

***Klebsiella pneumoniae*, Strain MRSN 7076**

Catalog No. NR-55513

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Product Description:

Klebsiella pneumoniae (*K. pneumoniae*), strain MRSN 7076 was isolated in 2003 from a human wound sample in North America as part of a global surveillance program. NR-55513 was deposited as an extensively drug-resistant strain, sensitive to amikacin, ceftazidime/avibactam, ciprofloxacin, ertapenem, imipenem, levofloxacin and meropenem, intermediately resistant to piperacillin/tazobactam and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftolozane/tazobactam, ceftriaxone, gentamicin, tetracycline, trimethoprim/sulfamethoxazole, tigecycline and tobramycin. NR-55513 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: 70049657

Manufacturing Date: 19JAN2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) VITEK® MS (MALDI-TOF)	Gram-negative rods Report results Report results <i>K. pneumoniae</i>	Gram-negative rods Circular, convex, entire, smooth and cream (Figure 1) 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 Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Intermediate Resistant Resistant Resistant Resistant	Sensitive (≤ 2 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 64 µg/mL) Intermediate (8 µg/mL) ³ Resistant (16 µg/mL) Sensitive (1.5 µg/mL) Sensitive (1.5 µg/mL)⁴ Resistant (≥ 64 µg/mL) Sensitive (0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (0.19 µg/mL) Sensitive (1 µg/mL) Sensitive (≤ 0.25 µg/mL) Intermediate (32 to 48 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 8 µg/mL) ⁵ 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 7076 (GenBank: JAGYET010000100.1)	99.7% sequence identity to <i>K. pneumoniae</i> , strain MRSN 7076 (GenBank: JAGYET010000100.1) ⁶

TEST	SPECIFICATIONS	RESULTS
Purity 7 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	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®.

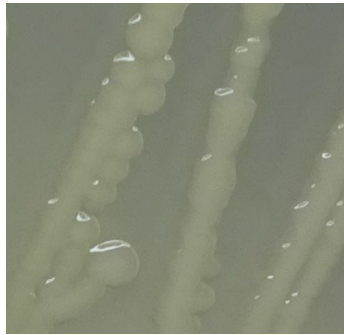
³The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

⁴*K. pneumoniae*, strain MRSN 7076 was deposited as resistant to ceftolozane/tazobactam, but showed a MIC of 1.5 µg per mL (interpreted as sensitive) for this antibiotic during QC testing. Testing was performed in duplicate.

⁵MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

⁶Also consistent with other *Klebsiella* species

Figure 1: Colony Morphology



/Sonia Bjorum Brower/
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