SUPPORTING INFECTIOUS DISEASE RESEARCH

Pseudomonas aeruginosa, Strain MRSN 7014

Catalog No. NR-51554

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Product Description:

Pseudomonas aeruginosa (P. aeruginosa), strain MRSN 7014 was isolated in 2012 from a human respiratory sample as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 7014 was deposited as sensitive to amikacin and tobramycin and resistant to aztreonam, ceftazidime, cefepime, imipenem, levofloxacin, meropenem and piperacillin/tazobactam with intermediate resistance to ciprofloxacin and gentamicin.

Lot: 70024984¹

Manufacturing Date: 30MAY2019

TEST SPECIFICATIONS RESULTS Phenotypic Analysis Cellular morphology Colony morphology ² Gram-negative rods Report results Gram-negative rods Circular, low convey and cream (Figur Motility (wet mount) VITEK [®] 2 (GN card) Gram-negative rods Report results Gram-negative rods Circular, low convey and cream (Figur Motility (wet mount) Antibiotic Susceptibility Profile ³ Motile P. aeruginosa (≥ 89%) P. aeruginosa (98%) Antibiotic Susceptibility Profile ³ VITEK [®] (AST-GN81 Card) Report results Resistant (≥ 32 µg/r Report results Ampicillin/clavulanic acid Report results Resistant (≥ 44 µg/r Cefoxitin Report results Cefazidime Report results Resistant (≥ 64 µg/r Ceftriaxone Resistant Resistant (≥ 64 µg/r Ceftriaxone Meropenem Resistant Resistant (≥ 64 µg/r Cefoxitin Resistant Resistant (≥ 64 µg/r Ceftriaxone Gentamicin Intermediate Intermediate (4 µg/r Cefoxitin Sensitive (16 µg/mL) Gentamicin Sensitive Meropenem Resistant Intermediate Sensitive (1 µg/mL) Gentamicin Sensitive Gram-negative mode Sensitive Sensitive (1 µg/mL) Gentamicin Resistant Intermediate (4 µg/r Gentamicin <th></th>	
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Piperacillin/tazobactam Resistant (256 µg/n	
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Genotypic Analysis	
Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)≥ 99% sequence identity to P. aeruginosa, strain MRSN 7014 (GenBank: RXTH01000036.1)>99.9% sequence identity to 	train MRSN 7014
Purity (post-freeze) ⁷ Growth consistent with expected colony morphology Growth consistent with expected colony morphology	
Viability (post-freeze) ² Growth Growth	

¹NR-51554 was produced by inoculation of the depositor 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.
²1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar

³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

⁴The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

b|**e**|**i** resources

Certificate of Analysis for NR-51554

SUPPORTING INFECTIOUS DISEASE RESEARCH

⁵Trimethoprim/sulfamethoxazole MIC interpretive standards are not available for *P. aeruginosa*, however most clinical isolates are resistant to trimethoprim/sulfamethoxazole. For more information, please refer to Köhler, T., et al. "Multidrug Efflux in Intrinsic Resistance to Trimethoprim and Sulfamethoxazole in *Pseudomonas aeruginosa*." <u>Antimicrob. Agents Chemother.</u> 40 (1996): 2288-2290. PubMed: 9036831.

⁶1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

⁷Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with and without 5% CO₂ on Tryptic Soy agar.

Figure 1: Colony Morphology



/Heather Couch/ Heather Couch Program Manager or designee, ATCC Federal Solutions

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