

Vaccinia Virus, Western Reserve, A33R Protein with C-Terminal Histidine Tag, Recombinant from Baculovirus

Catalog No. NR-2623

For research use only. Not for human use.

Contributor:

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Manufacturer:

Chesapeake PERL, Inc., Savage, Maryland

Product Description:

NR-2623 is a recombinant form of the A33R membrane glycoprotein (A33Rt; residues 58 to 185, C-terminal histidine-tagged) of the Western Reserve (WR) strain of vaccinia virus. The full length A33R protein is 185 residues (GenPept: P68617).^{1,2} NR-2623 was produced in cabbage looper (*Trichoplusia ni*) insect larvae using a baculovirus expression vector system³ and was purified using nickel affinity chromatography. The predicted protein sequence is shown in Table 1 below. Non-vaccinia virus residues are underlined.

Material Provided:

Each vial contains approximately 1 mg of NR-2623 in 25 mM phosphate buffer (pH 7.0) containing 150 mM NaCl/50% glycerol (v/v). The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-2623 was packaged aseptically in cryovials. The product is provided on dry ice and should be stored at -80°C or colder immediately upon arrival. Repeated freeze-thaw cycles of this product should be avoided.

Functional Activity:

NR-2623 was demonstrated to be functionally active based on its reactivity with mouse monoclonal antibody to A33R (BEI Resources NR-565).

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Vaccinia Virus, Western Reserve, A33R Protein with C-Terminal Histidine Tag, Recombinant from Baculovirus, NR-2623."

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. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmbI5/index.htm.

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References:

1. Smith, G. L., Y. S. Chan and S. T. Howard. "Nucleotide Sequence of 42 Kbp of Vaccinia Virus Strain WR from near the Right Inverted Terminal Repeat." J. Gen. Virol. 72 (1991): 1349–1376. PubMed: 2045793.
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. PERLXpress™, Chesapeake Protein Expression and Recovery Labs (PERL).
4. Lustig, S., et al. "Combinations of Polyclonal or Monoclonal Antibodies to Proteins of the Outer Membranes of the Two Infectious Forms of Vaccinia Virus Protect Mice Against a Lethal Respiratory Challenge." *J. Virol.* 79 (2005): 13454–13462. PubMed: 16227266.
5. Fogg, C., et al. "Protective Immunity to Vaccinia Virus Induced by Vaccination with Multiple Recombinant Outer Membrane Proteins of Intracellular and Extracellular Virions." *J. Virol.* 78 (2004): 10230–10237. PubMed: 15367588.

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Table 1 – Predicted Protein Sequence

1	<u>DPRLNQCMSA</u>	<u>NEAAITDAAV</u>	<u>AVAAASSTHR</u>	<u>KVASSTTQYD</u>	<u>HKESCNGLYY</u>
51	<u>QGSCYILHSD</u>	<u>YQLFSDAKAN</u>	<u>CTAESSTLPN</u>	<u>KSDVLITWLI</u>	<u>DYVEDTWGSD</u>
101	<u>GNPITKTTSD</u>	<u>YQSDVVSQEV</u>	<u>RKYFCVKTMN</u>	<u>HHHHHH</u>	

Non-vaccinia virus amino acids are underlined.