

Certificate of Analysis for NR-43546

Peptoclostridium difficile, Strain CD3

Catalog No. NR-43546

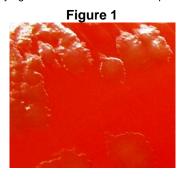
Product Description: Peptoclostridium difficile (P. difficile; also referred to as Clostridium difficile), strain CD3 is a toxigenic strain isolated in January 2010 from the stool of a human patient diagnosed with an acute Clostridium difficile infection in Ann Arbor, Michigan, USA.

Lot¹: 63303097 Manufacturing Date: 06FEB2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology ²	Report results	Irregular, low convex, undulate, rough and gray (Figure 1)
Hemolysis ²	Report results	Non-hemolytic
Motility (wet mount)	Report results	Motile
Biochemical tests:		
Esculin hydrolysis	Positive	Positive
Gelatin hydrolysis	Positive	Positive
VITEK® MS (MALDI-TOF)	Consistent with P. difficile	Consistent with P. difficile
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1430 base pairs)	Consistent with P. difficile	Consistent with <i>P. difficile</i> ³
PCR Assay of Extracted DNA Presence of P. difficile-specific genes ⁴		
Triose phosphate isomerase (<i>tpi</i>) Presence of toxin genes ⁴	~ 230 base pairs amplicon	~ 230 base pairs amplicon
Toxin A (tcdA)	~ 370 base pairs amplicon	~ 370 base pairs amplicon
Toxin B (<i>tcdB</i>)	~ 160 base pairs amplicon	~ 160 base pairs amplicon
Purity (post-freeze)		
Anaerobic growth ⁵ Aerobic growth ⁶	Growth consistent with <i>P. difficile</i>	Growth consistent with <i>P. difficile</i>
	No growth	No growth
Viability (post-freeze) ²	Growth	Growth

¹NR-43546 was produced by inoculation of the deposited material into Modified Reinforced Clostridial medium and incubated for 48 hours at 37°C in an anaerobic atmosphere (< 0.5% O₂; Remel™ Anaero Pack-Anaero™ R681001). The material from the initial growth was passaged once in Modified Reinforced Clostridial medium for 24 hours under propagation conditions to produce this lot.

⁶Purity of this lot was assessed for 8 days on Tryptic Soy agar with 5% defibrinated sheep blood in an aerobic atmosphere with 5% CO₂.



BEI Resources

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²23 hours on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions

³≥ 99.6% identical to GenBank: AVGI01000253.1 (*P. difficile*, strain CD3)

⁴Lemee, 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.

⁵Purity of this lot was assessed for 8 days on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions.



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Date: 28 MAY 2015

Signature:

BEI Resources Authentication

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