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SUPPORTING INFECTIOUS DISEASE RESEARCH

# Klebsiella pneumoniae, Strain MRSN 515432

#### Catalog No. NR-55564

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### **Product Description:**

*Klebsiella pneumoniae (K. pneumoniae)*, strain MRSN 515432 was isolated in 2014 from an unknown human sample in the Middle East as part of a global surveillance program. NR-55564 was deposited as a multidrug-resistant strain (MDR), sensitive to amikacin, ceftazidime/avibactam, ertapenem, imipenem, meropenem, tetracycline and tigecycline and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftolozane/tazobactam, ceftriaxone, ciprofloxacin, gentamicin, levofloxacin, piperacillin/tazobactam, tobramycin and trimethoprim/sulfamethoxazole. NR-55564 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: 70051098

# Manufacturing Date: 23MAR2022

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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 (95%)
Antibiotic Susceptibility Profile <sup>1,2</sup>		
Amikacin	Sensitive	Sensitive (16 μg/mL)
Ampicillin/sulbactam	Resistant	Resistant (≥ 32 µg/mL)
Aztreonam	Resistant	Resistant (≥ 64 µg/mL)
Cefepime	Resistant	Intermediate (8 µg/mL) <sup>3</sup>
Ceftazidime	Resistant	Resistant (≥ 64 µg/mL)
Ceftazidime/avibactam	Sensitive	Sensitive (3 µg/mL)
Ceftolozane/tazobactam	Resistant	Resistant (48 µg/mL)
Ceftriaxone	Resistant	Resistant (≥ 64 µg/mL)
Ciprofloxacin	Resistant	Resistant (8 µg/mL)
Ertapenem	Sensitive	Sensitive (≤ 0.5 μg/mL)
Gentamicin	Resistant	Resistant (≥ 16 µg/mL)
Imipenem	Sensitive	Sensitive (0.25 to 0.38 µg/mL)
Levofloxacin	Resistant	Resistant (≥ 8 µg/mL)
Meropenem	Sensitive	Sensitive (≤ 0.25 µg/mL)
Piperacillin/tazobactam	Resistant	Resistant (≥ 128 µg/mL)
Tetracycline	Sensitive	Sensitive (2 µg/mL)
Tigecycline	Sensitive	Sensitive (1 µg/mL) <sup>4</sup>
Tobramycin	Resistant	Resistant (≥ 16 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 515432 (GenBank: JAGYCV010000163.1)	99.7% sequence identity to <i>K. pneumoniae</i> , strain MRSN 515432 (GenBank: JAGYCV010000163.1) <sup>5</sup>

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# **Certificate of Analysis for NR-55564**

#### SUPPORTING INFECTIOUS DISEASE RESEARCH

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	Growth consistent with expected colony morphology
Viability	Growth	Growth

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

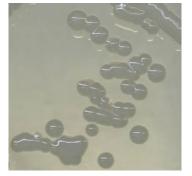
<sup>2</sup>Antibiotic susceptibility was tested using a combination of bioMérieux VITEK<sup>®</sup>2 GN74 and ETEST<sup>®</sup>

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

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

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

#### Figure 1: Colony Morphology



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