

***Pseudomonas aeruginosa*, Strain MRSN 390231**

Catalog No. NR-51609

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 390231 was isolated in 2016 as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 390231 was deposited as sensitive to amikacin, imipenem, cefepime, levofloxacin, ceftazidime, meropenem, gentamicin and tobramycin and intermediate to aztreonam, ciprofloxacin and piperacillin/tazobactam.

Lot: 70025124¹

Manufacturing Date: 07AUG2019

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, mucoid and cream (Figure 1) Motile <i>P. aeruginosa</i> (93%)
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 Sensitive Report results Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Intermediate Sensitive Report results Report results Report results	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) ⁴ Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (8 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) ⁵ Sensitive (2 µg/mL) Sensitive (16 µg/mL) Intermediate (8 µg/mL) ⁶ Sensitive (2 µg/mL) Intermediate (2 µg/mL) Resistant (≥ 8 µg/mL) ⁷ Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) 40 µg/mL ⁸
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 390231 (GenBank: RXTZ01000026.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 390231 (GenBank: RXTZ01000026.1)
Purity (post-freeze)⁹	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51609 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 390231 was deposited as intermediate to piperacillin/tazobactam but showed a MIC of ≥ 128 µg/mL (interpreted as resistant) for piperacillin/tazobactam during QC testing. Testing was performed in duplicate.

⁵*P. aeruginosa*, strain MRSN 390231 was deposited as sensitive to cefepime, but showed a MIC of ≥ 64 µg/mL (interpreted as resistant) for cefepime during QC testing. Testing was performed in duplicate.

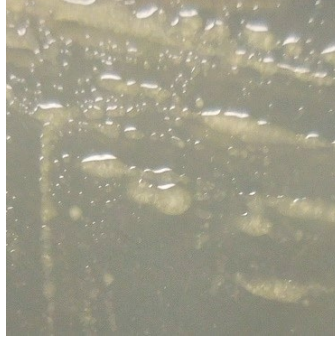
⁶Susceptibility results for gentamicin is within one doubling dilution of specification, which is considered an equivalent result.

⁷*P. aeruginosa*, strain MRSN 390231 was deposited as sensitive to levofloxacin, but showed a MIC of ≥ 8 $\mu\text{g/mL}$ (interpreted as resistant) for levofloxacin during QC testing. Testing was performed in duplicate.

⁸Trimethoprim/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.

⁹Purity 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



/Heather Couch/
Heather Couch

Program Manager or designee, ATCC Federal Solutions

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