

***Pseudomonas aeruginosa*, Strain MRSN 351791**
Catalog No. NR-51605

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 351791 was isolated from human urine in 2015 as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 351791 was deposited as sensitive to amikacin, ceftazidime, cefepime, gentamicin, imipenem, meropenem and piperacillin/tazobactam and resistant to aztreonam, ciprofloxacin and levofloxacin, with intermediate resistance to tobramycin.

Lot: 70025116¹
Manufacturing Date: 02AUG2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology ² Colony morphology Motility (wet mount) VITEK [®] 2 (GN card)	Gram-negative rods Report results Report results <i>P. aeruginosa</i> (≥ 89%)	Gram-negative rods Irregular, slight peaked, undulate, opaque and cream (Figure 1) Motile <i>P. aeruginosa</i> (99%)
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 Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Intermediate Resistant Resistant 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) Sensitive (≤ 0.25 µg/mL) Sensitive (4-8 µg/mL) Sensitive (2 µg/mL) Sensitive (≤ 1 µg/mL) ⁴ Sensitive (≤ 0.25 µg/mL) ⁵ Sensitive (0.5 µg/mL) ⁶ Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) 80 µg/mL ⁷
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1400 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 351791 (GenBank: RXUE01000124.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 351791 (GenBank: RXUE01000124.1)
Purity (post-freeze)⁸	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51605 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 351791 was deposited as intermediate to tobramycin, but showed a MIC of ≤ 1 µg/mL (interpreted as sensitive) for tobramycin during QC testing. Testing was performed in duplicate.

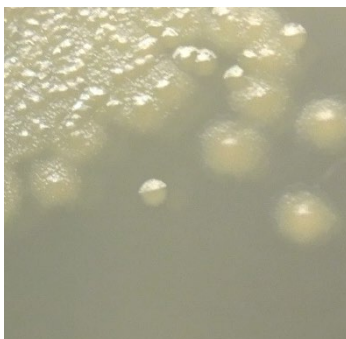
⁵*P. aeruginosa*, strain MRSN 351791 was deposited as resistant to ciprofloxacin, but showed a MIC of ≤ 0.25 µg/mL (interpreted as sensitive) for ciprofloxacin during QC testing. Testing was performed in duplicate.

⁶*P. aeruginosa*, strain MRSN 351791 was deposited as resistant to levofloxacin, but showed a MIC of 0.5 µg/mL (interpreted as sensitive) for levofloxacin during QC testing. Testing was performed in duplicate.

⁷Trimethoprim/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.

⁸Purity of this lot was assessed for 7 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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