

DESCRIPTION

Species Reactivity	C. botulinum
Specificity	Detects recombinant C. botulinum BoNT-D Heavy Chain in direct ELISAs and Western blots. 100% and approximately 10% cross-reactivity with recombinant C. botulinum BoNT-C1 Heavy Chain is observed in Western blots and direct ELISAs, respectively. In direct E
Source	Monoclonal Mouse IgG _{2B} Clone # 682810
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived recombinant Clostridium botulinum Neurotoxin Type D Heavy Chain Asn862-Glu1276 Accession # P19321
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

BoNT-D (Botulinum neurotoxin serotype D) is produced by Clostridium botulinum and inhibits acetylcholine release from neuromuscular junctions. Notably, BoNT-D is not toxic to human cells. The 1276 amino acid (aa) BoNT-D precursor is cleaved to generate a disulfide-linked dimer of the 50-55 kDa light chain peptidase and the 100 kDa heavy chain. The heavy chain contains receptor binding and pore forming domains. The light chain translocates through this pore to the target cell cytosol where it cleaves synaptobrevin, thus blocking synaptic vesicle fusion with the presynaptic membrane. Within aa 862-1276 of the heavy chain, BoNT-D shares 31%, 33%, and 41% aa sequence identity with BoNT-A, -B, and -C1 heavy chains, respectively.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.