

Pseudomonas aeruginosa, Strain MRSN 4841

Catalog No. NR-51543

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 4841 was isolated in 2011 from human urine as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 4841 was deposited as sensitive to amikacin, imipenem and tobramycin, intermediately resistant to ceftazidime, gentamicin, meropenem and piperacillin/tazobactam and resistant to aztreonam, cefepime, ciprofloxacin and levofloxacin.

Lot: 70024958¹

Manufacturing Date: 09MAY2019

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, convex, entire, smooth and cream (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 Intermediate Report results Report results Intermediate Report results Resistant Intermediate Sensitive Intermediate Sensitive Resistant Resistant Report results Report results Report results	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Intermediate (32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (32 µg/mL) ⁴ Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (2 µg/mL) ⁴ Intermediate (32 µg/mL) ⁵ Intermediate (8 µg/mL) Sensitive (4 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) ≥ 320 µg/mL ⁶
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1430 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 4841 (GenBank: RXTT01000078.1)	99.9% sequence identity to <i>P. aeruginosa</i> , strain MRSN 4841 (GenBank: RXTT01000078.1)
Purity (post-freeze)⁷	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51543 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)

⁴Susceptibility results for this antibiotic are within one doubling dilution of specification, which is considered an equivalent result.

⁵*P. aeruginosa*, strain MRSN 4841 was deposited as sensitive to amikacin. Repeated antibiotic susceptibility testing determined that strain MRSN 4841 is intermediately resistant to amikacin.

⁶Trimethoprim/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.

⁷Purity 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



/Heather Couch/

Heather Couch

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