Telomere-Binding Protein I1L from Monkeypox Virus with N-Terminal Histidine Tag, Recombinant from *Escherichia coli*

Catalog No. NR-58693
Sino Biological Catalog No. 40888-V07E

For research use only. Not for use in humans.

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

Product Description:
A recombinant form of the telomere-binding protein I1L from monkeypox virus (MPXV; GenPept: NP_536489) was expressed in *Escherichia coli* and purified using tag-based affinity purification.[1] NR-58693 contains the full-length MPXV I1L protein and features an HRV3C protease cleavage site and hexa-histidine tag at the N-terminus.[1] The predicted protein sequence is shown in Figure 1. NR-58693 has a theoretical molecular weight of approximately 37,710 daltons. Representative SDS-PAGE results are shown in Figure 2.[1]

MPXV I1L protein is expressed in the late phase of the viral replicative cycle. It is a DNA-binding protein that binds to the hairpin form of the viral telomeric sequence.[1]

Material Provided:
Each vial contains approximately 50 µg of purified recombinant protein in 20 mM Tris buffer, 300 mM NaCl, 1 mM dithiothreitol (DTT) and 50% glycerol, pH 7.4. Note: NR-58693 was not lyophilized. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:
NR-58693 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored under sterile conditions at -20°C to -80°C immediately upon arrival. It is recommended that the protein be aliquoted for optimal storage.[1] Freeze-thaw cycles should be avoided.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Telomere-Binding Protein I1L from Monkeypox Virus with N-Terminal Histidine Tag, Recombinant from *Escherichia coli*, NR-58693."

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.

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

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Figure 1: Predicted Protein Sequence

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1   MHHHHHHLEV LFQGPMAEFE DQLVFNSISA RALKAYFTAK INEMVDELVT
51  RKCPQKKKSQ AKKPEVRIPV DLVKSSFVKK FGLCNYGGIL ISLINSLVEN
101 NFFTKNGKLD DTGKKELVLT DVEKRILNTI DKSSPLYIDI SDVKVLAARL
151 KRSATQFNFN GHTYHLENDK IEDLINQLVK DESIQLDEKS SIKDSMYVIP
201 DELIDVLKTR LFRSPQVKDN IISRTRLYDY FTRVTKRDES SIYVILKDPR
251 IASILSLETV KMGAFMYTKH SMLTNAISSR VDRYSKKFQE SFYEDIAEFV
301 KENERVNVSR VVECLTVPNI TISSNTE
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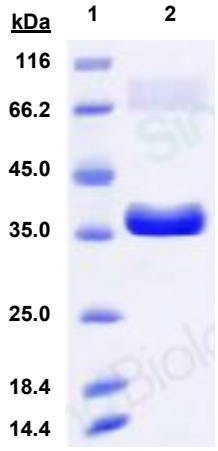
Hexa-histidine tag – Residues 2 to 7
HRV3C protease – Residues 8 to 15
I1L protein – **Residues 16 to 327** [represent amino acid residues 1 to 312 of the native I1L protein (GenPept: NP_536489)]

Figure 2: Representative SDS-PAGE



Lane 1: MW ladder
Lane 2: NR-58693

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