

Shiga Toxin Type 2 Subunit B, Recombinant from *Escherichia coli*

Catalog No. NR-4677

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

Product Description: NR-4677 is a recombinant form of the B subunit of Shiga toxin type 2 (Stx2). The amino acid sequence includes a C-terminal hexa-histidine tag and amino acid residues 20 to 89 of the Stx2 subunit B protein (GenPept: AAD25446). The recombinant protein was expressed in *Escherichia coli* and purified by nickel affinity chromatography.

Lot: 59019949

Manufacturing Date: 15SEP2010

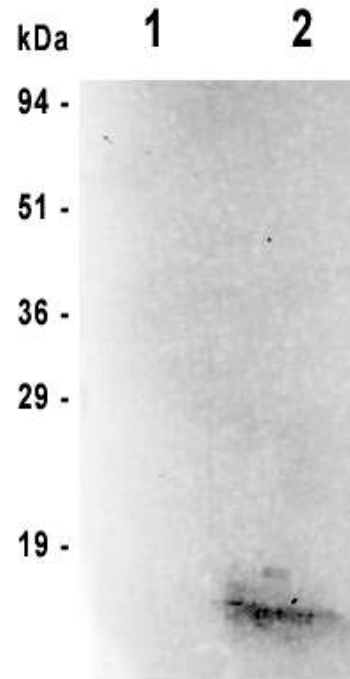
TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless, no particulate matter	Clear and colorless, no particulate matter
SDS-PAGE (SYPRO Orange densitometer scan)	Dominant band of expected size (8.6 kDa) ~ 95% pure	Dominant band of ~ 8 kDa ~ 98% pure (Figure 1)
Mass Spectrometry	Measured mass within 5% of expected mass based on amino acid sequence: 8,640 daltons	Measured mass within 0.1% of expected mass based on amino acid sequence: 8,632 daltons
SELDI-TOF Mass Spectrometry of Trypsin Digest	> 50% of total residues accounted for in peptides of expected mass	71% of total residues accounted for in peptides of expected mass
Concentration by Bicinchoninic Acid Protein Assay	Report results	1.0 mg/mL
Functional Activity by Western Blot Analysis Rabbit polyclonal antibody to Stx2 subunit B (BEI Resources NR-9352) Carbonic anhydrase	Reactive Non-reactive	Reactive (Figure 2) Non-reactive
Cytotoxicity in Vero Cells NR-4677 Stx2 recombinant holotoxin	Report results Report results	Non-cytotoxic at 1×10^{-5} M $CD_{50} \sim 1 \times 10^{-10}$ M
Sterility	0.22 μ m filter sterilized	0.22 μ m filter sterilized
Endotoxin Content (Limulus Amoebocyte Lysate assay)	Report results	< 12 EU/mg
Absorbance Ratio (OD ₂₈₀ /OD ₂₆₀)	Report results	1.73

Certificate of Analysis for NR-4677

Figure 1



Figure 2



Lane 1: Negative Control
Lane 2: 1 µg NR-4677

Date: 02 NOV 2010

Signature: *Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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