

## Ricin Toxin A Subunit with N-terminal Histidine Tag, Recombinant from *Escherichia coli*

### Catalog No. NR-853

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

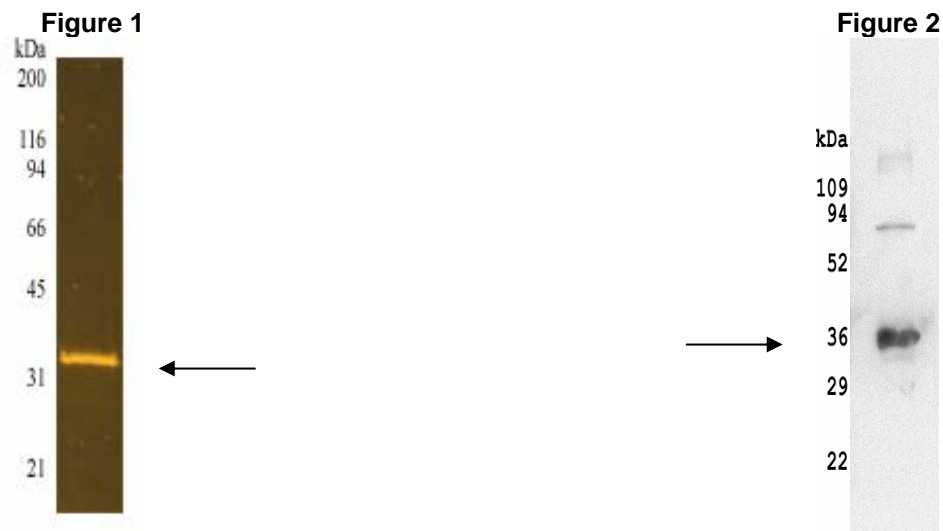
**Product Description:** NR-853 is a recombinant form of the A subunit of ricin toxin. The amino acid sequence includes an N-terminal histidine-tag (MRGSHHHHHTDPM) and amino acid residues 36 to 302 of the ricin toxin precursor. A QIAGEN pQE-32 vector was used to express the recombinant protein in *Escherichia coli*. The protein was purified by nickel affinity chromatography.

**Lot: 4739654**

**Manufacturing Date: JUL2005**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Report results	Some opalescence or white precipitate may form
<b>SDS-PAGE (SYPRO Orange densitometer scan)</b>	Dominant band ~ 32 kDa > 95% pure	Dominant band ~ 32 kDa > 95% pure (see Figure 1)
<b>Sequencing of Ricin A Gene in Plasmid Construct</b>	Report results	99% identical to GenBank X03179 (nucleotides 396 to 1196) <sup>1</sup>
<b>Mass Spectrometry</b>	Report results (expected MW is 31,636 daltons based on amino acid sequence)	31,597 daltons (0.2% less than expected MW)
<b>SELDI-TOF Mass Spectrometry of Trypsin Digest</b>	> 50% of total residues accounted for in peptides of expected mass	> 50% of total residues accounted for in peptides of expected mass
<b>Concentration by Bicinchoninic Acid Protein Assay</b>	Report results	1.0 mg/mL
<b>Functional Activity</b> Western Blot Rabbit polyclonal antibody to ricin A subunit (BEI Resources NR-863) Rabbit polyclonal antibody to ricin holotoxin (BEI Resources NR-862) Mouse monoclonal antibody to ricin A subunit (BEI Resources NR-843) Mouse monoclonal antibody to ricin B subunit (BEI Resources NR-842)	Reactive Report results Reactive Not reactive	Reactive Reactive Reactive (see Figure 2) Not reactive
<b>Cytotoxicity in Vero Cells</b>	Report results	Non-cytotoxic
<b>Sterility</b>	0.22 µm filter sterilized	0.22 µm filter sterilized
<b>Endotoxin Content</b>	Report results	12.5 EU/mg
<b>Absorbance Ratio (OD<sub>280</sub>/OD<sub>260</sub>)</b>	Report results	1.5

<sup>1</sup>The nucleotide differences result in two amino acid changes compared to GenBank X03179: Q to E at position 237 and S to N at position 255 of NR-853 (see Table 1 on Product Information Sheet).



**Date:** 08 JUL 2009

**Signature:** Signature on File

**Title:** Technical Manager, BEI Authentication or designee

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