

***Paenibacillus barengoltzii*, Strain G22**

**Catalog No. NR-36439**

**Product Description:**

*Paenibacillus barengoltzii* (*P. barengoltzii*), strain G22 was isolated from mouse intestine in the United States.

**Lot: 70012206<sup>1</sup>**

**Manufacturing Date: 05FEB2018**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphologies <sup>2,3</sup>  Motility VITEK® MS (MALDI-TOF) <sup>4</sup>	Gram-positive rods Report results  Report results <i>Paenibacillus</i> spp.	Gram-positive rods Colony type 1: Circular, raised, entire, smooth and cream (Figure 1) Colony type 2: Circular, low convex, entire, opaque and cream (Figure 1) Motile <i>Paenibacillus</i> spp. (≥ 84%)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 800 base pairs)  Digital DNA-DNA hybridization (dDDH) <sup>5</sup>	≥ 99% sequence identity to <i>P. barengoltzii</i> , strain G22 (GenBank: ASSZ01000038.1) ≥ 70% for species identification	100% sequence identity to <i>P. barengoltzii</i> , strain G22 (GenBank: ASSZ01000038.1) <i>P. barengoltzii</i> (79.4%)
<b>Purity (post-freeze)<sup>6</sup></b>	Consistent with expected colony morphology	Consistent with expected colony morphology
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>NR-36439 was produced by inoculation of the deposited material into Nutrient broth and grown 3 days at 30°C in an aerobic atmosphere. Broth inoculum was added to Nutrient agar kolles which were grown 4 days at 30°C in an aerobic atmosphere to produce this lot.

<sup>2</sup>2 days at 30°C in an aerobic atmosphere on Nutrient agar

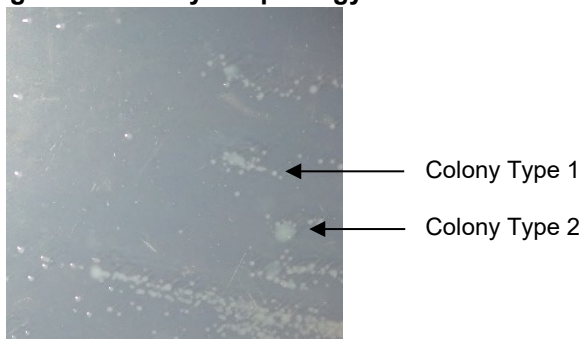
<sup>3</sup>Two colony types were observed. Plating of the individual colony types showed that colony type 1 reverted to the mixed colony type and colony type 2 did not revert.

<sup>4</sup>VITEK® MS (MALDI-TOF) was used to confirm to genus.

<sup>5</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. *P. barengoltzii*, strain NBRC 101215<sup>T</sup> (GenBank: BILV00000000.1) was used for dDDH analysis.

<sup>6</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub> on Nutrient agar.

**Figure 1: Colony Morphology**



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