

***Peptoclostridium difficile*, Strain CD104**

Catalog No. NR-43525

Product Description: *Peptoclostridium difficile* (*P. difficile*; also referred to as *Clostridium difficile*), strain CD104 is a toxigenic strain isolated in February 2010 from the stool of a human patient diagnosed with an acute *Clostridium difficile* infection in Ann Arbor, Michigan, USA.

Lot¹: 63208734

Manufacturing Date: 21JAN2015

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

¹NR-43525 was produced by inoculation of the deposited material into Modified Reinforced Clostridial medium and incubated for 72 hours on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an anaerobic atmosphere (< 0.5% O₂; Remel™ Anaero Pack-Anaero™ R681001). The material from the initial growth was passaged twice in Modified Reinforced Clostridial medium for 45 to 70 hours under propagation conditions to produce this lot.

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

³≥ 99.7% identical to GenBank: AVHK01000039.1 (*P. difficile*, strain CD104)

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 7 days on Tryptic Soy agar with 5% defibrinated sheep blood under propagation conditions.

⁶Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood in an aerobic atmosphere with 5% CO₂.

Figure 1



Date: 21 MAY 2015

Signature: 

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