

**Genomic RNA from Human Coronavirus (HCoV), NL63**

**Catalog No. NR-44105**

**Product Description:**

Genomic RNA was isolated from a preparation of cell lysate and supernatant from *Macaca mulatta* kidney cells (LLC-MK2; ATCC® CCL-7.1™) infected with human coronavirus (HCoV), NL63 (BEI Resources NR-470 lot 70037857) using QIAamp® Viral RNA Mini Kit (Qiagen® 52904). The viral genomic RNA is in a background of cellular nucleic acid and carrier RNA.

**Lot: 70040419**

**Manufacturing Date: 04NOV2020**

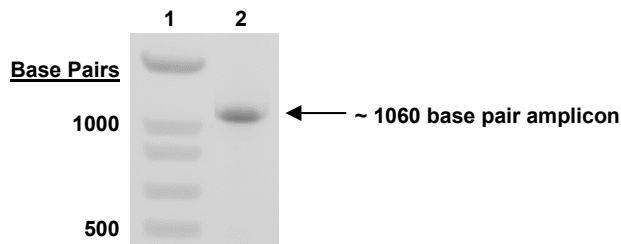
TEST	SPECIFICATIONS	RESULTS
<b>Genotypic Analysis</b> Sequencing of species-specific region (~ 940 nucleotides)	≥ 98% identity with HCoV, NL63 (GenBank: AY567487.2)	99.9% identity with HCoV, NL63 (GenBank: AY567487.2)
<b>Functional Activity by RT-PCR Amplification<sup>1</sup></b> Nucleoprotein gene	~ 1060 base pair amplicon	~ 1060 base pair amplicon (Figure 1)
<b>Estimated Concentration (post-dilution) by RiboGreen® Measurement (Viral, Cellular and Carrier)<sup>2</sup></b>	Report results	1.6 ng per 100 µL (0.016 µg/mL)
<b>Estimated Amount per Vial<sup>2</sup></b>	Report Results	1.6 ng
<b>Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System</b> (Post vial; 9 replicates)	Report results	3.34 × 10 <sup>7</sup> genome copies/mL
<b>Virus Inactivation</b> 10% of total yield inoculated on LLC-MK2 cells and evaluated for cytopathic effect for 14 days <sup>3</sup>	No viable virus detected	No viable virus detected

<sup>1</sup>Amplified using iTaq™ Universal SYBR Green One-step Kit (Bio-Rad 172-5151) with 5 µL of NR-44105 in a 50 µL reaction

<sup>2</sup>Measurement is determined pre-vial prior to dilution due to the limit of detection of the quantification method.

<sup>3</sup>Use of the QIAamp® Viral RNA Mini Kit has been demonstrated to consistently inactivate 100% of human coronavirus, as shown by the absence of cytopathic effect (CPE) after plating the entire extract on virus-susceptible cells for 14 days.

**Figure 1: Functional Activity of NR-44105 by RT-PCR Amplification of Nucleoprotein Gene**



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder  
Lane 2: PCR product from 1 µL of NR-44105

/Heather Couch/  
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Program Manager or designee, ATCC Federal Solutions

10 DEC 2020

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