Monoclonal Anti-Flavivirus Antibody, Clone cIgM 6B6C-1, Humanized IgM (produced *in vitro*)

Catalog No. NR-50502

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For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgM

Human-murine chimeric monoclonal antibody (MAb) was purified by mannan binding affinity chromatography from Sp2/0-Ag14 mouse myeloma cells transformed with a recombinant plasmid expressing the chimeric immunoglobulin M (IgM) antibody.[1,2] .

The chimeric IgM was created by incorporating the variable regions of a broadly flavivirus cross-reactive murine immunoglobulin G MAb 6B6C-1 sequence into a plasmid construct containing the constant (Cμ) region of human IgM.[2] The resulting human-murine chimeric IgM retains the specificity of the parent murine MAb but reacts like human IgM in the IgM antibody capture enzyme-linked immunosorbent assay (MAC-ELISA) widely used in diagnosis of human flavivirus infections.[2] Murine antibody 6B6C-1 was originally raised against the envelope protein of St. Louis encephalitis virus (SLEV) and had serological activity as measured by ELISA, immunoblotting and MAC-ELISA for multiple members of the flavivirus genus, including West Nile virus, SLEV, yellow fever virus, dengue virus and Japanese encephalitis virus.[2-4]

Material Provided:

Each vial of NR-50502 contains approximately 100 µL of purified monoclonal antibody in phosphate-buffered saline (PBS). The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-50502 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-50502 is not neutralizing and was shown to be reactive in ELISA and immunofluorescence assays.[1] See Certificate of Analysis for details.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Flavivirus Antibody, Clone cIgM 6B6C-1, Humanized IgM (produced *in vitro*), NR-50502."

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., Personal Communication.
2. Thibodeaux, B. A. and J. T. Roehrig, "Development of a Human-Murine Chimeric Immunoglobulin M Antibody for Use in the Serological Detection of Human Flavivirus

Antibodies." Clin. Vaccine Immunol. 16 (2009): 679-685. PubMed: 19297614.
3. Matthews, J. H. and J. T. Roehrig. "Elucidation of the Topography and Determination of the Protective Epitopes on the E Glycoprotein of Saint Louis Encephalitis Virus by Passive Transfer with Monoclonal Antibodies." J. Immunol. 132 (1984): 1533-1537. PubMed: 6198396
4. Roehrig, J. T., J. H. Matthews, and D. W. Trent. "Identification of Epitopes on the E Glycoprotein of Saint Louis Encephalitis Virus Using Monoclonal Antibodies." Virology 128 (1983): 118-126. PubMed: 6192585.

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