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SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-49123

Genomic RNA from Human Metapneumovirus, TN/91-320

Catalog No. NR-49123

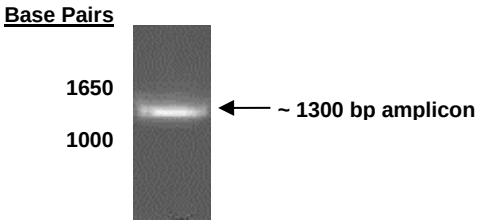
Product Description: Genomic RNA was isolated from a preparation of cell lysate and supernatant from *Macaca mulatta* kidney epithelial cells[1] infected with human metapneumovirus (HMPV), TN/91-320.

Lot[2]: 360 **Manufacturing Date: 18JAN2017**

TEST	SPECIFICATIONS	RESULTS
Sequencing of Species-Specific Region[3] (G and L genes; 1216 nucleotides)	Consistent with HMPV, TN/91-320 Consistent with NR-22234	Consistent with HMPV, TN/91-320 (GenBank: KC403972) Consistent with NR-22234
Functional Activity by RT-PCR Amplification[4]	~ 1300 bp amplicon	~ 1300 bp amplicon (Figure 1)
Total RNA Content by RiboGreen® Measurement (Viral, Cellular, and Carrier)	Report results	2.8 ng per 100 µL
Virus Inactivation 10% of total yield inoculated on LLC-MK2 Derivative cells and evaluated for expression of viral antigen[1,5]	No viable virus detected	No viable virus detected

[1]LLC-MK2 Derivative: ATCC® CCL-7.1™
[2]Nucleic acid was extracted from a preparation of HMPV, TN/91-320 (BEI Resources NR-22234, Lot 62500402) using a QIAamp® Viral RNA Mini Kit (Qiagen 52906).
[3]The nucleotide sequencing of NR-49123 (and the source organism, NR-22234) performed at BEI Resources cannot confirm exact strain identity owing to the high degree of sequence conservation within HMPV lineages. Sequencing of this preparation of genomic RNA is consistent with the source organism as well as numerous other contemporaneously isolated HMPV strains.
[4]Reverse transcription was performed using an iScript™ cDNA Synthesis Kit (Bio-Rad 170-8891) with 10 µL of NR-49123 in a 20 µL reaction; PCR was performed using iTaq™ DNA Polymerase (Bio-Rad 170-8870) with 5 µL of cDNA in a 50 µL reaction.
[5]Use of the QIAamp® Viral RNA Mini Kit has been demonstrated to consistently inactivate 100% of viruses, as shown by the absence of cytopathic effect (CPE) and expression of viral antigen after plating the entire extract on virus-susceptible cells.

Figure 1



Date: 23 MAY 2017 **Signature:** Michael R. Gyrla

BEI Resources Authentication

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.

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