

**Acinetobacter baumannii, Strain MRSN 7431**

**Catalog No. NR-52176**

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**Product Description:**

*Acinetobacter baumannii* (*A. baumannii*), MRSN 7431 was isolated in 2005 from a human respiratory sample in the United States as part of a global surveillance program. *A. baumannii*, strain MRSN 7431 was deposited as multi-locus sequence type (MLST) ST 2, sensitive to amikacin, ampicillin/sulbactam, colistin, imipenem, meropenem and tobramycin, intermediately resistant to ceftazidime and resistant to cefepime, ceftriaxone, ciprofloxacin, gentamicin, levofloxacin, trimethoprim/sulfamethoxazole and tetracycline. NR-52176 was produced by inoculation of BEI Resources seed lot 70040789 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: 70060467**

**Manufacturing Date: 03MAY2023**

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TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Growth at 44°C ± 2°C <sup>1</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 Circular, convex, entire, smooth and cream (Figure 1) Growth  Non-motile  <i>A. baumannii</i> (99.9%)
<b>Antibiotic Susceptibility Profile<sup>2,3</sup></b> Amikacin Ampicillin/sulbactam Cefepime Ceftriaxone Ceftazidime Ciprofloxacin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Sensitive Sensitive Resistant Resistant Intermediate Resistant Sensitive Sensitive Resistant Sensitive Sensitive Resistant Sensitive Resistant Sensitive Resistant	Sensitive (3 µg/mL) Sensitive (1.5 µg/mL) Resistant (> 256 µg/mL) Resistant (≥ 64 µg/mL) Resistant (48 to 64 µg/mL) <sup>4</sup> Resistant (≥ 4 µg/mL) Sensitive (≤ 1 µg/mL) <sup>5</sup> Sensitive (0.75 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (1 µg/mL) Resistant (≥ 320 µg/mL) Sensitive (≤ 1 µg/mL) Resistant (≥ 16 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 7431 (GenBank: VHEC0100098.1)	100% sequence identity to <i>A. baumannii</i> , strain MRSN 7431 (GenBank: VHEC0100098.1)
<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

TEST	SPECIFICATIONS	RESULTS
Viability	Growth	Growth

<sup>1</sup>Growth at 44°C differentiates *A. baumannii* from *A. calcoaceticus* and *A. pittii*, which do not grow at 44°C.

<sup>2</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

<sup>3</sup>Antibiotic susceptibility was tested using a combination of VITEK<sup>®</sup>2 GN81 and E-test strips.

<sup>4</sup>*A. baumannii*, strain MRSN 7431 was deposited as intermediately resistant to ceftazidime, but showed MICs of 48 and 64 µg/mL (interpreted as resistant) for this antibiotic during QC testing. Testing was performed in duplicate.

<sup>5</sup>*A. baumannii*, strain MRSN 7431 was deposited as resistant to gentamicin, but showed a MIC of ≤ 1 µg per mL (interpreted as sensitive) for lot 70040788 during QC testing.

Figure 1: Colony Morphology



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