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Product #100B  
Release Date: 2/2013  
Date Retested: 3/2014  
Recommended Retest: 3/2016

CERTIFICATE OF ANALYSIS  
CHOLERA TOXIN (AZIDE FREE)  
from *Vibrio cholerae* Inaba 569B  
Lot #10063A1

**Contents**

Each vial, when reconstituted to 0.5 ml with water, contains 1 mg of Cholera Toxin in 0.05 M Tris, 0.2 M NaCl, 0.001 M Na<sub>2</sub>EDTA at pH 7.5. **Handle the product gently; do not vortex.**

**Concentration**

Protein concentration was determined by absorbance at 280 nm using an extinction coefficient of 1.14 for a 1 mg/ml solution.<sup>1</sup>

**Purity**

When examined by gel electrophoresis in a non-denaturing system run at alkaline pH, this protein migrates as a single major band. Purity is >95% as estimated by densitometric analysis of an SDS-PAGE. The 280 to 260 nm ratio of absorbance ( $R_{280/260}$ ) is 2.

The endotoxin content, determined using a kinetic chromogenic LAL assay, is approximately 11 EU/mg.

**Activity**

Binding activity was assessed by hemagglutination using trisialoganglioside fixed sheep red blood cells. This lot exhibited hemagglutination activity at < 0.8 µg/ml when examined by a modification of Sato, *et.al.*<sup>2</sup>

**Packaging/Storage**

This product is supplied as lyophilized powder, sealed under vacuum. Store at 2 – 8°C. **DO NOT FREEZE.**

**Handling**

Good laboratory technique should be employed in the safe handling of this product. Wear appropriate laboratory attire including lab coat, gloves and safety glasses. Nitrile gloves are recommended when handling lyophilized material.

This product is intended for research purposes by qualified personnel. 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 HUMAN USE.**

**References**

1. Spangler, Brenda D. (1992) *Microbiological Reviews* **56(4)**, 622-647.
2. Sato, Y., Cowell, J.L., Sato, H., Burstyn, D.G. and Manclark, C.R. (1983) *Infect. Immun.* **41**, 313-320.

Production: KD Date: 4-25-14 Management: DB Date: 4-25-14 QA/QC: GP Date: 4/25/2014

Made in U.S.A. 