SUPPORTING INFECTIOUS DISEASE RESEARCH

# Pseudomonas aeruginosa, Strain MRSN 373401

#### Catalog No. NR-51608

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### **Product Description:**

*Pseudomonas aeruginosa (P. aeruginosa)*, strain MRSN 373401 was isolated in 2016 from a human urine sample as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 373401 was deposited as sensitive to piperacillin/tazobactam, cefepime, levofloxacin, ceftazidime, amikacin, gentamicin, tobramycin, aztreonam and ciprofloxacin and resistant to imipenem with intermediate resistance to meropenem.

## Lot: 70025122<sup>1</sup>

# Manufacturing Date: 07AUG2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-negative rods	Gram-negative rods
Colony morphology <sup>2</sup>	Report results	Irregular, slight peak, undulate, rough, opaque and green (Figure 1)
Motility (wet mount)	Report results	Motile
VITEK <sup>®</sup> 2 (GN card)	P. aeruginosa (≥ 89%)	P. aeruginosa (99%)
Antibiotic Susceptibility Profile <sup>3</sup> VITEK <sup>®</sup> (AST-GN81 Card)		
Ampicillin	Report results	Resistant (≥ 32 µg/mL)
Amoxicillin/clavulanic acid	Report results	Resistant (≥ 32 µg/mL)
Piperacillin/tazobactam	Sensitive	Sensitive (≤ 4 µg/mL)
Cefazolin	Report results	Resistant (≥ 64 µg/mL)
Cefoxitin	Report results	Resistant (≥ 64 µg/mL)
Ceftazidime	Sensitive	Sensitive (4 µg/mL)
Ceftriaxone	Report results	Resistant (32 µg/mL)
Cefepime	Sensitive	Sensitive (≤ 2 µg/mL)
Meropenem	Intermediate	Intermediate (4 µg/mL)
Amikacin	Sensitive	Sensitive (≤ 2 μg/mL)
Gentamicin	Sensitive	Sensitive (≤ 1 μg/mL)
Tobramycin	Sensitive	Sensitive (≤ 1 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Levofloxacin	Sensitive	Sensitive (0.25 µg/mL)
Tetracycline	Report results	Resistant (≥ 16 µg/mL)
Nitrofurantoin	Report results	Resistant (512 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	80 μg/mL <sup>4</sup>
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1420 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 373401 (GenBank: RXUA01000044.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 373401 (GenBank: RXUA01000044.1)
Purity (post-freeze)⁵	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>NR-51608 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.
<sup>2</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar

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

<sup>4</sup>Trimethoprim/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.

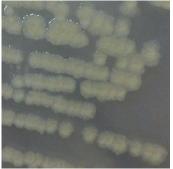
<sup>5</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with and without 5% CO<sub>2</sub> on Tryptic Soy agar.

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# **Certificate of Analysis for NR-51608**

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### Figure 1: Colony Morphology



# /Heather Couch/

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