

***Pseudomonas aeruginosa*, Strain MRSN 552**

Catalog No. NR-51518

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 552 was isolated in 2010 from human urine as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 552 was deposited as sensitive to amikacin, aztreonam, cefepime, ceftazidime, ciprofloxacin, gentamicin, levofloxacin, piperacillin/tazobactam and tobramycin and resistant to imipenem and meropenem.

Lot: 70024590¹

Manufacturing Date: 12APR2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) VITEK [®] 2 (GN card)	Gram-negative rods Report results Report results <i>P. aeruginosa</i> (≥ 89%)	Gram-negative rods Circular, low convex, entire, smooth and green (Figure 1) Motile <i>P. aeruginosa</i> (98%)
Antibiotic Susceptibility Profile³ VITEK [®] (AST-GN81 Card) Ampicillin Amoxicillin/Clavulanic Acid Piperacillin/Tazobactam Cefazolin Cefoxitin Ceftazidime Ceftriaxone Cefepime Meropenem Amikacin Gentamicin Tobramycin Ciprofloxacin Levofloxacin Tetracycline Nitrofurantoin Trimethoprim/Sulfamethoxazole	Report results Report results Sensitive Report results Report results Sensitive Report results Sensitive Sensitive Resistant Sensitive Sensitive Sensitive Sensitive Sensitive Report results Report results Report results	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (8 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (4 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (2 µg/mL) Inconclusive ⁴ Sensitive (≤ 2 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (0.5 to 1 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) ≥ 80 µg/mL ⁵
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 552 (GenBank: RXTPO1000033.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 552 (GenBank: RXTPO1000033.1)
Purity (post-freeze)⁶	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51518 was produced by inoculation of the depositor 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.

²1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar

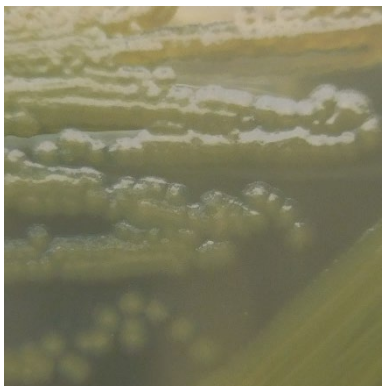
³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

⁴*P. aeruginosa*, strain MRSN 552 was deposited as resistant to meropenem. Repeated antibiotic susceptibility testing performed determined that for strain MRSN 552, the meropenem MICs are 4 µg/mL and 8 µg/mL, which are interpreted as intermediate and resistant, respectively.

⁵Trimethoprim/sulfamethoxazole MIC interpretive standards are not available for *P. aeruginosa*, however most clinical isolates are resistant to trimethoprim/sulfamethoxazole. For more information, please refer to Köhler, T., et al. "Multidrug Efflux in Intrinsic Resistance to Trimethoprim and Sulfamethoxazole in *Pseudomonas aeruginosa*." *Antimicrob. Agents Chemother.* 40 (1996): 2288-2290. PubMed: 9036831.

⁶Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere with and without 5% CO₂ on Tryptic Soy agar.

Figure 1: Colony Morphology



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