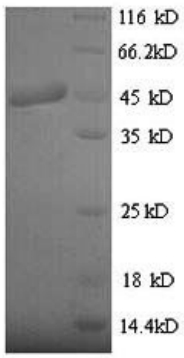
Recombinant Clostridium botulinum Botulinum neurotoxin type B (botB), partial

Product Code	CSB-YP318083CLQ
Relevance	Botulinum toxin acts by inhibiting neurotransmitter release. It binds to peripheral neuronal synapses, is internalized and moves by retrograde transport up the axon into the spinal cord where it can move between postsynaptic and presynaptic neurons. It inhibits neurotransmitter release by acting as a zinc endopeptidase that cleaves the '76-Gln-|-Phe-77' bond of synaptobrevin-2.
Abbreviation	Recombinant Clostridium botulinum botB protein, partial
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.
Uniprot No.	P10844
Alias	Bontoxilysin-B
Product Type	Recombinant Protein
Immunogen Species	Clostridium botulinum
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MPVTINNFNYNDPIDNNNIIMMEPPFARGTGRYYKAFKITDRIWIIPERYTFGYK PEDFNKSSGIFNRDVCEYYDPDYLNTNDKKNIFLQTMIKLFNRIKSKPLGEKLLE MIINGIPYLGDRRVPLEEFNTNIASVTVNKLISNPGEVERKKGIFANLIIFGPGPVL NENETIDIGIQNHFASREGFGGIMQMKFCPEYVSVFNNVQENKGASIFNRRGY FSDPALILMHELIHVLHGLYGIKVDDLPIVPNEKKFFMQSTDAIQAEELYTFGGQ DPSIITPSTDKSIYDKVLQNFRGIVDRLNKVLVCISDPNININIYKNKFKDKYKFVE DSEGKYSIDVESFDKLYKSLMFGFTETNIAENYKIKTRASYFSDSLPPVKIKNLL DNEIYTIEEGFNISDKDMEKEYRGQNKAINKQAYEEISKE
Research Area	Others
Source	Yeast
Target Names	botB
Protein Names	Recommended name: Botulinum neurotoxin type B Short name= BoNT/B EC= 3.4.24.69 Alternative name(s): Bontoxilysin-B Cleaved into the following 2 chains: 1. Botulinum neurotoxin B light chain 2. Botulinum neurotoxin B heavy cha
Expression Region	1-427aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	51.3kDa

Protein Length	Partial

Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The production of this Recombinant C. botulinum botB protein started with the botB gene synthesis. And then using recombinant DNA technology, the botB gene was inserted into an expression vector so that we could get the recombinant express plasmid of botB. Transform the plasmid into the cells of Yeast, culture the cells and we could get the desired Recombinant C. botulinum botB protein. But the work was not completed, protein purification and a strict QC system were performed in the last step. The purity is 90%+ determined by SDS-PAGE.

botB is a gene providing an instruction of making a protein named botulinum neurotoxin type B (BoNT/B) in clostridium botulinum. The protein encoded by this gene is also known as bontoxilysin-B and belongs to peptidase M27 family. This protein can be cleaved into two chains, including botulinum neurotoxin B light chain (LC) and botulinum neurotoxin B heavy chain (HC). It mainly targets motor nerve terminals and block neurotransmitter release, resulting in muscle paralysis.

Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	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.