

SARS-Related Coronavirus 2, Isolate Canada/ON/VIDO-01/2020
Catalog No. NR-53565
Product Description:

Severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate Canada/ON/VIDO-01/2020 was isolated from a human patient sample collected on January 23, 2020 in Ontario, Canada. NR-53565 lot 70039216 was produced by infecting *Cercopithecus aethiops* kidney epithelial cells (Vero E6; BEI Resources NR-596) and incubating in Eagle's Minimum Essential Medium (ATCC® 30-2003™) supplemented with 2% fetal bovine serum (ATCC® 30-2020™) for 4 days at 37°C with 5% CO₂. Cell lysate and supernatant were clarified by centrifuging at 3000 rpm for 20 minutes at 4°C.

Passage History:

VE(2)/VE(1) (National Microbiology Laboratory Canada/BEI Resources); VE = Vero E6 cells

Lot: 70039216
Manufacturing Date: 06OCT2020

TEST	SPECIFICATIONS	RESULTS
Identification by Infectivity in Vero E6 Cells	Cell rounding and detachment	Cell rounding and detachment
Next-Generation Sequencing (NGS) of Complete Genome Using Illumina® iSeq™ 100 Platform (Refer to Appendix I for NGS information)	≥ 98% identity with SARS-COV-2, Canada/ON/VIDO-01/2020 (GISAID: EPI_ISL_425177)	99.97% identity with SARS-COV-2, Canada/ON/VIDO-01/2020 (GISAID: EPI_ISL_425177)
Titer by TCID₅₀ Assay in Vero E6 Cells by Cytopathic Effect¹ (5 days at 37°C with 5% CO ₂)	Report results	2.8 × 10 ⁵ TCID ₅₀ per mL
Sterility (22-day incubation) Harpo's HTYE broth, 37°C and 26°C, aerobic ² Trypticase Soy broth, 37°C and 26°C, aerobic Sabouraud broth, 37°C and 26°C, aerobic Sheep blood agar, 37°C, aerobic Sheep blood agar, 37°C, anaerobic Thioglycollate broth, 37°C, anaerobic DMEM with 10% FBS, 37°C, aerobic	No growth No growth No growth No growth No growth No growth No growth	No growth No growth No growth No growth No growth No growth No growth
Mycoplasma Contamination Agar and broth culture (14-day incubation at 37°C) DNA detection by PCR of extracted Test Article nucleic acid	None detected None detected	None detected None detected

¹The Tissue Culture Infectious Dose 50% (TCID₅₀) endpoint is the 50% infectious endpoint in cell culture. The TCID₅₀ is the dilution of virus that under the conditions of the assay can be expected to infect 50% of the culture vessels inoculated, just as a Lethal Dose 50% (LD₅₀) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID₅₀ provides a measure of the titer (or infectivity) of a virus preparation.

²Atlas, Ronald M. *Handbook of Microbiological Media*. 3rd ed. Ed. Lawrence C. Parks. Boca Raton: CRC Press, 2004, p. 798.

/Heather Couch/

Heather Couch

13 JAN 2021

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.


BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org

Tel: 800-359-7370

Fax: 703-365-2898

APPENDIX I: NGS Information for NR-53565 lot 70039216

Sequence analysis using SBC v2.0 pipeline resulted in the discovery of eight SNPs when compared to the reference sequence from EPI_ISL_425177. Additionally, both the reference sequence EPI_ISL_425177 and NR-53565 lot 70039216 contained two SNPs when compared to GenBank MN908947 (SARS-CoV-2, isolate Wuhan-Hu-1, complete genome) (see Table below). Quality scores over 60 indicate it is improbable that the variant call is incorrect.

Position in NR-53565_70039216 Sequence	Position in EPI_ISL_425177 Reference Sequence	Position in MN908947 Wuhan-Hu-1 Sequence	Reported MN908947 Wuhan-Hu-1 Sequence	Reported EPI_ISL_425177 Reference Sequence	Identified Alternative Base	Quality	Variant Type	Length of Variant	Frequency of Variant
5051	5051	5084	A	G	G	N/A	SNP	1	1.000000
5059	5059	5092	T	T	C	7004	SNP	1	0.101275
11050	11050	11083	G	G	T	49314	SNP	1	0.553429
16424	16424	16457	C	C	T	5740	SNP	1	0.072936
22173	22173	22206	A	A	G	41776	SNP	1	0.680457
23492	23492	23525	C	C	T	28999	SNP	1	0.191518
23582	23582	23615	C	C	A	49314	SNP	1	0.463395
28483	28483	28516	T	T	A	10905	SNP	1	0.069312
28821	28821	28854	C	T	T	N/A	SNP	1	1.000000
29806	29806	29839	A	A	G	832	SNP	1	0.074941