

Supplementary Table 1. Defining variants characteristics of SARS-CoV-2 clades, based on NextStrain terminology.

Gene	Nucleotide	Amino Acid	COH32*	B.1.1.7**	SA#
G strain					
S	A23403G	D614G	+	+	+
Upstream	C241T	NA	+	+	+
ORF1ab	C3037T	F924F	+	+	+
	C14408T	L4715L	+	+	+
Clade 20B					
N	28881 GGG->AAC	RG203KR	-	+	-
B.1.1.7 (20I/501Y.V1)					
S	A23063T	N501Y	+	+	+
	21765-21770del	HV69-70del	-	+	-
	21991-21993del	Y144del	-	+	-
	C23271A	A570D	-	+	-
	C23604A	P681H	-	+	-
	C23709T	T716I	-	+	-
	T24506G	S982A	-	+	-
ORF8	G28048T	R52I	+	+	-
	C27972T	Q27*	-	+	-
	A28111G	Y37C	-	+	-
N	28280 GAT->CTA	D3L	-	+	-
	C28977T	S235F	-	+	-
Clade 20C					
ORF1ab	C1059T	T265I	+	-	+
ORF3a	G25563T	Q57H	+	-	+
Clade 20G					
ORF3a	G25907T	G172V	+	-	-
ORF8	C27964T	S24L	+	-	-
N	C28472T	P67S	+	-	-
	C28869T	P199L	+	-	-

*COH.20G/501Y, **20I/501Y.V1, #20H/501Y.V2