Certificate of Analysis for NR-32882

Clostridioides difficile, Strain P1

Catalog No. NR-32882

Product Description:

Clostridioides difficile (*C. difficile*), strain P1 is a toxigenic strain obtained in 2001 from fecal material of a human patient with a relapsing *C. difficile* infection in western Pennsylvania, USA. Previously referred to as *Clostridiium difficile*, this genus has been reclassified and the genus designation on the vial label refers to the old nomenclature. NR-32882 was produced by inoculation of the BEI Resources seed lot 61600076 into Modified Reinforced Clostridial medium and grown for 3 days at 37°C in an anaerobic atmosphere (< 5% O_2; Remel™ Pack-Anaero™). Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood agar kolles, which were grown for 2 days at 37°C in an anaerobic atmosphere to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70064575 **Manufacturing Date: 08NOV2023**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology 3 days at 37°C in an anaerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	Irregular, low convex, undulate, smooth and gray[1]
Motility (wet mount)	Report results	Non-motile
Biochemical tests		
Gelatin hydrolysis[2]	Positive	Positive
Esculin hydrolysis[2]	Positive	Positive
VITEK® MS (MALDI-TOF)	*C. difficile*	*C. difficile* (96%)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1390 base pairs)	≥ 99% sequence identity to *C. difficile*, type strain (GenBank: AB075770.1)	99% sequence identity to *C. difficile*, type strain (GenBank: AB075770.1)
Purity		
Anaerobic 10 days at 37°C on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	Growth consistent with expected colony morphology
Aerobic with 5% CO_2 10 days at 37°C on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	No growth
Viability 3 days at 37°C in an anaerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Growth	Growth

[1]Two colony types were observed. VITEK® MS (MALDI-TOF) analysis identified bacteria from both colony types as *C. difficile*.
[2]Tests were assessed after 7 days at 37°C in an anaerobic atmosphere.

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/Sonia Bjorum Brower/
Sonia Bjorum Brower 10 JAN 2024
Technical Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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