

Supplementary data S3

Sequence name (including GISAID)	Nexstrain clade	Pangolin lineage	IHU name	Nucleotide substitutions	Nucleotide deletions	Amino acid substitutions	Amino acid deletions	Nucleotide substitutions	Nucleotide deletions	Amino acid substitutions	Amino acid deletions
IHUMI-717_EPI_ISL_8033347 2020-03-26	20B	B.1.1	IHUMI-717	12	0	7	0	C241T, C313T, C3037T, A7903G, C14408T, G19518T, A23403G, G26143T, G28845T, G28881A, G28882A, G28883C		N:R191L, N:R203K, N:G204R, ORF1b:P314L, ORF1b:L2017F, ORF3a:G251C, S:D614G	
IHUMI-2096_EPI_ISL_8033348 2020-08-06	20A	B.1.160	IHUMI-2096	20	15	11	5	C241T, C3037T, C4543T, G5629T, G9526T, C11497T, G13993T, C14408T, G15766T, A16889G, G17019T, C18877T, G22992A, A23403G, G25563T, C25710T, C26735T, T26876C, G28975C, G29399A	23585-23599	N:M234I, N:A376T, ORF1a:M3087I, ORF1b:A176S, ORF1b:P314L, ORF1b:V767L, ORF1b:K1141R, ORF1b:E1184D, ORF3a:Q57H, S:S477N, S:D614G	S:Q675-, S:T676-, S:Q677-, S:T678-, S:N679-
IHUMI-3076_EPI_ISL_982232 2021-01-08	20I (Alpha, V1)	B.1.1.7	IHUMI-3076	31	25	20	8	C241T, C913T, A1399G, C3037T, C3267T, C5388A, C5986T, T6954C, C14408T, C14676T, C15279T, T16176C, A17615G, A23063T, C23271A, A23403G, C23604A, C23709T, T24506G, G24914C, G26730C, C27972T, G28048T, A28111G, G28280C, A28281T, T28282A, G28881A, G28882A, G28883C, C28977T	11288-11296, 12041-12046, 21765-21770, 21992-21994, 28271	M:V70L, N:D3L, N:R203K, N:G204R, N:S235F, ORF1a:T1001I, ORF1a:A1708D, ORF1a:I2230T, ORF1b:P314L, ORF1b:K1383R, ORF8:Q27*, ORF8:R52I, ORF8:Y73C, S:N501Y, S:A570D, S:D614G, S:P681H, S:T716I, S:S982A, S:D1118H	ORF1a:S3675-, ORF1a:G3676-, ORF1a:F3677-, ORF1a:D3926-, ORF1a:I3927-, S:H69-, S:V70-, S:Y144-
IHUMI-3147_EPI_ISL_8033349 2021-01-22	20H (Beta, V2)	B.1.351.2	IHUMI-3147	26	18	18	6	G174T, C241T, C1059T, A2692T, C3037T, G5230T, A8052G, A10323G, G10396T, C10632T, C14408T, C21614T, A21801C, A22206G, G22813T, G23012A, A23063T, A23403G, T23560C, C23664T, G25563T, C25904T, C26456T, C28253T, T28729C, C28887T	11288-11296, 22283-22291	E:P71L, N:T205I, ORF1a:T265I, ORF1a:K1655N, ORF1a:N2596S, ORF1a:K3353R, ORF1a:A3456V, ORF1b:P314L, ORF3a:Q57H, ORF3a:S171L, S:L18F, S:D80A, S:D215G, S:K417N, S:E484K, S:N501Y, S:D614G, S:A701V	ORF1a:S3675-, ORF1a:G3676-, ORF1a:F3677-, S:L241-, S:L242-, S:A243-
IHUMI-3630_EPI_ISL_8033350 2021-06-07	21I (Delta)	AY.71	IHUMI-3630	33	13	27	4	G210T, C241T, C2509T, C3037T, C5184T, A5584G, C9891T, T11418C, C11514T, C13019T, C14408T, G15451A, C16466T, C16726T, A18931G, C19118T, C21618G, G21987A, C22227T, T22917G, C22995A, A23403G, G24410A, C25317T, C25469T, C26753T, T26767C, T27638C, C27752T, A28461G, G28881T, G29402T, G29742T	22029-22034, 28248-28253, 28271	M:I82T, N:D63G, N:R203M, N:D377Y, ORF1a:P1640L, ORF1a:A3209V, ORF1a:V3718A, ORF1a:T3750I, ORF1b:P314L, ORF1b:G662S, ORF1b:P1000L, ORF1b:H1087Y, ORF1b:I1822V, ORF1b:A1884V, ORF3a:S26L, ORF7a:V82A, ORF7a:T120I, ORF9b:T60A, S:T19R, S:G142D, S:R158G, S:A222V, S:L452R, S:T478K, S:D614G, S:D950N, S:S1252F	ORF8:D119-, ORF8:F120-, S:E156-, S:F157-

Sequence name (including GISAID)	Nexstrain clade	Pangolin lineage	IHU name	Nucleotide substitutions	Nucleotide deletions	Amino acid substitutions	Amino acid deletions	Nucleotide substitutions	Nucleotide deletions	Amino acid substitutions	Amino acid deletions
IHUMI-5002_EPI_ISL_8033351 2021-10-25	21J (Delta)	AY.4.2	IHUMI-5002	40	13		4	G210T, C241T, T1391C, C1973T, C3037T, G4181T, C6402T, C7124T, C7851T, C8986T, G9053T, C10029T, A11201G, A11332G, C14408T, G15451A, C16466T, T17040C, C19220T, C21618G, C21846T, G21987A, T21995C, C22227T, T22917G, C22995A, A23403G, C23604G, G24410A, C25469T, C25614T, T26767C, T27638C, C27752T, C27874T, A28461G, G28881T, G28916T, G29402T, G29742T	22029-22034, 28248-28253, 28271	M:I82T, N:D63G, N:R203M, N:G215C, N:D377Y, ORF1a:S376P, ORF1a:A1306S, ORF1a:P2046L, ORF1a:P2287S, ORF1a:A2529V, ORF1a:V2930L, ORF1a:T3255I, ORF1a:T3646A, ORF1b:P314L, ORF1b:G662S, ORF1b:P1000L, ORF1b:A1918V, ORF3a:S26L, ORF7a:V82A, ORF7a:T120I, ORF7b:T40I, ORF9b:T60A, S:T19R, S:T95I, S:G142D, S:Y145H, S:R158G, S:A222V, S:L452R, S:T478K, S:D614G, S:P681R, S:D950N	ORF8:D119-, ORF8:F120-, S:E156-, S:F157-
IHUMI-3795_EPI_ISL_8033481 2021-07-12	21F (Iota)	B.1.526	IHUMI-3795	37	20		3	C241T, C1059T, C3037T, G6101A, A7201G, C8809T, T9867C, C14408T, A16500C, A20262G, C21575T, C21846T, A22320T, C22498T, G22992A, A23403G, A24432G, C25517T, G25563T, A25968G, C27739T, C27925T, C28311T, T28879G, G29254T, C29738A, T29753A, G29755A, G29757T, T29758G, G29759C, C29762G, A29763G, T29765A, A29768G, G29779A, T29785C	11288-11296, 28271, 29740-29745, 29749-29750, 29770-29771	N:P13L, N:S202R, ORF1a:T265I, ORF1a:G1946S, ORF1a:L3201P, ORF1b:P314L, ORF1b:Q1011H, ORF3a:P42L, ORF3a:Q57H, ORF7a:L116F, ORF8:T11I, ORF9b:P10S, S:L5F, S:T95I, S:D253V, S:S477N, S:D614G, S:Q957R	ORF1a:S3675-, ORF1a:G3676-, ORF1a:F3677-
IHUMI-4219_EPI_ISL_8033611 2021-07-22	21C (Epsilon)	B.1.429	IHUMI-4219	28	3		1	C241T, C1059T, C2395T, T2597C, C3037T, C7056A, T7057A, G7058A, G7059A, C8947T, G10282A, G11083T, C12100T, A12878G, C14408T, G17014T, G21600T, G22018T, T22917G, A23403G, T24349C, G25563T, C26681T, G27890T, G28001T, A28272T, C28887T, C29362T	518-520	N:T205I, ORF1a:T265I, ORF1a:T2264K, ORF1a:G2265N, ORF1a:L3606F, ORF1a:I4205V, ORF1b:P314L, ORF1b:D1183Y, ORF3a:Q57H, S:S13I, S:W152C, S:L452R, S:D614G	ORF1a:M85-
IHUMI-3964_EPI_ISL_8033762 2021-07-27	21H (Mu)	B.1.621	IHUMI-3964	32	4		1	C241T, C3037T, A3428G, C4878T, C5192T, C6037T, C10029T, C11344T, A11451G, A13057T, C14408T, C17491T, C17707T, C18877T, T19035C, C20148T, C21846T, A21993C, T21995A, G22599A, G23012A, A23063T, A23403G, C23604A, G24410A, G25563T, A26492T, G27008C, C27925A, C28005T, A28272T, C28887T	26158-26161	M:K162N, N:T205I, ORF1a:T1055A, ORF1a:T1538I, ORF1a:T3255I, ORF1a:Q3729R, ORF1b:P314L, ORF1b:P1342S, ORF1b:P1414S, ORF3a:Q57H, ORF8:T11K, ORF8:P38S, S:T95I, S:Y144S, S:Y145N, S:R346K, S:E484K, S:N501Y, S:D614G, S:P681H, S:D950N	ORF3a:V256-
IHUMI-5227_EPI_ISL_8033859 2021-12-01	21K (Omicron)	B.1.1.529	IHUMI-5227	54	36		15	C241T, A2832G, C3037T, T5386G, G5924A, G8393A, C10029T, C10449A, A11537G, T13195C, C14408T, C15240T, A18163G, C21762T, C21846T, G22578A, T22673C, C22674T, T22679C, C22686T, G22813T, G22898A, G22992A, C22995A, A23040G, G23048A, A23055G, A23063T, T23075C, C23202A, A23403G, C23525T, T23599G, C23604A, C23664T, C23854A, G23948T, C24130A, A24424T, T24469A, C24503T, C25000T, C25584T, C26270T, A26530G, C26577G, G26709A, A27259C, C27807T, A28271T, C28311T, G28881A, G28882A, G28883C	6513-6515, 11285-11293, 21765-21770, 21987-21995, 28362-28370	E:T9I, M:D3G, M:Q19E, M:A63T, N:P13L, N:R203K, N:G204R, ORF1a:K856R, ORF1a:V1887I, ORF1a:L2084I, ORF1a:A2710T, ORF1a:T3255I, ORF1a:P3395H, ORF1a:I3758V, ORF1b:P314L, ORF1b:I1566V, ORF9b:P10S, S:A67V, S:T95I, S:Y145D, S:G339D, S:S371L, S:S373P, S:S375F, S:K417N, S:G446S, S:S477N, S:T478K, S:Q493R, S:G496S, S:Q498R, S:N501Y, S:Y505H, S:T547K, S:D614G, S:H655Y, S:N679K, S:P681H, S:A701V, S:N764K, S:D796Y, S:N856K, S:Q954H, S:N969K, S:L981F	N:E31-, N:R32-, N:S33-, ORF1a:S2083-, ORF1a:L3674-, ORF1a:S3675-, ORF1a:G3676-, ORF9b:E27-, ORF9b:N28-, ORF9b:A29-, S:H69-, S:V70-, S:G142-, S:V143-, S:Y144-