

Certificate of Analysis for NR-51576

Pseudomonas aeruginosa, Strain MRSN 13488

Catalog No. NR-51576

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Product Description:

Pseudomonas aeruginosa (P. aeruginosa), strain MRSN 13488 was isolated in 2012 from human urine as part of a surveillance program in the United States. P. aeruginosa, strain MRSN 13488 was deposited as sensitive to amikacin, aztreonam, cefepime, ceftazidime, ciprofloxacin, gentamicin, levofloxacin, piperacillin/tazobactam and tobramycin and resistant to meropenem, with intermediate resistance to imipenem.

Lot: 70025055¹ Manufacturing Date: 19JUL2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology ²	Report results	Circular, low convex, entire, translucent and cream (Figure 1)
Motility (wet mount)	Report results	Motile
VITEK® 2 (GN card)	P. aeruginosa (≥ 89%)	P. aeruginosa (98%)
Antibiotic Susceptibility Profile ³ 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 (4 µg/mL)
Ceftriaxone	Report results	Sensitive (8 µg/mL)
Cefepime	Sensitive	Sensitive (≤ 1 μg/mL)
Meropenem	Resistant	Sensitive (≤ 0.25 µg/mL) ⁴
Amikacin	Sensitive	Sensitive (≤ 2 μg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 μg/mL)
Tobramycin	Sensitive	Sensitive (≤ 1 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Levofloxacin	Sensitive	Sensitive (0.25 µg/mL)
Tetracycline	Report results	Resistant (4 to 8 µg/mL)
Nitrofurantoin	Report results	Resistant (≥ 512 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	≤ 80 µg/mL ⁵
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	100% sequence identity to
(~ 1410 base pairs)	P. aeruginosa, strain MRSN 13488 (GenBank: RXWF01000020.1)	P. aeruginosa, strain MRSN 13488 (GenBank: RXWF01000020.1)
Purity (post-freeze) ⁶	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze) ²	Growth	Growth
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¹NR-51576 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.

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

³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

⁴P. aeruginosa, strain MRSN 351791 was deposited as resistant to meropenem, but showed a MIC of ≤ 0.25 μg/mL (interpreted as sensitive) for meropenem during QC testing. Testing was performed in duplicate.

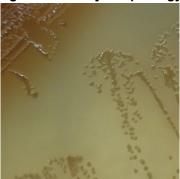
⁵Trimethoprim/sulfamethoxazole MIC interpretive standards are not available for *P. aeruginosa*, however most clinical isolates are resistant to trimethoprim/sulfamethoxazole. For more information, please refer to Köhler, T., et al. "Multidrug Efflux in Intrinsic Resistance to Trimethoprim and



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Sulfamethoxazole in *Pseudomonas aeruginosa*." <u>Antimicrob. Agents Chemother.</u> 40 (1996): 2288-2290. PubMed: 9036831. ⁶Purity 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

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Program Manager or designee, ATCC Federal Solutions

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