

Klebsiella pneumoniae, Strain MRSN 539414

Catalog No. NR-55569

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

Product Description:

Klebsiella pneumoniae (*K. pneumoniae*), strain MRSN 539414 was isolated in 2017 from a human blood sample in North America as part of a global surveillance program. NR-55569 was deposited as a multidrug-resistant strain, sensitive to amikacin, ceftazidime/avibactam, ceftolozane/tazobactam, ciprofloxacin, ertapenem, gentamicin, imipenem, levofloxacin, meropenem, piperacillin/tazobactam and tigecycline, intermediately resistant to aztreonam and ceftazidime and resistant to ampicillin/sulbactam, cefepime, ceftriaxone, tetracycline, tobramycin and trimethoprim/sulfamethoxazole. NR-55569 was produced by inoculation of BEI Resources seed lot 70051109 into Tryptic Soy broth and grown for 1 day at 37°C in an aerobic atmosphere. The material from the initial growth was added to Tryptic Soy broth, which was grown for 1 day at 37°C in an aerobic atmosphere to produce this lot. Quality control testing was completed on Tryptic Soy agar under propagation conditions unless otherwise noted.

Lot: 70080664

Manufacturing Date: 07JAN2026

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	Gram-negative rods	Gram-negative rods
Colony morphology	Report results	Circular, convex, entire, smooth, mucoid and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
VITEK® MS (MALDI-TOF)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i> (99.9%)
Antibiotic Susceptibility Profile^{1,2}		
Amikacin	Sensitive	Sensitive (4 µg/mL)
Ampicillin/sulbactam	Resistant	Resistant (≥ 32 µg/mL)
Aztreonam	Resistant	Intermediate (12 & 12 µg/mL) ^{3,4}
Cefepime	Resistant	Resistant (≥ 32 µg/mL)
Ceftazidime	Intermediate	Sensitive (4 to 6 µg/mL) ⁴
Ceftazidime/avibactam	Sensitive	Sensitive (≤ 0.12 µg/mL)
Ceftolozane/tazobactam	Sensitive	Sensitive (≤ 0.25 µg/mL)
Ceftriaxone	Resistant	Resistant (≥ 64 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (0.12 µg/mL)
Ertapenem	Sensitive	Sensitive (≤ 0.12 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 µg/mL)
Imipenem	Sensitive	Sensitive (≤ 0.25 µg/mL)
Levofloxacin	Sensitive	Sensitive (≤ 0.12 µg/mL)
Meropenem	Sensitive	Sensitive (≤ 0.25 µg/mL)
Piperacillin/tazobactam	Sensitive	Sensitive (16 µg/mL)
Tetracycline	Resistant	Resistant (≥ 16 µg/mL)
Tigecycline	Sensitive	Sensitive (1.5 µg/mL) ⁵
Tobramycin	Resistant	Intermediate (8 µg/mL) ⁴
Trimethoprim/sulfamethoxazole	Resistant	Resistant (≥ 320 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1460 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 539414 (GenBank: JAGYCQ010000070.1)	99.9% sequence identity to <i>K. pneumoniae</i> , strain MRSN 539414 (GenBank: JAGYCQ010000070.1) ⁶

TEST	SPECIFICATIONS	RESULTS
Purity 7 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

²Antibiotic susceptibility was tested using a combination of bioMérieux VITEK®2 N812 and XN33 and ETEST®.

³*K. pneumoniae*, strain MRSN 539414 was deposited as intermediately resistant to aztreonam and was found to be resistant for lot 70051108, but showed a MIC of 12 µg/mL (interpreted as intermediately resistant) for lot 70080664 during QC testing. Testing was performed in duplicate.

⁴The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

⁵MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

⁶Also consistent with other *Klebsiella* species

Figure 1: Colony Morphology



/Sonia Bjorum Brower/

Sonia Bjorum Brower

31 MAR 2026

Lead Technical Writer 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.

