

***Clostridium difficile*, Isolate 10**

**Catalog No. NR-13436**

**Product Description:** *Clostridium difficile* (*C. difficile*), isolate 10 was obtained from a human patient from the Mid-Atlantic region of the United States in 2008/2009.

**Lot<sup>1</sup>: 59147481**

**Manufacturing Date: 03JUN2010**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis<sup>2</sup></b> Cellular morphology Colony morphology <sup>3,4</sup>  Obligate Anaerobe Hemolysis <sup>4</sup> Chartreuse fluorescence on anaerobic blood agar <sup>4</sup> Biochemical tests: RapID™ ANA II Panel Esculin hydrolysis Gelatin hydrolysis	Gram-positive rod Report results  Positive Report results Positive  Consistent with <i>C. difficile</i> Positive Positive	Gram-positive rod Colony type 1: Irregular, flat, undulate, rough, opaque and gray (Figure 1) Colony type 2: Irregular, flat, undulate, rough, opaque and white (Figure 1) Colony type 3: Irregular, flat, undulate, mucoid, opaque and gray (Figure 1)  Positive Non-hemolytic Positive  Consistent with <i>C. difficile</i> Positive Positive
<b>Genotypic Analysis</b> Sequencing of 16S Ribosomal RNA Gene (~ 1350 base pairs)	Consistent with <i>C. difficile</i>	Consistent with <i>C. difficile</i>
<b>PCR Assay of Extracted DNA</b> 16S ribosomal RNA gene	~ 1500 bp amplicon	~ 1500 bp amplicon
<b>Viability (post-freeze)<sup>4</sup></b>	Growth	Growth

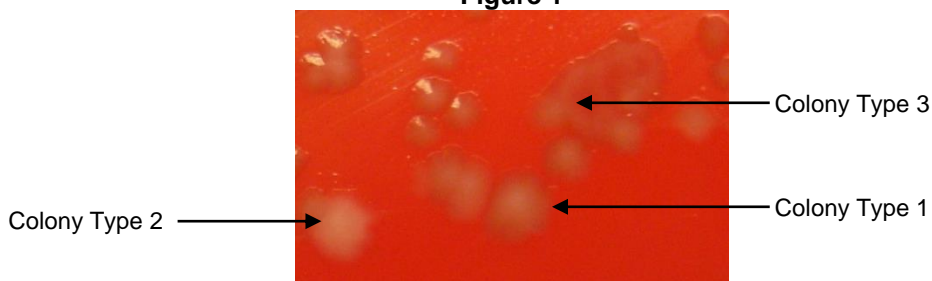
<sup>1</sup>The deposited material was inoculated into Modified Reinforced Clostridial Broth ([ATCC medium 2107](#)) and incubated for 48 hours at 37°C and anaerobic atmosphere (80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>). The material from the initial growth was passaged three times in Modified Reinforced Clostridial Broth at 37°C and anaerobic atmosphere [80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>]. NR-13436 was produced from the fourth passage.

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

<sup>3</sup>Three colony types were observed. Plating of the individual colony types showed that they reverted to the mixed colony type. The 16S gene of each colony type was sequenced and determined to be 100% identical.

<sup>4</sup>48 hours at 37°C and anaerobic atmosphere (80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>) on CDC anaerobic blood agar

**Figure 1**



**Date:** 21 OCT 2010

**Signature:** 

**Title:** Technical Manager, BEI Authentication or designee

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