



540 DIVISION STREET ▪ CAMPBELL ▪ CALIFORNIA 95008-6906 ▪ USA
408-866-6363 ▪ 800-726-3213 ▪ FAX 408-866-6364 ▪ EMAIL info@listlabs.com
WEBSITE www.listlabs.com

CERTIFICATE OF ANALYSIS
NEUROTOXIN TYPE E, nicked, from *C. botulinum*
Lot #1411A1

Contents:

Each 10 µg vial of nicked botulinum neurotoxin type E, when reconstituted with 100 µl of water, contains 20 mM sodium citrate, 100 mM sodium chloride, pH 6.0 with 1.25% lactose. This product has been activated by nicking. The preparation contains approximately 92% nicked toxin as demonstrated by gel electrophoresis. **To ensure full recovery of toxin from the vial, include 1.0 mg/ml of BSA in the reconstitution buffer. Use sufficient volume to wash down the walls and stopper, if necessary. 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 1.45 for a 1 mg/ml solution.

Gel Electrophoresis:

When examined on 4-12% SDS-polyacrylamide gels, this product 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 major bands corresponding to the heavy chain (100,000 daltons) and the light chain (50,000 daltons), respectively. The band corresponding to the intact toxin at 150,000 daltons is approximately 8% of the total indicating 92% nicked toxin.

Purity:

The product migrates as one major band under non-reducing conditions, when examined by SDS polyacrylamide gel electrophoresis. The percent purity is approximately 90%. The $R_{260/280}$ of this preparation is 0.5.

Toxicity:

This product has been activated by nicking. Toxicity testing has not been done on this lot. Botulinum toxin is the most deadly bacterial toxin known to man. The lethal dose in unvaccinated humans is estimated at 0.5-2.0 ng/kg.¹ Consult the MSDS for further information.

(continued)

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 be vaccinated with pentavalent botulinum toxoid available from the Centers for Disease Control (Atlanta, GA, USA).
2. This product is to be used by skilled personnel under the direction of a principal investigator in a biosafety level 3 containment area only.
3. Wear appropriate attire, i.e., labcoat, eye protection and latex gloves.
4. Because this product is 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. Gill, D.M. (1982) *Microbiol. Rev.* **46**, 86-94.

Production: VPK Date: 4/6/10 Management: NS Date: 4/6/10 QA/QC: LP Date: 4/6/10