

Ricin Toxin B Subunit, from *Ricinus communis* Seeds

Catalog No. NR-2620

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Product Description: Ricin toxin is a glycoprotein that can be isolated from *Ricinus communis* seeds. The ricin toxin B chain is a galactose-specific lectin that mediates the binding and delivery of the toxin to target cells.

Lot¹: 6176492

Manufacturing Date: OCT2006

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 > 95% pure	Dominant band of ~ 30 kDa ² > 99% pure (see Figure 1)
SELDI-TOF Mass Spectrometry	Report results (expected MW is 29.9 kDa based on amino acid sequence)	Mass is 6.5% greater than expected due to protein glycosylation (31.9 kDa)
SELDI-TOF Mass Spectrometry of Trypsin Digest	> 50% of total residues accounted for in peptides of expected mass	56% of total residues accounted for in peptides of expected mass
Concentration by Bicinchoninic Acid Protein Assay	Report results	0.34 mg/mL
Functional Activity Western Blot (see Figure 2) ³ Carbonic anhydrase NR-2620	Non-reactive Reactive	Non-reactive Reactive
Toxicity Cytotoxicity in CCL-81 cells Toxicity in murine model ⁵	Report results Report results	CD ₅₀ ~135 nM ⁴ No lethality in mice
Sterility	0.22 µm filter sterilized	0.22 µm filter sterilized

¹Purified from NR-720 ricin holotoxin by ion-exchange chromatography.

²Actual band may appear larger than predicted from the sequence due to glycosylation.

³Completed with mouse monoclonal antibody to ricin B chain (NR-842).

⁴This value is approximately 5 log units less than the CD₅₀ reported for the holotoxin.

⁵CD-1 mice were injected with concentrations of NR-2620 that correspond to 10 and 100 LD₅₀ of ricin holotoxin (NR-720). No mouse injected with NR-2620 became sick or died, indicating that the ricin toxin subunit B preparation is not lethal to mice.

Figure 1

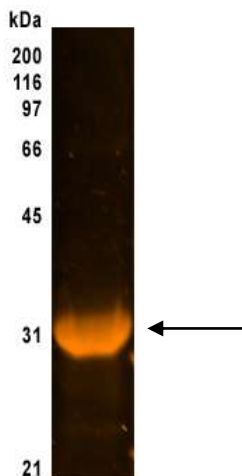
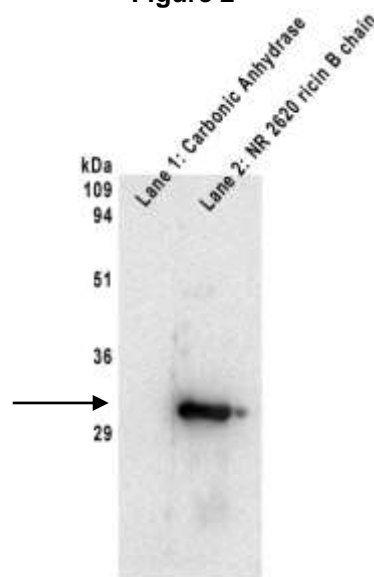


Figure 2



Date: 20 NOV 2014

Signature:



Title: Technical Manager, BEI Authentication or designee

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