

Ricin Toxoid, Chemically Inactivated from *Ricinus communis* Seeds

Catalog No. NR-4671

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

Product Description: Ricin toxoid was generated by chemical reduction and acylation of cysteine residue side chains of the ricin holotoxin.

Lot: 57680183

Manufacturing Date: 31MAR2007

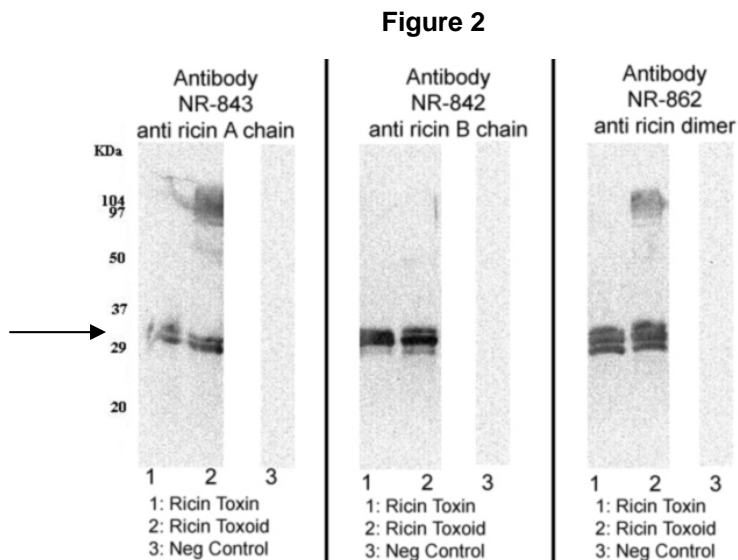
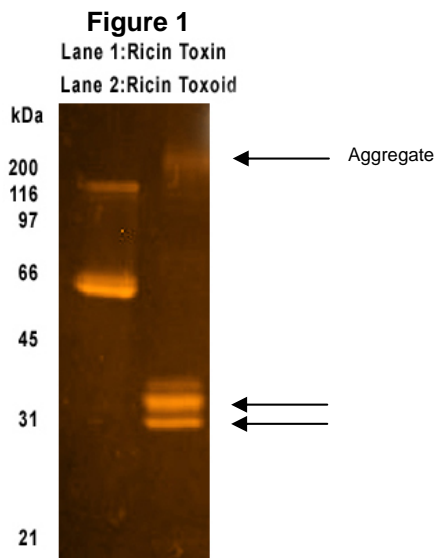
TEST	SPECIFICATIONS	RESULTS
Appearance	Clear and colorless with no particulate matter	Clear and colorless with no particulate matter
SDS-PAGE (SYPRO Orange densitometer scan) Non-reduced	Dominant bands of expected sizes > 95% pure	Dominant bands of ~ 30 kDa ¹ > 95% pure (includes ricin A and B chains and aggregate; see Figure 1)
SELDI-TOF Mass Spectrometry	Report results	Ricin toxin, 63.6 kDa Ricin toxoid, 31.1 and 32.3 kDa
SELDI-TOF Mass Spectrometry of Trypsin Digest²	> 50% of total residues accounted for in peptides of expected mass	52% of total residues accounted for in peptides of expected mass
Concentration by OD₂₈₀	Report results	1.0 mg/mL
Functional Activity² Western blot (reduced; see Figure 2) ³ NR-4671 NR-720 (ricin holotoxin) Carbonic anhydrase	Reactive Reactive Non-reactive	Reactive Reactive Non-reactive
Cytotoxicity in Vero cells⁴ NR-4671 NR-742 (Ricin Holotoxin)	Report results Report results	Non-cytotoxic at 1x10 ⁻⁷ M CD ₅₀ ~ 1x10 ⁻¹¹ M
Sterility	0.22 µm filter sterilized	0.22 µm filter sterilized
Absorbance Ratio (OD₂₈₀/OD₂₆₀)	Report results	1.8

¹Actual bands appear larger than predicted from the sequence due to glycosylation; protein doublet is also due to glycosylation.

²Performed prior to chemical treatment.

³Completed with mouse monoclonal antibody to ricin A chain (NR-843), mouse monoclonal antibody to ricin B chain (NR-842), and polyclonal immunoglobulin G to ricin holotoxin (NR-862).

⁴Determined by the number of cells that survive 48 hours after toxin challenge.



Date: 29 JAN 2008

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

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