

DATA SHEET

REAGENT SARS-CoV-2 isolate - Alpha (B.1.1.7 lineage) + E484K - **infectious**

REPOSITORY REFERENCE 101031

LOT NUMBER 28092021

DESCRIPTION Passage 5 Alpha + E484K isolate grown in the Vero/hSLAM cell line. Originally isolated and passaged in the Vero/hSLAM cell line by UKHSA. Mycoplasma undetectable, sterility checked.

TCID50/mL in VeroE6: 2.00 x 1e6

PROVIDED 1mL of clarified culture supernatant

SEQUENCE

In blue are Kappa defining mutations (<https://outbreak.info>). All mutations are present. Details about the sequencing protocol is available on request.

Position (NC_045512.2)	Ref	Alt	Proportion	Gene	HGVSp
71	C	A	0.0284887	CHR_START-ORF1ab	N/A
241	C	T	0.998859	CHR_START-ORF1ab	N/A
913	C	T	0.9982565	ORF1ab	p.Ser216Ser
2453	C	T	0.999289	ORF1ab	p.Leu730Phe
3037	C	T	0.9986575	ORF1ab	p.Phe924Phe
3267	C	T	0.9993635	ORF1ab	p.Thr1001Ile
4456	C	T	0.01203765	ORF1ab	p.Ala1397Ala
5388	C	A	0.9993145	ORF1ab	p.Ala1708Asp
5986	C	T	0.999213	ORF1ab	p.Phe1907Phe
6696	C	CT	0.03151565	ORF1ab	p.Leu2146fs
6696	C	T	0.0316183	ORF1ab	p.Pro2144Leu
6954	T	C	0.999072	ORF1ab	p.Ile2230Thr
7843	C	T	0.999393	ORF1ab	p.Asn2526Asn
9502	C	T	0.01213615	ORF1ab	p.Ala3079Ala
10934	T	C	0.655087	ORF1ab	p.Phe3557Leu
11287	GTCTGGTTTT	G	0.9657535	ORF1ab	p.Ser3675_Phe3677del
11407	C	T	0.999421	ORF1ab	p.Val3714Val
11750	C	T	0.3337445	ORF1ab	p.Leu3829Phe
13046	C	G	0.0117812	ORF1ab	p.Pro4261Ala
13048	T	A	0.01154365	ORF1ab	p.Pro4261Pro
13049	G	C	0.0115184	ORF1ab	p.Ala4262Pro
13051	C	A	0.01164895	ORF1ab	p.Ala4262Ala
14408	C	T	0.999274	ORF1ab	p.Pro4715Leu
14676	C	T	0.999318	ORF1ab	p.Pro4804Pro
15279	C	T	0.999204	ORF1ab	p.His5005His
16176	T	C	0.999511	ORF1ab	p.Thr5304Thr

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Position (NC_045512.2)	Ref	Alt	Proportion	Gene	HGVSp
16658	C	T	0.01247415	ORF1ab	p.Thr5465Ile
17440	C	T	0.0184474	ORF1ab	p.Pro5726Ser
17872	T	G	0.0499468	ORF1ab	p.Phe5870Val
19216	C	T	0.0132969	ORF1ab	p.Pro6318Ser
21384	T	C	0.0136215	ORF1ab	p.Tyr7040Tyr
21764	ATACATG	A	0.9399335	S	p.His69_Val70del
21990	TTTA	T	0.9515505	S	p.Tyr145del
22013	A	C	0.31456	S	p.Ser151Arg
22117	T	G	0.328644	S	p.Asn185Lys
22206	A	G	0.6629245	S	p.Asp215Gly
23012	G	A	0.998754	S	p.Glu484Lys
23063	A	T	0.998743	S	p.Asn501Tyr
23271	C	A	0.9987815	S	p.Ala570Asp
23403	A	G	0.9994455	S	p.Asp614Gly
23604	C	A	0.999633	S	p.Pro681His
23709	C	T	0.997313	S	p.Thr716Ile
24506	T	G	0.9993855	S	p.Ser982Ala
24914	G	C	0.9995405	S	p.Asp1118His
26996	C	T	0.0179969	M	p.Arg158Arg
27092	C	T	0.999532	M	p.Asp190Asp
27972	C	T	0.9993845	ORF8	p.Gln27*
28048	G	T	0.998587	ORF8	p.Arg52Ile
28111	A	G	0.9995915	ORF8	p.Tyr73Cys
28270	TA	T	0.8922475	ORF8-N	N/A
28280	G	C	0.999271	N	p.Asp3Leu
28281	A	T	0.9991325	N	
28282	T	A	0.999456	N	
28791	C	T	0.9988315	N	p.Ala173Val
28881	G	A	0.9984125	N	p.Arg203Lys
28882	G	A	0.9981855	N	p.Arg203Arg
28883	G	C	0.9989995	N	p.Gly204Arg
28977	C	T	0.99871	N	p.Ser235Phe
29465	G	A	0.9988685	N	p.Ala398Thr

APPLICATIONS

Infectivity assay, viral growth, neutralisation assay.

DEPOSITOR

Original virus (passage 2) received from Dr Kevin Bewley, UK Health Security Agency, Medical Interventions Group, Porton Down, UK. Passage 3 virus grown and characterised by CFAR.

ACKNOWLEDGMENTS

Acknowledgment for publications should read "The following reagent was obtained from the Centre For AIDS Reagents, NIBSC, UK: Alpha (B.1.1.7 lineage) +E484K (#101031), thanks to the contribution of Dr Kevin Bewley".

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MATERIAL SAFETY SHEET

Physical properties (at room temperature)			
Physical appearance	Yellow/Pink, liquid		
Fire hazard	None		
Chemical properties			
Stable	Yes	Corrosive:	No
Hygroscopic	No	Oxidising:	No
Flammable	No	Irritant:	No
Other: Live SARS-CoV-2. It is the responsibility of the end user to seek local biosafety approval for the storage and handling of the material in their workplace			
Handling: CAUTION - This preparation is not for administration to humans or animals in the human food chain. This preparation is hazardous to health. It should be used and discarded according to your own laboratory's safety procedures. Such safety procedures should include the wearing of protective clothing, gloves and use within ACDP3 or higher facility.			
Toxicological properties			
Effects of inhalation:	Likelihood of Coronavirus infection		
Effects of ingestion:	Likelihood of Coronavirus infection		
Effects of skin absorption:	Not established, avoid contact with skin		
Suggested First Aid			
Inhalation	Seek medical advice		
Ingestion	Seek medical advice		
Contact with eyes	Wash with copious amounts of water. Seek medical advice.		
Contact with skin	Wash thoroughly with water.		
Action on Spillage and Method of Disposal			
Spillage of contents should be taken up with absorbent material wetted with an appropriate virucidal agent. Rinse area with an appropriate virucidal agent followed by water. Absorbent materials used to treat spillage should be treated as biologically hazardous waste.			