

Monoclonal Anti-Venezuelan Equine Encephalitis Virus, PTF-39 (Subtype IB) E2 Glycoprotein Antibody, Clone 1A4A-1

Catalog No. NR-51618

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Contributor:

National Institute of Allergy and Infectious Diseases, National Institutes of Health, Maryland, USA

Product Description:

Antibody Class: IgG2ak

Mouse monoclonal antibody prepared against the E2 glycoprotein of Venezuelan equine encephalitis (VEE) virus, PTF-39 (subtype IB) was purified from clone 1A4A-1 hybridoma supernatant by protein A-Sepharose chromatography. The B cell hybridoma was generated by the fusion of Sp2/0-Ag14 myeloma cells with mouse splenocytes immunized with purified, inactivated VEE virus, strain PTF-39.¹ The clone 1A4A-1 antibody is reported to be specific for VEE E2 glycoprotein and has protective effects in a murine model against exposure to VEE virus (serotypes 1A/B-D).^{1,2}

Material Provided:

Each vial of NR-51618 contains approximately 100 µL of purified monoclonal antibody in Dulbecco's phosphate buffered saline (D-PBS). The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-51618 was packaged aseptically in screw-capped plastic vials and is provided frozen on dry ice. The product should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-51618 is neutralizing and was shown to be reactive in ELISA and hemagglutination and immunofluorescence assays.^{1,3}

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Venezuelan Equine Encephalitis Virus, PTF-39 (Subtype IB) E2 Glycoprotein Antibody, Clone 1A4A-1, NR-51618."

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/bmbl5/index.htm.

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References:

1. Roehrig, J. T. and J. H. Mathews. "The Neutralization Site on the E2 Glycoprotein of Venezuelan Equine Encephalomyelitis (TC-83) Virus is Composed of Multiple Conformationally Stable Epitopes." *Virology* 142 (1985): 347-356. PubMed: 2414905.
2. Phillpotts, R. J. "Venezuelan Equine Encephalitis Virus Complex-Specific Monoclonal Antibody Provides Broad Protection, in Murine Models, Against Airborne Challenge with Viruses from Serogroups I, II and III." *Virus Res.* 120 (2006): 107-112. PubMed: 16621103.
3. Parker, M. D., et al. "Antibody to the E3 Glycoprotein Protects Mice against Lethal Venezuelan Equine Encephalitis Virus Infection." *J. Virol.* 84 (2010): 12683-12690. PubMed: 20926570.

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