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SUPPORTING INFECTIOUS DISEASE RESEARCH

Klebsiella pneumoniae, Strain MRSN 371351

Catalog No. NR-55548

This reagent is the tangible property of the U.S. Government.

Product Description:

Klebsiella pneumoniae (K. pneumoniae), strain MRSN 371351 was isolated in 2003 from a human wound in Europe as part of a global surveillance program. MRSN 371351 was deposited as a multidrug-resistant strain, sensitive to amikacin, cefepime, ceftazidime/avibactam, ceftolozane/tazobactam, ciprofloxacin, ertapenem, imipenem, levofloxacin, meropenem, piperacillin/tazobactam, tetracycline and tigecycline, intermediately resistant to ampicillin/sulbactam and resistant to aztreonam, ceftazidime, ceftriaxone, gentamicin, tobramycin and trimethoprim/sulfamethoxazole. NR-55548 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: 70050659

Manufacturing Date: 04MAR2022

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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 (Figure 1)
Motility (wet mount)	Report results	Non-motile
VITEK [®] 2 (GN card)	K. pneumoniae (≥ 89%)	K. pneumoniae (93%)
Antibiotic Susceptibility Profile ^{1,2}		
Amikacin	Sensitive	Sensitive (16 μg/mL)
Ampicillin/sulbactam	Intermediate	Sensitive (8 µg/mL) ³
Aztreonam	Resistant	Resistant (≥ 64 µg/mL)
Cefepime	Sensitive	Sensitive (≤1 µg/mL)
Ceftazidime	Resistant	Resistant (≥ 64 µg/mL)
Ceftazidime/avibactam	Sensitive	Sensitive (0.25 µg/mL)
Ceftolozane/tazobactam	Sensitive	Sensitive (0.19 µg/mL)
Ceftriaxone	Resistant	Resistant (≥ 64 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (0.25 µg/mL)
Ertapenem	Sensitive	Sensitive (≤ 0.5 μg/mL)
Gentamicin	Resistant	Resistant (≥ 16 µg/mL)
Imipenem	Sensitive	Sensitive (0.19 µg/mL)
Levofloxacin	Sensitive	Sensitive (1 µg/mL)
Meropenem	Sensitive	Sensitive (≤ 0.25 µg/mL)
Piperacillin/tazobactam	Sensitive	Sensitive (≤4 µg/mL)
Tetracycline	Sensitive	Sensitive (≤1 µg/mL)
Tigecycline	Sensitive	Sensitive (≤ 0.5 μg/mL) ⁴
Tobramycin	Resistant	Resistant (≥ 16 µg/mL)
Trimethoprim/sulfamethoxazole	Resistant	Resistant (≥ 320 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>K. pneumoniae</i> , strain MRSN 371351 (GenBank: JAGYDL010000087.1)	99.9% sequence identity to <i>K. pneumoniae</i> , strain MRSN 371351 (GenBank: JAGYDL010000087.1) ⁵

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Certificate of Analysis for NR-55548

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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 ETÉST[®].

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

Program Manager or designee, ATCC Federal Solutions

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