

Pseudomonas aeruginosa, Strain MRSN 18970

Catalog No. NR-51593

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

Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 18970 was isolated in 2013 from a human wound sample in the United States as part of a global surveillance program. *P. aeruginosa*, strain MRSN 18970 was deposited as multi-locus sequence type (MLST) ST 192, sensitive to amikacin, aztreonam, cefepime, ceftazidime, ciprofloxacin, gentamicin, imipenem, levofloxacin, meropenem, piperacillin/tazobactam and tobramycin. NR-51593 was produced by inoculation of BEI Resources seed lot 70025093 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. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70075003

Manufacturing Date: 26MAR2025

BEI Resources is committed to ensuring digital accessibility for people with disabilities. This Certificate of Analysis contains complex tables and may not be fully accessible. Please let us know if you encounter accessibility barriers and a fully accessible document will be provided: E-mail: Contact@BEIResources.org. We try to respond to feedback within 24 hours.

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>P. aeruginosa</i>	Gram-negative rods Irregular, flat, undulate, smooth and cream to green (Figure 1) Motile <i>P. aeruginosa</i> (99.9%)
Antibiotic Susceptibility Profile^{1,2,3} Amikacin Cefazolin Cefepime Ceftazidime Ciprofloxacin Gentamicin Levofloxacin Meropenem Piperacillin/tazobactam Tobramycin	Sensitive Resistant Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive	Sensitive (≤ 2 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (4 µg/mL) Sensitive (4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (2 µg/mL) Sensitive (0.5 µg/mL) Sensitive (16 µg/mL) Sensitive (≤ 1 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1430 base pairs)	$\geq 99\%$ sequence identity to <i>P. aeruginosa</i> , strain MRSN 18970 (GenBank: RXVE01000076.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 18970 (GenBank: RXVE01000076.1)
Purity 7 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC interpretation was determined using VITEK® 2 software version 09.02 combined with the bioMérieux Advanced Expert System™ (AES) software using the interpretation standard CLSI M100-S28 (2018) and the interpretation guideline "Natural Resistance." For more information, please refer to Sanders, C. C., et al. "Potential Impact of the VITEK® 2 System and the Advanced Expert System on the Clinical Laboratory of a University-Based Hospital." *J. Clin. Microbiol.* 39 (2001): 2379-2385. PubMed: 11427542.

²Antibiotic susceptibility was tested using bioMérieux VITEK® 2 GN81.

³*P. aeruginosa* and other nonfermentative gram-negative bacteria are intrinsically resistant to penicillin, cephalosporins I, cephalosporin II, cephamycins, clindamycin, daptomycin, fusidic acid, glycopeptides, linezolid, macrolides, quinupristin-dalfopristin, and rifampin. These antibiotics were removed from the VITEK® 2 GN81 card and are no longer tested: ampicillin, amoxicillin, amoxicillin/clavulanic acid, cefoxitin, ceftriaxone, cefuroxime, ertapenem, tetracycline, tigecycline, trimethoprim/sulfamethoxazole, chloramphenicol and nitrofurantoin.

Figure 1: Colony Morphology



/Sonia Bjorum Brower/
Sonia Bjorum Brower

Technical Manager or designee, ATCC Federal Solutions

14 JUL 2025

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.

