

***Lysinibacillus capsici*, Strain Ford 25 (CCM 2177)**

**Catalog No. NR-52264**

(Derived from ATCC® 4525™)

**Product Description:**

*Lysinibacillus capsici* (*L. capsici*), strain Ford 25 (CCM 2177) was deposited at ATCC® by Dr. William W. Ford as *Bacillus sphaericus*. NR-52264 lot 70033115 was produced by inoculation of ATCC® 4525™ lot 62125280 into Nutrient broth and grown for 1 day at 30°C in an aerobic atmosphere. Broth inoculum was added to Nutrient 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: 70033115**

**Manufacturing Date: 06MAR2021**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Hemolysis 1 day at 30°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>Lysinibacillus</i> sp.	Gram-positive rods Circular, convex, entire, smooth and cream (Figure 1) Non-hemolytic  Motile  Positive <i>L. fusiformis</i> (99.9%) <sup>1</sup>
<b>Genotypic Analysis</b> Digital DNA-DNA hybridization (dDDH) <sup>2</sup> Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 70% for species identification ≥ 99% sequence identity to <i>L. capsici</i> type strain (GenBank: PXXX01000046.1)	<i>L. capsici</i> (72.9%) <sup>3,4</sup> 99.7% sequence identity to <i>L. capsici</i> type strain (GenBank: PXXX01000046.1)
<b>Purity (post-freeze)</b> 7 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Nutrient agar	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) database does not contain *L. capsici*. The test was used to confirm genus.

<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 *L. capsici*, strain Ford 25 (CCM 2177) 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 *L. capsici*, strain PB300<sup>T</sup> with a dDDH value of 72.9%.

Figure 1: Colony Morphology



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Program Manager or designee, ATCC Federal Solutions

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