

**Toxin B (TcdB), Purified from *Clostridium difficile*, Strain 1470**

**Catalog No. NR-41659**

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

**Product Description:** Toxin B (TcdB) was purified from culture supernatant of *Clostridium difficile* (*C. difficile*), strain 1470. NR-41659 was purified by chromatographic techniques.

**Lot<sup>1</sup>: 61682024**

**Manufacturing Date: 28JAN2014**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE (SYPRO Orange Densitometer Scan)</b>	Protein bands of interest represent > 95% of total staining intensity above background	Protein bands of interest represent ~ 50% of total staining intensity above background <sup>2,3</sup> (Figure 1)
<b>Concentration by Bicinchoninic Acid Protein Assay<sup>4</sup></b>	Report results	0.018 mg/mL <sup>5</sup>
<b>Functional Activity by Western Blot Analysis<sup>2,6</sup></b> TcdB (NR-41659) Carbonic anhydrase	Reactive Non-reactive	Reactive (Figure 2) Non-reactive
<b>Cytotoxicity of NR-41659 in Vero Cells</b>	Report results	Weakly cytotoxic, induced rounding of Vero Cells in tissue culture
<b>Sterility</b>	0.22 µm filter-sterilized	0.22 µm filter-sterilized
<b>Endotoxin Content (Limulus Amoebocyte Lysate Assay)</b>	Report results	< 250 EU per mg protein

<sup>1</sup>Manufactured by Uniformed Services University of the Health Sciences, Bethesda, Maryland, USA

<sup>2</sup>Protein concentrated 10-fold was used for analysis.

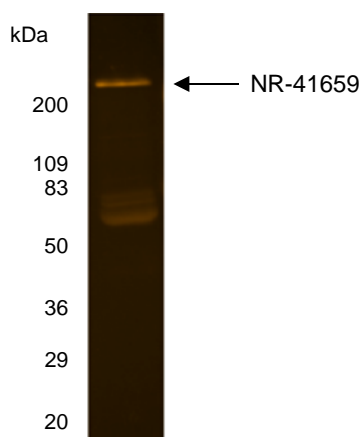
<sup>3</sup>The preparation contains Toxin B and a contaminating protein that co-purified with the toxin. The contaminant is likely a molecular chaperone or heat shock protein that binds non-covalently to the toxin, but its identity was not determined.

<sup>4</sup>Using bovine serum albumin (BSA) standard curve

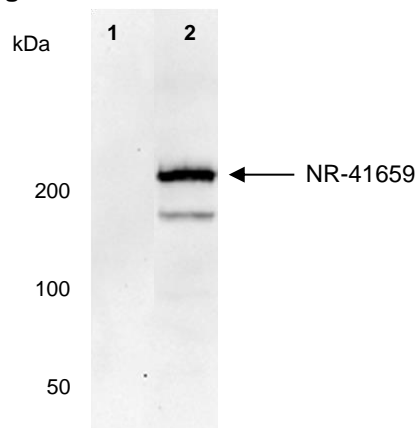
<sup>5</sup>Concentration of TcdB was calculated from BCA assay result and represents the final concentration of toxin in the vial. The pre-vial concentration (no glycerol and including the contaminating protein) was 0.04 mg/mL.

<sup>6</sup>Mouse anti-*C. difficile* toxin B (F511) (Thermo-Pierce cat. no. MA1-7415)

**Figure 1: SDS-PAGE**



**Figure 2: Western Blot**



Lane 1: Carbonic Anhydrase Negative Control  
Lane 2: NR-41659

**Date:** 18 NOV 2015

**Signature:** 

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