

Recombinant Clostridium botulinum Botulinum neurotoxin type A

Catalog No: #AP72892

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Package Size: #AP72892-1 20ug #AP72892-2 100ug #AP72892-3 1mg

Description

Product Name	Recombinant Clostridium botulinum Botulinum neurotoxin type A
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-436aaSequence Info:Partial
Other Names	Bontoxilysin-A ;BOTOX
Accession No.	P10845
Uniprot	P10845
Calculated MW	52 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	MPFVNKQFNYKDPVNGVDIAYIKIPNVGQMQPVKAFKIHNKIWWIPERDTFTNPEEGDLNPPPEAKQVPVSYD STYLSTDNEKDNLYLKGVTKLFERIYSTDLGRMLLSIVRGIPFWGGSTIDTELKVIDTNCINVIQPDGSYRSEELN LVIIGPSADIIQFECKSFGHEVLNLRNGYGSTQYIRFSPDFTFGFEESLEVDTNPPLGAGKFATDPAVTLAHELI HAGHRLYGIAINPNRVFKVNTNAYYEMSGLEVSFEELRTFGGHDAKFIDSLQENEFRLYYNKFKDIASLTKA KSIVGTTASLQYMKNVFKKEYLLSEDTSGKFSVDKLFKDKLYKMLTEIYTEDNFVKFFKVLNRKTYLNFDKAVFK INIVPKVNYTIYDGFNLNRLNLAANFNGQNTTEINNMNFTKLKNFTGLFEFYKLLCVRGIIT
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

Inhibits acetylcholine release. The botulinum toxin binds with high affinity to peripheral neuronal presynaptic membrane to the secretory vesicle protein SV2. It binds directly to the largest luminal loop of SV2A, SV2B and SV2C. It is then internalized by receptor-mediated endocytosis. The C-terminus of the heavy chain (H) is responsible for the adherence of the toxin to the cell surface while the N-terminus mediates transport of the light chain from the endocytic vesicle to the cytosol. After translocation, the light chain (L) hydrolyzes the 197-Gln-Arg-198 bond in SNAP-25, thereby blocking neurotransmitter release. Inhibition of acetylcholine release results in flaccid paralysis, with frequent heart or respiratory failure.

References

The complete amino acid sequence of the Clostridium botulinum type A neurotoxin, deduced by nucleotide sequence analysis of the encoding gene. Thompson D.E., Brehm J.K., Oultram J.D., Swinfield T.-J., Shone C.C., Atkinson T., Melling J., Minton N.P. Eur. J. Biochem. 189:73-81(1990) Research Topic: Others

Note: This product is for in vitro research use only