

Certificate of Analysis for NR-45843

Genomic RNA from Middle East Respiratory Syndrome Coronavirus (MERS-CoV), EMC/2012 Catalog No. NR-45843

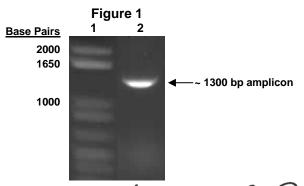
Product Description: Genomic RNA was isolated from a preparation of cell lysate and supernatant from Vero E6 (C1008) cells¹ infected with MERS-CoV, EMC/2012.

Lot²: 62943527 Manufacturing Date: 04NOV2014

TEST	SPECIFICATIONS	RESULTS
Sequencing of Species-Specific Region (1194 nucleotides)	Consistent with MERS-CoV, EMC/2012 Consistent with NR-44260	100% identity with MERS-CoV, EMC/2012 (GenBank: JX869059) 100% identity with NR-44260
Functional Activity by RT-PCR Amplification ³	~ 1300 bp amplicon	~ 1300 bp amplicon (See Figure 1)
Total RNA Content by RiboGreen [®] Measurement (Viral, Cellular and Carrier)	Report results	4.3 ng per 100 μL
Virus Inactivation 10% of total yield inoculated on HEp-2 cells ¹ and evaluated for cytopathic effect and viral RNA replication by RT-PCR ⁴	No virus detected	No virus detected

¹Vero E6 (C1008) cells: ATCC[®] CRL-1586™

⁴Use of the QIAamp[®] Viral RNA Mini Kit has been demonstrated to consistently inactivate 100% of Middle East respiratory syndrome coronavirus, as shown by the absence of cytopathic effect (CPE) and failure to detect viral RNA replication by RT-PCR after plating the entire extract on virus-susceptible cells and blind passaging once.



Date: 16 NOV 2015

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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²Nucleic acid was extracted from a preparation of MERS-CoV, EMC/2012 (BEI Resources NR-44260, Lot 62043787), using a QIAamp® Viral RNA Mini Kit (Qiagen 52906).

³Amplified using iTag[™] Universal SYBR[®] Green One-Step RT-PCR Kit (Bio-Rad 172-5151) with 5 μL of NR-45843 in a 50 μL reaction