

## ***Clostridium botulinum* Toxin A Heavy Chain Monoclonal Antibody**

### **ORDERING INFORMATION**

<b>Catalog No.</b>	<b>Clone No.</b>	<b>MAb Subtype</b>	<b>Size</b>
18913	B33M	IgM	500ug

**Format:** Purified antibody in PBS, pH 7.4.

### **BACKGROUND**

*Clostridium botulinum*, an anaerobic, gram-positive, spore-forming rod commonly found on plants, in soil, water, and the intestinal tracts of animals, produces eight antigenically distinguishable exotoxins (A, B, C<sub>1</sub>, C<sub>2</sub>, D, E, F and G). Type A is the most potent toxin, followed by types B and F. All botulinum neurotoxins are produced as single polypeptide chains of ~150 kDa comprised of a heavy (H) chain and a light (L) chain of roughly 100 and 50 kDa, respectively, linked by a disulfide bond. The heavy (H) chain of the toxin binds selectively and irreversibly to high affinity receptors at the presynaptic surface of cholinergic neurones, and the toxin-receptor complex is taken up into the cell by endocytosis where the disulfide bond between the two chains is cleaved. The light (L) chain interacts with different proteins in the nerve terminals to prevent fusion of acetylcholine vesicles with the cell membrane.

### **SPECIFICATION SUMMARY**

**Antigen:** Synthetic peptide corresponding to aa 869-887 of *Clostridium botulinum* Toxin A heavy chain.

**Host Species:** Mouse

**Specificity:** This antibody recognizes *C. botulinum* Toxin A heavy chain. It reacts weakly with Toxin B and E.

### **APPLICATIONS**

*ELISA*

*Immunocytochemistry*

*Immunofluorescence*

Endusers should determine optimal dilutions for their applications.

### **DILUTION INSTRUCTIONS**

Dilute in PBS or medium that is identical to that used in the assay system.

### **STORAGE AND STABILITY**

This antibody is stable for at least one (1) year at -20° to -70°C. Store product in appropriate aliquots to avoid multiple freeze-thaw cycles.

*For in vitro investigational use only. Not intended for use in therapeutic or diagnostic procedures.*