# Product Information Sheet for NR-58692

## H3L Envelope Protein from Monkeypox Virus with C-Terminal Histidine Tag, Recombinant from HEK293 Cells

## Catalog No. NR-58692
## Sino Biological Catalog No. 40893-V08H1

**For research use only. Not for use in humans.**

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

### Product Description:
A recombinant form of the H3L envelope protein from monkeypox virus (MPXV) was expressed in human embryonic kidney HEK293 cells and purified by affinity purification.[1] NR-58692 contains 289 amino acids and features a C-terminal poly-histidine tag.[1] The predicted protein sequence is shown in Figure 1. NR-58692 has a theoretical molecular weight of approximately 33,690 daltons. Representative SDS-PAGE results are shown in Figure 2.[1]

The H3L protein, a homolog of vaccinia virus H3L protein, is an envelope protein that binds to heparan sulfate on the cell surface. It might provide virion attachment to the host cell and is a potential target for vaccine or drug development.[1]

### 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-58692 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-58692 is stable for twelve months at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage.[1] Freeze-thaw cycles should be avoided.

### Reconstitution:
NR-58692 should be reconstituted with 200 µL sterile deionized water to a stock solution of 0.25 mg per mL.[1] Add water with occasional gentle mixing. Note: Avoid vigorous shaking or vortexing.

### Storage of Reconstituted Protein:
Reconstituted NR-58692 should be stored at -80°C or colder immediately. Avoid repeated freeze-thaw cycles.

### Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: H3L Envelope Protein from Monkeypox Virus with C-Terminal Histidine Tag, Recombinant from HEK293 Cells, NR-58692."

### Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

### Disclaimers:
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### References:
1. Lu, Z., Personal Communication.



Support Provided by NIAID

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**Figure 1: Predicted Protein Sequence**

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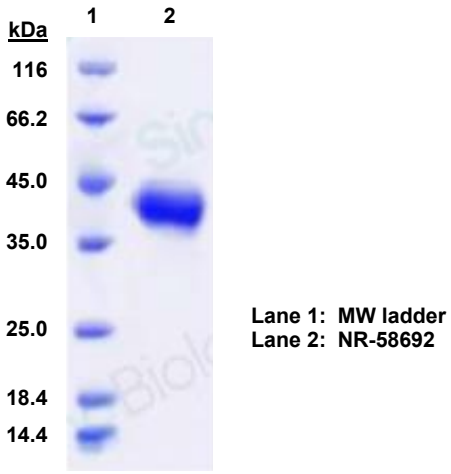
1   MAAVKTPVIV VPVIDRPPSE TFPNVHEHIN DQKFDDVKDN EVMQEKRDVV
51  IVNDDPDHYK DYVFIQWTGG NIRDDDKYTH FFSGFCNTMC TEETKRNIAR
101 HLALWDSKFF TELENKNVEY VVIIENDNVI EDITFLRPVL KAIHDKKIDI
151 LQMREIITGN KVKTELVIDK DHAIFTYTGG YDVSLSAYII RVTTALNIVD
201 EIIKSGGLSS GFYFEIARIE NEMKINRQIM DNSAKYVEHD PRLVAEHRFE
251 TMKPNFWSRI GTVAAKRYPG VMYTFTTPAH HHHHHHHHH
```

H3L protein – **Residues 1 to 278** (represents amino acid residues 1 to 278 of the native H3L protein)
Poly-histidine tag – Residues 280 to 289

**Figure 2: Representative SDS-PAGE**

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