

Genomic DNA from *Clostridium difficile*, Isolate 2

Catalog No. NR-13593

Product Description: Genomic DNA was obtained from a preparation of *Clostridium difficile* (*C. difficile*), isolate 2, which was isolated from a human patient from the Mid-Atlantic region of the United States in 2008/2009.

Lot¹: 59062332

Manufacturing Date: 21OCT2010

TEST	SPECIFICATIONS	RESULTS
Sequencing of 16S Ribosomal RNA Gene (~ 1280 base pairs)	Consistent with <i>C. difficile</i>	Consistent with <i>C. difficile</i>
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen[®] Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	1.0 µg in 29 µL per vial (36 µg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene Presence of <i>C. difficile</i> -specific genes ² Triose phosphate isomerase (<i>tpi</i>) Toxin A (<i>tcdA</i>) Toxin B (<i>tcdB</i>)	~ 1500 bp amplicon ~ 230 bp amplicon ~ 369 bp amplicon ~ 160 bp amplicon	~ 1500 bp amplicon ~ 230 bp amplicon ~ 369 bp amplicon ~ 160 bp amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.0	2.0
Bacterial Inactivation 10% of total yield plated on CDC anaerobic blood agar ^{3,4}	No viable bacteria detected	No viable bacteria detected

¹The bacterial preparation used for extraction of genomic DNA was produced by Modified Reinforced Clostridial broth culture of the third passage of the deposited material. After incubation for 48 hours at 37°C in an anaerobic atmosphere (80% N₂:10% CO₂:10% H₂), genomic DNA was extracted using proprietary technology.

²Lemee, 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.

³7 days at 37°C in an anaerobic atmosphere on Tryptic Soy agar with 5% sheep blood.

⁴An 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

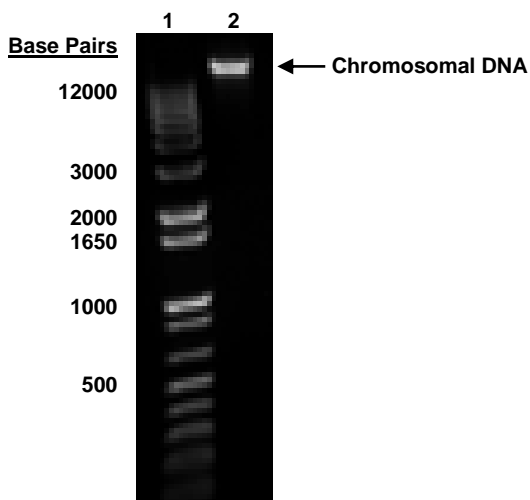
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Figure 1



Lane 1: Invitrogen™ TrackIt 1 Kb Plus DNA Ladder™
Lane 2: 200 ng of NR-13593