

**Acinetobacter baumannii, Strain MRSN 7446**

**Catalog No. NR-52177**

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**Product Description:**

*Acinetobacter baumannii* (*A. baumannii*), strain MRSN 7446 was isolated in 2005 from a human wound sample in the USA as part of a global surveillance program. *A. baumannii*, strain MRSN 7446 was deposited as multi-locus sequence type (MLST) ST 963, sensitive to amikacin, ampicillin/sulbactam, cefepime, colistin, ceftazidime, ceftriaxone, ciprofloxacin, gentamicin, imipenem, meropenem, levofloxacin, tetracycline and tobramycin and resistant to trimethoprim/sulfamethoxazole. NR-52177 was produced by inoculation of BEI Resources seed lot 70041736 into Tryptic Soy broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar kolles, which were grown for 1 day at 37°C in an aerobic atmosphere to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

**Lot: 70059458**

**Manufacturing Date: 22MAR2023**

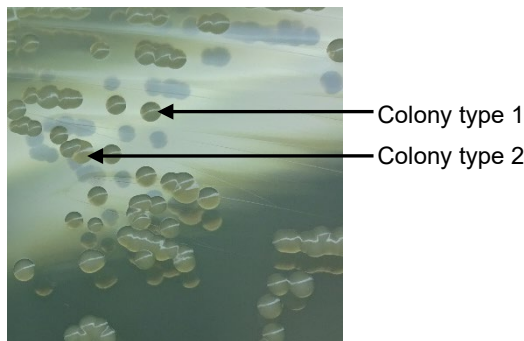
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TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>1</sup>  Growth at 44°C ± 2°C <sup>2</sup> 1 day in an aerobic atmosphere on Tryptic Soy agar Motility Hardy Diagnostics™ Motility Test Medium w/TTC Indicator for 1 day at 37°C in an aerobic atmosphere VITEK® MS (MALDI-TOF)	Gram-negative rods Report results  Growth  Report results  <i>A. baumannii</i>	Gram-negative rods Colony type 1: Circular, convex, entire, smooth and cream (Figure 1) Colony type 2: Circular, low convex, entire, smooth and light cream (Figure 1) Growth  Motile <sup>3</sup>  <i>A. baumannii</i> (99.9%)
<b>Antibiotic Susceptibility Profile<sup>4,5</sup></b> Amikacin Ampicillin/sulbactam Cefepime Ceftriaxone Ceftazidime Ciprofloxacin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Sensitive Sensitive Sensitive Intermediate Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Resistant Sensitive Intermediate	Sensitive (3 µg/mL) Sensitive (1 µg/mL) Sensitive (1.5 µg/mL) Intermediate (16 µg/mL) <sup>6</sup> Sensitive (4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (0.38 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (160 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (2 µg/mL) <sup>7</sup>
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 7446 (GenBank: VHEB01000054.1)	99.8% sequence identity to <i>A. baumannii</i> , strain MRSN 7446 (GenBank: VHEB01000054.1)

TEST	SPECIFICATIONS	RESULTS
<b>Purity</b> 7 days at 37°C in an aerobic atmosphere with and without 5% CO <sub>2</sub> on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability</b>	Growth	Growth

<sup>1</sup>Two colony types were observed. VITEK® MS (MALDI-TOF) analysis identified cells from both colony types as *A. baumannii*.  
<sup>2</sup>Growth at 44°C differentiates *A. baumannii* from *A. calcoaceticus* and *A. pittii*, which do not grow at 44°C.  
<sup>3</sup>*A. baumannii* lack flagella but exhibit a twitching/swarming motility, which may be due to type IV pili or excretion of polysaccharide. For additional information please refer to McQueary, C. N., et al., "Extracellular Stress and Lipopolysaccharide Modulate *Acinetobacter baumannii* Surface-Associated Motility." J. Microbiol. 50 (2012): 434-43. PubMed: 22752907.  
<sup>4</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)  
<sup>5</sup>Antibiotic susceptibility was tested using a combination of VITEK®2 GN81 and E-test strips.  
<sup>6</sup>*A. baumannii*, strain MRSN 7446 was deposited as sensitive to ceftriaxone, but showed a MIC of 12 µg/mL (interpreted as intermediate) for lot 70041735 during QC testing. Testing was performed in duplicate.  
<sup>7</sup>*A. baumannii*, strain MRSN 7446 was deposited as sensitive to tetracycline and was found to be intermediately resistant for lot 70041735, but showed a MIC of 2 µg/mL for the current lot (interpreted as sensitive) during QC testing. Testing was performed in duplicate.

Figure 1: Colony Morphology



/Sonia Bjorum Brower/  
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26 SEP 2023

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