

**Acinetobacter baumannii, Strain MRSN 1174**

**Catalog No. NR-52154**

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**Product Description:**

*Acinetobacter baumannii* (*A. baumannii*), strain MRSN 1174 was isolated in 2006 from a human blood sample in the USA as part of a global surveillance program. *A. baumannii*, strain MRSN 1174 was deposited as multi-locus sequence type (MLST) ST 2, sensitive to colistin and ampicillin/sulbactam, intermediately resistant to tetracycline and resistant to amikacin, cefepime, ceftazidime, ceftriaxone, ciprofloxacin, gentamicin, imipenem, levofloxacin, meropenem, tobramycin and trimethoprim/sulfamethoxazole. NR-52154 was produced by inoculation of the deposited material 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: 70038530**

**Manufacturing Date: 26AUG2020**

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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 Remel™ 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 Colistin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Resistant Sensitive Resistant Resistant Resistant Resistant Sensitive Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Intermediate	Intermediate (24 µg/mL) <sup>4</sup> Resistant (96 µg/mL) <sup>5</sup> Resistant (32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 16 µg/mL) Resistant (12 to 16 µg/mL) Resistant (4 to 8 µg/mL) Resistant (> 32 µg/mL) Resistant (> 4 µg/mL) Sensitive (4 µg/mL) <sup>6</sup> Resistant (≥ 256 µg/mL) <sup>7</sup>
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (1480 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 1174 (GenBank: VHHF01000099.1)	99.9% sequence identity to <i>A. baumannii</i> , strain MRSN 1174 (GenBank: VHHF01000099.1)

TEST	SPECIFICATIONS	RESULTS
<b>Purity</b> 8 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>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 GN82, Sensititre GNX2F AST and E-test strips.

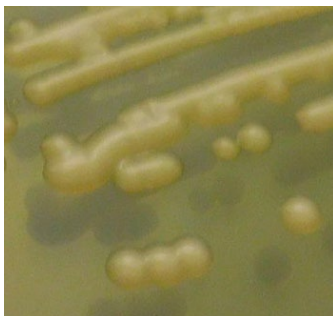
<sup>4</sup>*A. baumannii*, strain MRSN 1174 was deposited as being resistant to amikacin. Repeated antibiotic susceptibility testing determined that for strain MRSN 1174, the amikacin MIC is 24 µg per mL, which is interpreted as intermediately resistant. Testing was performed in duplicate.

<sup>5</sup>*A. baumannii* strain MRSN 1174 was deposited as being sensitive to ampicillin/sulbactam. Repeated antibiotic susceptibility testing determined that for strain MRSN 1174, the ampicillin/sulbactam MIC is 96 µg per mL, which is interpreted as resistant. Testing was performed in duplicate.

<sup>6</sup>*A. baumannii*, strain MRSN 1174 was deposited as being resistant to tobramycin. Repeated antibiotic susceptibility testing determined that for strain MRSN 1174, the tobramycin MIC is 4 µg per mL, which is interpreted as sensitive. Testing was performed in duplicate.

<sup>7</sup>*A. baumannii*, strain MRSN 1174 was deposited as being intermediately resistant to tetracycline. Repeated antibiotic susceptibility testing determined that for strain MRSN 1174, the tetracycline MIC is ≥ 256 µg per mL, which is interpreted as resistant. Testing was performed in duplicate.

Figure 1: Colony Morphology



/Heather Couch/  
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