

CERTIFICATE OF ANALYSIS  
SHIGA TOXIN 2 from *E. coli*, recombinant  
Lot #1621A1**Contents**

Each vial contains 10 µg of Shiga Toxin 2. When reconstituted in 100 µl of water the protein is in 0.05 M Tris, 0.1 M NaCl, 0.1% Trehalose, pH 7.5. 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 Abs (0.1%) = 1.22. This value is calculated by ProtParam<sup>1</sup> using an algorithm based on the Edelhoch<sup>2</sup> method with modifications described in Pace, et al<sup>3</sup>.

**Purity**

When examined on 12% SDS-PAGE, this product migrates as two major bands corresponding to the A and B polypeptides, with apparent molecular weights of 33 kDa and 8 kDa, respectively. The percent purity of this lot is >98%.

The endotoxin content, determined using a kinetic chromogenic LAL assay, is <90 EU/mg.

**Activity**

This lot of Shiga Toxin 2 has been tested to confirm activity using the Vero cell cytotoxicity assay and was found to be acceptable. The toxin is reactive by Western blot analysis using a monoclonal anti-Shiga Toxin 2 subunit A.

**Toxicity**

Shiga Toxin 2 is very toxic and should be handled with extreme caution. Since the toxicity varies with the cell type, a range of concentrations should be tested to determine optimal concentrations for specific studies.

**Storage**

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

(continued)

## 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, BMBL.<sup>4</sup>
2. This product is to be used by skilled personnel under the direction of a principal investigator in an appropriate laboratory.
3. Wear appropriate laboratory attire including lab coat, gloves and safety glasses. Nitrile gloves are recommended when handling lyophilized material.
4. Because this product is stoppered under vacuum, it is recommended to reconstitute the contents using a syringe in a biological safety cabinet. 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 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 USE IN HUMANS.**

## References

1. [www.expasy.ch/tools/protparam-doc.html](http://www.expasy.ch/tools/protparam-doc.html)
2. Edelhoch, H. (1967) Biochemistry, 6: 1948-1954.
3. Pace, C.N., Vajdos, F., Fee, L., Grimsley, G., and Gray, T. (1995) Protein Sci, 4: 2411-2423.
4. 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.

Production: TC Date: 3/27/17

Management: RP Date: 3/27/17

QA/QC: JC Date: 3/27/17