Product Information Sheet for NR-20817

Monoclonal Anti-Botulinum Neurotoxin Type E, Clone E3H3.3B (produced *in vitro*)

Catalog No. NR-20817

This reagent is the tangible property of the U.S. Government.

For research use only. Not for human use.

Contributor:

Jean M. Mukherjee, D.V.M, Ph.D., Assistant Professor of Infectious Diseases, Department of Biomedical Sciences, Cummings School of Veterinary Medicine, Tufts University, North Grafton, MA, USA

Manufacturer:

BEI Resources

Product Description:

Antibody Class: IgG1κ

Mouse monoclonal antibody prepared against the type E neurotoxin of *Clostridium botulinum* (*C. botulinum*) was purified from clone E3H3.3B hybridoma supernatant by protein G affinity chromatography. The B cell hybridoma was generated by the fusion of NSO mouse myeloma cells with splenocytes from mice immunized by intraperitoneal and intravenous injection with *C. botulinum* neurotoxin type E (BoNT/E) toxin and toxoid.[1]

C. botulinum are anaerobic Gram positive spore-forming bacteria which produce neurotoxins categorized serologically into seven types, A through G.[2] Four of the seven serotypes cause human botulism with the vast majority of cases due to serotypes A and B.[3] BoNT/E is a zinc-binding metalloprotease (holotoxin) that is endogenously cleaved into a heavy (~ 100 kDa) and a light (~ 50 kDa) chain that are held together by a reducible disulfide bond.[4]

Material Provided:

Each vial of NR-20817 contains approximately 100 µL of purified monoclonal antibody in PBS. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-20817 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-20817 reacts with the heavy chain of botulinum neurotoxin type E in western blot assays. The antibody is also reported to be useful for ELISA, RIA, flow cytometry, immunocytochemistry, immunohistochemistry, and immunoprecipitation.[1]

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Monoclonal Anti-Botulinum Neurotoxin Type E, Clone E3H3.3B (produced *in vitro*), NR-20817."

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.

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.

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 makes 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 determine if a license is required. U.S. Government contractors may need a license before first commercial sale.

References:

1. Mukherjee, J. M., personal communication.
2. Lindström, M. and H. Korkeala. "Laboratory Diagnostics of Botulism." Clin. Microbiol. Rev. 19 (2006): 298-314. PubMed: 16614251.

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

3. Centers for Disease Control and Prevention. "Botulism in the United States, 1899-1996. Handbook for Epidemiologists, Clinicians, and Laboratory Workers." Atlanta, Georgia (1998). Downloadable at http://www.bt.cdc.gov/agent/botulism/index.asp.
4. Sathyamoorthy, V. and B. R. DasGupta. "Separation, Purification, Partial Characterization and Comparison of the Heavy and Light Chains of Botulinum Neurotoxin Types A, B, and E." J. Biol. Chem. 260 (1985): 10461-10466. PubMed: 4030755.

Support Provided by NIAID

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898