

**β-Cyclodextrin Derivative IB301 (NPβCD)**

Catalog No. NR-33153

**Product Description:** NR-33153 is a hepta-6-substituted β-cyclodextrin (β-CD) derivative [per-6-(*n*-pentylamino)-β-CD (NPβCD); IB301] designed to target pore-forming toxins. NR-33153 has a theoretical molecular weight of approximately 1,618 g/mol.

Lot: 60987250

Manufacturing Date: JUN2009

TEST	SPECIFICATIONS	RESULTS
Appearance (10 mM solution in dimethylsulfoxide) <sup>1</sup>	Clear	Clear
Inhibition of <i>Bacillus anthracis</i> Lethal Toxin (LeTx)-induced Cytotoxicity (Figure 1) <sup>2</sup>	Report results	IC <sub>50</sub> = 4.5 ± 0.3 μM
Inhibition of <i>Clostridium perfringens</i> Epsilon Toxin (ETX)-induced Cytotoxicity (Figure 2) <sup>3</sup> 1 nM ETX 10 nM ETX	Report results Report results	CD <sub>50</sub> = 0.91 μM CD <sub>50</sub> = 8.84 μM

<sup>1</sup>The solution may appear faintly yellow.

<sup>2</sup>RAW 264.7 cells (ATCC® TIB-71™) were incubated with different concentrations of NR-33153 with or without LeTx. Each experimental condition was performed in triplicate. Cell viability was determined by MTS colorimetric analysis. Error bars represent standard deviations. O.D.= optical density.

<sup>3</sup>NR-33153 was added to MDCK.2 cells (ATCC® CRL-2936™, lot 59534621) and media alone (blue triangles), with 1 nM ETX (green squares), and 10 nM ETX (black triangles). A 1:1 serial dilution of NR-33153 from 50 μM to 0.39 μM was used to test inhibition of the toxin's activity. Cell viability was determined by crystal violet analysis. Error bars represent standard deviations.

**Figure 1. Effects of LeTx and NPβCD on RAW 264.7 Cells**

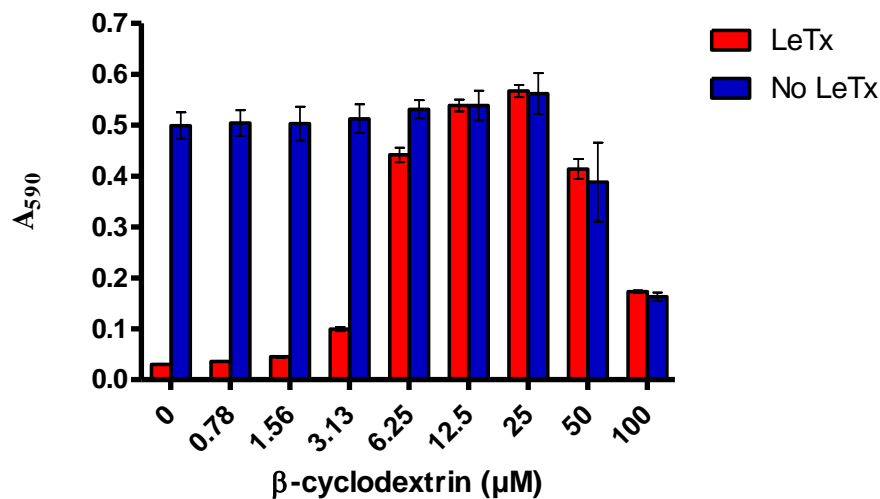
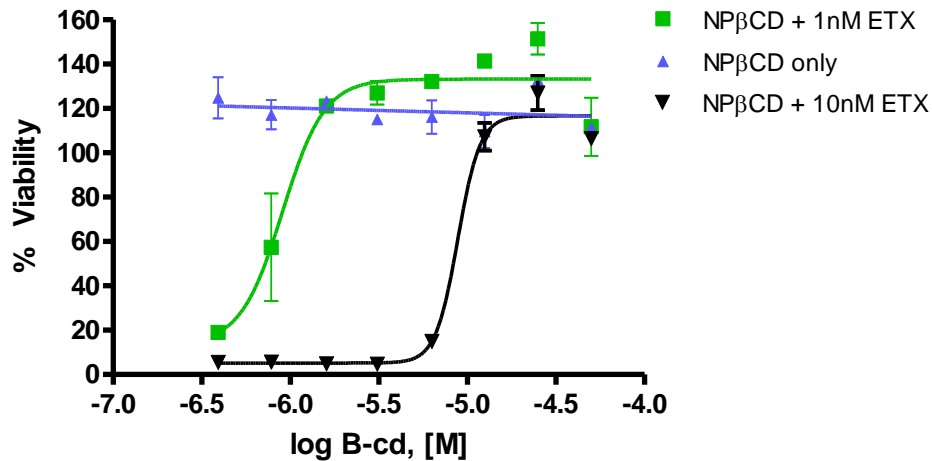


Figure 2. ETX Challenge of MDCK.2 Cells with NPβCD Inhibitor



Date: 23 OCT 2012

Signature:

*Dorothy C. Young*

Title: Technical Manager, BEI Authentication or designee

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