

***Klebsiella pneumoniae*, Strain MRSN 401050**

Catalog No. NR-55552

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Product Description:

Klebsiella pneumoniae (*K. pneumoniae*), strain MRSN 401050 was isolated in 2016 from a human fluid sample in North America as part of a global surveillance program. NR-55552 was deposited as a multidrug-resistant strain, sensitive to amikacin, aztreonam, cefepime, ceftazidime, ceftazidime/avibactam, ceftolozane/tazobactam, ceftriaxone, ertapenem, gentamicin, imipenem, meropenem, tetracycline, tobramycin and tigecycline, intermediately resistant to levofloxacin, and resistant to ampicillin/sulbactam, ciprofloxacin, piperacillin/tazobactam and trimethoprim/sulfamethoxazole. NR-55552 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: 70050670

Manufacturing Date: 04MAR2022

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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 (Figure 1) Non-motile <i>K. pneumoniae</i> (99%)
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 Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Resistant Sensitive Sensitive Sensitive Intermediate Sensitive Resistant Sensitive Sensitive Sensitive Resistant	Sensitive (≤ 2 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (0.50 µg/mL) Sensitive (0.50 to 1 µg/mL) Sensitive (≤ 1 µg/mL) Intermediate (3 µg/mL) ³ Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (0.125 to 0.19 µg/mL) Intermediate (4 µg/mL) Sensitive (≤ 0.25 µg/mL) Resistant (≥ 128 µg/mL) Sensitive (4 µg/mL) Sensitive (0.75 to 1 µg/mL) ⁴ Sensitive (≤ 1 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 401050 (GenBank: JAGYDH010000094.1)	99.8% sequence identity to <i>K. pneumoniae</i> , strain MRSN 401050 (GenBank: JAGYDH010000094.1) ⁵

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[®].

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

⁴MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

⁵Also consistent with other *Klebsiella* species

Figure 1: Colony Morphology



/Heather Couch/
Heather Couch

06 MAY 2022

Program Manager or designee, ATCC Federal Solutions

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