

Acinetobacter baumannii, Strain MRSN 32842

Catalog No. NR-52234

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Product Description:

Acinetobacter baumannii (*A. baumannii*), strain MRSN 32842 was isolated in 2005 from a human wound sample in Europe as part of a global surveillance program. *A. baumannii*, strain MRSN 32842 was deposited as sensitive to amikacin, ampicillin/sulbactam, cefepime, ceftazidime, ceftriaxone, ciprofloxacin, colistin, imipenem, levofloxacin, meropenem, tetracycline, trimethoprim/sulfamethoxazole and tobramycin and intermediately resistant to gentamicin. NR-52234 was produced by inoculation of BEI Resources seed lot 70042859 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: 70061812

Manufacturing Date: 30JUN2023

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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 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 Motile ² <i>A. baumannii</i> (99.9%)
Antibiotic Susceptibility Profile^{3,4} Amikacin Ampicillin/sulbactam Cefepime Ceftriaxone Ceftazidime Ciprofloxacin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Sensitive Sensitive Sensitive Intermediate Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Intermediate	Sensitive (3 µg/mL) Sensitive (1.5 µg/mL) Sensitive (2 µg/mL) Intermediate (16 µg/mL) ⁵ Sensitive (4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 1 µg/mL) ⁶ Sensitive (0.38 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 20 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) ⁷
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 32842 (GenBank: VFHG01000046.1)	100% sequence identity to <i>A. baumannii</i> , strain MRSN 32842 (GenBank: VFHG01000046.1)
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

TEST	SPECIFICATIONS	RESULTS
Viability	Growth	Growth

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

²*A. baumannii* lack flagella but exhibit a twitching/swarming motility, which may be due to type IV pili or excretion of polysaccharide. For additional information please refer to McQueary, C. N., et al., "Extracellular Stress and Lipopolysaccharide Modulate *Acinetobacter baumannii* Surface-Associated Motility." J. Microbiol. 50 (2012): 434-43. PubMed: 22752907.

³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

⁴Antibiotic susceptibility was tested using a combination of VITEK[®]2 GN82, Sensititre™ GNX2F AST and E-test strips.

⁵*A. baumannii*, strain MRSN 32842 was deposited as sensitive to ceftriaxone, but showed a MIC of 12 to 16 µg/mL (interpreted as intermediate) for lot 70042858 during QC testing. Testing was performed in duplicate.

⁶*A. baumannii*, strain MRSN 32842 was deposited as intermediately resistant to gentamicin, but showed a MIC of ≤ 3 µg/mL (interpreted as sensitive) for lot 70042858 during QC testing. Testing was performed in duplicate.

⁷*A. baumannii*, strain MRSN 32842 was deposited as sensitive to tetracycline, and was found to be intermediately resistant for lot 70042858, but showed a MIC of ≤ 1 µg/mL for the current lot (interpreted as sensitive) for tetracycline during QC testing. Testing was performed in duplicate.

Figure 1: Colony Morphology



/Sonia Bjorum Brower/

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Technical Manager or designee, ATCC Federal Solutions

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