

Klebsiella pneumoniae, Strain MRSN 731029

Catalog No. NR-55596

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Product Description:

Klebsiella pneumoniae (*K. pneumoniae*), strain MRSN 731029 was isolated in 2019 from a human urine sample in Asia as part of a global surveillance program. NR-55596 was deposited as a multidrug-resistant strain (MDR) sensitive to amikacin, ceftazidime/avibactam, ceftolozane/tazobactam, ertapenem, imipenem, meropenem, piperacillin/tazobactam, tigecycline, tobramycin, and trimethoprim/sulfamethoxazole, intermediately resistant to ciprofloxacin and levofloxacin and resistant to ampicillin/sulbactam, aztreonam, cefepime, ceftazidime, ceftriaxone, gentamicin, and tetracycline. NR-55596 was produced by inoculation of BEI Resources seed lot 70051631 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 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: 70081977

Manufacturing Date: 11MAR2026

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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
Motility (wet mount)	Report results	Non-motile
VITEK® MS (MALDI-TOF)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i> (99.9%)
Antibiotic Susceptibility Profile^{1,2}		
Amikacin	Sensitive	Sensitive ($\leq 1 \mu\text{g/mL}$)
Ampicillin/sulbactam	Resistant	Sensitive ($6 \mu\text{g/mL}$)³
Aztreonam	Sensitive	Sensitive ($\leq 1 \mu\text{g/mL}$) ⁴
Cefepime	Sensitive	Sensitive (0.75 to $1 \mu\text{g/mL}$) ⁵
Ceftazidime	Sensitive	Sensitive ($\leq 0.5 \mu\text{g/mL}$) ⁶
Ceftazidime/avibactam	Sensitive	Sensitive ($\leq 0.12 \mu\text{g/mL}$)
Ceftolozane/tazobactam	Sensitive	Sensitive ($\leq 0.25 \mu\text{g/mL}$)
Ceftriaxone	Resistant	Resistant ($32 \mu\text{g/mL}$)
Ciprofloxacin	Intermediate	Sensitive (0.5 to $0.75 \mu\text{g/mL}$)⁷
Ertapenem	Sensitive	Sensitive ($\leq 0.12 \mu\text{g/mL}$)
Gentamicin	Resistant	Resistant ($\geq 16 \mu\text{g/mL}$)
Imipenem	Sensitive	Sensitive ($\leq 0.25 \mu\text{g/mL}$)
Levofloxacin	Intermediate	Intermediate ($4 \mu\text{g/mL}$)
Meropenem	Sensitive	Sensitive ($\leq 0.25 \mu\text{g/mL}$)
Piperacillin/tazobactam	Sensitive	Sensitive ($\leq 4 \mu\text{g/mL}$)
Tetracycline	Resistant	Resistant ($\geq 16 \mu\text{g/mL}$)
Tigecycline	Resistant	Sensitive ($1 \mu\text{g/mL}$) ⁸
Tobramycin	Sensitive	Sensitive ($2 \mu\text{g/mL}$)
Trimethoprim/sulfamethoxazole	Sensitive	Sensitive ($40 \mu\text{g/mL}$)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	$\geq 99\%$ sequence identity to <i>K. pneumoniae</i> , strain MRSN 731029 (GenBank: JAGYBP010000103.1)	99.4% sequence identity to <i>K. pneumoniae</i> , strain MRSN 731029 (GenBank: JAGYBP010000103.1)

Certificate of Analysis for NR-55596

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 N812, VITEK[®] 2 XN33 and ETEST[®].

³*K. pneumoniae*, strain MRSN 731029 was deposited as resistant to ampicillin/sulbactam but showed a MIC of 6 µg/mL (interpreted as sensitive) for this lot during QC testing. Testing was performed in duplicate.

⁴*K. pneumoniae*, strain MRSN 731029 was deposited as resistant to aztreonam, but showed a MIC of ≤ 1 µg/mL (interpreted as sensitive) for lot 70051630 during QC testing.

⁵*K. pneumoniae*, strain MRSN 731029 was deposited as resistant to cefepime, but showed a MIC of ≤ 1 µg/mL (interpreted as sensitive) for lot 70051630 during QC testing.

⁶*K. pneumoniae*, strain MRSN 731029 was deposited as resistant to ceftazidime, but showed a MIC of ≤ 1 µg/mL (interpreted as sensitive) for lot 70051630 during QC testing.

⁷*K. pneumoniae*, strain MRSN 731029 was deposited as intermediately resistant to ciprofloxacin, but showed MICs of 0.5 µg/mL to 0.75 µg/mL (interpreted as sensitive) for this lot during QC testing. Testing was performed in duplicate.

⁸MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

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