

Genomic RNA from SARS-Related Coronavirus 2, Isolate hCoV-19/USA/MD-HP47946/2023 (Lineage EG.5.1; Omicron Variant)

Catalog No. NR-59615

Product Description:

Genomic RNA was isolated from a preparation of cell lysate and supernatant from *Chlorocebus* (formerly *Cercopithecus*) *aethiops* kidney epithelial cells expressing transmembrane protease, serine 2 and human angiotensin-converting enzyme 2 (Vero E6-TMPRSS2-T2A-ACE2; VTA) infected with SARS-Related Coronavirus 2, Isolate hCoV-19/USA/MD-HP47946/2023 (Lineage EG.5.1; Omicron Variant) (BEI Resources NR-59503 lot 70062303) using QIAamp® Viral RNA Mini Kit (Qiagen® 52906). The viral genomic RNA is in a background of cellular nucleic acid and carrier RNA.

Lot: 70063519

Manufacturing Date: 13SEP2023

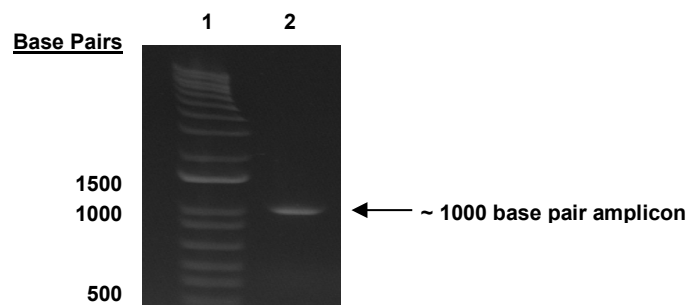
TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of species-specific region (~ 880 nucleotides)	≥ 98% identity with hCoV-19/USA/MD-HP47946/2023 (GISAID: EPI_ISL_17738077)	100% identity with hCoV-19/USA/MD-HP47946/2023 (GISAID: EPI_ISL_17738077)
Functional Activity by RT-PCR Amplification¹ Polyprotein gene	~ 1000 base pair amplicon	~ 1000 base pair amplicon (Figure 1)
Estimated Concentration (post-dilution) by Qubit Measurement (Viral, Cellular and Carrier)²	Report results	0.27 ng per 100 µL (0.0027 µg/mL)
Estimated Amount per Vial²	Report results	0.27 ng
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System (Post vial; 9 replicates)	Report results	2.6 × 10 ⁶ genome copies/mL
Virus Inactivation 10% of total yield inoculated on VTA cells and evaluated for cytopathic effect and by RT-PCR after serial passage ³	No viable virus detected	No viable virus detected

¹Amplified using iTaq™ Universal SYBR Green One-step Kit (Bio-Rad® 172-5151) with 5 µL of NR-59615 in a 50 µL reaction

²Measurement is determined pre-vial prior to dilution due to the limit of detection of the quantification method

³Use of the QIAamp® Viral RNA Mini Kit has been demonstrated to consistently inactivate 100% of SARS-CoV-2 as shown by the absence of cytopathic effect (CPE) and viral RNA expression by RT-PCR after plating the entire extract on virus-susceptible cells for two passages.

Figure 1: Functional Activity of NR-59615 by RT-PCR Amplification of Polyprotein Gene



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: PCR product from 1 µL of NR-59615

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02 FEB 2024

Technical Manager or designee, ATCC Federal Solutions

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