Product Information Sheet for NR-4734

Monoclonal Anti-Epsilon Toxin from *Clostridium perfringens*, Clone 5B5H12 (immune globulin G, Mouse)

Catalog No. NR-4734

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For research use only. Not for human use.

Contributor:

Alison D. O'Brien, Ph.D., Chairperson, and James F. Sinclair, Ph.D., Laboratory Supervisor, Department of Microbiology and Immunology, Uniformed Services University of the Health Sciences, Bethesda, Maryland.

Product Description:

Monoclonal immune globulin G to the epsilon toxin from *Clostridium perfringens (C. perfringens*) was purified by protein G affinity chromatography from supernatant obtained from a mouse hybridoma clonal cell line (Clone 5B5H12). The monoclonal antibody was raised against a synthetic peptide corresponding to the carboxy-terminal region of epsilon protoxin.[1-3] The peptide was conjugated to keyhole limpet hemocyanin (KLH).

C. perfringens are common soil-dwelling bacteria that can infect humans and domestic livestock. These bacteria are classified into types A to E based on the toxins produced during the growth of these organisms. Epsilon toxin is produced by types B and D and is thought to form pores in target cell membranes resulting in edema in various organs and the central nervous system.[4]

Material Provided:

Each vial contains approximately 0.1 mg of NR-4734 in phosphate-buffered saline containing 0.1% sodium azide. The concentration, expressed as mg per mL, is shown on the Certificate of Analysis.

Packaging/Storage:

NR-4734 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Functional Activity:

NR-4734 is reactive with the epsilon toxin from *C. perfringens* as determined by ELISA. NR-4734 is not recommended for Western blots.

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-Epsilon Toxin from *Clostridium perfringens*, Clone 5B5H12 (immune globulin G, Mouse), NR-4734."

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.

Disclaimers:

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References:

1. Smedley, J. G. 3rd, et al. "The Enteric Toxins of *Clostridium perfringens*." Rev. Physiol. Biochem. Pharmacol. 152 (2004): 183-204. PubMed: 15517462.

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2. Goswami, P. P., P. Rupa, N. S. Prihar, and L. C. Garg. "Molecular Cloning of *Clostridium perfringens* Epsilon-Toxin Gene and Its High Level Expression in *E. coli*." Biochem. Biophys. Res. Commun. 226 (1996): 735-740. PubMed: 8831683.
3. Havard, H. L., S. E. C. Hunter, and R. W. Titball. "Comparison of the Nucleotide Sequence and Development of a PCR Test for the Epsilon Toxin Gene of *Clostridium perfringens* Type B and Type D." FEMS Microbiol. Lett. 97 (1992): 77-82. PubMed: 1427007. GenPept: AAA23236.
4. Petit, L., M. Gibert, and M. R. Popoff. "*Clostridium perfringens*: Toxinotype and Genotype." Trends Microbiol. 7 (1999): 104-110. PubMed: 10203838.

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