C. botulinum BoNT-C1 Heavy Chain Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 580223

Catalog Number: FAB5425S

100 µg

DESCRIPTION

Species Reactivity	*C. botulinum*
Specificity	Detects *C. botulinum* BoNT-C1 Heavy Chain in direct ELISAs. In direct ELISAs, no cross-reactivity with the Light Chains of BoNT-A, -B, -C1, -D, -E, -F, -G, or Heavy Chains of BoNT-D or -G is observed.
Source	Monoclonal Mouse IgG_1 Clone # 580223
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant *C. botulinum* BoNT-C1 Heavy Chain Asn866-Glu1291 Accession # P18640
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.
Immunoprecipitation	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-C1 (Botulinum neurotoxin C1 [heavy chain]) is a 100 kDa C-terminal fragment of the C1 *Clostridum botulinum* neurotoxin (holo)precursor. It constitutes a nonenzymatic part of a Zn^{2+}-dependent M27 family endoprotease that potently blocks neurosecretion. The inactive 1291 amino acid (aa), 150 kDa C1 precursor is cleaved between Lys449Thr450 to generate a heterodimeric toxin held together by a preexisting interchain disulfide bond between Cys437 and Cys453. The 100 kDa C-terminus (heavy chain) acts as a ligand for neuronal membrane ecto-acceptors, inducing its translocation and internalization. The 50 kDa N-terminal light chain acts as an intracellular peptidase that cleaves SNAP-25 and syntaxin. This is suggested to block noradrenalin release from a readily releasable pool of vesicles. Over aa 866-1291, the C1 heavy chain shares less than 40% aa identity with the D-type neurotoxin heavy chain.

PRODUCT SPECIFIC NOTICES

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