

Pseudomonas aeruginosa, Strain MRSN 6678

Catalog No. NR-51551

This reagent is the tangible property of the U.S. Government.

Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 6678 was isolated in 2012 as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 6678 was deposited as sensitive to amikacin and resistant to tobramycin, imipenem, ceftazidime, gentamicin, meropenem, piperacillin/tazobactam, cefepime, levofloxacin, aztreonam, and ciprofloxacin.

Lot: 70024977¹

Manufacturing Date: 15MAY2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) VITEK [®] 2 (GN card)	Gram-negative rods Report results Report results <i>P. aeruginosa</i> (≥ 89%)	Gram-negative rods Circular, convex, entire, smooth and cream (Figure 1) Motile <i>P. aeruginosa</i> (97%)
Antibiotic Susceptibility Profile³ VITEK [®] (AST-GN81 Card) Ampicillin Amoxicillin/clavulanic acid Piperacillin/tazobactam Cefazolin Cefoxitin Ceftazidime Ceftriaxone Cefepime Meropenem Amikacin Gentamicin Tobramycin Ciprofloxacin Levofloxacin Tetracycline Nitrofurantoin Trimethoprim/sulfamethoxazole	Report results Report results Resistant Report results Report results Resistant Report results Resistant Resistant Sensitive Resistant Resistant Resistant Resistant Report results Report results Report results	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Intermediate (16 µg/mL) ⁴ Resistant (≥ 16 µg/mL) Sensitive (16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) ≥ 320 µg/mL ⁵
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 6678 (GenBank: RXTK01000084.1)	99.9% sequence identity to <i>P. aeruginosa</i> , strain MRSN 6678 (GenBank: RXTK01000084.1)
Purity (post-freeze)⁶	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51551 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)

⁴*P. aeruginosa*, strain MRSN 6678 was deposited as resistant to cefepime. Antibiotic susceptibility testing performed in duplicate determined that susceptibility of strain MRSN 6678 to cefepime is intermediate.

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 Sulfamethoxazole in *Pseudomonas aeruginosa*." *Antimicrob. Agents Chemother.* 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

16 DEC 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.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

