

**Shiga Toxin Type 1 Subunit A, Recombinant from *Escherichia coli***

**Catalog No. NR-859**

This reagent is the tangible property of the U.S. government.

**Product Description:** NR-859 is a recombinant form of the Shiga toxin type 1 subunit A (rStx1A). The protein sequence of the native Shiga toxin type 1A subunit was modified to include an internal penta-histidine-tag.

**Lot: 59945281**

**Manufacturing Date: 21JUN2011**

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE (SYPRO Orange densitometry)	rStx1A represents > 95% of total staining intensity	rStx1A represents > 95% of total staining intensity (Figure 1)
SELDI-TOF Mass Spectrometry	Measured mass within 5% of expected mass (32.3 kDa)	Measured mass within 2% of expected mass: 31.7 kDa
SELDI-TOF Mass Spectrometry of Trypsin Digested Protein	> 50% of total residues accounted for in peptides of expected mass	61% of total residues accounted for in peptides of expected mass
Concentration by Bicinchoninic Acid Protein Assay	0.1 mg/mL ± 5%	0.1 mg/mL
Functional Activity by Western Blot Analysis <sup>1</sup> NR-859 Carbonic anhydrase	Reactive Non-reactive	Reactive (Figure 2) Non-reactive
Cytotoxicity in Vero Cells NR-859 Active holotoxin	Report results Report results	Non-cytotoxic at 1 x 10 <sup>-7</sup> M (Figure 3) CD <sub>50</sub> ~ 1 x 10 <sup>-14</sup> M
Sterility	0.22 µm filter-sterilized	0.22 µm filter-sterilized
Endotoxin Content (Limulus Amoebocyte Lysate Assay)	Report results	< 12.5 EU per mg protein
Absorbance Ratio (A280/A260)	Report results	2.2

<sup>1</sup>Rabbit polyclonal antibody to Shiga toxin 1

# Certificate of Analysis for NR-859

Figure 1

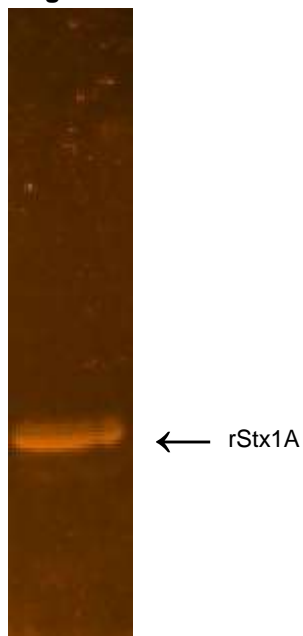


Figure 2

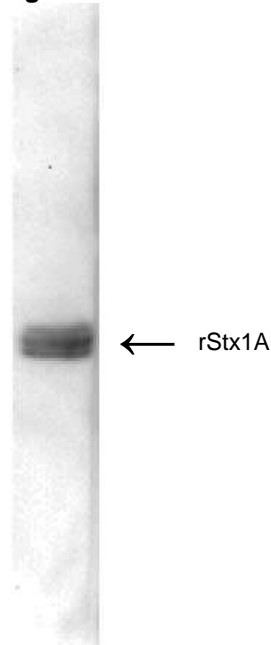
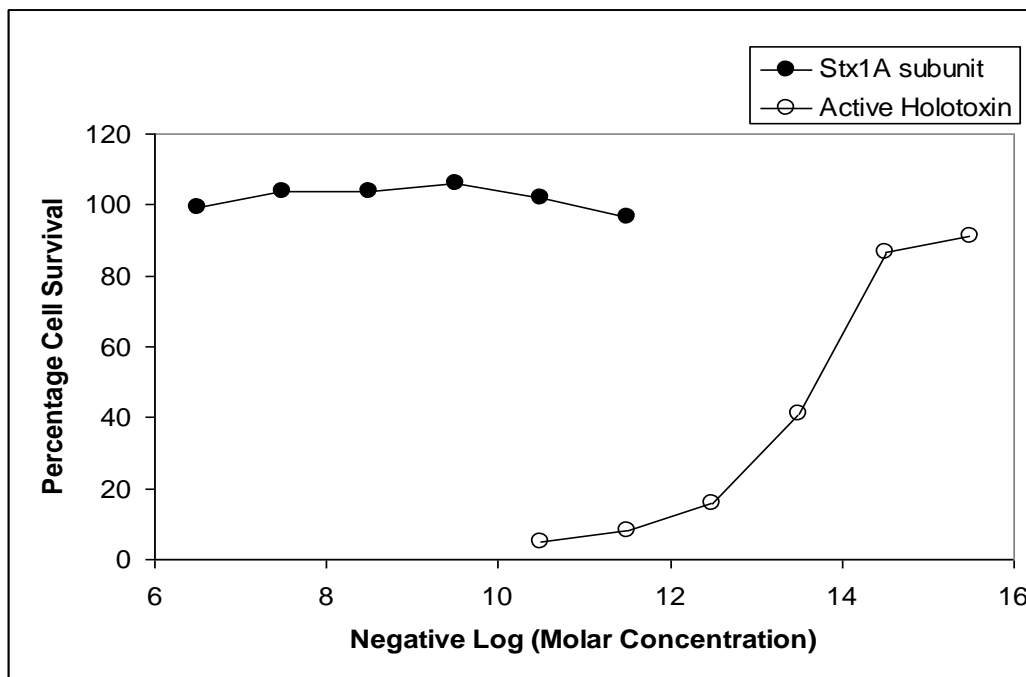


Figure 3



**Date:** 13 JUN 2014

**Signature:** *Dorothy C. Young*

**Title:** Technical Manager, BEI Authentication or designee

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