

Acinetobacter baumannii, Strain MRSN 31523

Catalog No. NR-52223

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Product Description:

Acinetobacter baumannii (*A. baumannii*), strain MRSN 31523 was isolated in 2004 from a human sample in Europe as part of a global surveillance program. *A. baumannii*, strain MRSN 31523 was deposited as multi-locus sequence type (MLST) ST 25, sensitive to amikacin, ciprofloxacin, colistin, imipenem, levofloxacin, meropenem and tetracycline, intermediately resistant to ampicillin/sulbactam and resistant to cefepime, ceftazidime, ceftriaxone, gentamicin, trimethoprim/sulfamethoxazole and tobramycin. NR-52223 was produced by inoculation BEI Resources seed lot 70041135 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: 70061181

Manufacturing Date: 07JUN2023

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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 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%)
Antibiotic Susceptibility Profile^{2,3} Amikacin Ampicillin/sulbactam Cefepime Ceftriaxone Ceftazidime Ciprofloxacin Gentamicin Imipenem Levofloxacin Meropenem Trimethoprim/sulfamethoxazole Tobramycin Tetracycline	Sensitive Sensitive Resistant Resistant Resistant Sensitive Resistant Sensitive Sensitive Sensitive Sensitive Resistant Resistant Intermediate	Sensitive (1.5 µg/mL) Sensitive (2 µg/mL) ⁴ Resistant (64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (32 µg/mL) Sensitive (1 µg/mL) Intermediate (12 µg/mL) ⁵ Sensitive (0.25 µg/mL) Sensitive (0.25 µg/mL) Sensitive (1 µg/mL) Resistant (≥ 320 µg/mL) Inconclusive ⁶ Intermediate (8 to 12 µg/mL) ⁷
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1480 base pairs)	≥ 99% sequence identity to <i>A. baumannii</i> , strain MRSN 31523 (GenBank: VFHR01000050.1)	100% sequence identity to <i>A. baumannii</i> , strain MRSN 31523 (GenBank: VFHR01000050.1)
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

Certificate of Analysis for NR-52223

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.

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 31523 was deposited as intermediately resistant to ampicillin/sulbactam but showed a MIC of 3 µg/mL (interpreted as sensitive) for lot 70041134 during QC testing.

⁵The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

⁶*A. baumannii*, strain MRSN 31523 was deposited as resistant to tobramycin but showed MICs of 4 to 6 µg/mL (interpreted as sensitive) and 8 µg/mL (interpreted as intermediately resistant) during QC testing.

⁷*A. baumannii*, strain MRSN 31523 was deposited as sensitive to tetracycline, but showed a MIC of 8 µg/mL (interpreted as intermediately resistant) for lot 70041134 during QC testing.

Figure 1: Colony Morphology



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19 SEP 2023

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