Certificate of Analysis for NR-51531

Pseudomonas aeruginosa, Strain MRSN 1899

Catalog No. NR-51531

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Product Description:

Pseudomonas aeruginosa (P. aeruginosa), strain MRSN 1899 was isolated in 2010 from a human as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 1899 was deposited as sensitive to amikacin, aztreonam, cefepime, ceftazidime, piperacillin/tazobactam, gentamicin, tobramycin, meropenem and imipenem and resistant to ciprofloxacin and levofloxacin.

Lot: 70024616[1] **Manufacturing Date: 08MAY2019**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology[2]	Report results	Circular, low convex, entire, smooth 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 (≤ 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	Intermediate (8-16 µg/mL)
Cefepime	Sensitive	Sensitive (8 µg/mL)
Meropenem	Sensitive	Sensitive (≤ 0.25 µg/mL)
Amikacin	Sensitive	Sensitive (≤ 2 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 µg/mL)
Tobramycin	Sensitive	Sensitive (≤ 1 µg/mL)
Ciprofloxacin	Resistant	Intermediate (2 µg/mL)[4]
Levofloxacin	Resistant	Intermediate (4 µg/mL)[5]
Tetracycline	Report results	Resistant (≥ 16 µg/mL)
Nitrofurantoin	Report results	Resistant (≥ 512 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	80 µg/mL[6]
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	≥ 99% sequence identity to *P. aeruginosa,* strain MRSN 1899 (GenBank: RXVD01000045.1)	100% sequence identity to *P. aeruginosa,* strain MRSN 1899 (GenBank: RXVD01000045.1)
Purity (post-freeze)[7]	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)[2]	Growth	Growth

[1]NR-51531 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.
[2]1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar
[3]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)
[4]*P. aeruginosa*, strain MRSN 1899 was deposited as resistant to ciprofloxacin. Antibiotic susceptibility testing performed in duplicate determined that susceptibility of strain MRSN 1899 to ciprofloxacin is intermediate.
[5]*P. aeruginosa*, strain MRSN 1899 was deposited as resistant to levofloxacin. Antibiotic susceptibility testing performed in duplicate determined that susceptibility of strain MRSN 1899 to levofloxacin is intermediate.

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[6]Trimethoprim/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.
[7]Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with and without 5% CO_2 on Tryptic Soy agar.

Figure 1: Colony Morphology

/Heather Couch/
Heather Couch 10 OCT 2019
Program Manager or designee, ATCC Federal Solutions

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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