

other	
Omicron_BA.2+212SGR	[T19I,L24-,P25-,P26-,A27S,G142D,+212SGR,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.4andBA.5	[T19I,L24-,P25-,P26-,A27S,H69-,V70-,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,L452R,S477N,T478K,E484A,F486V,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.2+L452Q+S704L_BA.2.12.1	[T19I,L24-,P25-,P26-,A27S,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,L452Q,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,S704L,N764K,D796Y,Q954H,N969K]
Omicron_BA.2+P25_,P26_	[T19I,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.2+L452M	[T19I,L24-,P25-,P26-,A27S,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,L452M,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.2+K417T	[T19I,L24-,P25-,P26-,A27S,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417T,N440K,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.2	[T19I,L24-,P25-,P26-,A27S,G142D,V213G,G339D,S371F,S373P,S375F,T376A,D405N,R408S,K417N,N440K,S477N,T478K,E484A,Q493R,Q498R,N501Y,Y505H,D614G,H655Y,N679K,P681H,N764K,D796Y,Q954H,N969K]
Omicron_BA.1.1	[A67V,H69-,V70-,T95I,G142D,V143-,Y144-,Y145-,N211-,L212I,+214EPE,G339D,R346K,S371L,S373P,S375F,K417N,N440K,G446S,S477N,T478K,E484A,Q493R,G496S,Q498R,N501Y,Y505H,T547K,D614G,H655Y,N679K,P681H,N764K,D796Y,N856K,Q954H,N969K,L981F]
Omicron_BA.1	[A67V,H69-,V70-,T95I,G142D,V143-,Y144-,Y145-,N211-,L212I,G339D,S371L,S373P,S375F,K417N,N440K,G446S,S477N,T478K,E484A,Q493R,G496S,Q498R,N501Y,Y505H,T547K,D614G,H655Y,N679K,P681H,N764K,D796Y,N856K,Q954H,N969K,L981F]
Omicron_BA.1	[A67V,H69-,V70-,T95I,G142D,V143-,Y144-,Y145-,N211-,L212I,+214EPE,G339D,S371L,S373P,S375F,K417N,N440K,G446S,S477N,T478K,E484A,Q493R,G496S,Q498R,N501Y,Y505H,T547K,D614G,H655Y,N679K,P681H,N764K,D796Y,N856K,Q954H,N969K,L981F]
Delta+FurinRelated	[T19R,G142D,E156-,F157-,R158G,A222V,L452R,T478K,Q613H,D614G,N679-,P681-,R682-,R683-,A684-,R685-,S686-,D950N]
Delta+T95_,A222V	[T19R,G142D,E156-,F157-,R158G,A222V,L452R,T478K,D614G,P681R,D950N]
Delta	[T19R,T95I,G142D,E156-,F157-,R158G,L452R,T478K,D614G,P681R,D950N]
Lambda	[T29I,V62L,G75V,T76I,Y144-,L216F,R246N,S247-,Y248-,L249-,T250-,P251-,G252-,D253-,T415A,N440K,L452Q,T478R,E484V,F490S,T572I,D614G,N679K,T859N,D936H,D950H]
Alpha	[H69-,V70-,Y144-,N501Y,A570D,D614G,P681H,T716I,S982A,D1118H]