

***Klebsiella pneumoniae*, Strain MRSN 368320**

Catalog No. NR-55547

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Product Description:

Klebsiella pneumoniae (*K. pneumoniae*), strain MRSN 368320 was isolated in 2015 from a human blood sample in Africa as part of a global surveillance program. NR-55547 was deposited as an extensively drug-resistant strain (XDR), sensitive to amikacin and ceftazidime/avibactam, intermediately resistant to imipenem and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftolozane/tazobactam, ceftriaxone, ciprofloxacin, ertapenem, gentamicin, levofloxacin, meropenem, piperacillin/tazobactam, tetracycline, tigecycline, tobramycin and trimethoprim/sulfamethoxazole. NR-55547 was produced by inoculation of BEI Resources seed lot 70050658 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: 70059459

Manufacturing Date: 22MAR2023

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis 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, smooth, mucoid and cream Non-motile <i>K. pneumoniae</i> (98%)
Antibiotic Susceptibility Profile^{1,2} 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 Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant Resistant	Sensitive (≤ 2 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (1.5 µg/mL) Resistant (≥ 256 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 128 µg/mL) Resistant (≥ 16 µg/mL) Inconclusive ^{3,4} Resistant (≥ 16 µg/mL) 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 368320 (GenBank: JAGYDM010000069.1)	99.3% sequence identity to <i>K. pneumoniae</i> , strain MRSN 368320 (GenBank: JAGYDM010000069.1)

TEST	SPECIFICATIONS	RESULTS
Purity 7 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar	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 GN74 and ETEST®.

³MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

⁴*K. pneumoniae*, strain MRSN 368320 was deposited resistant to tigecycline. Repeated antibiotic susceptibility testing determined that for strain MRSN 368320, the tigecycline MICs are 1 µg/mL (interpreted as sensitive) 2 µg/mL (interpreted as resistant). Testing was performed in duplicate.

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Technical Manager or designee, ATCC Federal Solutions

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