

EPISEQ® SARS-COV-2



Sample Analysis Report

Sample ID: Omicron_K032250

Status: Valid sample for SARS-CoV-2 variant identification and good quality genome.

RESULTS

SARS-COV-2 variant:

Nextstrain clade	21K (Omicron) voc
Pango lineage	BA.1 voc

voc Variant of concern detected

SARS-COV-2 Spike mutations (amino acid changes):

A67V
H69-
V70-
T95I
G142-
V143-
Y144-
Y145D
N211-
L212I
G339D
S371L
S373P
S375F
S477N
T478K
E484A
Q493R

G496S
Q498R
N501Y
Y505H
T547K
D614G
H655Y
N679K
P681H
N764K
D796Y
N856K
Q954H
N969K
L981F

SAMPLE DATA

Sequencing:

Technology	Illumina (paired-end)
Uploaded files	Omicron_K032250_1.fastq.gz Omicron_K032250_2.fastq.gz
Number of reads	746068
Number of sequenced base pairs	113.80 Mb

Genome:

Quality	Good
File name	Omicron_K032250.consensus.fa
Length	29776 bp
Coverage	98.32%
Sequencing depth	3433.00 x (downsampled)
Number of ACGT bases	29401

S gene (Spike)

Percent of ACGT bases	94.07 %
Number of N bases	226
Longest stretch of N bases	189 (aa positions: 405-468)

Mutations in other genes:

Gene	Mutation
E	T9I
M	D3G
M	Q19E
M	A63T
N	P13L
N	E31-
N	R32-
N	S33-
N	R203K
N	G204R
ORF1a	K856R
ORF1a	S2083-
ORF1a	L2084I
ORF1a	A2710T
ORF1a	T3255I
ORF1a	P3395H

ORF1a	L3674-
ORF1a	S3675-
ORF1a	G3676-
ORF1a	I3758V
ORF1b	P314L
ORF1b	I1566V
ORF9b	P10S
ORF9b	E27-
ORF9b	N28-
ORF9b	A29-

METHODS

EPISEQ® SARS-COV-2 release 1.1.0

Pipeline version 2022-02-07

Reference genome and third-party tool versions

Reference genome for assembly	MN908947.3
pangolin	3.1.19
pangoLEARN	2022-01-20
Nextclade	1.10.2

APPENDIX

Variant of Concern (VOC)

If a VOC is detected in the sample, it is highlighted in the result table, page 1. The definition of the VOC is based on:

the CDC: <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/variant-surveillance/variant-info.html>

the WHO: <https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/>

Pango lineage	Nextstrain clade	WHO label	First Detected	Earliest sample date
B.1.1.7 / Q*	20I (Alpha, V1)	Alpha	United Kingdom	September 2020
B.1.351*	20H (Beta, V2)	Beta	South Africa	May 2020
P.1*	20J (Gamma, V3)	Gamma	Brazil	November 2020
B.1.617.2 / AY*	21A (Delta)	Delta	India	October 2020
B.1.617.2 / AY*	21I (Delta)	Delta	India	October 2020
B.1.617.2 / AY*	21J (Delta)	Delta	India	October 2020
B.1.1.529 / BA*	21K (Omicron)	Omicron	Multiple Countries	November 2021
B.1.1.529 / BA*	21L (Omicron)	Omicron	Multiple Countries	November 2021
B.1.1.529 / BA*	21M (Omicron)	Omicron	Multiple Countries	November 2021

*Includes all descendent lineages.