

**Genomic DNA from *Clostridium difficile*, Isolate 3**

**Catalog No. NR-13594**

**Product Description:** Genomic DNA was obtained from a preparation of *Clostridium difficile* (*C. difficile*), isolate 3, which was isolated from a human patient from the Mid-Atlantic region of the United States in 2008/2009.

**Lot<sup>1</sup>: 58791985**

**Manufacturing Date: 21OCT2010**

TEST	SPECIFICATIONS	RESULTS
<b>Sequencing of 16S Ribosomal RNA Gene</b> (~ 1220 base pairs)	Consistent with <i>C. difficile</i>	Consistent with <i>C. difficile</i>
<b>Agarose Gel Electrophoresis</b>	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
<b>Concentration by PicoGreen<sup>®</sup> Measurement</b>	0.7 to 1.5 µg in 25 to 100 µL per vial	1.2 µg in 69 µL per vial (17 µg/mL)
<b>Functional Activity by PCR Amplification</b> 16S ribosomal RNA gene Presence of <i>C. difficile</i> -specific genes <sup>2</sup> Triose phosphate isomerase ( <i>tpi</i> ) Toxin A ( <i>tcdA</i> )	~ 1500 bp amplicon ~ 230 bp amplicon ~ 369 bp amplicon	~ 1500 bp amplicon ~ 230 bp amplicon ~ 369 bp amplicon
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio</b>	1.7 to 2.0	1.7
<b>Bacterial Inactivation</b> 10% of total yield plated on CDC anaerobic blood agar <sup>3,4</sup>	No viable bacteria detected	No viable bacteria detected

<sup>1</sup>The bacterial preparation used for extraction of genomic DNA was produced by Modified Reinforced Clostridial broth culture of the third passage of NR-13429 lot 58771085. After incubation for 48 hours at 37°C in an anaerobic atmosphere (80% N<sub>2</sub>:10% CO<sub>2</sub>:10% H<sub>2</sub>), genomic DNA was extracted using proprietary technology. The deposited material was initially grown in Modified Reinforced Clostridial broth 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>) and was passaged three times under equivalent conditions.

<sup>2</sup>Lemee, L., et al. "Multiplex PCR Targeting *tpi* (Triose Phosphate Isomerase), *tcdA* (Toxin A), and *tcdB* (Toxin B) Genes for Toxicogenic Culture of *Clostridium difficile*." *J. Clin. Microbiol.* 42 (2004): 5710-5714. PubMed: 15583303.

<sup>3</sup>7 days at 37°C in an anaerobic atmosphere on Tryptic Soy agar with 5% sheep blood.

<sup>4</sup>An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.

**Date:** 09 JAN 2014

**Signature:**



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

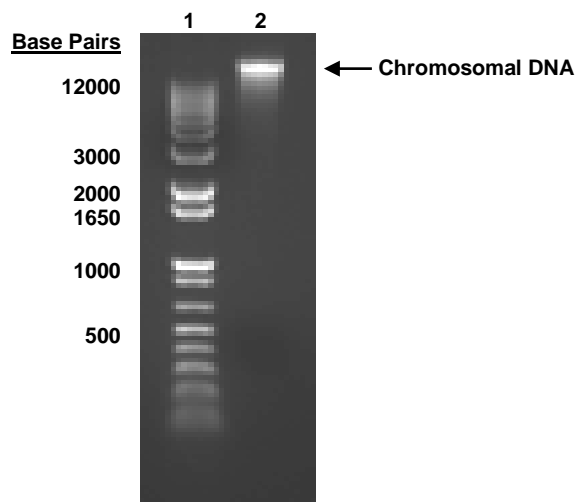
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Figure 1



Lane 1: Invitrogen™ TrackIt 1 Kb Plus DNA Ladder™  
Lane 2: 200 ng of NR-13594