

## **Certificate of Analysis for NR-43615**

## Peptoclostridium difficile, Strain CD113

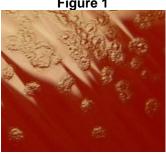
## Catalog No. NR-43615

**Product Description:** Peptoclostridium difficile (P. difficile; also referred to as Clostridium difficile), strain CD113 is a toxigenic strain isolated in February 2010 from the stool of a human patient diagnosed with a recurrent Clostridium difficile infection in Ann Arbor, Michigan, USA.

Lot<sup>1</sup>: 63312210 Manufacturing Date: 11FEB2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology <sup>2</sup>	Report results	Irregular, flat, undulate, rough and gray (Figure 1)
Hemolysis <sup>2</sup>	Report results	Non-hemolytic
Motility (wet mount)	Report results	Motile
Biochemical tests:		
Esculin hydrolysis	Positive	Positive
Gelatin hydrolysis	Positive	Positive
VITEK <sup>®</sup> MS (MALDI-TOF)	Consistent with P. difficile	Consistent with P. difficile
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1450 base pairs)	Consistent with P. difficile	Consistent with <i>P. difficile</i> <sup>3</sup>
PCR Assay of Extracted DNA Presence of <i>P. difficile</i> -specific genes <sup>4</sup>		
Triose phosphate isomerase ( <i>tpi</i> )	~ 230 base pairs amplicon	~ 230 base pairs amplicon
Presence of toxin genes <sup>4</sup>		
Toxin A (tcdA)	~ 369 base pairs amplicon	~ 369 base pairs amplicon
Toxin B (tcdB)	~ 160 base pairs amplicon	~ 160 base pairs amplicon
Purity (post-freeze)		
Anaerobic growth <sup>5</sup>	Growth consistent with P. difficile	Growth consistent with P. difficile
Aerobic growth <sup>6</sup>	No growth	No growth
Viability (post-freeze) <sup>2</sup>	Growth	Growth

NR-43615 was produced by inoculation of the deposited material into Modified Reinforced Clostridial medium and incubated for 24 hours at 37°C in an anaerobic atmosphere (< 0.5% O<sub>2</sub>; Remel™ Anaero Pack-Anaero™ R681001). The material from the initial growth was passaged once in Modified Reinforced Clostridial medium for 23 hours under propagation conditions to produce this lot.



**BEI Resources** 

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<sup>&</sup>lt;sup>2</sup>24 hours on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions

<sup>&</sup>lt;sup>3</sup>≥ 99.6% identical to GenBank: AVHN01000108.1 (*P. difficile*, strain CD113)

<sup>&</sup>lt;sup>4</sup>Lemee, L., et al. "Multiplex PCR Targeting tpi (Triose Phosphate Isomerase), tcdA (Toxin A), and tcdB (Toxin B) Genes for Toxigenic Culture of Clostridium difficile." J. Clin. Microbiol. 42 (2004): 5710-5714. PubMed: 15583303.

<sup>&</sup>lt;sup>5</sup>Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions.

<sup>&</sup>lt;sup>6</sup>Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood in an aerobic atmosphere with 5% CO<sub>2</sub>.



## **Certificate of Analysis for NR-43615**

**Date:** 21 MAY 2015

Signature:

**BEI Resources Authentication** 

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