SUPPORTING INFECTIOUS DISEASE RESEARCH

Pseudomonas aeruginosa, Strain MRSN 26263

Catalog No. NR-51601

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Product Description:

Pseudomonas aeruginosa (P. aeruginosa), strain MRSN 26263 was isolated in 2014 from a human surveillance respiratory sample as part of а program in the United States. P. aeruginosa, strain MRSN 26263 was deposited as sensitive to piperacillin/tazobactam, cefepime, levofloxacin, amikacin, gentamicin, aztreonam, meropenem and imipenem and resistant to tobramycin and ciprofloxacin with intermediate resistance to ceftazidime.

Lot: 700251081

Manufacturing Date: 18JUL2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology ²	Report results	Circular, convex, entire, smooth and
		cream (Figure 1)
		Plaques observed
Motility (wet mount)	Report results	Motile
VITEK [®] 2 (GN card)	P. aeruginosa (≥ 89%)	P. aeruginosa (≥ 94%)
Antibiotic Susceptibility Profile ³		
Sensititre™ System ⁴		
Amikacin	Report results	Intermediate (32 µg/mL)
Aztreonam	Report results	Sensitive (4-8 µg/mL)
Cefepime	Report results	Sensitive (8 µg/mL)
Cefotaxime	Report results	Resistant (> 32 µg/mL)
Ceftazidime	Report results	Sensitive (≤ 2 µg/mL)
Ciprofloxacin	Report results	Resistant (> 2 µg/mL)
Colistin	Report results	Sensitive (≤ 0.25 µg/mL)
Doripenem	Report results	Non-susceptible (> 2 µg/mL)
Doxycycline	Report results	8 μg/mL ⁵
Ertapenem	Report results	$> 4 \ \mu g/mL^5$
Gentamicin	Report results	Resistant (> 8 µg/mL)
Imipenem	Report results	Resistant (8 µg/mL)
Levofloxacin	Report results	Intermediate (4 µg/mL) ⁶
Meropenem	Report results	Resistant (8 µg/mL) ⁶
Minocycline	Report results	8 µg/mL⁵
Piperacillin/tazobactam	Report results	Sensitive (8 µg/mL) ⁶
Polymyxin B	Report results	Sensitive (≤ 0.25 µg/mL)
Ticarcillin/clavulanic acid	Report results	Intermediate (32-64 µg/mL)
Tigecycline	Report results	4 μg/mL ⁵
Tobramycin	Report results	Sensitive (4 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	$> 4 \mu g/mL^{7}$
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	100% sequence identity to
(~ 1420 base pairs)	P. aeruginosa, strain MRSN 26263	P. aeruginosa, strain MRSN 26263
	(GenBank: RXUL01000092.1)	(GenBank: RXUL01000092.1)
Purity (post-freeze) ⁸	Growth consistent with expected colony	Growth consistent with expected colony
	morphology	morphology
Viability (post-freeze) ²	Growth	Growth

b|**e**|**i** resources

Certificate of Analysis for NR-51601

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¹NR-51601 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)

⁴Sensititre™ Gram Negative GNX2F with colistin, Thermo Scientific™, catalog number GNX2F

⁵No Clinical & Laboratory Standards Institute (CLSI) interpretation for this antibiotic is currently available.

⁶Results manually read

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*." <u>Antimicrob. Agents Chemother.</u> 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



/Heather Couch/ Heather Couch

Program Manager or designee, ATCC Federal Solutions

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