

Genomic DNA from *Bacillus paralicheniformis*, Strain NRS 712

Catalog No. NR-52280

Product Description:

Genomic DNA was extracted from a preparation of *Bacillus paralicheniformis* (*B. paralicheniformis*), Strain NRS 712. The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-52267 lot 70033123. Genomic DNA was extracted using proprietary technology and is provided in TE buffer (10 mM Tris-HCl and 1 mM EDTA, pH 8).

Lot: 70038406

Manufacturing Date: 11JUN2020

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Digital DNA-DNA hybridization (dDDH) ¹	≥ 70% for species identification	<i>B. paralicheniformis</i> (95.2%) 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 µg in 28 µL per vial (35 µg per mL)
Amount per Vial	0.7 to 1.5 µg	1 µg
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.1	1.9
Bacterial Inactivation 100% and 10% of total yield from different pellets plated on agar for 14 days ^{3,4}	No viable bacteria detected	No viable bacteria detected

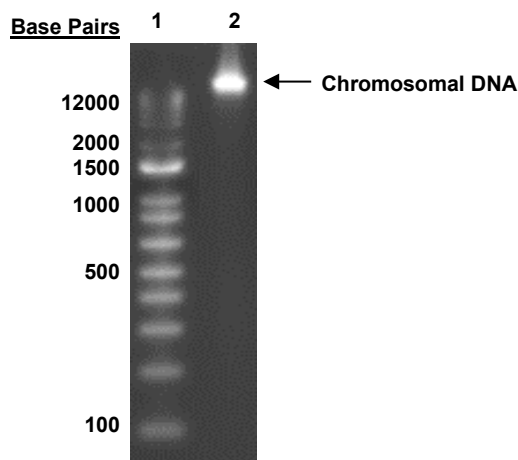
¹Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, refer to Auch, A. F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." *Stand. Genomic Sci.* 2 (2010): 117-134. PubMed: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

²The whole genome of *B. paralicheniformis*, strain NRS 712 was sequenced using the Illumina® MiSeq® system. *De novo* contig sequences were generated using Unicycler v0.4.8-beta.

³14 days under propagation conditions

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

Figure 1: Agarose Gel Electrophoresis



Lane 1: Invitrogen™ TrackIt™ 1 Kb Plus DNA Ladder
Lane 2: ~ 200 ng of NR-52280

/Heather Couch/**Heather Couch****24 JUN 2021**

Program Manager or designee, ATCC Federal Solutions

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