SANTA CRUZ BIOTECHNOLOGY, INC.

BoNT/E (BE3): sc-51782

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Botulinum neurotoxin type E, also referred to as BoNT/E, cleaves synaptosomal-associated protein (SNAP-25) at the C-terminal domain releasing a 26-mer peptide. This peptide product may act as an excitation-secretion uncoupling peptide (ESUP) to inhibit vesicle fusion which causes a long (at least 3 weeks) halt of Ach release after the cleavage of SNAP-25. BoNT/E also inhibits glutamate release and blocks the spike activity of pyramidal neurons. BoNT/E treatment reduces both focal and generalized kainic acid-induced seizures and also prevents the neuronal loss and long-term cognitive deficits that are associated with these seizures.

REFERENCES

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7. Blanes-Mira, C., et al. 2001. Thermal stabilization of the catalytic phosphorylation of a single tyrosine residue. Biochemistry 40: 2234-2242.
8. Agarwal, R., et al. 2005. Analysis of active site residues and structural studies: Glu335Gln is an apoenzyme. Biochemistry 44: 8291-8302.
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SOURCE

BoNT/E (BE3) is a mouse monoclonal antibody raised against BoNT/E of *Clostridium botulinum* origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BoNT/E (BE3) is recommended for detection of BoNT/E of *Clostridium botulinum origin* by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of BoNT/E: 156 kDa.

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 for detailed protocols and support products.