

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

Catalog No. NR-860

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

Product Description: NR-860 is a recombinant form of the B subunit of Shiga toxin type 1 (Stx1). The amino acid sequence includes a C-terminal hexa-histidine tag and amino acid residues 21 to 89 of the Stx1 subunit B protein (GenPept: AAA98348). The recombinant protein was expressed in *Escherichia coli* and purified by nickel affinity chromatography.

Lot: 59926594

Manufacturing Date: 09NOV2011

| TEST | SPECIFICATIONS | RESULTS |
|---|--|--|
| Appearance | Clear and colorless | Clear and colorless |
| SDS-PAGE (SYPRO Orange Densitometer Scan) | Dominant band of ~ 8 kDa > 95% pure | Dominant band of ~ 8 kDa 98% pure (Figure 1) |
| Mass Spectrometry | Measured mass within 5% of expected mass based on amino acid sequence: 8,513 daltons | Measured mass within 0.4% of expected mass based on amino acid sequence: 8,548 daltons |
| SELDI-TOF Mass Spectrometry of Glu-C Digest | > 50% of total residues accounted for in peptides of expected mass | 86% of total residues accounted for in peptides of expected mass |
| Concentration by Bicinchoninic Acid Protein Assay | 1.0 mg (± 5%) per mL | 1.0 mg per mL |
| Functional Activity by Western Blot Analysis Mouse monoclonal antibody to Stx1 subunit B (BEI Resources NR-844) Carbonic anhydrase | Reactive Non-reactive | Reactive (Figure 2) Non-reactive |
| Cytotoxicity in Vero Cells NR-860 | Report results | Non-cytotoxic at 1×10^{-5} M |
| Sterility | 0.22 µm filter-sterilized | 0.22 µm filter-sterilized |
| Endotoxin Content (Limulus Amoebocyte Lysate Assay) | Report results | < 250 EU/mg |
| Absorbance Ratio (OD₂₈₀/OD₂₆₀) | Report results | 1.5 |

Certificate of Analysis for NR-860

Figure 1

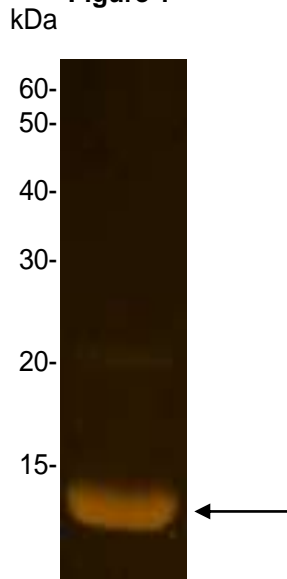
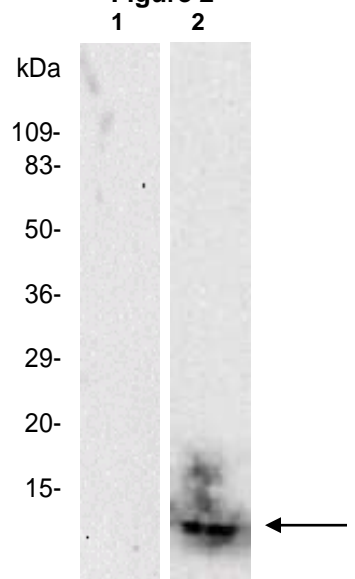


Figure 2



Lane 1: NR-860
Lane 2: Carbonic anhydrase

Date: 29 MAR 2012

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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