

**Acinetobacter baumannii, Strain MRSN 6541**

**Catalog No. NR-52168**

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**Product Description:**

*Acinetobacter baumannii* (*A. baumannii*), strain MRSN 6541 was isolated in 2012 from a human wound in the United States as part of a global surveillance program. *A. baumannii*, strain MRSN 6541 was deposited as sensitive to amikacin, ceftazidime, colistin, gentamicin, tobramycin and tetracycline and resistant to ciprofloxacin, cefepime, imipenem, levofloxacin, meropenem, trimethoprim/sulfamethoxazole and ampicillin/sulbactam, with intermediate resistance to ceftriaxone. NR-52168 was produced by inoculation of BEI Resources seed lot 70040779 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: 70059683**

**Manufacturing Date: 30MAR2023**

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TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology 1 day at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood 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 with 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 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 Intermediate Resistant Resistant Intermediate Resistant Sensitive Resistant Resistant Resistant Resistant Resistant Sensitive Intermediate	Sensitive (2 µg/mL) Intermediate (12 µg/mL) <sup>4</sup> Resistant (≥ 256 µg/mL) Intermediate (16 µg/mL) <sup>5</sup> Intermediate (16 µg/mL) <sup>6</sup> Resistant (≥ 4 µg/mL) Sensitive (≤ 1 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 320 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (4 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 6541 (GenBank: VHEK01000095.1)	100% sequence identity to <i>A. baumannii</i> , strain MRSN 6541 (GenBank: VHEK01000095.1)

TEST	SPECIFICATIONS	RESULTS
<b>Purity</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 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability</b>	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 6541 was deposited as resistant to ampicillin/sulbactam, but showed a MIC of 12 µg/mL (interpreted as intermediately resistant) for lot 70040778 during QC testing.

<sup>5</sup>*A. baumannii*, strain MRSN 6541 was deposited as intermediately resistant to ceftriaxone and was found to be resistant for lot 70040778, but showed a MIC of 2 µg/mL (interpreted as intermediately resistant) for lot 70059683 during QC testing. Testing was performed in duplicate.

<sup>6</sup>*A. baumannii*, strain MRSN 6541 was deposited as sensitive to ceftazidime but showed a MIC of 16 µg/mL (interpreted as intermediately resistant) for lot 70040778 during QC testing.

<sup>7</sup>The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

Figure 1: Colony Morphology



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Sonia Bjorum Brower

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