

Mutation	Mutation type	Gene	Substitution	Frequency in S1-mut-enriched clades	
C3037T	syn	ORF1a		1	<div> <div> </div> <div> </div> </div> <p>Also arise independently in a subclade of 19A</p>
C14408T	nonsyn	RdRp	P323S	1	
C241T	syn	noncoding		1	
A23403G	nonsyn	S1	D614G	1	
11288-11296	deletion	ORF1a		0.96707819	<div> </div> <p>Nsp6 deletion. Occurs several times independently in mid-late 2020</p>
A23063T	nonsyn	S1	N501Y	0.93415638	<div> </div> <p>N501Y and Nsp6 deletion have similar distribution, but both also occur independently</p>
G28881A	nonsyn	N	R203K	0.739369	<div> </div> <p>Basal to 20B (so this mut is present in 501Y.V1 and 501Y.V2, but not 501Y.V3)</p>
G28883C	nonsyn	N	G204R	0.739369	
G28882A	syn	N		0.739369	
21992-21994	deletion	S1		0.69547325	<div> </div> <p>Occurs independently in 501Y.V1 and a small subclade of 20A which has 7 S1 muts and high logistic growth (~9). Also has Nsp6 del but not 501Y</p>
21765-21771	deletion	S1		0.69410151	<div> </div> <p>Same as above, but with the addition of a second independent occurrence in a 20A subclade (3-4 S1 mutations)</p>
A28271-	deletion	noncoding		0.68861454	<div> </div> <p>Between ORF8 and N. In 501.V1 and lots of small clades with at least 3 S1 mutations</p>
C23604A	nonsyn	S1	P681H	0.67215364	<div> </div> <p>Common S1 mutation. Could have functional effect. Seems to come later (not one of the muts preceding a storm of S1 muts)</p>