



## BoNT/D (1.B.204): sc-70435

### BACKGROUND

Botulism is a rare but serious paralytic illness caused by a nerve toxin, which is produced by the anaerobic bacillus *Clostridium botulinum*. This neuromuscular disorder occurs through a complex series of molecular events, ultimately ending with the arrest of acetylcholine (Ach) release and flaccid paralysis. *Clostridium botulinum* serotype D, also referred to as BoNT/D, strains normally produce two types of stable toxin complexes. The M toxin is composed of neurotoxin and nontoxic-nonhemagglutinin, whereas the L toxin is composed of the M toxin and hemagglutinin subcomponents. BoNT/D cleaves VAMP-2, part of the SNARE complex required for synaptic vesicle fusion. BoNT/D requires a hydrophobic interaction with the V1 motif of VAMP-2 during the cleavage.

### REFERENCES

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9. Takeda, M., Kasai, H., Torii, Y., Mukamoto, M., Kohda, T., Tsukamoto, K. and Kozaki, S. 2006. Protective effect of *botulinum* C/D mosaic toxoid against avian botulism. J. Vet. Med. Sci. 68: 325-330.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### SOURCE

BoNT/D (1.B.204) is a mouse monoclonal antibody raised against BoNT/D.

### PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

BoNT/D (1.B.204) is recommended for detection of toxoid D of *C. botulinum* by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of BoNT/D: 160 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.