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Product #130B
Lot #13031A1
Release Date: October 2012

CERTIFICATE OF ANALYSIS
BOTULINUM NEUROTOXIN TYPE A
from *Clostridium botulinum*
Lot #13031A1

Contents

Each vial, when reconstituted with 500 µl of water, contains 100 µg of protein in 20 mM HEPES, pH 7.4 with 1.25% lactose. **To ensure full recovery of toxin from the vial, include 1 mg/ml BSA or 0.2% TWEEN 20 in the reconstitution buffer. Handle the product gently. Mix by inversion, do not vortex. READ ALL HANDLING INFORMATION PRIOR TO RECONSTITUTION.**

Concentration

Protein concentration was determined by absorbance at 280 nm using an extinction coefficient of 1.63[1] for a 1 mg/ml solution.

Purity

When examined on 4-12% SDS-polyacrylamide gels, this protein migrates as a single major band with an apparent molecular weight of approximately 150,000 daltons. In the presence of a reducing agent, the preparation migrates as two bands with apparent molecular weights of 100,000 and 50,000 daltons. Densitometric analysis estimates the purity as > 95%. The absorbance ratio (OD_{260}/OD_{280}) of this preparation is 0.5.

The endotoxin content, determined using a kinetic chromogenic LAL assay, is 56 EU/mg.

Toxicity

Toxicity testing has not been done on this lot. Botulinum toxin is the most deadly bacterial toxin known to man. The minimum lethal dose (LD_{100}) in mice is estimated at 1.2 ng/kg, i.p. Humans are said to be at least as sensitive as mice.[2] Consult the MSDS for further information.

Storage

This product is supplied as a lyophilized powder which has been stoppered under vacuum. Store at 2-8°C.

Handling

Good laboratory technique should be employed in the safe handling of this product. This involves observing the following practices:

1. Persons handling this product and contaminated glassware should consult the current version of the Biosafety in Microbiological and Biomedical Laboratories.[3]

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2. This product is to be used by skilled personnel under the direction of a principal investigator in an appropriate laboratory.
3. Wear appropriate attire, i.e., lab coat, eye protection, and gloves. Nitrile gloves are recommended when handling lyophilized material.
4. Because this product is stoppered under vacuum, remove the stopper very slowly in a biological safety cabinet prior to reconstitution. Never work with the product in the powdered form. Always reconstitute it first.
5. Do not mouth pipette, inhale, ingest, or allow to come into contact with open wounds. Wash thoroughly any area of the body which comes into contact with the product.
6. Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.
7. This product is intended for research purposes only. It is not intended for use in humans or as a diagnostic agent. List Biological Laboratories, Inc. is not liable for any damages resulting from the misuse or handling of this product.

FOR RESEARCH PURPOSES ONLY. NOT FOR USE IN HUMANS.

References

1. Sathyamoorthy, V. and DasGupta, B.R. (1985) *J. Biol. Chem.* **260**, 10461-10466.
2. Gill, D.M. (1982) *Microbiol. Rev.* **46,** 86-94.
3. Biosafety in Microbiological and Biomedical Laboratories. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institutes of Health.

Quality Assurance: _____ Date: 01 Oct 2021