

Genomic DNA from *Bacillus cereus*, Strain NRRL B-569

Catalog No. NR-52273

Product Description:

Genomic DNA was extracted from a preparation of *Bacillus cereus* (*B. cereus*), Strain NRRL B-569. The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-52260 lot 70033092 using proprietary technology and vialled in TE buffer (10 mM Tris-HCl, 1 mM EDTA, pH 8.0).

Lot: 70033335

Manufacturing Date: 31MAR2020

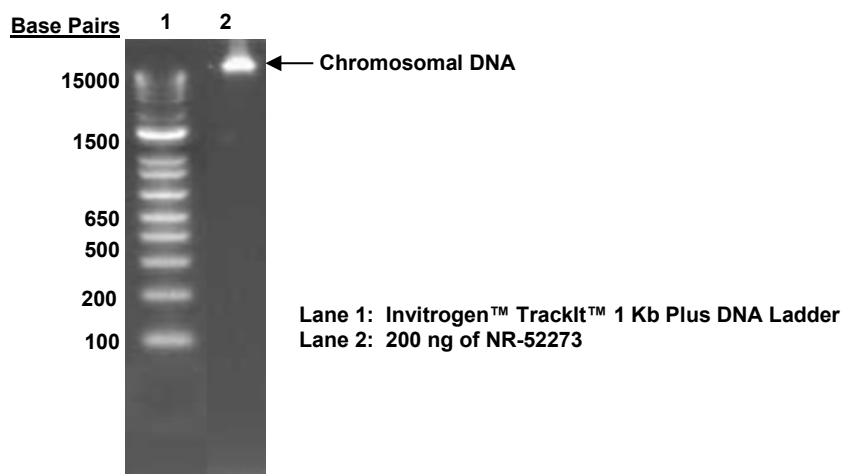
TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Digital DNA-DNA hybridization (dDDH) ¹	≥ 70% for species identification	<i>B. cereus</i> (72.5%) ²
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	1.0 µg in 33 µL per vial (30 µg/mL)
Amount per Vial	0.7 to 1.5 µg	1.0 µg
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
Presence of <i>B. anthracis</i> Virulence Plasmids pXO1 pXO2	Absence of sequence confirmed Absence of sequence confirmed	Absence of sequence confirmed Absence of sequence confirmed
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9
Bacterial Inactivation 10% of total yield inoculated in Nutrient agar incubated for 14 days at 30°C in an ambient atmosphere ³	No viable bacteria detected	No viable bacteria detected

¹Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." *Stand. Genomic Sci.* 2 (2010): 117-134. PubMed: 21304684. dDDH analysis was performed using the Type (Strain) Genome Server.

²The whole genome of *B. cereus*, strain NRRL B-569 was sequenced using the Illumina® MiSeq® system. *De novo* contig sequences were generated using Unicycler v0.4.8-beta.

³An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.

Figure 1: Agarose Gel Electrophoresis



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08 MAY 2024

Technical Manager or designee, ATCC Federal Solutions

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