

**SARS-Related Coronavirus 2, Isolate New York-PV08449/2020**

**Catalog No. NR-53515**

**Product Description:**

Severe acute respiratory syndrome-related coronavirus 2 (SARS-CoV-2), isolate New York-PV08449/2020 was isolated on March 17, 2020 from a nasal swab collected from a patient with a fatal respiratory illness in New York, USA. NR-53515 lot 70036347 was produced by infecting *Cercopithecus aethiops* kidney cells (Vero E6; ATCC® CRL-1586™) with the deposited material 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% CO<sub>2</sub>.

**Passage History:**

VE6(1)/VE6(2) (The Icahn School of Medicine at Mount Sinai Medical School/BEI Resources); VE6 = Vero E6 cells

**Lot: 70036347**

**Manufacturing Date: 23JUN2020**

TEST	SPECIFICATIONS	RESULTS
<b>Identification by Infectivity in Vero E6 Cells</b>	Cell rounding and detachment	Cell rounding and detachment
<b>Next-Generation Sequencing (NGS) of Complete Genome Using Illumina® iSeq™ 100 Platform</b> (Refer to Appendix I for NGS information)	≥ 98% identity with SARS-CoV-2, isolate NY-PV08449/2020 (GenBank: MT370902.1 and GISAID: EPI_ISL_421400)	100% identity with SARS-CoV-2, isolate NY-PV08449/2020 (GenBank: MT370902.1 and GISAID: EPI_ISL_421400)
<b>Titer by TCID<sub>50</sub> Assay in Vero E6 Cells by Cytopathic Effect<sup>1</sup></b> (5 days at 37°C and 5% CO <sub>2</sub> )	Report results	8.9 × 10 <sup>5</sup> TCID <sub>50</sub> per mL
<b>Sterility (21-day incubation)</b> Harpo's HTYE broth, 37°C and 26°C, aerobic <sup>2</sup> 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
<b>Mycoplasma Contamination</b> 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

<sup>1</sup>The Tissue Culture Infectious Dose 50% (TCID<sub>50</sub>) endpoint is the 50% infectious endpoint in cell culture. The TCID<sub>50</sub> 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% (LD<sub>50</sub>) is expected to kill half of the animals exposed. A reciprocal of the dilution required to yield the TCID<sub>50</sub> provides a measure of the titer (or infectivity) of a virus preparation.

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

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**APPENDIX I: NGS Information for NR-53515 lot 70036347**

Sequence analysis resulted in the discovery of one SNP when compared to the reference sequence from GISAID EPI\_ISL\_421400. Additionally, both the reference sequence GISAID EPI\_ISL\_421400 and NR-53515\_70036347 contained seven 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-53515_70036347 Sequence	Position in EPI_ISL_421400 Reference Sequence	Position in MN908947 Wuhan-Hu-1 Sequence	Reported MN908947 Wuhan-Hu-1 Sequence	Reported EPI_ISL_421400 Reference Sequence	Identified Alternative Base	Quality	Variant Type	Length of Variant	Frequency of Variant
186	186	241	C	T	T	n/a	SNP	1	1.0000000
1004	1004	1059	C	T	T	n/a	SNP	1	1.0000000
2982	2982	3037	C	T	T	n/a	SNP	1	1.0000000
10796	10796	10851	C	T	T	n/a	SNP	1	1.0000000
14353	14353	14408	C	T	T	n/a	SNP	1	1.0000000
22039	22039	22094	G	G	A	222	SNP	1	0.5
23348	23348	23403	A	G	G	n/a	SNP	1	1.0000000
25508	25508	25563	G	T	T	n/a	SNP	1	1.0000000