

### **Monoclonal Anti-Vaccinia Virus (WR) B5R Protein, Residues 20 to 275 (Ectodomain), (similar to VMC-31), (produced *in vitro*)**

**Catalog No. NR-562**

**For research use only. Not for human use.**

#### **Contributor:**

Gary H. Cohen, Ph.D., Professor and Chair, Department of Microbiology, School of Dental Medicine, University of Pennsylvania, Philadelphia, Pennsylvania and Roselyn J. Eisenberg, Ph.D., Professor, Department of Pathobiology, Head, Laboratories of Microbiology and Immunology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

#### **Product Description:**

Antibody Class: IgG1

Mouse monoclonal antibody to a recombinant form of the B5R envelope glycoprotein [B5R(275t); residues 20 to 275 comprising the ectodomain, N-terminal histidine-tagged]<sup>1</sup> of the Western Reserve (WR) strain of vaccinia virus was purified from a mouse B cell hybridoma using ammonium sulfate precipitation and size exclusion chromatography. The mouse B cell hybridoma was generated by the fusion of SP2/0 myeloma cells with immunized BALB/c splenocytes.

#### **Material Provided:**

Each vial contains approximately 1.0 mL of purified monoclonal antibody in 50 mM borate buffer (pH 8.0 ± 0.2) containing 0.1 M sodium chloride and no preservatives. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

#### **Packaging/Storage:**

The purified monoclonal antibody was packaged aseptically in cryovials. The product is provided on dry ice and should be stored at -20°C or colder immediately upon arrival. For long-term storage, a temperature of -65°C or colder is recommended. Repeated freeze-thaw cycles should be avoided.

#### **Functional Activity:<sup>1</sup>**

NR-562 was purified from the same hybridoma as VMC-31. The specificity of VMC-31 was determined by reactivity to B5R(275t) by ELISA and confirmed by Western blot analysis under reducing and non-reducing conditions. The reactivity pattern in ELISA assays using overlapping peptides spanning residues 20 to 275 of B5R indicates that VMC-31 recognizes an epitope within amino acids 65 to 75. VMC-31 does not neutralize the infectivity of the extracellular enveloped virus (EEV) form of vaccinia virus in BS-C-1 cells using an EEV plaque reduction assay. VMC-31 inhibits the comet tail formation of the EEV form of vaccinia virus in BS-C-1 cells using a comet tail inhibition assay.

#### **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](http://www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm).

#### **Citation:**

Acknowledgment for publications should read "The following reagent was obtained through the NIH Biodefense and Emerging Infections Research Resources Repository, NIAID, NIH: Monoclonal Anti-Vaccinia Virus (WR) B5R Protein, Residues 20 to 275 (Ectodomain), (similar to VMC-31), (produced *in vitro*), NR-562."

#### **Disclaimers:**

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at [www.beiresources.org](http://www.beiresources.org).

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government make any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

#### **Use Restrictions:**

**This material is distributed for internal research, non-commercial purposes only.** This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to negotiate a license. U.S. Government contractors may need a license before first commercial sale.

#### **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.

ATCC® is a trademark of the American Type Culture Collection.

