

**Monoclonal Anti-West Nile Virus E Protein, Clone MGAWN1 (Reference Lot 1-FIN-1027), Humanized IgG1**

**Catalog No. NR-31042**

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

**Contributor:**

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH)

**Manufacturer:**

Althea Technologies, San Diego, California and MacroGenics, Inc., Rockville, Maryland

**Product Description:**

Antibody Class: IgG1k

NR-31042 is a humanized IgG1, neutralizing monoclonal antibody that recognizes domain III of West Nile virus E protein, but not the E protein of other closely related flaviviruses. The antibody neutralizes West Nile virus *in vitro* and confers protective activity when administered pre- or post-exposure to West Nile virus-infected mice or hamsters. It is produced as a full length glycosylated immunoglobulin using a CHO cell line. The antibody consists of two identical light chain polypeptides of 23,329 daltons and two identical heavy chain polypeptides of 49,254 daltons. Column chromatographic procedures and filtration were used to purify the monoclonal antibody and to facilitate virus removal and inactivation.

**Material Provided:**

Each vial of NR-31042 contains approximately 0.1 mL of a sterile solution of monoclonal antibody MGAWN1 at a nominal concentration of 25 mg/mL. The solution also contains 10 mM sodium acetate, pH 5.1, with 9% sucrose (w/v) and 0.05 mg/mL polysorbate 80.

**Packaging/Storage:**

NR-31042 was packaged aseptically in cryovials. It is provided on dry ice and should be stored at -80°C upon arrival. The product should be stored at 2°C to 8°C after thawing. Repeated freeze-thaw cycles should be avoided. The product should also be protected from light during storage.

**Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-West Nile Virus E Protein, Clone MGAWN1 (Reference Lot 1-FIN-1027), Humanized IgG1, NR-31042."

**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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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**References:**

1. Oliphant, T., et al. "Development of a Humanized Monoclonal Antibody with Therapeutic Potential against West Nile Virus." Nat Med. 11 (2005): 522-530. PubMed: 15852016.
2. Nybakken, G. E., et al. "Structural Basis of West Nile Virus Neutralization by a Therapeutic Antibody." Nature 437 (2005):764-769. PubMed: 16193056.
3. Morrey, J. D., et al. "Humanized Monoclonal Antibody against West Nile Virus Envelope Protein Administered

- after Neuronal Infection Protects against Lethal Encephalitis in Hamsters." J. Infect. Dis. 194 (2006): 1300-1308. PubMed: 17041857.
4. Morrey, J. D., et al. "Defining Limits of Treatment with Humanized Neutralizing Monoclonal Antibody for West Nile Virus Neurological Infection in a Hamster Model." Antimicrob. Agents Chemother. 51 (2007): 2396-2402. PubMed: 17452485.
  5. Morrey, J. D., et al. "West Nile Virus-Induced Acute Flaccid Paralysis is Prevented by Monoclonal Antibody Treatment when Administered after Infection of Spinal Cord Neurons." J. Neurovirol. 14 (2008): 152-163. PubMed: 18444087.
  6. Beigel, J. H., et al. "Safety and Pharmacokinetics of Single Intravenous Dose of MGAWN1, a Novel Monoclonal Antibody to West Nile Virus." Antimicrob. Agents Chemother. 54 (2010): 2431-2436. PubMed: 20350945.

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