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Product # 510A

CERTIFICATE OF ANALYSIS

GST-Synaptobrevin-2 recombinant protein substrate for *C. botulinum* neurotoxins Type B, D, F, G and Tetanus Toxin

Lot # 5102A1

Contents:

Each vial of recombinant GST-Synaptobrevin-2 contains 100 µg of lyophilized protein. When reconstituted with 255 µl of sterile distilled water, each vial contains 100 µg of GST-Synaptobrevin-2 in 20 mM HEPES, pH 7.4 + 1.25% lactose. The protein was recombinantly expressed in *E. coli* and purified using affinity and ion exchange chromatography. The GST affinity tag has been retained on the protein.

Molecular Weight:

GST-Synaptobrevin-2 is 331 amino acids in length. This product contains the GST affinity tag and 97 amino acids of the 116 amino acids of the Synaptobrevin-2 sequence. The final 19 amino acids containing the transmembrane domain are missing from the Synaptobrevin-2 amino acid sequence to aid in solubility. The molecular weight of the protein is 37,797 daltons.

Concentration:

Protein concentration was determined by a modification of the Bradford[1] method using bovine serum albumin as a standard.

Gel Electrophoresis:

This product migrates as a single major band on 12% SDS polyacrylamide gels with an apparent molecular weight of 38,000 Da. The protein is greater than 90% pure based on densitometry.

Activity:

GST-Synaptobrevin-2 can be used as a substrate to assess the activity of Tetanus toxin and Botulinum neurotoxins type B, D, F and G. Cleavage of GST-Synaptobrivin-2 (5 µM) is detected with 20 nM neurotoxin light chain after incubation at 37°C for 1 hour in 20 mM Tris-HCl, pH 8.0 and 50 mM NaCl.

(continued)

Packaging and Storage:

This product is supplied as a lyophilized powder which has been stoppered under vacuum. Reconstitution of the powder should be done with syringe through the rubber stopper to avoid any loss of material. Store lyophilized vials at 4°C. Once dissolved, aliquot and store at -20°C. Refrain from multiple freeze/thaw cycles.

Toxicity:

GST-Synaptobrevin-2 is not known to be a toxic protein.

Handling:

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

1. **Wear appropriate laboratory attire including a lab coat, gloves and safety glasses.**

2. **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.**

3. **Avoid accidental autoinoculation by exercising extreme care when handling in conjunction with any injection device.**

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

References:

1. Bradford, M.M. (1976) *Anal. Biochem.* 72, 248-254.

Approved: TC Date: 12/19/06 Approved: MS Date: 12/19/06