

**Supplemental Data Table S2.** Strains used to verify the SNPs using PCR and sequencing

Strain	Isolation year	Vancomycin MIC ( $\mu\text{g/mL}$ )	Phenotype	Molecular type	
				MLST	SCC <sub>mec</sub>
A16SAU0006	2016	0.5	VSSA	ST5	II
B16SAU0007	2016	0.38	VSSA	ST5	-
F16SAU0012	2016	0.5	VSSA	ST5	II
C16SAU0025	2016	0.5	VSSA	ST5	II
D16SAU0016	2016	0.38	VSSA	ST5	II
E16SAU0063	2016	0.5	VSSA	ST5	II
E16SAU0084	2016	0.5	VSSA	ST5	II
E16SAU0096	2016	0.5	VSSA	ST5	-
B16SAU0046	2016	0.38	VSSA	ST5	II
B16SAU0047	2016	0.5	VSSA	ST5	II
C16SAU0046	2016	0.5	VSSA	ST5	II
D16SAU0030	2016	0.5	VSSA	ST5	II
B0017SA0015	2017	0.5	VSSA	ST5	IV
E0017SA0021	2017	0.5	VSSA	ST5	II
B0017SA0019	2017	0.38	VSSA	ST5	II
D0017SA0028	2017	0.5	VSSA	ST5	-
F0017SA0023	2017	0.5	VSSA	ST5	II
B0017SA0024	2017	0.38	VSSA	ST5	-
CSAU20010089	2001	4	VISA	ST5	II
CSAU20010093	2001	4	VISA	ST5	II
CSAU20020022	2002	4	VISA	ST5	II
CSAU20020029	2002	4	VISA	ST5	II
CSAU20070006	2007	4	VISA	ST5	II
CSAU20080006	2008	4	VISA	ST5	II
CSAU20100001	2010	3	VISA	ST5	II
CSAU20100002	2010	3	VISA	ST5	II
CSAU20100016	2010	3	VISA	ST5	II
CSAU20100017	2010	3	VISA	ST5	II
CSAU20100018	2010	4	VISA	ST5	II
CSAU20100020	2010	4	VISA	ST5	II
CSAU20100021	2010	3	VISA	ST5	II
CSAU20110001	2011	4	VISA	ST5	IV
CSAU20110003	2011	4	VISA	ST5	II
CSAU20130068	2013	4	VISA	ST5	II
CSAU20140010	2014	4	VISA	ST5	II
CSAU20140012	2014	4	VISA	ST5	II
CSAU20140022	2014	6	VISA	ST5	II
CSAU20150015	2015	4	VISA	ST5	II
CSAU20150016	2015	4	VISA	ST5	II
CSAU20150027	2015	3	VISA	ST5	II
CSAU20150028	2015	4	VISA	ST5	II
CSAU20150034	2015	4	VISA	ST5	II
CSAU20150038	2015	4	VISA	ST5	II
CSAU20150043	2015	4	VISA	ST5	II

Abbreviations: SNP, single-nucleotide polymorphism; MIC, minimal inhibitory concentration; MLST, multilocus sequence type; VSSA, vancomycin-susceptible *Staphylococcus aureus*; VISA, vancomycin-intermediate resistant *S. aureus*; SCC<sub>mec</sub>, staphylococcal cassette chromosome *mec*.