



Standard Operating Procedure (SOP)
For Nucleotide Data Submission to
INSACOG SARS-COV-2 Genome Analysis Web Portal
Version_0.1
2022

INSACOG SARS-COV-2 Genome Analysis Web Portal

IBDC developed a web portal for analysis SARS-COV-2 sequencing data for genome assembly and lineage prediction. The portal is accessible at <https://ibdc.rcb.res.in/covid-portal/>

STEP1: User registration

Access to SARS-COV-2 data analysis portal requires user registration.

1. Click on the 'Data Analysis' button on the web page <https://ibdc.rcb.res.in/covid-portal/>.
2. Provide all the relevant details.
3. Upon completion of registration an email notification would be sent to the registered email ID with FTP credentials for FASTQ raw read upload.

STEP2: Login to Data Analysis Portal, Upload data and perform analysis

1. Login to the Data analysis portal with registered email ID and Password (A).
2. Use FTP credentials available in the Analysis data tab after login to upload NGS raw reads (B).
3. Data need to be uploaded to a directory with name sample_data by using FileZilla.

Username or email *

Password *

Remember me

I'm not a robot



reCAPTCHA
Privacy - Terms

Login

[Don't have an account? Signup Now »](#)
[Lost your password?](#)

dibyabhabha ([Edit account](#))

[Analyse Data](#) [Analysis Reports](#) [User Details](#)

Analyse Data

FTP Host	ibdc.rcb.res.in
FTP Username	IB00153
FTP Password	5x0yy0s
FTP Access URL	Click To Analyse

Note: Please upload data using above credentials via any FTP Client and click 'Click TO Analyse'

A

B

c) Run analysis by selecting either pair end or single end read

Name	Data Type	Action	Size	Date	Time
result				17/10/22	08:34
sample_data	Illumina PE reads (fastq.gz)	Analysis is in progress.		17/10/22	09:02

C

STEP3: Results summary, visualization and download

1. An email notification would be sent upon completion of analysis. The results can be accessed through the analysis report tab. Summary of results visible in analysis report includes QC, alignment bam file, FASTA sequence generated, Variant list, Circos plot and lineages (D, E, F). The analysis details can also be downloaded through the link shared through result generated email.

dibyabhabha (Edit account)

Analyse Data | Analysis Reports | User Details

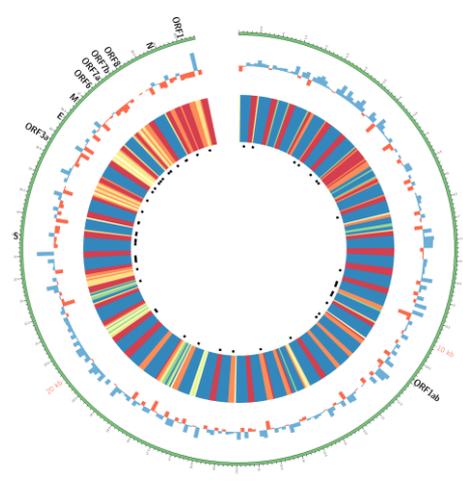
Analysis Reports

Job ID	Sample ID	DATAQC		MAPPING							VARIANT S	VISUALISATION	CONSENSUS	CLASSIFICATION	
		Forward	Reverse	High Quality Reads	High Quality Mapped Reads	Genome coverage (%)	Mean depth(X)	Mean base quality	Mean map quality	Alignment file(bam)				Clade	Lineage
166599	INCOV2074	View	View	3004026	1828488	98.8295	2185.12	34.9	41.6	Download	View / Download	View / Download	Download	21L (Omicron)	BA.2.10
560585	68														
166599	INCOV2074	View	View	3004026	1828488	98.8295	2185.12	34.9	41.6	Download	View / Download	View / Download	Download	21L (Omicron)	BA.2.10
755403	68														
166599	INCOV2074	View	View	3189556	1857625	98.241	2219.89	34.9	41.6	Download	View / Download	View / Download	Download	21L (Omicron)	BA.2.10
755403	69														

D

Variant Status	GeneID	Variant Status	Gene	Pos	Ref	Alt	VariantEffect	AminoAcidChange	Gene	RefSeqSupportingReference	RefSeqSupportingAlt
Known Variant	Known Variant	NC_045512.2	241	C	T	upstream gene variant			ORF1ab	0	98
Known Variant	Known Variant	NC_045512.2	246	C	G	missense variant	p.Ser1352Ile	S	ORF1ab	0	37
Known Variant	Known Variant	NC_045512.2	249	C	T	missense variant	p.Trp842Cys	S	ORF1ab	0	29
Known Variant	Known Variant	NC_045512.2	260	C	T	missense variant	p.Phe424Phe		ORF1ab	0	25
Known Variant	Known Variant	NC_045512.2	268	C	T	missense variant	p.Trp1141Cys	S	ORF1ab	0	30
Known Variant	Known Variant	NC_045512.2	418	G	A	missense variant	p.Gly1375Ser	S	ORF1ab	0	29
Known Variant	Known Variant	NC_045512.2	432	C	T	synonymous variant	p.A51A130A		ORF1ab	1	22
Known Variant	Known Variant	NC_045512.2	618	C	T	missense variant	p.Ser1938Phe	S	ORF1ab	0	34
Known Variant	Known Variant	NC_045512.2	635	A	G	synonymous variant	p.L142R135A		ORF1ab	2	34
Known Variant	Known Variant	NC_045512.2	934	C	T	missense variant	p.Leu3027Phe	S	ORF1ab	0	50
Known Variant	Known Variant	NC_045512.2	936	A	G	synonymous variant	p.S1935S193A		ORF1ab	0	61
Known Variant	Known Variant	NC_045512.2	944	G	T	missense variant	p.Trp2801Leu	S	ORF1ab	0	28
Known Variant	Known Variant	NC_045512.2	966	C	T	missense variant	p.Leu2929Phe	S	ORF1ab	0	46
Known Variant	Known Variant	NC_045512.2	985	C	T	synonymous variant	p.Trp1237Trp	S	ORF1ab	0	52
Known Variant	Known Variant	NC_045512.2	1029	C	T	missense variant	p.Trp1251Ile	S	ORF1ab	0	42
Known Variant	Known Variant	NC_045512.2	1047	G	A	synonymous variant	p.Arg394Arg	S	ORF1ab	0	53
Known Variant	Known Variant	NC_045512.2	1049	A	T	missense variant	p.Gly329Glu	S	ORF1ab	0	29
Known Variant	Known Variant	NC_045512.2	1182	G	A	missense variant	p.Leu3680Phe	S	ORF1ab	0	6
Known Variant	Known Variant	NC_045512.2	1192	G	T	missense variant	p.Ser1291Ser	S	ORF1ab	0	18
Known Variant	Known Variant	NC_045512.2	1196	T	G	missense variant	p.Phe3671Leu	S	ORF1ab	0	19
Known Variant	Known Variant	NC_045512.2	1200	T	G	missense variant	p.Leu1288Glu	S	ORF1ab	0	61
Known Variant	Known Variant	NC_045512.2	1408	C	T	missense variant	p.Trp141Leu	S	ORF1ab	0	28
Known Variant	Known Variant	NC_045512.2	1514	C	T	synonymous variant	p.Leu1514Leu	S	ORF1ab	0	34
Known Variant	Known Variant	NC_045512.2	1516	C	T	missense variant	p.Arg1516Gln	S	ORF1ab	0	36
Known Variant	Known Variant	NC_045512.2	1740	C	T	missense variant	p.Arg574Cys	S	ORF1ab	1	37
Known Variant	Known Variant	NC_045512.2	1813	A	G	missense variant	p.Trp1506Trp	S	ORF1ab	1	37
Known Variant	Known Variant	NC_045512.2	1995	C	T	missense variant	p.Trp1504Ile	S	ORF1ab	0	18
Known Variant	Known Variant	NC_045512.2	2055	A	G	synonymous variant	p.G1645G167C		ORF1ab	0	18
Known Variant	Known Variant	NC_045512.2	2218	C	T	missense variant	p.Trp1911Ile	S	ORF1ab	0	39
Known Variant	Known Variant	NC_045512.2	2220	T	G	missense variant	p.Ser1212Gly	S	ORF1ab	0	37
Known Variant	Known Variant	NC_045512.2	2279	G	A	missense variant	p.Gly379Arg	S	ORF1ab	0	45
Known Variant	Known Variant	NC_045512.2	2309	G	A	missense variant	p.Ser377Phe	S	ORF1ab	0	38
Known Variant	Known Variant	NC_045512.2	2319	C	T	missense variant	p.Ser377Phe	S	ORF1ab	0	38
Known Variant	Known Variant	NC_045512.2	2346	C	T	missense variant	p.Ser377Phe	S	ORF1ab	0	41
Known Variant	Known Variant	NC_045512.2	2389	A	G	missense variant	p.Ser377Phe	S	ORF1ab	0	42
Known Variant	Known Variant	NC_045512.2	2395	G	A	missense variant	p.Arg485Asn	S	ORF1ab	0	50
Known Variant	Known Variant	NC_045512.2	2396	C	T	missense variant	p.Arg485Asn	S	ORF1ab	0	50
Known Variant	Known Variant	NC_045512.2	2397	G	A	missense variant	p.Arg485Asn	S	ORF1ab	0	50
Known Variant	Known Variant	NC_045512.2	2398	C	T	missense variant	p.Arg485Asn	S	ORF1ab	0	50
Known Variant	Known Variant	NC_045512.2	2403	C	T	missense variant	p.Leu1412Asn	S	ORF1ab	0	55
Known Variant	Known Variant	NC_045512.2	2403	C	T	missense variant	p.A44746Y	S	ORF1ab	0	68
Known Variant	Known Variant	NC_045512.2	2525	C	T	missense variant	p.Arg557Tyr	S	ORF1ab	0	25
Known Variant	Known Variant	NC_045512.2	2536	T	G	missense variant	p.Trp683Cys	S	ORF1ab	0	31
Known Variant	Known Variant	NC_045512.2	2588	C	T	missense variant	p.Trp683Cys	S	ORF1ab	0	31
Known Variant	Known Variant	NC_045512.2	2584	A	A	missense variant	p.A44746Y	S	ORF1ab	0	43
Known Variant	Known Variant	NC_045512.2	2585	C	T	missense variant	p.Arg790Tyr	S	ORF1ab	0	39
Known Variant	Known Variant	NC_045512.2	2424	A	T	missense variant	p.G1696G16	S	ORF1ab	0	47
Known Variant	Known Variant	NC_045512.2	2440	T	T	synonymous variant	p.A6096A6		ORF1ab	1	36
Known Variant	Known Variant	NC_045512.2	2580	C	T	synonymous variant	p.Arg134Arg	S	ORF1ab	0	13
Known Variant	Known Variant	NC_045512.2	2586	C	T	synonymous variant	p.Trp1221Ile	S	ORF1ab	0	23
Known Variant	Known Variant	NC_045512.2	2600	C	T	missense variant	p.Trp145Trp	S	ORF1ab	0	43
Known Variant	Known Variant	NC_045512.2	2637	C	G	missense variant	p.G1616L	S	ORF1ab	0	34
Known Variant	Known Variant	NC_045512.2	2700	A	A	missense variant	p.A44746Y	S	ORF1ab	0	31
Known Variant	Known Variant	NC_045512.2	2712	C	T	synonymous variant	p.Trp112Trp	S	ORF1ab	0	35
Known Variant	Known Variant	NC_045512.2	2720	A	C	synonymous variant	p.A44746Y	S	ORF1ab	0	27
Known Variant	Known Variant	NC_045512.2	2731	C	T	missense variant	p.Arg813Val	S	ORF1ab	0	38
Known Variant	Known Variant	NC_045512.2	2738	A	T	missense variant	p.Arg813Val	S	ORF1ab	0	38
Known Variant	Known Variant	NC_045512.2	2787	C	T	missense variant	p.Arg813Val	S	ORF1ab	0	31
Known Variant	Known Variant	NC_045512.2	2772	C	T	upstream gene variant			ORF1ab	0	56
Known Variant	Known Variant	NC_045512.2	2811	C	T	missense variant	p.Phe133Leu	S	ORF1ab	0	58
Known Variant	Known Variant	NC_045512.2	2881	G	A	missense variant	p.Arg382Arg	S	ORF1ab	0	27
Known Variant	Known Variant	NC_045512.2	2881	G	A	synonymous variant	p.Arg382Arg	S	ORF1ab	0	27
Known Variant	Known Variant	NC_045512.2	2892	A	C	missense variant	p.Ser413Arg	S	ORF1ab	0	27

E



F

Note: The Genome analysis portal is presently available for Illumina Single End and Pair End Data analysis