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| other | |
| B.1.1.318 | [T95I, Y144-, E484K, D614G, P681H, D796H] |
| B.1.623 | [S494P, N501Y, D614G, P681H, K854N, E1111K] |
| B.1.620 | [P26S, H69-, V70-, V126A, Y144-, L242-, A243-, L244-, H245Y, S477N, E484K, D614G, P681H, T1027I, D1118H] |
| B.1.1.523 | [E156-, F157-, R158-, F306L, E484K, S494P, D614G, E780A, D839V, T1027I] |
| C.36 | [S12F, H69-, V70-, W152R, R346S, L452R, D614G, Q677H, A899S] |
| B.1.214.2 | [Q414K, N450K, D614G, T716I] |
| A.2.5.2 | [L141Y, G142-, V143-, Y144-, D215Y, L452R, D614G] |
| B.1.258.17 | [H69-, V70-, L189F, N439K, D614G, V772I] |
| B.1.575 | [S494P, D614G, P681H, T716I] |
| R.1 | [W152L, E484K, D614G, G769V] |
| B.1.1.519 | [T478K, D614G, P681H, T732A] |
| A23.1 | [F157L, V367F, Q613H, P681R] |
| A.27 | [L18F, L452R, N501Y, A653V, H655Y, D796Y, G1219V] |
| C.37=Lambda | [G75V, T76I, R246N, S247-, Y248-, L249-, T250-, P251-, G252-, D253-, L452Q, F490S, D614G, T859N] |
| B.1.617.1=Kappa | [T95I, G142D, E154K, L452R, E484Q, D614G, P681R, Q1071H] |
| B.1.526.1 | [D80G, Y144-, F157S, L452R, D614G, T859N, D950H] |
| B.1.526.2 | [L5F, T95I, D253G, S477N, D614G, Q957R] |
| B.1.526=Iota | [L5F, T95I, D253G, E484K, D614G, A701V] |
| B.1.525=Eta | [Q52R, A67V, H69-, V70-, Y144-, E484K, D614G, Q677H, F888L] |
| P.2=Zeta | [E484K, D614G, V1176F] |
| B.1.429/7=Epsilon | [S13I, W152C, L452R, D614G] |
| B.1.617.2=AY.1 | [T19R, T95I, G142D, E156-, F157-, R158G, W258L, K417N, L452R, T478K, D614G, P681R, D950N] |
| B.1.617.2=AY.2 | [T19R, V70F, L118X, I119X, V120X, G142D, E156-, F157-, R158G, A222V, K417N, L452R, T478K, D614G, P681R, D950N] |
| B.1.617.2=Delta+A222V | [T19R, G142D, E156-, F157-, R158G, A222V, L452R, T478K, D614G, P681R, D950N] |
| B.1.617.2=Delta | [T19R, T95I, G142D, E156-, F157-, R158G, L452R, T478K, D614G, P681R, D950N] |
| P.1=Gamma | [L18F, T20N, P26S, D138Y, R190S, K417T, E484K, N501Y, D614G, H655Y, T1027I, V1176F] |
| B.1.351=Beta | [D80A, D215G, L242-, A243-, L244-, K417N, E484K, N501Y, D614G, A701V] |
| Alpha+T20I | [T20I, H69-, V70-, Y144-, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H] |
| Alpha+F490S | [L5F, H69-, V70-, Y144-, F490S, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H] |
| Alpha+E484K | [H69-, V70-, Y144-, E484K, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H] |
| Alpha+W152R | [H69-, V70-, Y144-, W152R, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H] |
| B.1.1.7=Alpha | [H69-, V70-, Y144-, N501Y, A570D, D614G, P681H, T716I, S982A, D1118H] |
| Near-Furin | [D614G, Q675H] |
| Near-Furin | [D614G, Q677H] |
| Near-Furin | [D614G, P681H] |
| GV-clade | [A222V, D614G] |
| G-clade | [D614G] |
| Ancestral | [] |