

Genomic RNA from Middle East Respiratory Syndrome Coronavirus (MERS-CoV), EMC/2012

Catalog No. NR-45843

Product Description:

Genomic RNA was isolated from a preparation of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (Vero E6; ATCC® CRL-1586™) infected with MERS-CoV, EMC/2012 (BEI Resources NRS-44260 lot 62043786) using QIAamp® Viral RNA Mini Kit (Qiagen 52904). The viral genomic RNA is in a background of cellular nucleic acid and carrier RNA.

Lot: 70034102

Manufacturing Date: 27MAR2020

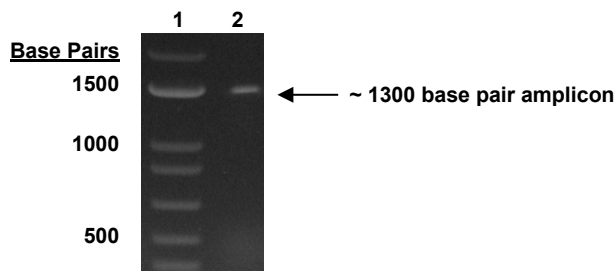
TEST	SPECIFICATIONS	RESULTS
Functional Activity by RT-PCR Amplification ¹	~ 1300 base pair amplicon	~ 1300 base pair amplicon (Figure 1)
Pre-Vial Concentration by NanoDrop® Measurement (Viral, Cellular and Carrier) ²	Report results	0.12 ng per µL (0.12 µg/mL)
Estimated Amount per Vial ²	Report results	12.4 ng
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System (Post vial; 3 replicates)	Report results	7.58 × 10 ⁷ genome equivalents/mL
Virus Inactivation (14 Days, 2 Passages) 10% of total yield inoculated on Vero E6 cells and evaluated for cytopathic effect and viral RNA expression by RT-PCR ³ Passage 1 Passage 2	No viable virus detected No viable virus detected	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-45843 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 MERS-CoV 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-45843 by RT-PCR Amplification



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder

Lane 2: PCR product from 1 µL of NR-45843

/Heather Couch/

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13 MAY 2020

Program Manager or designee, ATCC Federal Solutions

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