

Certificate of Analysis for NR-51533

Pseudomonas aeruginosa, Strain MRSN 1906

Catalog No. NR-51533

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Product Description:

Pseudomonas aeruginosa (P. aeruginosa), strain MRSN 1906 was isolated from a human in 2010 as part of a surveillance program in the United States. P. aeruginosa, strain MRSN 1906 was deposited as sensitive to piperacillin/tazobactam, cefepime, ceftazidime, amikacin, aztreonam, imipenem and meropenem and resistant to levofloxacin, ciprofloxacin, gentamicin and tobramycin.

Lot: 70024620¹ Manufacturing Date: 08MAY2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology ²	Report results	Circular, slight peaked, undulate,
, 1 3,	•	mucoid and green (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 (16 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	Intermediate (32 µg/mL)
Cefepime	Sensitive	Sensitive (≤ 1 μg/mL)
Meropenem	Sensitive	Sensitive (1 µg/mL)
Amikacin	Sensitive	Sensitive (≤ 2 µg/mL)
Gentamicin	Resistant	Resistant (≥ 16 µg/mL)
Tobramycin	Resistant	Resistant (≥ 16 µg/mL)
Ciprofloxacin	Resistant	Sensitive (1 µg/mL) ⁴
Levofloxacin	Resistant	Intermediate (4 µg/mL) ⁵
Tetracycline	Report results	Resistant (≥ 8 µg/mL)
Nitrofurantoin	Report results	Resistant (≥ 512 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	≥ 320 µg/mL ⁶
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	99.9% sequence identity to
(~ 1470 base pairs)	P. aeruginosa, strain MRSN 1906 (GenBank: RXVB01000063.1)	P. aeruginosa, strain MRSN 1906 (GenBank: RXVB01000063.1)
Purity (post-freeze) ⁷	Growth consistent with expected	Growth consistent with expected
	colony morphology	colony morphology
Viability (post-freeze) ²	Growth	Growth

¹NR-51533 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.

BEI Resources

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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 1906 was deposited as resistant to ciprofloxacin. Antibiotic susceptibility testing performed in duplicate determined that strain MRSN 1906 is sensitive to ciprofloxacin.

⁵P. aeruginosa, strain MRSN 1906 was deposited as resistant to levofloxacin. Antibiotic susceptibility testing performed in duplicate determined that strain MRSN 1906 is intermediately resistant to levofloxacin.



SUPPORTING INFECTIOUS DISEASE RESEARCH

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⁶Trimethoprim/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.

⁷Purity 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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