

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 BEI Resources seed lot 70038542 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: 70059455

Manufacturing Date: 22MAR2023

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Growth at 44°C ± 2°C ¹ 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, mucoid and cream (Figure 1) Growth Non-motile <i>A. baumannii</i> (99.9%)
Antibiotic Susceptibility Profile^{2,3} Amikacin Ampicillin/sulbactam Cefepime Ceftriaxone Ceftazidime Ciprofloxacin Colistin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Intermediate Resistant Resistant Resistant Resistant Resistant Sensitive Resistant Resistant Resistant Resistant Resistant Resistant Resistant Sensitive Resistant	Sensitive (4 to 6 µg/mL) ⁴ Resistant (≥ 256 µg/mL) ⁵ Resistant (24 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.25 µg/mL) ⁶ Resistant (≥ 16 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (0.38 to 0.5 µg/mL) ⁷ Resistant (160 µg/mL) Sensitive (≤ 1 µg/mL) ⁸ Resistant (≥ 16 µg/mL) ⁹
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 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
Purity 7 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

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

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

³Antibiotic susceptibility was tested using a combination of VITEK[®]2 GN81 and E-test strips.

⁴*A. baumannii*, strain MRSN 1174 was deposited as being resistant to amikacin but showed a MIC of 24 µg/mL (interpreted as intermediately resistant) for lot 70038530 during QC testing. Repeated antibiotic susceptibility testing of lot 70059455 determined the amikacin MIC is 4 to 6 µg/mL, which is interpreted as sensitive. Testing was performed in duplicate.

⁵*A. baumannii* strain MRSN 1174 was deposited as being sensitive to ampicillin/sulbactam but showed a MIC of 96 µg/mL (interpreted as resistant) for lot 70038530 during QC testing.

⁶Testing was performed on BEI Resources seed lot 70038542.

⁷*A. baumannii*, strain MRSN 1174 was deposited as resistant to meropenem. Repeated antibiotic susceptibility testing determined that for strain MRSN 1174, the meropenem MIC is 0.38 to 0.5 µg/mL, which is interpreted as sensitive. Testing was performed in duplicate.

⁸*A. baumannii*, strain MRSN 1174 was deposited as being resistant to tobramycin but showed a MIC of 4 µg/mL (interpreted as sensitive) for lot 70038530 during QC testing.

⁹*A. baumannii*, strain MRSN 1174 was deposited as being intermediately resistant to tetracycline but showed a MIC of ≥ 256 µg/mL (interpreted as resistant) for lot 70038530 during QC testing.

Figure 1: Colony Morphology



/Sonia Bjorum Brower/
Sonia Bjorum Brower

Technical Manager or designee, ATCC Federal Solutions

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