

# Certificate of Analysis for NR-55598

## Klebsiella pneumoniae, Strain MRSN 740795

### Catalog No. NR-55598

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

### **Product Description:**

Klebsiella pneumoniae (K. pneumoniae), strain MRSN 740795 was isolated in 2019 from a human respiratory sample in Europe as part of a global surveillance program. NR-55598 was deposited as a multidrug-resistant strain, sensitive to amikacin, gentamicin, ceftazidime/avibactam, trimethoprim/sulfamethoxazole, tetracycline and tigecycline and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftriaxone, ceftolozane/tazobactam, ciprofloxacin, ertapenem, imipenem, levofloxacin, meropenem, piperacillin/tazobactam and tobramycin. NR-55598 was produced by inoculation of the deposited material 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: 70051634 Manufacturing Date: 01APR2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology	Report results	Circular, convex, entire, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
VITEK <sup>®</sup> 2 (GN card)	K. pneumoniae (≥ 89%)	K. pneumoniae (99%)
Antibiotic Susceptibility Profile <sup>1,2</sup>		
Amikacin	Sensitive	Sensitive (8 µg/mL)
Ampicillin/sulbactam	Resistant	Resistant (≥ 32 µg/mL)
Aztreonam	Resistant	Resistant (≥ 64 µg/mL)
Cefepime	Resistant	Resistant (≥ 64 µg/mL)
Ceftazidime	Resistant	Resistant (≥ 64 µg/mL)
Ceftazidime/avibactam	Sensitive	Sensitive (0.5 µg/mL)
Ceftolozane/tazobactam	Resistant	Resistant (12 µg/mL)
Ceftriaxone	Resistant	Resistant (≥ 64 µg/mL)
Ciprofloxacin	Resistant	Resistant (≥ 32 µg/mL)
Ertapenem	Resistant	Resistant (≥ 8 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 μg/mL)
Imipenem	Resistant	Resistant (≥ 32 µg/mL)
Levofloxacin	Resistant	Resistant (≥ 8 μg/mL)
Meropenem	Resistant	Resistant (≥ 16 µg/mL)
Piperacillin/tazobactam	Resistant	Resistant (≥ 128 μg/mL)
Tetracycline	Sensitive	Sensitive (4 µg/mL)
Tigecycline	Sensitive	Resistant (2 µg/mL) <sup>3,4</sup>
Tobramycin	Resistant	Resistant (≥ 16 µg/mL)
Trimethoprim/sulfamethoxazole	Sensitive	Sensitive (≤ 20 μg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 740795 (GenBank: JAGYBN010000093.1)	99.3% sequence identity to <i>K. pneumoniae</i> , strain MRSN 740795 (GenBank: JAGYBN010000093.1) <sup>5</sup>

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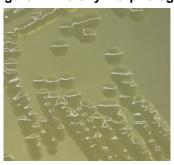


# **Certificate of Analysis for NR-55598**

TEST	SPECIFICATIONS	RESULTS
Purity 7 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
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

15 JUL 2022

Lead Technical Writer or designee, ATCC Federal Solutions

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

<sup>&</sup>lt;sup>3</sup>The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

<sup>&</sup>lt;sup>4</sup>MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

<sup>&</sup>lt;sup>5</sup>Also consistent with other *Klebsiella* species