

Product #162L Lot #1623A1

Release Date: August 2019

# CERTIFICATE OF ANALYSIS SHIGA TOXIN 2 from *E. coli*, Recombinant Lot #1623A1

## Contents

Each vial contains 10  $\mu g$  of Shiga Toxin 2 in 100  $\mu L$  of 0.1M Tris, 0.1M NaCl, and 0.001% PVA, pH 8.6.

Handle the product gently. Mix by inversion. Do not vortex.

READ ALL HANDLING INFORMATION PRIOR TO USE.

#### Concentration

The protein concentration was determined by absorbance at 280 nm using Abs (0.1%) = 1.33. 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 a 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 < 600 EU/mg.

#### Activity

This lot of Shiga Toxin 2 has been tested to confirm activity using a Vero cell cytotoxicity assay. The cell cytotoxicity ( $CC_{50}$ ) is ~11 µg/mL on 1 x 10<sup>3</sup> Vero cells. The toxin is also reactive by Western blot analysis using a monoclonal anti-Shiga Toxin 2A antibody.

#### **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 frozen liquid. Store at ≤ -65°C.

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# **Handling**

Good laboratory technique should be employed in the safe handling of this product. Refer to the SDS. 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 USE IN HUMANS.

## References

- 1. 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.

Quality Assurance: fahrnufum Date: 11 JAN 2022

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