

Certificate of Analysis for NR-13438

Clostridium difficile, Isolate 12

Catalog No. NR-13438

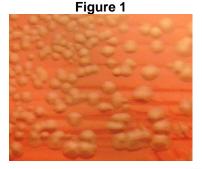
Product Description: Clostridium difficile (C. difficile), isolate 12 was obtained from a human patient from the Mid-Atlantic region of the United States in 2008/2009.

Lot¹: 59147478 Manufacturing Date: 12JAN2011

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis ²		
Cellular morphology	Gram-positive rod	Gram-positive rod
Colony morphologies ³	Report results	Irregular, flat, undulate, opaque, and gray (Figure 1)
Obligate Anaerobe	Positive	Positive
Hemolysis ³	Report results	Non-hemolytic
Chartreuse fluorescence on anaerobic blood agar ³	Positive	Positive
Biochemical tests:		
RapID™ ANA II Panel	Consistent with C. difficile	Consistent with C. difficile
Esculin hydrolysis	Positive	Positive
Gelatin hydrolysis	Positive	Positive
Genotypic Analysis		
Sequencing of 16S Ribosomal RNA Gene (~ 1390 base pairs)	Consistent with C. difficile	Consistent with C. difficile
Viability (post-freeze) ³	Growth	Growth

¹The deposited material was inoculated into Modified Reinforced Clostridial Broth (ATCC medium 2107) and incubated for 48 hours at 37°C and anaerobic atmosphere (80% N₂:10% CO₂:10% H₂). The material from the initial growth was passaged three times in Modified Reinforced Clostridial Broth at 37°C and anaerobic atmosphere [80% N₂:10% CO₂:10% H₂]. NR-13438 was produced from the fourth passage.

 $^{^348}$ hours at 37°C and anaerobic atmosphere (80% N_2 :10% CO_2 :10% H_2) on CDC anaerobic blood agar



Date: 07 SEP 2011

Signature:

Title: Technical Manager, BEI Authentication or designee

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BEI Resources www.beiresources.org E-mail: contact@beiresources.org

Tel: 800-359-7370 Fax: 703-365-2898

²Specifications described in Holdeman, L. V., E. P. Cato, and W. E. C. Moore, Eds. <u>Anaerobe Laboratory Manual</u>. 4th ed., Blacksburg: Virginia Polytechnic Institute and State University, 1977.