

Certificate of Analysis for NR-51578

Pseudomonas aeruginosa, Strain MRSN 15566

Catalog No. NR-51578

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 15566 was isolated in 2013 from human urine as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 15566 was deposited as sensitive to amikacin, aztreonam, cefepime, ceftazidime, gentamicin, meropenem, piperacillin/tazobactam and tobramycin and resistant to ciprofloxacin, imipenem and levofloxacin.

Lot: 70025062¹ Manufacturing Date: 26JUN2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphologies ^{2,3}	Report results	Colony type 1: Circular, low convex,
		undulate, rough and cream (Figure 1)
		Colony type 2: Irregular, low convex,
		undulate, mucoid and cream (Figure 1)
Motility (wet mount)	Report results	Motile
VITEK [®] 2 (GN card)	P. aeruginosa (≥ 89%)	P. aeruginosa (≥ 93%)
Antibiotic Susceptibility Profile ^{4,5}		
VITEK® (AST-GN81 Card)		
Ampicillin	Report results	Resistant (≥ 32 µg/mL)
Amoxicillin/clavulanic acid	Report results	Resistant (≥ 32 µg/mL)
Piperacillin/tazobactam	Sensitive	Sensitive (≤ 4 μg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Cefoxitin	Report results	Resistant (≥ 64 µg/mL)
Ceftazidime	Sensitive	Sensitive (≤ 1 μg/mL)
Ceftriaxone	Report results	Resistant (≥ 8 µg/mL)
Cefepime	Sensitive	Sensitive (≤ 1 µg/mL)
Meropenem	Sensitive	Sensitive (≤ 1 µg/mL)
Amikacin	Sensitive	Sensitive (≤ 2 μg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 µg/mL)
Tobramycin	Sensitive	Sensitive (≤ 1 µg/mL)
Ciprofloxacin	Resistant	Sensitive (≤ 1 µg/mL) ⁶
Levofloxacin	Resistant	Sensitive (≤ 2 μg/mL) ⁷
Tetracycline	Report results	Resistant (≥ 8 µg/mL)
Nitrofurantoin	Report results	Resistant (≥ 256 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	≥ 320 µg/mL ⁸
Genotypic Analysis		00.00/
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	99.9% sequence identity to
(~ 1420 base pairs)	P. aeruginosa, strain MRSN 15566 (GenBank: RXWA01000170.1)	P. aeruginosa, strain MRSN 15566 (GenBank: RXWA01000170.1)
	Growth consistent with expected	Growth consistent with expected
Purity (post-freeze) ⁹	colony morphology	colony morphology
Viability (post-freeze) ²	Growth	Growth

¹NR-51578 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.

⁴Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

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

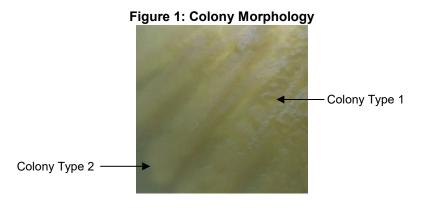
³Two colony types were observed. Plating of the individual colony types showed that colony type 1 did not revert to the mixed colony type and colony type 2 reverted to colony type 1. VITEK® MS (MALDI-TOF) analysis identified cells from both colony types as *P. aeruginosa*.



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SUPPORTING INFECTIOUS DISEASE RESEARCH

⁹Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere with and without 5% CO₂ on Tryptic Soy agar.



/Heather Couch/ Heather Couch

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Program Manager or designee, ATCC Federal Solutions

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⁵Antibiotic susceptibility testing was performed using a mixed colony suspension.

⁶P. aeruginosa, strain MRSN 15566 was deposited as resistant to ciprofloxacin. Repeated antibiotic susceptibility testing determined that strain MRSN 15566 is sensitive to ciprofloxacin.

⁷P. aeruginosa, strain MRSN 15566 was deposited as resistant to levofloxacin. Repeated antibiotic susceptibility testing determined that strain MRSN 15566 is sensitive to levofloxacin.

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*." <u>Antimicrob. Agents Chemother.</u> 40 (1996): 2288-2290. PubMed: 9036831.