

Genomic DNA from Monkeypox Virus, hMPXV/USA/MA001/2022 (Lineage B.1, Clade IIb)

Catalog No. NR-58710

Product Description:

Genomic DNA was isolated from a preparation of cell lysate and supernatant from *Cercopithecus aethiops* kidney epithelial cells (BSC-40; ATCC® CRL-2761™) infected with monkeypox virus (MPXV), hMPXV/USA/MA001/2022 (Lineage B.1, Clade IIb) (BEI Resources lot 70054242) using using QIAamp® Viral RNA Mini Kit (Qiagen® 52906).

Lot: 70056170

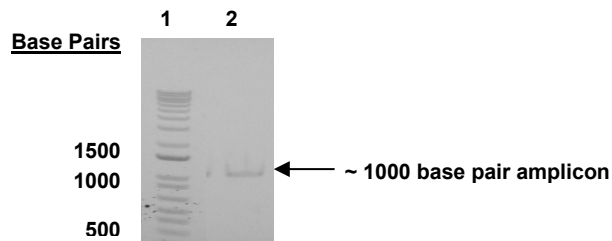
Manufacturing Date: 04OCT2022

TEST	SPECIFICATIONS	RESULTS
Next-Generation Sequencing (NGS) of Complete Genome Using Illumina® iSeq™ 100 Platform	≥ 98% identity with MPXV, hMPXV/USA/MA001/2022 (GISAID: 13052289.3)	99.99% identity with MPXV, hMPXV/USA/MA001/2022 (GISAID: 13052289.3)
Functional Activity by PCR Amplification¹ HA gene (~ 1000 base pairs)	~ 1000 base pair amplicon	~ 1000 base pair amplicon (Figure 1)
Genome Copy Number Using BioRad QX200 Droplet Digital PCR (ddPCR™) System (Post vial; 18 replicates)	Report results	2.13 × 10 ⁶ genome copies per mL
Estimated Amount per Vial	Report results	0.33 ng per vial
Virus Inactivation 10% of total yield inoculated on BSC40 cells and evaluated for cytopathic effect after serial passage ²	No viable virus detected	No viable virus detected

¹Amplified using iTaq™ DNA Polymerase (Bio-Rad 170-8870) with 5 µL of NR-58710 in a 50 µL reaction

²Use of the standard extraction method has been demonstrated to consistently inactivate 100% of orthopox as shown by the absence of cytopathic effect (CPE) after plating the entire extract on virus-susceptible cells for two passages.

Figure 1: Functional Activity of NR-58710 by PCR Amplification of HA Gene



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: NR-58710

/Sonia Bjorum Brower/
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31 OCT 2022

Lead Technical Writer or designee, ATCC Federal Solutions

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