# A27L Protein from Vaccinia Virus (WR) with C-terminal Histidine Tag, Recombinant from Baculovirus

## Catalog No. NR-22133

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

**Contributor:**
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**Manufacturer:**
BEI Resources

**Product Description:**
A full-length recombinant form of the A27L membrane glycoprotein of the Western Reserve (WR) strain of vaccinia virus containing a C-terminal histidine-tag was produced in Sf9 insect cells using a baculovirus expression system and purified using nickel affinity chromatography. The predicted protein sequence is shown in Figure 1. The full length A27L protein is 110 residues (GenPept: P11258).[1,2,3]

**Material Provided:**
Each vial contains 50 to 200 µg of NR-22133 in PBS (pH 7.4) with 0.05% polysorbate (v/v). The protein concentration, expressed as mg/mL, is shown on the Certificate of Analysis.

**Packaging/Storage:**
NR-22133 was packaged aseptically in cryovials. The product is provided on dry ice and should be stored at -20°C or colder immediately upon arrival. Repeated freeze-thaw cycles of this product should be avoided.

**Functional Activity:**
NR-22133 was demonstrated to be functionally active based on its reactivity with a mouse monoclonal antibody to A27L (BEI Resources NR-569).

**Citation:**
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: A27L Protein from Vaccinia Virus (WR) with C-terminal Histidine Tag, Recombinant from Baculovirus, NR-22133."

**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.

**Disclaimers:**
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**References:**
1. Rodriguez, J. F. and M. Esteban. "Mapping and Nucleotide Sequence of the Vaccinia Virus Gene that Encodes a 14-Kilodalton Fusion Protein." J. Virol. 61 (1987): 3550–3554. PubMed: 2822962.
2. Amegadzie, B. Y., B. Y. Ahn, and B. Moss. "Identification, Sequence, and Expression of the Gene Encoding a $M_r$ 35,000 Subunit of the Vaccinia Virus DNA-Dependent RNA Polymerase." J. Biol. Chem. 266 (1991): 13712–13718. PubMed: 1856205.
3. Chung, C. S. et al. "A27L Protein Mediates Vaccinia Virus Interaction with Cell Surface Heparan Sulfate." J. Virol. 72 (1998): 1577-1585. PubMed: 9445060.
4. Ward, B. M. "Visualization and Characterization of the Intracellular Movement of Vaccinia Virus Intracellular Mature Virions." J. Virol. 79 (2005): 4755–4763. PubMed: 15795261.

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Support Provided by NIAID

**Figure 1: Predicted Protein Sequence**

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  1 DPMDGTLFPG DDDLAIPATE FFSTKAAKKP EAKREAIVKA DEDDNEETLK
 51 QRLTNLEKKI TNVTTKFEQI EKCCKRNDEV LFRLENHAET LRAAMISLAK
101 KIDVQTGRRP YEHHHHHH
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**VAC-WR A27L protein – Residues 3 to 112** [represents all 110 amino acid residues of the A27L protein from Vaccinia Virus (WR) (GenPept: P11258)]
Plasmid-derived amino acids- Residues 1 and 2
Hexa-histidine tag – Residues 113 to 118

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