

Certificate of Analysis for NR-4076

Plasmid Containing Hemagglutinin Gene from Monkeypox Virus, Zaire 79, Linearized

Catalog No. NR-4076

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Product Description: Product Description: The hemagglutinin (HA) gene from monkeypox virus, Zaire 79 (BEI Resources NR-2324) was amplified from extracted DNA and cloned into a commercial vector. The plasmid was produced in *Escherichia coli* DH5 α^{TM} -T1^R cells, extracted using a QIAGEN Plasmid Maxi Kit and linearized with *Hin*dIII. The sequence of the HA gene of NR-4076 differs from the monkeypox virus, Zaire 79 HA sequence (GenBank: DQ011155) by one nucleotide at position 516 (T to C).

Lot: 61694558 Manufacturing Date: 08MAY2013

TEST	SPECIFICATIONS	RESULTS
Agarose Gel Electrophoresis of Linearized Plasmid DNA ¹	Migrates as a single band at ~ 5,100 bp	Migrates as a single band at ~ 5,100 bp
DNA Concentration by PicoGreen® Measurement	Report results	60 μg per mL (6 μg/100 μL)
Concentration of DNA Molecules	Calculated using PicoGreen® concentration and molecular weight of plasmid	1.08 X 10 ¹³ molecules per mL (5.40 X 10 ¹⁰ molecules per 5 µL)
Sequencing of HA Gene (942 bp)	Report results	One nucleotide difference from GenBank DQ011155 at position 516 of the HA gene (T to C)

¹DNA from monkeypox virus, Zaire 79 (BEI Resources NR-2324, lot 4729797) was extracted using a QIAamp Viral RNA Minikit (QIAGEN 52904). The HA gene was amplified and cloned into a commercial vector. Plasmid DNA was extracted using a Plasmid Plus Maxi Kit (QIAGEN 12963). Purified plasmid DNA was linearized with *Hin*dIII (New England BioLabs, Inc. R0105S).

Date: 07 NOV 2013

Signature: Dorothy C. Young

Title:

Technical Manager, BEI Authentication or designee

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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