

**Acinetobacter baumannii, Strain MRSN 1183**

**Catalog No. NR-52155**

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**Product Description:**

*Acinetobacter baumannii* (*A. baumannii*), strain MRSN 1183 was isolated in 2010 from a human wound sample in the USA as part of a global surveillance program. *A. baumannii*, strain MRSN 1183 was deposited as sensitive to ampicillin/sulbactam, ceftazidime, cefepime, colistin, imipenem and meropenem, intermediately resistant to ceftriaxone, and resistant to amikacin, ciprofloxacin, gentamicin, levofloxacin, tetracycline, trimethoprim/sulfamethoxazole and tobramycin. NR-52155 was produced by inoculation of BEI Resources seed lot 70039385 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: 70059456**

**Manufacturing Date: 22MAR2023**

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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 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, mucoid, 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	Resistant Resistant Sensitive Resistant Report results Resistant Resistant Sensitive Resistant Sensitive Resistant Resistant Resistant	Resistant (≥ 256 µg/mL) Resistant (96 µg/mL) <sup>4</sup> Resistant (≥ 256 µg/mL) <sup>5</sup> Resistant (≥ 64 µg/mL) <sup>6</sup> Resistant (≥ 64 µg/mL) <sup>7</sup> Resistant (≥ 4 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (2 µg/mL) Resistant (≥ 8 µg/mL) Intermediate (4 µg/mL) <sup>8</sup> Resistant (≥ 320 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 1183 (GenBank: VHH01000091.1)	99.9% sequence identity to <i>A. baumannii</i> , strain MRSN 1183 (GenBank: VHH01000091.1)
<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®2 GN81 and E-test strips.

<sup>4</sup>*A. baumannii*, strain MRSN 1183 was deposited as being sensitive to ampicillin/sulbactam, but showed a MIC of 12 to 24 µg/mL (interpreted as resistant) for lot 70039384 during QC testing.

<sup>5</sup>*A. baumannii*, strain MRSN 1183 was deposited as being sensitive to cefepime. Repeated antibiotic susceptibility testing determined that for strain MRSN 1183, the cefepime MIC is ≥ 256 µg/mL, which is interpreted as resistant. Testing was performed in duplicate.

<sup>6</sup>*A. baumannii*, strain MRSN 1183 was deposited as being intermediately resistant to ceftriaxone, but showed a MIC of > 32 µg/mL (interpreted as resistant) for lot 70039384 during QC testing.

<sup>7</sup>*A. baumannii*, strain MRSN 1183 was deposited as being sensitive to ceftazidime but showed MICs of 1.5 µg/mL (interpreted as sensitive) and 32 µg/mL (interpreted as resistant), for lot 70039384 during QC testing, resulting in an inconclusive result.

<sup>8</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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