

***Klebsiella pneumoniae*, Strain MRSN 22232**

**Catalog No. NR-55530**

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**Product Description:**

*Klebsiella pneumoniae* (*K. pneumoniae*), strain MRSN 22232 was isolated in 2013 from a human respiratory sample in South America as part of a global surveillance program. NR-55530 was deposited as an extensively drug-resistant strain, sensitive to amikacin, ceftazidime/avibactam, ertapenem, imipenem, levofloxacin, meropenem and tigecycline, intermediately resistant to ciprofloxacin and piperacillin/tazobactam, and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftolozane/tazobactam, ceftriaxone, gentamicin, tetracycline, trimethoprim/sulfamethoxazole and tobramycin. NR-55530 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: 70050356**

**Manufacturing Date: 17FEB2022**

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TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Motility (wet mount) VITEK® 2 (GN card)	Gram-negative rods Report results  Report results <i>K. pneumoniae</i> (≥ 89%)	Gram-negative rods Circular, convex, entire, mucoid, smooth and cream (Figure 1)  Non-motile <i>K. pneumoniae</i> (99%)
<b>Antibiotic Susceptibility Profile<sup>1,2</sup></b> Amikacin Ampicillin/sulbactam Aztreonam Cefepime Ceftazidime Ceftazidime/avibactam Ceftolozane/tazobactam Ceftriaxone Ciprofloxacin Ertapenem Gentamicin Imipenem Levofloxacin Meropenem Piperacillin/tazobactam Tetracycline Tigecycline Tobramycin Trimethoprim/sulfamethoxazole	Sensitive Resistant Resistant Resistant Resistant Sensitive Resistant Resistant Intermediate Sensitive Resistant Sensitive Sensitive Sensitive Intermediate Resistant Sensitive Resistant Resistant	Sensitive (≤ 2 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (16 to 64 µg/mL) Resistant (16 µg/mL) Sensitive (0.25 µg/mL) Sensitive (0.38 µg/mL) <sup>3</sup> Resistant (≥ 64 µg/mL) Intermediate (2 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (0.25 µg/mL) Sensitive (1 µg/mL) Sensitive (≤ 0.25 µg/mL) Intermediate (64 to 96 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (1 µg/mL) <sup>4</sup> Resistant (≥ 16 µg/mL) Resistant (≥ 320 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 22232 (GenBank: JAGYEC01000097.1)	99.5% sequence identity to <i>K. pneumoniae</i> , strain MRSN 22232 (GenBank: JAGYEC01000097.1) <sup>5</sup>

TEST	SPECIFICATIONS	RESULTS
<b>Purity</b> 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
<b>Viability</b>	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>*K. pneumoniae*, strain MRSN 22232 was deposited as resistant to ceftolozane/tazobactam, but showed a MIC of 0.38 µg per mL (interpreted as sensitive) for this antibiotic during QC testing. Testing was performed in duplicate.

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

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

Figure 1: Colony Morphology



/Sonia Bjorum Brower/  
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Lead Technical Writer or designee, ATCC Federal Solutions

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