Vaccinia Virus (WR) B5R Protein with N-terminal Histidine Tag, Recombinant from baculovirus

Catalog No. NR-2624

For research use only. Not for human use.

Contributor:

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Product Description:

NR-2624 is a recombinant form of the B5R membrane glycoprotein [B5R(275t); residues 20 to 275 comprising the ectodomain, N-terminal histidine-tagged][1] of the Western Reserve (WR) strain of vaccinia virus. The full length B5R protein is 317 residues (GenPept: Q01227).[2] NR-2624 was produced in cabbage looper *(Trichoplusia ni)* insect larvae using a baculovirus expression vector system[3] 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 1.0 mg of NR-2624 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-2624 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-2624 was demonstrated to be functionally active based on its reactivity with human polyclonal anti-vaccinia virus immune globulin (VIG; BEI Resources NR-650) and mouse monoclonal antibodies to B5R (BEI Resources NR-422 to NR-424, NR-426 to NR-431, NR-551 to NR-556 and NR-559 to NR-562).

Citation:

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Vaccinia Virus (WR) B5R Protein with N-terminal Histidine Tag, Recombinant from baculovirus, NR-2624."

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. 4th ed. Washington, DC: U.S. Government Printing Office, 1999. HHS Publication No. (CDC) 93-8395. This text is available online at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm.

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References:

1. Aldaz-Carroll, L., et al. "Epitope-Mapping Studies Define Two Major Neutralization Sites on the Vaccinia Virus Extracellular Enveloped Virus Glycoprotein B5R." J. Virol. 79 (2005): 6260–6271. PubMed: 15858010.
2. 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.
3. PERLXpress™, Chesapeake Protein Expression and Recovery Labs (PERL).

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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	DLHHHHHHTC	TVPTMNNAKL	TSTETSFNDK	QKVTFTCDQG	YHSSDPNAVC
51	ETDKWKYENP	CKKMCTVSDY	ISELYNKPLY	EVNSTMTLSC	NGETKYFRCE
101	EKNGNTSWND	TVTCPNAECQ	PLQLEHGSCQ	PVKEKYSFGE	YMTINCDVGY
151	EVIGASYISC	TANSWNVIPS	CQQKCDMPSL	SNGLISGSTF	SIGGVIHLSC
201	KSGFTLTGSP	SSTCIDGKWN	PVLPICVRTN	EEFDPVDDGP	DDETDLSKLS
251	KDVVQYEQEI	ESLE			

Non-vaccinia virus amino acids are underlined.

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