

# Certificate of Analysis for NR-55526

### Klebsiella pneumoniae, Strain MRSN 19073

#### Catalog No. NR-55526

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

#### **Product Description:**

Klebsiella pneumoniae (K. pneumoniae), strain MRSN 19073 was isolated in 2013 from a human wound sample in Asia as part of a global surveillance program. NR-55526 was deposited as a multidrug-resistant strain, sensitive to amikacin, ceftazidime/avibactam, ceftolozane/tazobactam, ciprofloxacin, ertapenem, gentamicin, imipenem, levofloxacin, meropenem, piperacillin/tazobactam, tobramycin and tigecycline and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftriaxone, tetracycline, and trimethoprim/sulfamethoxazole. NR-55526 was produced by inoculation of the deposited 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. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70050348 Manufacturing Date: 11FEB2022

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: <a href="mailto:Contact@BEIResources.org">Contact@BEIResources.org</a>. 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, mucoid, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
VITEK® 2 (GN card)	K. pneumoniae (≥ 89%)	K. pneumoniae (95%)
Antibiotic Susceptibility Profile <sup>1,2</sup>		
Amikacin	Sensitive	Sensitive (≤ 2 μg/mL)
Ampicillin/sulbactam	Resistant	Resistant (≥ 32 µg/mL)
Aztreonam	Resistant	Resistant (16 µg/mL)
Cefepime	Resistant	Sensitive (2 µg/mL) <sup>3</sup>
Ceftazidime	Resistant	Intermediate (8 µg/mL) <sup>4</sup>
Ceftazidime/avibactam	Sensitive	Sensitive (0.125 µg/mL)
Ceftolozane/tazobactam	Sensitive	Sensitive (0.5 to 1 µg/mL)
Ceftriaxone	Resistant	Resistant (≥ 64 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (0.25 µg/mL)
Ertapenem	Sensitive	Sensitive (≤ 0.5 μg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 μg/mL)
Imipenem	Sensitive	Sensitive (0.25 µg/mL)
Levofloxacin	Sensitive	Sensitive (1 μg/mL)
Meropenem	Sensitive	Sensitive (≤ 0.25 μg/mL)
Piperacillin/tazobactam	Sensitive	Sensitive (≤ 4 μg/mL)
Tetracycline	Resistant	Resistant (≥ 16 µg/mL)
Tigecycline	Sensitive	Resistant (2 µg/mL) <sup>4,5</sup>
Tobramycin	Sensitive	Sensitive (≤ 1 μg/mL)
Trimethoprim/sulfamethoxazole	Resistant	Resistant (≥ 320 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 19073 (GenBank: JAGYEG010000055.1)	99.7% sequence identity to <i>K. pneumoniae</i> , strain MRSN 19073 (GenBank: JAGYEG010000055.1) <sup>6</sup>

BEI Resources www.beiresources.org E-mail: contact@beiresources.org
Tel: 800-359-7370

Fax: 703-365-2898

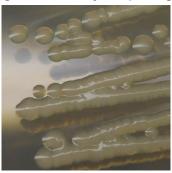


## **Certificate of Analysis for NR-55526**

TEST	SPECIFICATIONS	RESULTS
Purity 8 days at 37°C in an aerobic atmosphere with and without 5% CO <sub>2</sub> on Tryptic Soy agar	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability	Growth	Growth

<sup>&</sup>lt;sup>1</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

Figure 1: Colony Morphology



/Sonia Bjorum Brower/ Sonia Bjorum Brower

08 AUG 2022

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.

BEI Resources www.beiresources.org E-mail: contact@beiresources.org
Tel: 800-359-7370

Fax: 703-365-2898

<sup>&</sup>lt;sup>2</sup>Antibiotic susceptibility was tested using a combination of bioMérieux VITEK®2 GN74 and ETÉST®.

<sup>&</sup>lt;sup>3</sup>K. pneumoniae, strain MRSN 19073 was deposited as resistant to cefepime, but showed a MIC of 2 μg per mL (interpreted as sensitive) for this antibiotic during QC testing. Testing was performed in duplicate.

<sup>&</sup>lt;sup>4</sup>The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

<sup>&</sup>lt;sup>5</sup>MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

<sup>&</sup>lt;sup>6</sup>Also consistent with other Klebsiella species