

# Bacillus paranthracis, Strain PCI 246

## Catalog No. NR-52261

(Derived from ATCC® 13061™)

## Product Description:

*Bacillus paranthracis* (*B. paranthracis*), strain PCI 246 was originally deposited at ATCC® as *B. cereus* Frankland and Frankland. NR-52261 lot 70033094 was produced by inoculation of ATCC® 13061™ lot 70012155 into Tryptic Soy broth and grown for 1 day at 30°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar kolles, which were grown for 1 day at 30°C in an aerobic atmosphere to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

**Lot: 70033094**

**Manufacturing Date: 26FEB2020**

BEI Resources is committed to ensuring digital accessibility for people with disabilities. This Certificate of Analysis contains complex tables and may not be fully accessible. Please let us know if you encounter accessibility barriers and a fully accessible document will be provided: E-mail: [Contact@BEIResources.org](mailto:Contact@BEIResources.org). We try to respond to feedback within 24 hours.

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Hemolysis 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood  Motility (wet mount) Biochemical tests Catalase VITEK® MS (MALDI-TOF)	Gram-positive rods Report results  Report results  Report results  Report results <i>B. cereus</i> group	Gram-positive rods Irregular, convex, lobate, smooth, opaque and cream (Figure 1) β-hemolytic  Motile  Negative <i>B. cereus</i> group (99.9%) <sup>1</sup>
<b>Genotypic Analysis</b> Digital DNA-DNA hybridization (dDDH) <sup>2</sup>  Presence of <i>B. anthracis</i> virulence plasmids pXO1 pXO2	> 70% dDDH value for identity to <i>B. cereus</i>  Absence of sequence confirmed Absence of sequence confirmed	<i>B. paranthracis</i> (77.3%) <sup>3,4</sup>  Absence of sequence confirmed Absence of sequence confirmed
<b>Purity (post-freeze)</b> 7 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability (post-freeze)</b>	Growth	Growth

<sup>1</sup>VITEK® MS (MALDI-TOF) was used to confirm to genus. Due to high protein sequence similarities between members of the *B. cereus* group, identification of a single species can not be confirmed using standard MALDI-TOF databases. For additional information, refer to Ha, M., et al. "Reliable Identification of *Bacillus cereus* Group Species Using Low Mass Biomarkers by MALDI-TOF MS." *J. Microbiol. Biotechnol.* 29 (2019): 887-896. PubMed: 31216842.

<sup>2</sup>Relatedness 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.

<sup>3</sup>The whole genome of *B. paranthracis*, strain PCI 246 was sequenced using the Illumina® MiSeq® system. *De novo* contig sequences were generated using Unicycler v0.4.8-beta.

<sup>4</sup>The closest matching type strain is *B. paranthracis*, strain MCC1A00395 with a dDDH value of 77.3%.

**Figure 1: Colony Morphology**

/Heather Couch/  
Heather Couch

05 MAY 2021

Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by ATCC® to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

