (USA700)	Vb	V	I	CC8	ST72	MRSA	major MRSA clones isolated in USA	1962	6	18	AB436979
80 C-1C	Vb	NT ^h	I	CC1	ST188	MSSA	isolated from a cat in Japan	1962	6	this study	AB436977
81 TSCC17	Vb	V	I	CC1	ST188	MSSA	isolated from a cat in Japan	1962	6	this study	AB488509
82 SH640	Vb	NT ^h	I	CC1	ST188	MSSA	isolated in Japan	Partial seq ^l	Partial seq ^l	20	from Dr Kobayashi
83 stp12	VIa	VI	III	Minor group	ST96	MSSA	SC reference strain	1989	6	4	AB158552
84 RF122 (ET3-1)	VIb	VI	II	CC151	ST151	MSSA	whole genome-sequenced strain	1884	5	26	AJ938182
85 IFH556	VIb	VI	II	CC151	ST705	MSSA	isolated from a cow in Japan	1884	5	7	AB373752
86 IFH812	VIb	VI	II	CC151	ST705	MSSA	isolated from a cow in Japan	1884	5	7	AB373753
87 IFH818	VIb	VI	II	CC151	ST705	MSSA	isolated from a cow in Japan	1884	5	7	AB373754
88 strain M (JCSC6488)	VIc	LP ^s	II	Singleton	ST1254	MSSA	type I capsule-producing strain	1404	4	11	AB436980
89 IFH514	VIc	VI	I	CC97	ST352	MSSA	isolated from a cow in Japan	2151	8	7	AB373755
90 IFH568	VIc	VI	I	CC97	ST352	MSSA	isolated from a cow in Japan	2151	8	7	AB373756
91 IFH467	VIc	VI	I	CC97	ST352	MSSA	isolated from a cow in Japan	2151	8	7	AB373757
92 MSSA476	VIa	VII	III	CC1	ST1	MSSA	whole genome-sequenced strain	1902	5	28	BX571857
93 MW2	VIa	VII	III	CC1	ST1	MRSA	whole genome-sequenced strain	1902	5	22	BA000033
94 JCSC6076	VIa	VII	III	CC1	ST1	MRSA	isolated in Sweden	1902	5	15	AB489899
95 AIS2002056 (USA400)	VIa	VII	III	CC1	ST1	MRSA	major MRSA clones isolated in USA	1902	5	18	AB489884
96 JCSC6668	VII	VII	III	CC1	ST1	MRSA	isolated in Sweden	Not Seq ^k	Not Seq ^k	15	Not Seq ^k
97 91/2619	VIIa	VII	III	CC1	ST76	MRSA	CA-MRSA isolated in Australia	1902	5	17	AB489901
98 JCSC4796	VIIa	VII	III	CC1	ST81	MRSA	HA-MRSA isolated in Japan	1902	5	14	AB489879
99 TSCC9A	VIIa	LP ^s	III	CC1	ST81	MSSA	isolated from a cat in Japan	1902	5	this study	AB488507
100 TSCC9B	VII	LP ^s	III	CC1	ST81	MSSA	isolated from a cat in Japan	Not Seq ^k	Not Seq ^k	this study	Not Seq ^k
101 NVAU02063	VIIa/b	VII	I	Singleton	ST1253	MSSA	isolated from a cat in Japan	2145	8	this study	AB488498
102 JCSC6665	VIIb	NT ^h	I	CC45	ST45	MRSA	isolated in Sweden	2016	6	15	AB436964
103 JCSC6068	VIIb	VII	I	CC45	ST45	MRSA	isolated in Sweden	2016	6	15	AB489900
104 WIS	VIIb	VII	I	CC45	ST45	MRSA	CA-MRSA isolated in Australia	2016	6	17	AB489893
105 AIS2002058 (USA600)	VIIb	LP ^s	I	CC45	ST45	MRSA	major MRSA clones isolated in USA	1773	3	18	AB436981
106 JCSC6073	VII	VII	I	CC45	ST45	MRSA	isolated in Sweden	Not Seq ^k	Not Seq ^k	15	Not Seq ^k
107 C-12B	VIIb	NT ^h	I	CC45	ST508	MSSA	isolated from a cat in Japan	2016	6	this study	AB488506
108 JCSC6908	VIIb	VII	I	CC398	ST398	MRSA	isolated in Denmark	2097	7	19	AB436983
109 JCSC6909	VIIb	NT ^h	I	CC398	ST398	MRSA	isolated in Denmark	2097	7	19	AB436984
110 AIS2002061 (USA1000)	VIIc	LP ^s	I	CC59	ST59	MRSA	major MRSA clones isolated in USA	2064	7	18	AB436982
111 JCSC6664	VIIc	NT ^h	I	CC59	ST59	MRSA	isolated in Sweden	2064	7	15	AB489896
112 Ku	VIIIa	VIII	ND ^j	Minor group	ST10	MSSA	SC reference strain	2280	9	4	AB158553
113 NVAU02081	VIIIb	VIII	I	CC20	ST20	MSSA	isolated from a cat in Japan	1935	5	this study	AB436985
114 NVAU02071	VIIIb	VIII	I	CC20	ST20	MSSA	isolated from a cat in Japan	1935	5	this study	AB488503
115 17573	IXa	IX	III	CC130	ST574	MSSA	SC reference strain	1992	6	3	AB158554
116 19	Xa	X	II	CC15	ST15	MSSA	SC reference strain	1935	5	3	AB158555
117 JCSC6074	Xb	LP ^s	IV	Minor group	ST140	MRSA	isolated in Sweden	1983	6	15	AB436965
118 JCSC6666	Xb	LP ^s	IV	Minor group	ST140	MRSA	isolated in Sweden	1983	6	15	AB436966
119 JCSC6075	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Sweden	1971	6	15	AB436967
120 JCSC6667	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Sweden	1971	6	15	AB436968
121 JCSC6671	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Sweden	1971	6	15	AB436969
122 JCSC6674	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Sweden	1971	6	15	AB436970
123 JCSC6906	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Denmark	1971	6	this study	AB436986
124 JCSC6907	XIa	LP ^s	I	CC22	ST22	MRSA	isolated in Denmark	1971	6	this study	AB436987
125 JCSC6669	XIb	LP ^s	I	CC182	ST182	MRSA	isolated in Sweden	2037	6	15	AB436971
126 JCSC1469 (SAP411)	XIIa	VI	I	Minor group	ST75	MRSA	CA-MRSA isolated in Australia	1974	6	17	AB436988

^a Staphylocoagulase type. SC subtypes are indicated only in the cases of theca-sequenced strains. SCs of the other strains, of which SC types were determined with M-PCR, were not subtyped.

^b Staphylocoagulase serotype^c Clonal complex, ^d Sequence type of MLST, ^e Methicillin resistance, ^f number of repeat units in *coa*,

^g Staphylocoagulase production was too low to clot serum within 48 hr, ^h Non typable, ⁱ Not tested, ^j Not detected by M-PCR for *agr*, ^k Not sequenced, ^l Partially sequenced