

***Pseudomonas aeruginosa*, Strain MRSN 15753**

Catalog No. NR-51580

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 15753 is a human respiratory isolate collected in 2013 as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 15753 was deposited as sensitive to amikacin, aztreonam, ceftazidime, gentamicin, piperacillin/tazobactam and tobramycin and resistant to cefepime, ciprofloxacin, imipenem and meropenem with intermediate resistance to levofloxacin.

Lot: 70025066¹

Manufacturing Date: 03JUL2019

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> (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 Resistant Resistant Sensitive Sensitive Sensitive Resistant Intermediate 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 (8 µg/mL) ⁴ Resistant (8 µg/mL) Sensitive (≤ 2 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (1 µg/mL) ⁵ Sensitive (2 µg/mL) ⁶ Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) ≥ 320 µg/mL ⁷
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (1410 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 15753 (GenBank: RXVY01000154.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 15753 (GenBank: RXVY01000154.1)
Purity (post-freeze)⁸	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51580 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 15753 was deposited as resistant to cefepime, but showed a MIC of 8 µg/mL (interpreted as sensitive) for cefepime during QC testing. Testing was performed in duplicate.

⁵*P. aeruginosa*, strain MRSN 15753 was deposited as resistant to ciprofloxacin, but showed a MIC of 1 µg/mL (interpreted as sensitive) for ciprofloxacin during QC testing. Testing was performed in duplicate.

⁶The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

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 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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