

Monoclonal Anti-Vaccinia Virus (WR) B5R Protein, Residues 20 to 275 (Ectodomain), (similar to VMC-20), (produced *in vitro*)**Catalog No. NR-551****For research use only. Not for human use.****Contributor:**

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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]¹ 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 containing 0.1 M sodium chloride (pH 8.0 ± 0.2) 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:¹

NR-551 was purified from the same hybridoma as VMC-20. The specificity of VMC-20 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-20 recognizes an epitope within amino acids 56 to 75. VMC-20 neutralizes the infectivity of the extracellular enveloped virus (EEV) form of vaccinia virus in BS-C-1 cells using an EEV plaque reduction assay. VMC-20 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. 5th ed. Washington, DC: U.S. Government Printing Office, 2007; see www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm. This publication recommends that all persons working in or entering laboratory or animal care areas where activities with vaccinia virus are being conducted should have documented evidence of satisfactory vaccination within the preceding ten years.

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-20), (produced *in vitro*), NR-551."

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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.

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