

Supplementary Materials: Prevalence and Genetic Diversity of Staphylococcal Enterotoxin (-like) Genes *sey*, *selw*, *selx*, *selz*, *sel26* and *sel27* in Community-Acquired Methicillin-Resistant *Staphylococcus aureus*

Meiji Soe Aung, Noriko Urushibara, Mitsuyo Kawaguchiya, Masahiko Ito, Satoshi Habadera and Nobumichi Kobayashi

(a)

JP087-sey1	MKAKLCFLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
SC1133-sey4	MKAKLCFLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
JP096-sey3	MKAKLWFLLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEWT	60
SC570-sey5	MKAKLWFLLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
RF122-sey7	MKAKLWFLLTTLAFLIAVTESIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
JP074-sey2	MKAKLWFLLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
RK14-sey6	MKAKLWFLLTTLAFLIAVTGSIGIAEVKAKTGLITENSNDLKEHYAQKFEVYTNKEVT	60
***** *****:*****:*****:*****		
JP087-sey1	GVGENDAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQQSKVYRGTVVKYDPI	120
SC1133-sey4	GVGENDAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQQSKVYRGTVVKYDPI	120
JP096-sey3	GVGENDAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQSKVYRGTVVKYDPI	120
SC570-sey5	GVGENDAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQSKVYRGTVVKYDPI	120
RF122-sey7	GVGENDTAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQQSKVYRGTVVKYDPI	120
JP074-sey2	GVGENDTAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQQSKVYRGTVVKYDPI	120
RK14-sey6	GVGENDVAKVDTYNVRTVLYNNTDYLQFKNQDKVNIGWGLYENQQSKVYRGTVVKYDPI	120
*****:*****:*****:*****		
JP087-sey1	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
SC1133-sey4	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
JP096-sey3	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
SC570-sey5	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
RF122-sey7	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
JP074-sey2	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180
RK14-sey6	SKVTNLSYRMNLFVNQHQTKVNPDSLLEVKNQKISLKETDFRIRKYLLEKEHLYSNYNSG	180

JP087-sey1	ELIVEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
SC1133-sey4	ELIVEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
JP096-sey3	ELIIEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
SC570-sey5	ELIIEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
RF122-sey7	ELIIEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
JP074-sey2	ELIIEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
RK14-sey6	ELIIEMKNGARHKIDLGDILSDSQEKTTFDFDNISHIDIMK	221
:**		

(b)

sey4	ATGAAAGCGAAACTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey1	ATGAAAGCGAAACTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey6	ATGAAAGCTAATTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey2	ATGAAAGCGAAACTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey7	ATGAAAGCTAATTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey5	ATGAAAGCTAATTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
sey3	ATGAAAGCTAATTATGTTTTATTGACAACCTTGGCATTTTGATTGCAGTAACGGGA	60
***** *** ****:*****		

sey4	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey1	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey6	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey2	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey7	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey5	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120
sey3	TCTATTGGAATAGCAGAAGTAAAGCAAAAACAACCTGGATTGATTACAGAAAATAGTAAT	120

sey4	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey1	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey6	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey2	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey7	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey5	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180
sey3	GACAGTTTAAAGAGCATTATGCACAAAAATTGAGTTTATACGAATAAGAAGTAACA	180

sey4	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey1	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey6	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey2	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey7	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey5	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240
sey3	GGAGTTGGGAAATTATATAGACCGAAAGTTGACACCTACAAATGTACGGACAGTGCTC	240

sey4	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey1	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey6	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey2	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey7	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey5	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300
sey3	TACAACACTGATTATTTGAAACAGTTAAAAATCAAGACAAAGTTAATATATGGGAACA	300

sey4	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey1	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey6	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey2	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey7	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey5	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360
sey3	TTATATGAAAACCAACAATCTAAAGTATATCGTGGCACAGTAGTTAAGTATGATCCTATA	360

sey4	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey1	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey6	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey2	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey7	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey5	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420
sey3	TCAAAAGTAACAACTTATCTTATAGAATGAACCTGTTGTTAACGGTCATCAAACATAA	420

sey4	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey1	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey6	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey2	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey7	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey5	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
sey3	GTCAATCCAGACAGTTATTAGAAGTTAAGAATAAACAGATTTCTCTAAAAGAAACAGAT	480
** *****		

sey4	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey1	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey6	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey2	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey7	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey5	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGG	540
sey3	TTTAGAATTAGAAAATATTATTAGAAAAAGAACACCTATATAGTAATTACAATTCAAGGT	540

sey4	GAACTAATTGAGAAATGAAAAATGGAGCAAGACATAAAATAGATTATGCGACATATTG	600
sey1	GAACTAATTGAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600
sey6	GAACTAATTAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600
sey2	GAACTAATTAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600
sey7	GAACTAATTAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600
sey5	GAACTAATTAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600
sey3	GAACTAATTAGAAATGAAAAATGGAGCAAGACATAAAATAGATTAGGCACATATTG	600

sey4	AGCGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey1	AGCGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey6	AGTGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey2	AGTGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey7	AGTGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey5	AGTGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
sey3	AGTGACTCACAAGAAAAACGTTGATTTGATAATATTAGTCATATAGATATTATATG	660
	** *****	
sey4	AAATAG 666	
sey1	AAATAG 666	
sey6	AAATAG 666	
sey2	AAATAG 666	
sey7	AAATAG 666	
sey5	AAATAA 666	
sey3	AAATAG 666	

Figure S1. Alignment of amino acid (a) and nucleotide (b) sequences of SEY (sey1-sey7). Asterisk indicates identical amino acid or nucleotide. Amino acids that are different from those of SEY1 are marked in yellow.

(a)

SC761-coaVa-ST121	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC1133-coaVa-ST121	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC1137-coaVa-ST121	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC732-coaVa-ST121	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC533-coaVIIb-ST45	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC465-coaIIa-ST764	MILGEFEVVKYLTFGLLLEGILNTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC792-coaIIa-ST5	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC936-coaIIa-ST5	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC955-coaIIa-ST5	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC1096-coaVb-ST5425	MILGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	60
SC519-coaIVa-ST30	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC1130-coaIIIa-ST8	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC526-coaIIIa-ST8	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC625-coaIIIa-ST8	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC546-coaIIIa-ST8	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC1019-coaIIIa-ST8	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC635-coaVIIa-ST1	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC458-coaVIIa-ST1	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC470-coaVIIa-ST1	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC560-coaVIIa-ST1	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC735-coaIa-ST89	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC756-coaIa-ST89	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC778-coaIa-ST89	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58
SC912-coaVIIb-ST45	--MGEFEVVKYLTFGLLLEGIFTNSASAIEYSDLHHKSCLNSKRLSNAKMSFINPTQL	58

:*****:*****:*****:*****:*****:*****:*****:*****:

SC761-coaVa-ST121	ENKKTNDRLLTHDLLFHDMLNDASKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
SC1133-coaVa-ST121	ENKKTNDRLLTHDLLFHDMLNDASKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
SC1137-coaVa-ST121	ENKKTNDRLLTHDLLFHDMLNDASKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
SC732-coaVa-ST121	ENKKTNDRLLTHDLLFHDMLNDASKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
SC533-coaVIIb-ST45	ENKKTNDRLLTHDLLFHDMLNDASKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
SC465-coaIIa-ST764	ENKNTNDRLLKHDLLFHDMFVNVAASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC792-coaIIa-ST5	ENKNTNDRLLKHDLLFHDMFVNVAASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC936-coaIIa-ST5	ENKNTNDRLLKHDLLFHDMFVNVAASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC955-coaIIa-ST5	ENKNTNDRLLKHDLLFHDMFVNVAASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC1096-coaVb-ST5425	ENKNTNDRLLKHDLLFHDMFVNVAASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	120
SC519-coaIVa-ST30	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC1130-coaIIIa-ST8	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC526-coaIIIa-ST8	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC625-coaIIIa-ST8	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC546-coaIIIa-ST8	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC1019-coaIIIa-ST8	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC635-coaVIIa-ST1	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC458-coaVIIa-ST1	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC470-coaVIIa-ST1	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC560-coaVIIa-ST1	ENKNTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC735-coaIa-ST89	ENKKTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC756-coaIa-ST89	ENKKTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC778-coaIa-ST89	ENKKTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
SC912-coaVIIb-ST45	ENKKTNDRLLKHDLLFHDMFVNDAWKKDLKVEFENEALSKKFINKNIDIYAGSYSYECHG	118

:**:*****:*****:*****:*****:*****:*****:*****:

SC761–coaVa–ST121	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	180
SC1133–coaVa–ST121	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	180
SC1137–coaVa–ST121	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	180
SC732–coaVa–ST121	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	180
SC533–coaVIb–ST45	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEKELTAVTKKKIVTIQELDVQ	180
SC465–coaIIa–ST764	GATNKTQCSYGGVTLSDNNK—————	138
SC792–coaIIa–ST5	GATNKTQCSYGGVTLSDNNK—————	138
SC936–coaIIa–ST5	GATNKTQCSYGGVTLSDNNK—————	138
SC955–coaIIa–ST5	GATNKTQCSYGGVTLSDNNK—————	138
SC1096–coaVb– ST5425	GATNKTQCSYGGVTLSDNNK—————	140
SC519–coaIVa–ST30	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKK—————	167
SC1130–coaIIIa–ST8	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC526–coaIIIa–ST8	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC625–coaIIIa–ST8	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC546–coaIIIa–ST8	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC1019–coaIIIa–ST8	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC635–coaVIIa–ST1	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	178
SC458–coaVIIa–ST1	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
SC470–coaVIIa–ST1	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
SC560–coaVIIa–ST1	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
SC735–coaIa–ST89	GETNKTLCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	178
SC756–coaIa–ST89	GETNKTLCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	178
SC778–coaIa–ST89	GETNKTLCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	178
SC912–coaVIIb–ST45	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	178
* **** *-----*		

SC761–coaVa–ST121	LRNYLSEKYKLYEKGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC1133–coaVa–ST121	LRNYLSEKYKLYEKGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC1137–coaVa–ST121	LRNYLSEKYKLYEKGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC732–coaVa–ST121	LRNYLSEKYKLYEKGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC533–coaVIb–ST45	LRNYLNEKYKLYEKGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC465–coaIIa–ST764	—————	138
SC792–coaIIa–ST5	—————	138
SC936–coaIIa–ST5	—————	138
SC955–coaIIa–ST5	—————	138
SC1096–coaVb– ST5425	—————	140
SC519–coaIVa–ST30	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	240
SC1130–coaIIIa–ST8	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC526–coaIIIa–ST8	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC625–coaIIIa–ST8	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC546–coaIIIa–ST8	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC1019–coaIIIa–ST8	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC635–coaVIIa–ST1	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNVEYDFYNLNGEYGVHEVLKMYADNKTINS	238
SC458–coaVIIa–ST1	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC470–coaVIIa–ST1	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC560–coaVIIa–ST1	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC735–coaIa–ST89	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC756–coaIa–ST89	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC778–coaIa–ST89	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238
SC912–coaVIIb–ST45	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDDEQNIEYNFYNLNGEYGVHEVLKMYADNKTINS	238

SC761-coaVa-ST121	DKLHLDIYLFKS	252
SC1133-coaVa-ST121	DKLHLDIYLFKS	252
SC1137-coaVa-ST121	DKLHLDIYLFKS	252
SC732-coaVa-ST121	DKLHLDIYLFKS	252
SC533-coaVIIb-ST45	DKLHLDIYLFKS	252
SC465-coaIIa-ST764	-----	138
SC792-coaIIa-ST5	-----	138
SC936-coaIIa-ST5	-----	138
SC955-coaIIa-ST5	-----	138
SC1096-coaVb-ST5425	-----	140
SC519-coaIVa-ST30	-----	167
SC1130-coaIIIa-ST8	DKLHLDIYLFKS	250
SC526-coaIIIa-ST8	DKLHLDIYLFKS	250
SC625-coaIIIa-ST8	DKLHLDIYLFKS	250
SC546-coaIIIa-ST8	DKLHLDIYLFKS	250
SC1019-coaIIIa-ST8	DKLHLDIYLFKS	250
SC635-coaVIIa-ST1	DKLHLDIYLFKS	250
SC458-coaVIIa-ST1	DKLHLDIYLFKS	250
SC470-coaVIIa-ST1	DKLHLDIYLFKS	250
SC560-coaVIIa-ST1	DKLHLDIYLFKS	250
SC735-coaIa-ST89	DKLHLDIYLFKS	250
SC756-coaIa-ST89	DKLHLDIYLFKS	250
SC778-coaIa-ST89	DKLHLDIYLFKS	250
SC912-coaVIIb-ST45	DKLHLDIYLFKS	250

(b)

SC761-selw7	MILGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLNSKRLSNAKMSFINPTQL	60
TD101-selw10	-----MLEEILTNSVSAIEYSDLHHKSKLNSKRLYNAKVSFANPTDL	42
K17-selw9	-----MLEGIFTNSASAIEYSDLHHKSKLNSKRLYNAKVSFANPTDL	42
SC465-selw4	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
N315-selw4	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
TD3-selw5	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
MW2-selw3	-----MTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	37
TD21-selw3	-----MLEEILTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	42
SC458-selw3	--MGEFEVKYLTGFILILLLEEILTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
TD115-selw3	-----MLEEILTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	42
SC1130-selw2	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
COL-selw2	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
TD8-selw6	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKFD SKRLSNAKMSFINPTQL	58
RF122-selw1c	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKGLYNAKVSFANPTEL	58
SC519-selw8	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKRLYNAKVSFANPTEL	58
TCH60-selw8	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKRLYNAKVSFANPTQL	58
SC756-selw1a	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKRLYNAKVSFANPTQL	58
Tager104-selw1c	MILGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKGLYNAKVSFANPTEL	60
TD123-selw1b	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKRLYNAKVSFANPTDL	58
ISU926-selw1d	--MGEFEVKYLTGFILILLLEGIFTNSASAIEYSDLHHKSKLDSKRLYNAKVSFANPTDL	58

:***. *****: : *** * ***:*** ***:*

SC761-selw7	ENKKTNDRLLTHDLLFHDMFLNDAKKDFKVEFENEALSNEFINKNIDIYAGSYSYECHG	120
TD101-selw10	ENKNTNDRLLKHDLLFHDMFVNVASKKDFKVEFENEALSNEFINKNIDIYAGNYGYGCHG	102
K17-selw9	ENKNTNDRLLKHDLLFHDMFVNVASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	102
SC465-selw4	ENKNTNDRLLKHDLLFHDMFVNVASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
N315-selw4	ENKNTNDRLLKHDLLFHDMFVNVASKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
TD3-selw5	ENKNTNDRLLKHDLLFHDMFVNDDWKKDFKVEFENEALSKKFINKNIDIYAGSYSYECHG	118
MW2-selw3	ENKNTNDRLLKHDLLFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	97
TD21-selw3	ENKNTNDRLLKHDLLFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	102
SC458-selw3	ENKNTNDRLLKHDLLFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
TD115-selw3	ENKNTNDRLLKHDLLFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	102
SC1130-selw2	ENKNTNDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
COL-selw2	ENKNTNDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
TD8-selw6	ENKNTDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
RF122-selw1c	ENKKTNDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSNEYINKNIDIYAGNYGYECHG	118
SC519-selw8	ENKKTNDRLLKHDLFFHDMFLNDAWKDLKVEFENEALSKKFINKNIDVYAGSYSYECHG	118
TCH60-selw8	ENKKTNDRLLKHDLFFHDMFLNDAWKDLKVEFENEALSKKFINKNIDVYAGSYSYECHG	118
SC756-selw1a	ENKKTNDRLLKHDLFFHDMFVNDAWKDFKVEFENEALSKKFVNKDIDIFAGNYGYGCHG	118
Tager104-selw1c	ENKKTNDRLLKHDLFFHDMFVNDAWKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	120
TD123-selw1b	ENKKTNDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
ISU926-selw1d	ENKKTNDRLLKHDLFFHDMFVNDDWKKDFKVEFENEALSKKFINKDIDIFAGNYGYGCHG	118
*****:***** :*****:*****:*****:*****:*****:*****:*****:		

SC761-selw7	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELDVQ	180
TD101-selw10	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKKIVTIQELEVQ	162
K17-selw9	GATNKTQCSYGGVTLSDNNK-----	122
SC465-selw4	GATNKTQCSYGGVTLSDNNK-----	138
N315-selw4	GATNKTQCSYGGVTLSDNNK-----	138
TD3-selw5	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
MW2-selw3	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	157
TD21-selw3	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	162
SC458-selw3	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
TD115-selw3	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	162
SC1130-selw2	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
COL-selw2	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
TD8-selw6	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	178
RF122-selw1c	GATNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQAEIELTAVTKKKIVTIQELDVQ	122
SC519-selw8	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKK-----	167
TCH60-selw8	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTEIELTAVTKKK-----	167
SC756-selw1a	GETNKTLCQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTGIELTAVTKKKIVTIQELDVQ	178
Tager104-selw1c	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTGIELTAVTKKKIVTIQELDVQ	180
TD123-selw1b	GETNKTQCSYGGVTLSDNNKYDDYKNIPCNLWIDGHQTGIELTAVTKKKIVTIQELDVQ	178
ISU926-selw1d	GEANKTQCSYGGVTFSDNNKYDDYKNIPCNLWIDGHQTGIELTAVTKKKIVTIQELDVQ	178
* :		

SC761-selw7	LRNYLSEKYKLYEKGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGHEVLKMYADNKTINS	240
TD101-selw10	LRNYLNEKYKLYEQGGDIVKGYVKYYNDDEQNVEYDFYNLNGEYGREVLKMYADNKTINS	222
K17-selw9	-----	122
SC465-selw4	-----	138
N315-selw4	-----	138
TD3-selw5	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNIEYNFYNLNGEYGYEVLKMYADNKTINS	238
MW2-selw3	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNIEYNFYNLNGEYGYEVLKMYADNKTINS	217
TD21-selw3	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNIEYNFYNLNGEYGYEVILKMYADNKTINS	222
SC458-selw3	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNIEYNFYNLNGEYGYEVLKMYADNKTINS	238
TD115-selw3	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNIEYNFYNLNGEYGYEVLKMYADNKTINS	222
SC1130-selw2	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNVEYDFYNLNGEYGREVLKMYADNKTINS	238
COL-selw2	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNVEYDFYNLNGEYGREVLKMYADNKTINS	238
TD8-selw6	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNVEYDFYNLNGEYGREVLKMYADNKTINS	238
RF122-selw1c	-----	122
SC519-selw8	-----	167
TCH60-selw8	-----	167
SC756-selw1a	LRNYLNEKYKLYELGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGHEVLKMYADNKTINS	238
Tager104-selw1c	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGYEVLKMYADNKTINS	240
TD123-selw1b	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEQNVEYDFYNLNGEYGYEVLKMYADNKTINS	237
ISU926-selw1d	LRNYLNEKYKLYEQGGDIVKGYVKYHNDDEKNVEYDFYNLNGEYGYEVLKMYADNKTINS	238
SC761-selw7	DKLHLDIYLFKS	252
TD101-selw10	DKLHLDIYLFKS	234
K17-selw9	-----	122
SC465-selw4	-----	138
N315-selw4	-----	138
TD3-selw5	DKLHLDIYLFKS	250
MW2-selw3	DKLHLDIYLFKS	229
TD21-selw3	DKLHLDIYLFKS	234
SC458-selw3	DKLHLDIYLFKS	250
TD115-selw3	DKLHLDIYLFKS	234
SC1130-selw2	DKLHLDIYLFKS	250
COL-selw2	DKLHLDIYLFKS	250
TD8-selw6	DKLHLDIYLFKS	250
RF122-selw1c	-----	122
SC519-selw8	-----	167
TCH60-selw8	-----	167
SC756-selw1a	DKLHLDIYLFKS	250
Tager104-selw1c	DKLHLDIYLFKS	252
TD123-selw1b	DKLHLDIYLFKS	249
ISU926-selw1d	DKLHLDIYLFKS	250

Figure S2. Alignment of SEIW amino acid sequences of all the MRSA isolates analyzed in the present study (a) and representative strains of all the selw phylogenetic groups (b). Asterisk indicates identical amino acid. Dash denotes gap.

SELX14	MFKKHHHSKNSILLKSILSLGIISYGLGIFGINSKADASIQDSSSVHDKFQKVEVPNNSEK	60
SELX6	MFKKHHHSKNSILLKSILSLGIISYGSFGIYSKAGASTQNSSLQDKQFQKVEVPNNSEK	60
SELX11	MFKKHHHSKNSILLKSILSLGIISYGSGLIYSKANASTQNSSVHDKQLQKVEVPNNSEK	60
SELX4	MFKKYDSKNSILLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQFQKVEVPNNSEK	60
SC533 (SELX16)	MFKKHHHSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQFQKVEVPNNSEK	60
TIGER104 (SELX15)	MFKKYEVSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQFQKVEVPNNSEK	60
SELX5	MFKKNDSKNSILLKSILSLGIISYGGTFGIYPKADASTQNSPSVQDKQFQKVEVPNNSEK	60
SELX9	MFKKNDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX1	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX2	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX-BOV2	MFKKHHHSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELXOV	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX7	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX12	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX10	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQFQKVEVPNNSEK	60
SELX-BOV1	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX3	MFKKYDSKNSIVLKSILSLGIISYGGTFGIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
SELX8	MFKKYDSKNSIVLKSILSLGIISYSGSFYIYPKADASTQNSSVQDKQLQKVEVPNNSEK	60
***** . *****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:		

SELX14	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVAAGRVTTPKRNLTL	120
SELX6	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVAAGRVTTPKRNLTL	120
SELX11	ALVKKLYDRYSKNTINGKSNKSRNWVYSERPLNGNQVRIHLEGTYTVAAGRVTTPKRNLTL	120
SELX4	TLVKKLYDRYSKNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SC533 (SELX16)	ALVKKLYDRYSKNTINGKSNKSRNWVYSERPLNGNQVRIHLEGTYTVAAGRVTTPKRNLTL	120
TIGER104 (SELX15)	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVAAGRVTTPKRNLTL	120
SELX5	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRINLEGTYRVADRVVTTPKRNLTL	120
SELX9	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX1	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVADRVVTTPKRNLTL	120
SELX2	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVADRVVTTPKRNLTL	120
SELX-BOV2	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELXOV	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX7	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX12	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX10	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX-BOV1	ALVKKLYDRYSQNTINGKSNKSRNWVYSERPLNENQVRIHLEGTYRVADRVVTTPKRNLTL	120
SELX3	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVAAGRVTTPKRNLTL	120
SELX8	ALVKKLYDRYSKDTINGKSNKSRNWVYSERPLNENQVRIHLEGTYTVAAGRVTTPKRNLTL	120
:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:		

SELX14	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX6	NKEVITLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX11	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELX4	NKEVVTLKELDHIVRAHISYGLYMGHELSKGDIVINTKDGGKYTLESHKELQKNRENV	180
SC533 (SELX16)	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKNRENV	180
TIGER104 (SELX15)	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKNRENV	180
SELX5	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX9	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX1	NKEVITLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX2	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKDGGKYTLESHKELQKDRENV	180
SELX-BOV2	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELXOV	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELX7	NKEVITLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELX12	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELX10	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKDRENV	180
SELX-BOV1	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKNRENV	180
SELX3	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKNRENV	180
SELX8	NKEVVTLKELDHIVRAHISYGLYMGHELPKGNIINTKNGGKYTLESHKELQKNRENV	180
:**:***:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:		

SELX14	INTADIKNVTFELVKSVNDIEQV	203
SELX6	INTADIKNVTFDLVKSVDIEQV	203
SELX11	INTDDIKNVTFELVKSVNDIEQV	203
SELX4	INTADVKNVTFELVKSVNDIEQV	203
SC533 (SELX16)	INTADVENVTFDLVKSVDIEQV	203
TIGER104 (SELX15)	INTADVENVTFDLVKSVDIEQV	203
SELX5	INTADIKNVTFKLVKSVDIEQV	203
SELX9	INTDDIKNVTFELVKSVNDIEQV	203
SELX1	INTADIKNVTFKLVKSVDIEQV	203
SELX2	INTADIKNVTFKLVKSVDIEQV	203
SELX-BOV2	INTDDIKNVTFELVKSVNDIEQV	203
SELXOV	NNTDDIKNVTFELVKSVNDIEQV	203
SELX7	INTDDIKNVTFELVKSVNDIEQV	203
SELX12	INTDDIKNVTFELVKSVNDIEQV	203
SELX10	IKTDDIKNVTFELVKRVNDIEQV	203
SELX-BOV1	INTDDIKNVTFELVKSVNDIEQV	203
SELX3	INTDDIKNVTFELVKSVNDIEQV	203
SELX8	INTDDIKNVTFELVKSVNDIEQV	203

* * . :****. *** *****

Figure S3. Alignment of SEIX amino acid sequences representing subtypes SEIX1-SEIX16. Asterisk indicates identical amino acid. Among the 17 *selx* alleles described by Wilson et al [21], sequence data were available for 14 subtypes (*selx1-selx14*). Therefore, SEIX sequences of TIGER104 and SC533 which were distinct from SEIX1-SEIX14 were tentatively assigned as SEIX15 and SEIX16. Putative cleavage site of signal peptide is shown by triangle. Sialic acid-binding region reported previously [22,23] is shown in yellow.

JKD6159-selz7	MRKVILITLLFGYSCYLLLEAKETQNDPNISELNKASQYTGSWHNIWLYNSDPVKAK	60
M-selz8	MRKVFILETLLFGYSSYSLLEAKETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
SC532-selz6	MRKVFILETLLFGYSSYSLLEAKETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
NCTC6131-selz9	MRKVFILETLLFGYSSYSLLEAKETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
WA-MRSA-59-selz4	MRKVFILETLLFGYSSYSLLEARAETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
MOK042-selz2	MRKIFILETLLFGYSSYSLLEARAETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
15584-selz5	MRKVFILETLLFGYSSYSLLEARAETQNDPNISELNKSSQYTGSLHNWLYNSDPVNAK	60
SC457-selz1	MRKVFILETLLFGYSSYSLLEARAETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
SC635-selz3	MRKVFILETLLFGYSSYSLLEARAETQNDPNISELNKSSQYTGSWHNIWLYNSDPVNAK	60
	:**:*, * :*:*****:*****:*****:*****:*****:*****:*****:*	
JKD6159-selz7	KTKLSDKFLSHDFIVPINSPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFHQCYSNE	120
M-selz8	KIKLSDKFLSHEFIVPINNPSHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
SC532-selz6	KIKLSDKFLSHDFIVPINSPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
NCTC6131-selz9	KIKLSDKFLSHDFIVPINSPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
WA-MRSA-59-selz4	KIKVSDKFLSHDFIVPINNPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
MOK042-selz2	KIKLSDKFLSHDFIVPINNPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
15584-selz5	KIKLSDKFLSHDFIVPINNPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
SC457-selz1	KIKLSDKFLSHDFIVPINNPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
SC635-selz3	KIKLSDKFLSHDFIVPINNPGHYDYVKTELKDSTMASFQDGKEVDIFGVNYFDQCYSNE	120
	* *:*****:*****:*, *****:*****:*****:*****:*****:**** *	
JKD6159-selz7	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
M-selz8	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
SC532-selz6	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
NCTC6131-selz9	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
WA-MRSA-59-selz4	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
MOK042-selz2	NIQCDSNQGGGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
15584-selz5	NIQCDSNQGGGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
SC457-selz1	NIQCDSNQGGGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
SC635-selz3	NIQCDSNQGAGSKKTCMYGGITLNENNTNNRIQPIVVVKVYENDSVTLSFDINIDKETVTI	180
	*****:*****:*****:*****:*****:*****:*****:*****:*****:*****:*****	
JKD6159-selz7	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENANRYYWYDMMPDPFTQSKYLMYR	240
M-selz8	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
SC532-selz6	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
NCTC6131-selz9	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
WA-MRSA-59-selz4	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
MOK042-selz2	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
15584-selz5	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
SC457-selz1	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
SC635-selz3	QELDYKVRNKLISKINLYHLGGTSYETGYIKIFIENGNRYYWYDMMPDPGFTQSKYLMYR	240
	*****:*****:*****:*****:*****:*****:*****:*****:*****	
JKD6159-selz7	GNETVESAKTEIEVHLTKK	259
M-selz8	GNETVESAKTEIEVHLTKK	259
SC532-selz6	GNETVESAKTEIEVHLTKK	259
NCTC6131-selz9	GNETVESAKTEIEVHLTKK	259
WA-MRSA-59-selz4	GNETVESAKTEIEVHLTKK	259
MOK042-selz2	GNETVESAKTEIEVHLTKK	259
15584-selz5	GNETVESAKTEIEVHLTKK	259
SC457-selz1	GNETVESAKTEIEVHLTKK	259
SC635-selz3	GNETVESAKTEIEVHLTKK	259
	*****:*****:*****	

Figure S4. Alignment of SEIZ amino acid sequences representing subtypes SEIZ1-SEIZ9. Asterisk indicates identical amino acid.

Table S1. Nucleotide Sequence identities (percentage) of *sey* gene among selected *S. aureus* isolates and those of reported *S. argenteus* strain.

Strain	species	genotype	sey subtype	Identity with strain					
				SC823	SC533	SC1097	K5	RF122	SG01
SC612	<i>S. aureus</i>	<i>coaIa</i> -ST89	sey5	99.7	99.5	99.1	99.4	99.2	98.8
SC823	<i>S. aureus</i>	<i>coaIIa</i> -ST764	sey3		99.2	98.8	99.1	98.9	98.5
SC533	<i>S. aureus</i>	<i>coaVIIb</i> -ST45	sey2			99.2	99.2	99.7	98.9
SC1097	<i>S. aureus</i>	<i>coaIIa</i> -ST5	sey1				98.8	98.9	98.5
K5 (CP020656)	<i>S. aureus</i>		sey6					98.8	98.2
RF122 (AJ938182)	<i>S. aureus</i>		sey7						98.6
SG01 (MN166481)	<i>S. argenteus</i>	<i>coaXI</i> d, ST2250							

Table S2. Nucleotide Sequence identities (percentage) of *selw* gene among selected *S. arueus* isolates and those of reported *S. argenteus* strains.

Table S3. Nucleotide Sequence identities (percentage) of *selx* gene among selected *S. aureus* isolates and those of reported *S. argenteus* strain.

Table S4. Nucleotide Sequence identities (percentage) of *selz* gene among selected *S. aureus* isolates and those of reported *S. argenteus* strain.

Strain	species	genotype	<i>selz</i> subtype	Identity with strain			
				SC635	SC561	Tokyo 12480	SG01
SC485	<i>S.aureus</i>	<i>coaIIa</i> -ST764	<i>selz1</i>	99.5	98.5	96.5	99.6
SC635	<i>S.aureus</i>	<i>coaVIIa</i> -ST12	<i>selz3</i>		98.7	96.8	99.6
SC561	<i>S.aureus</i>	<i>coaIa</i> -ST89	<i>selz6</i>			96.5	98.3
Tokyo 12480 (AP019712)	<i>S.aureus</i>		<i>selz7</i>				96.2
SG01 (MN166481)	<i>S.argenteus</i>	<i>coaXIId</i> , ST2250					

Table S5. Primers used in the present study.

Target gene	Primer	Nucleotide sequence	Product size	Aim	Reference
<i>selx</i>	selx-1	(+) AGCAGACGCGTCAACACAAA	513 bp (+selx-2)	Detection	Wilson et al., 2011
	selx-2	(-) ACTTGTCAATGTCATTAACACTTTCAC		Detection	
	selx-F1	(+) GTCCAATTATGTGTAGACGA	ca. 900 bp (+selx-R1)	Sequencing	Aung et al., 2019
	selx-R1	(-) GAATTTCTATATGATGGTGCT		Sequencing	
<i>sey</i>	sey-F	(+) CAATGTACGGACAGTGCTCTACAA	189 bp (+sey-R)	Detection	Ono et al., 2015
	sey-R	(-) TGACCGTTAACAAACAAGTTCATTC		Detection	
	sey-1	(+) GAAATATTGATATAGATCATT	843 bp (+sey-2)	Sequencing	Aung et al., 2019
	sey-2	(-) CCTAAGAACTTAATKTCCTAACG		Sequencing	
<i>selw</i>	selw-F2	(+) GGAATTTTACAAATTAGCG	323bp (+selw-R2)	Detection	Aung et al., 2019
	selw-R2	(-) CTACATTGCGTTTATTGGTTG		Detection	
	selw-F3	(+) TTGTTTGGGGAGTTGAAG	ca.800 bp (+selw-R4/R3)	Sequencing	
	selw-R4	(-) ACTTATATTCACTGTCAAAG		Sequencing	
	selw-R3	(-) GTCAAAGATTATTAATGATTAAC		Sequencing	
<i>selz</i>	selz-F1	(+) GGTTACAGTAGCTATTCTTGTG	ca.500 bp (+selz-R1)	Detection	Aung et al., 2019
	selz-R1	(-) GTAAACTTTACAACAATAGGCTG		Detection	
	selz-F2	(+) GTTATAAAATAGCAATGGTG	ca.1 kb (+selz-R2)	Sequencing	
	selz-R2	(-) GAGCAACTTTCCAAGTCGC		Sequencing	
	selz-R3	(-) CATTGAAAAATAGCATTGATC		Sequencing	
	selz-R4	(-) GATAAGTTGCTCTATGTCTA	ca.800 bp (+selz-F2)	Sequencing	
<i>sel26</i>	sel26-F1	(+) CTTATGCTGATGTAGGTGTC	ca. 300 bp (+sel27-R1)	Detection	Aung et al., 2019
	sel26-R1	(-) CATTATCCAAAGATTATCGG		Detection	
	sel26-5p-F1	(+) GAAGAAAAACACCGATAACGGTG	ca.1.4 kb (+sel28-3p-R1)	Sequencing	
<i>sel27</i>	sel27-F1	(+) TGAAGGCGCTCTATGAATCAG	ca. 500bp (+sel28-R1)	Detection	Aung et al., 2019
	sel27-R1	(-) TACTCTGCGTAAATTGGG		Detection	
	sel27-3p-R1	(-) ACAGGCTATCGTAAATCGCT		Sequencing	

Table 6. GenBank accession numbers assigned to *selx*, *sey*, *selw* and *selz* detected in the present study.

<i>selx</i>			<i>sey</i>			<i>selw</i>			<i>selz</i>		
Specimen ID	genotype	Accession No									
SC460	<i>coa Ia-ST89</i>	MN257075	SC612	<i>coa Ia-ST89</i>	MN257099	SC735	<i>coa Ia-ST89</i>	MN257123	SC532	<i>coa Ia-ST89</i>	MN257147
SC654	<i>coa Ia-ST89</i>	MN257076	SC575	<i>coa Ia-ST89</i>	MN257100	SC756	<i>coa Ia-ST89</i>	MN257124	SC561	<i>coa Ia-ST89</i>	MN257148
SC735	<i>coa Ia-ST89</i>	MN257077	SC588	<i>coa Ia-ST89</i>	MN257101	SC778	<i>coa Ia-ST89</i>	MN257125	SC1103	<i>coa Ia-ST89</i>	MN257149
SC698	<i>coa IIa-ST5</i>	MN257078	SC823	<i>coa IIa-ST5</i>	MN257102	SC465	<i>coa IIa-ST764</i>	MN257126	SC485	<i>coa IIa-ST764</i>	MN257150
SC714	<i>coa IIa-ST764</i>	MN257079	SC610	<i>coa IIa-ST764</i>	MN257103	SC792	<i>coa IIa-ST5</i>	MN257127	SC585	<i>coa IIa-ST5</i>	MN257151
SC1100	<i>coa IIa-ST5</i>	MN257080	SC1097	<i>coa IIa-ST5</i>	MN257104	SC936	<i>coa IIa-ST5</i>	MN257128	SC1097	<i>coa IIa-ST5</i>	MN257152
SC825	<i>coa IIa-ST764</i>	MN257081	SC630	<i>coa IIa-ST5</i>	MN257105	SC955	<i>coa IIa-ST5</i>	MN257129	SC457	<i>coa Va-ST121</i>	MN257153
SC709	<i>coa IIa-ST764</i>	MN257082	SC1100	<i>coa IIa-ST764</i>	MN257106	SC526	<i>coa IIIa-ST8</i>	MN257130	SC732	<i>coa Va-ST121</i>	MN257154
SC822	<i>coa IIa-ST5</i>	MN257083	SC582	<i>coa IIIa-ST8</i>	MN257107	SC546	<i>coa IIIa-ST8</i>	MN257131	SC703	<i>coa Va-ST121</i>	MN257155
SC978	<i>coa IIIa-ST8</i>	MN257084	SC569	<i>coa IIIa-ST8</i>	MN257108	SC625	<i>coa IIIa-ST8</i>	MN257132	SC595	<i>coa Va-ST121</i>	MN257156
SC699	<i>coa IIIa-ST8</i>	MN257085	SC625	<i>coa IIIa-ST8</i>	MN257109	SC1019	<i>coa IIIa-ST8</i>	MN257133	SC584	<i>coa Va-ST121</i>	MN257157
SC706	<i>coa IIIa-ST8</i>	MN257086	SC628	<i>coa IIIa-ST8</i>	MN257110	SC1130	<i>coa IIIa-ST8</i>	MN257134	SC568	<i>coa Va-ST121</i>	MN257158
SC526	<i>coa IIIa-ST8</i>	MN257087	SC633	<i>coa IIIa-ST8</i>	MN257111	SC519	<i>coa IVa-ST30</i>	MN257135	SC462	<i>coa Va-ST121</i>	MN257159
SC1019	<i>coa IIIa-ST8</i>	MN257088	SC910	<i>coa Va-ST121</i>	MN257112	SC761	<i>coa Va-ST121</i>	MN257136	SC635	<i>coa VIIa-ST12</i>	MN257160
SC1060	<i>coa IIIa-ST8</i>	MN257089	SC736	<i>coa Va-ST121</i>	MN257113	SC732	<i>coa Va-ST121</i>	MN257137			
SC1137	<i>coa Va-ST121</i>	MN257090	SC1133	<i>coa Va-ST121</i>	MN257114	SC1133	<i>coa Va-ST121</i>	MN257138			
SC798	<i>coa Va-ST121</i>	MN257091	SC798	<i>coa Va-ST121</i>	MN257115	SC1137	<i>coa Va-ST121</i>	MN257139			
SC910	<i>coa Va-ST121</i>	MN257092	SC578	<i>coa Va-ST121</i>	MN257116	SC1096	ST5425 (ST5 SLV)	MN257140			
	<i>coa Vb-</i>										
SC1096	ST5425 (ST5 SLV)	MN257093	SC635	<i>coa VIIa-ST12</i>	MN257117	SC458	<i>coa VIIa-ST1</i>	MN257141			
SC958	<i>coa VIIa-ST1</i>	MN257094	SC598	<i>coa VIIa-ST1</i>	MN257118	SC470	<i>coa VIIa-ST1</i>	MN257142			
SC1065	<i>coa VIIa-ST1</i>	MN257095	SC634	<i>coa VIIa-ST1</i>	MN257119	SC560	<i>coa VIIa-ST1</i>	MN257143			
SC1071	<i>coa VIIa-ST1</i>	MN257096	SC626	<i>coa VIIa-ST1</i>	MN257120	SC635	<i>coa VIIa-ST12</i>	MN257144			
SC650	<i>coa VIIa-ST1</i>	MN257097	SC614	<i>coa VIIa-ST1</i>	MN257121	SC533	<i>coa VIIb-ST45</i>	MN257145			
SC533	<i>coa VIIb-ST45</i>	MN257098	SC533	<i>coa VIIb-ST45</i>	MN257122	SC912	<i>coa VIIb-ST45</i>	MN257146			