

Table S4**SNPs that differentiate the pandemic clone ST22-A2 from ST22-A1**

Position	SNP	Type	CDS	Substitution	ID	Note
164227	C->T	Intergenic	putative ABC transporter ATP-binding protein	-	SAEMRSA1501370	>250bp upstream
1053036	T->A	Intergenic	putative manganese transport protein	-	SAEMRSA1509350	49bp upstream
1462353	C->A	Intergenic	very large surface anchored protein	-	SAEMRSA1512970	199bp upstream
2313351	T->C	Intergenic	N/A	-	N/A	-
2462739	A->T	Intergenic	N/A	-	N/A	-
7255	C->T	Nonsynonymous	DNA gyrase subunit A	Ser84Leu	SAEMRSA1500060	-
199616	C->G	Nonsynonymous	putative type I restriction enzyme	Gly639Ala	SAEMRSA1501600	-
498916	C->T	Nonsynonymous	putative peptidyl-tRNA hydrolase	Arg13Cys	SAEMRSA1504280	-
1012916	C->T	Nonsynonymous	putative phosphoribosylaminoimidazole-succinocarboxamide synthase PurC	Thr141Ile	SAEMRSA1508970	-
1032934	G->A	Nonsynonymous	putative cytochrome ubiquinol oxidase	Cys222Ile	SAEMRSA1509160	-
1100412	C->T	Nonsynonymous	putative glutamate racemase Murl	Pro193Leu	SAEMRSA1509800	-
1152606	G->A	Nonsynonymous	putative carbamoyl-phosphate synthase, pyrimidine-specific, large chain PyrAB	Val141Ile	SAEMRSA1510360	-
1335028	C->T	Nonsynonymous	topoisomerase IV subunit A GrIA	Ser80Phe	SAEMRSA1512030	-
1347959	G->T	Nonsynonymous	ImpB/MucB/SamB family protein	Asp370Tyr	SAEMRSA1512120	-
1356697	G->A	Nonsynonymous	tryptophan synthase alpha chain TrpA	Ala27Thr	SAEMRSA1512210	-
1415816	G->T	Nonsynonymous	sensor kinase protein ArlS	Pro60Thr	SAEMRSA1512770	-
1423660	C->T	Nonsynonymous	conserved hypothetical protein	Ala230Thr	SAEMRSA1512880	-
1767175	C->T	Nonsynonymous	pyruvate kinase PyrK	Asp261Asn	SAEMRSA1516070	-
1773829	C->A	Nonsynonymous	DNA polymerase III alpha subunit DnaE	Trp753Cys	SAEMRSA1516120	-
1823513	G->T	Nonsynonymous	FtsK/SpoIIIE family protein	Pro530Thr	SAEMRSA1516490	-
2203462	C->T	Nonsynonymous	putative UDP-N-acetylglucosamine 1-carboxyvinyltransferase MurA2	Ala102Thr	SAEMRSA1520320	-
2589392	C->T	Nonsynonymous	staphylococcal accessory regulator	Arg102Cys	SAEMRSA1523970	-
2731231	C->T	Nonsynonymous	ABC transporter ATP-binding protein	Ala180Thr	SAEMRSA1525270	-
1434589	C->A	Nonsense	very large surface anchored protein	Glu9189Stop	SAEMRSA1512970	-
98586	T->C	Synonymous	immunoglobulin G binding protein A precursor	-	SAEMRSA1500770	-
335868	C->T	Synonymous	putative transcription regulator	-	SAEMRSA1502730	-

587345	A->G	Synonymous	bone sialoprotein-binding protein SdrE	-	SAEMRSA1504900	-
606927	G->A	Synonymous	putative uracil-DNA glycosylase	-	SAEMRSA1505080	-
1442852	C->T	Synonymous	very large surface anchored protein	-	SAEMRSA1512970	-
2685247	T->G	Synonymous	hypothetical protein	-	SAEMRSA1524870	-

Indels that differentiate the pandemic clone ST22-A2 from ST22-A1

Position	Type	Sequence	Location	Product	ID	ST22A1 allele	ST22A2 allele	Note
2423183	Insertion	A	Intergenic	-	-	AAAAAAAAA	AAAAAAAAA	Insertion of a single A nucleotide in a poly A octamer

