Protein A29 from Monkeypox Virus with C-Terminal Histidine Tag, Recombinant from Escherichia coli

Catalog No. NR-58633
Sino Biological Catalog No. 40891-V08E

For research use only. Not for use in humans.

Contributor and Manufacturer:
Sino Biological, Wayne, Pennsylvania, USA

Product Description:
A recombinant form of protein A29 from monkeypox virus (MPXV) was expressed in Escherichia coli and purified using tag-based affinity purification. NR-58633 lacks the signal sequence, contains 90 residues of the MPXV A29 protein and features a C-terminal hexa-histidine tag. The predicted protein sequence is shown in Figure 1. NR-58633 has a theoretical molecular weight of approximately 11,360 daltons. Representative SDS-PAGE results are shown in Figure 2.

MPXV protein A29 is a homolog of the vaccinia virus A27 protein. Multiple functions of the A27 protein: 1) binds heparin on the cell surface to mediate cell fusion; 2) required for intracellular mature virions (IMV) trafficking on microtubules and intracellular enveloped virus (IEV) formation; 3) anchor for packaging the A26 protein into mature viral particles; 4) key target for neutralizing antibody.

Material Provided:
Each vial contains approximately 50 µg of purified recombinant protein lyophilized from phosphate-buffered saline, pH 7.4 containing 5% trehalose, 5% mannitol and 0.01% Tween-80.

Packaging/Storage:
NR-58633 was packaged aseptically in cryovials. The product is provided at ambient temperature and should be stored under sterile conditions at -20°C to -80°C immediately upon arrival. NR-58633 is stable for twelve months at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Freeze-thaw cycles should be avoided.

Reconstitution:
NR-58633 should be reconstituted with 200 µL sterile deionized water to a stock solution of 0.25 mg per mL. Add water with occasional gentle mixing. Note: Avoid vigorous shaking or vortexing.

Storage of Reconstituted Protein:
Reconstituted NR-58633 should be stored at -80°C or colder immediately. Avoid repeated freeze-thaw cycles.

Functional Activity:
NR-58633 reacts with monoclonal anti-MPXV A29 antibodies (Sino Biological 40891-M0006, 40891-M0025 and 40891-M0036) in western blot analysis.

Citation:
Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: Protein A29 from Monkeypox Virus with C-Terminal Histidine Tag, Recombinant from Escherichia coli, NR-58633.”

Biosafety Level: 1

Disclaimers:
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References:

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Figure 1: Predicted Protein Sequence

A29 protein – Residues 2 to 91 (represents amino acid residues 21 to 110)
Hexa-histidine tag – Residues 92 to 97

Figure 2: Representative SDS-PAGE

Lane 1: MW ladder
Lane 2: NR-58633