

**Genomic DNA from *Bacillus anthracis*, Strain UM23-1**

**Catalog No. NR-10448**

**Product Description:** Genomic DNA was isolated from a preparation of *Bacillus anthracis* (*B. anthracis*), strain UM23-1. Strain UM23-1 is an avirulent strain that contains the toxigenic pXO1 plasmid but lacks the pXO2 capsule plasmid.

**Lot<sup>1</sup>: 58646094**

**Manufacturing Date: 09JUN2009**

TEST	SPECIFICATIONS	RESULTS
<b>Sequencing of 16S Ribosomal RNA Gene (~740 base pairs)</b>	Consistent with <i>B. cereus</i> group	Consistent with <i>B. cereus</i> group <sup>2</sup>
<b>Presence or Absence of Plasmids Confirmed by PCR Amplification</b> pXO1 ( <i>aat</i> ) pXO2 ( <i>at, capA, capB, capC</i> )	Positive Negative	Positive Negative
<b>Agarose Gel Electrophoresis</b>	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
<b>Content by PicoGreen<sup>®</sup> Measurement</b>	4 to 6 µg in 25 to 100 µL per vial	5.1 µg in 39 µL per vial (131 µg/mL)
<b>Functional Activity by PCR Amplification</b> 16S ribosomal RNA gene Virulence markers on plasmid pXO1 ( <i>aat</i> )	~ 1500 bp amplicon ~ 125 bp amplicon	~ 1500 bp amplicon ~ 125 bp amplicon
<b>OD<sub>260</sub>/OD<sub>280</sub> Ratio</b>	1.7 to 1.9	1.8
<b>Bacterial Inactivation</b> 10% of total yield plated on Tryptic Soy Agar with 5% sheep blood <sup>3,4</sup>	No viable bacteria detected	No viable bacteria detected

<sup>1</sup>NR-10448 was produced by Tryptic Soy Broth culture of NR-10352 (Lot: 58485553). After incubation for 24 hours at 37°C and aerobic atmosphere, genomic DNA was extracted using proprietary technology.

<sup>2</sup>*Bacillus cereus* group species (*B. cereus*, *B. thuringiensis*, *B. mycooides*, and *B. anthracis*) cannot be classified based on 16S sequence [Spencer, R. C. "Bacillus anthracis." *J. Clin. Pathol.* 56 (2003): 182-187. PubMed: 12610093].

<sup>3</sup>6 days at 37°C in an aerobic atmosphere

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

**Date:** 30 MAR 2010

**Signature:** Signature on File

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

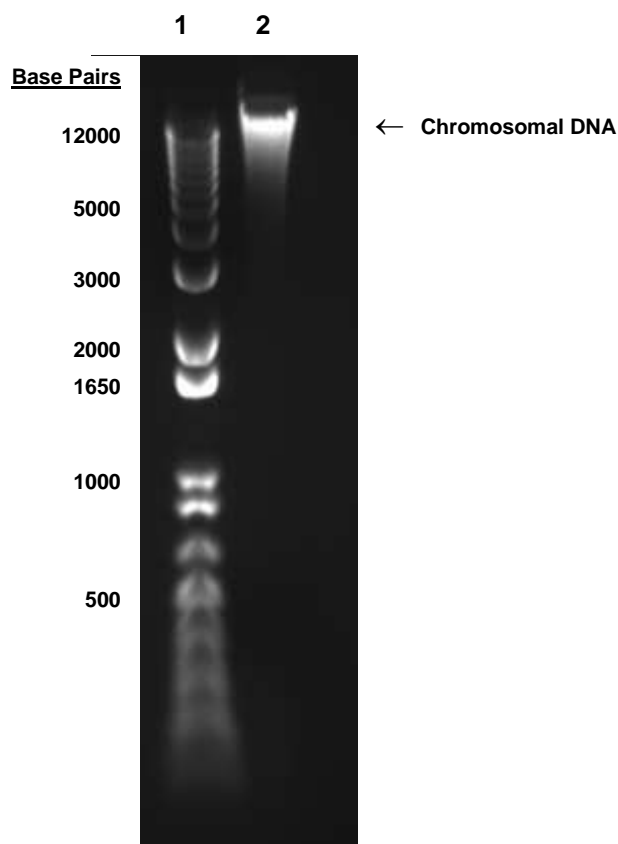
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**Figure 1**



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder  
Lane 2: 200 ng of NR-10448