

**Epsilon Toxoid (Chemically Inactivated Epsilon Toxin) from *Clostridium perfringens***

**Catalog No. NR-4673**

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

**Product Description:** NR-4673 is a preparation of epsilon toxin which was purified from culture supernatants of *Clostridium perfringens* and inactivated by treatment with 1% formaldehyde. Unreacted formaldehyde was removed by dialysis against PBS.

**Lot<sup>1</sup>: 61145394**

**Manufacturing Date: 12JUN2013**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE (SYPRO Orange Densitometer Scan)<sup>2</sup></b>	Dominant band ~ 32.3 kDa represents > 95% of total staining intensity	Dominant band ~ 32.3 kDa represents > 98% of total staining intensity (Figure 1)
<b>SELDI-TOF Mass Spectrometry</b>	Measured mass within 5% of expected mass: ~ 32300 daltons	Measured mass (~ 33300 daltons) within 3.1% of expected mass
<b>Concentration by Bicinchoninic Acid Protein Assay</b>	Report results	0.5 mg per mL
<b>Functional Activity by Western Blot</b> Epsilon toxoid (NR-4673) <sup>3</sup> Carbonic anhydrase	Reactive Not reactive	Reactive (Figure 2) Not reactive (Figure 2)
<b>Cytotoxicity</b> MDCK cell cytotoxicity	Report results	No cytotoxicity to MDCK cells observed at toxoid concentrations > 3 times greater than observed for the activated toxin
<b>Sterility</b>	0.22 µm filter sterilized	0.22 µm filter sterilized
<b>Absorbance Ratio (OD<sub>280</sub>/OD<sub>260</sub>)</b>	Report results	1.43
<b>Endotoxin Content</b>	< 10000 EU per mg	< 500 EU per mg

<sup>1</sup>NR-4673 was prepared and tested by Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA.

<sup>2</sup>After treatment with 1% formaldehyde

<sup>3</sup>Completed with rabbit polyclonal immunoglobulin G to epsilon toxin peptides (BEI Resources NR-865)

**Date:** 16 OCT 2014

**Signature:**



**Title:**

Technical Manager, BEI Authentication or designee

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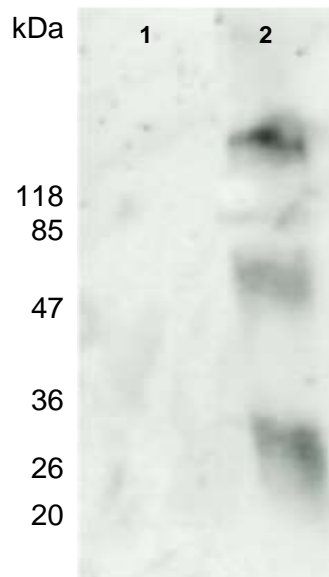
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**Figure 1: SDS-PAGE**  
(after formaldehyde inactivation)



**Figure 2: Western Blot**



Lane 1: Carbonic anhydrase negative control  
Lane 2: NR-4673 (primary antibody NR-865)