

Certificate of Analysis for NR-4674

Shiga Toxin Type 1 Toxoid, Chemically Inactivated

Catalog No. NR-4674

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

Product Description: Recombinant Shiga toxin type 1 (Stx1) was expressed in *Escherichia coli*, purified by affinity chromatography, and chemically inactivated with formaldehyde.

Lot: 61145397 Manufacturing Date: 27MAR2013

TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless	Clear and colorless
SDS-PAGE (Figure 1)	Protein band of interest represents > 95% of total staining intensity above background	Stx1 (prior to treatment) represents > 95% of total staining intensity above background; formaldehyde treatment resulted in multiple cross-linked species
SELDI-TOF Mass Spectrometry of Stx1 Toxoid (Complex of One Subunit A and Five Subunit Bs)	Measured mass within 5% of expected mass (70508 daltons)	Measured mass (71457 daltons) within 1.3% of expected mass
Protein Content by Bicinchoninic Acid Protein Assay	Report results	8.4 µg per vial
Concentration by Bicinchoninic Acid Protein Assay	Report results	0.06 mg per mL
Functional Activity by Western Blot ¹ (Figure 2) NR-4674 Carbonic anhydrase	Reactive Not reactive	Reactive Not reactive
Cytotoxicity in Vero Cells (Figure 3) NR-4674 Recombinant Stx1	Report results Report results	CD ₅₀ ~ 1x10 ⁻¹¹ M CD ₅₀ ~ 1x10 ⁻¹⁵ M
Sterility	0.22 µm filter-sterilized	0.22 µm filter-sterilized
Endotoxin	< 10000 units per mg	< 357 units per mg

¹Using anti-Stx1 polyclonal antibody produced in rabbit

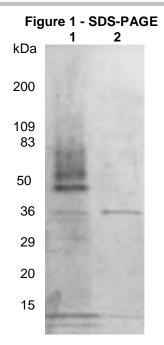
BEI Resources www.beiresources.org E-mail: contact@beiresources.org

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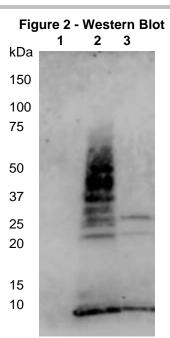
SUPPORTING INFECTIOUS DISEASE RESEARCH

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Lane 1: NR-4674

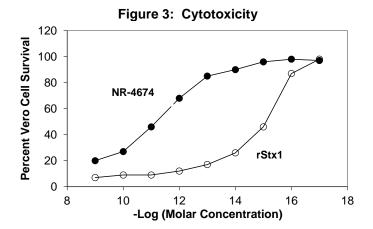
Lane 2: Recombinant Stx1 (prior to formaldehyde treatment)



Lane 1: Carbonic anhydrase

Lane 2: NR-4674

Lane 3: Recombinant Stx1



Date: 23 JUN 2014

Signature: Dozothy C. Young

Title: Technical Manager, BEI Authentication or designee

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