

Genomic DNA from *Bacillus anthracis*, Strain UM23

Catalog No. NR-10447

Product Description: Genomic DNA was isolated from *Bacillus anthracis* (*B. anthracis*), strain UM23. *B. anthracis*, strain UM23 is a Ura⁻ derivative of the Weybridge strain, which contains the toxigenic pXO1 plasmid and lacks the pXO2 capsule plasmid.

Lot¹: 58485567

Manufacturing Date: 22MAY2009

TEST	SPECIFICATIONS	RESULTS
Sequencing of 16S Ribosomal RNA Gene (~ 730 base pairs)	Consistent with <i>B. cereus</i> group	Consistent with <i>B. cereus</i> group ²
Presence or Absence of Plasmids Confirmed by PCR Amplification pXO1 (<i>aat</i>) pXO2 (<i>at</i> , <i>capA</i> , <i>capB</i> , <i>capC</i>)	Positive Negative	Positive Negative
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Content by PicoGreen[®] Measurement	4 to 6 µg in 25 to 100 µL per vial	5.8 µg in 25 µL per vial (230 µg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene Virulence markers on plasmid pXO1 (<i>aat</i>)	~ 1500 bp amplicon ~ 125 bp amplicon	~ 1500 bp amplicon ~ 125 bp amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 1.9	1.8
Bacterial Inactivation 10% of total yield plated on Tryptic Soy Agar with 5% sheep blood ^{3,4}	No viable bacteria detected	No viable bacteria detected

¹NR-10447 was produced by Tryptic Soy Broth culture of NR-10351 (Lot: 58485552). After incubation for 24 hours at 37°C and aerobic atmosphere, genomic DNA was extracted using proprietary technology.

²*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].

³7 days at 37°C in an aerobic atmosphere

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

Date: 05 OCT 2009

Signature: Signature on File

Title: Technical Manager, BEI Authentication or designee

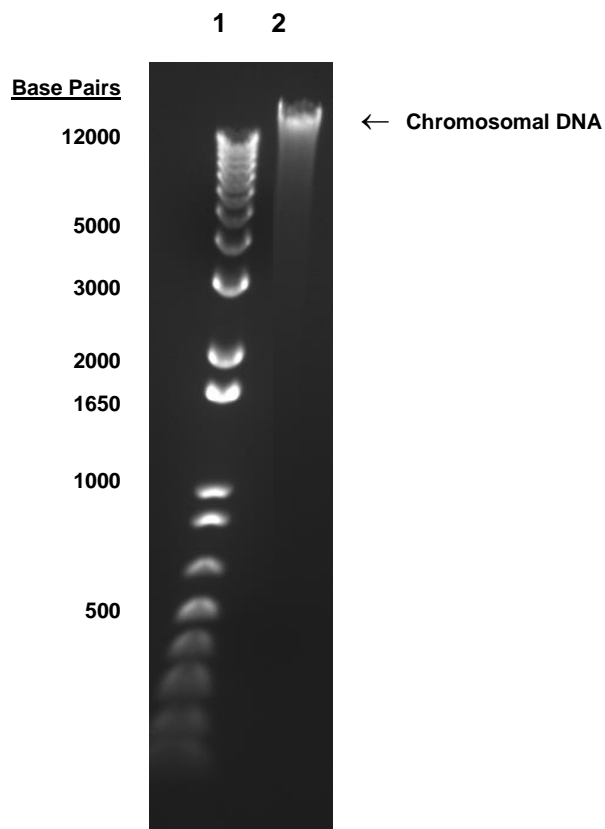
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Figure 1



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: 200 ng of NR-10447