

***Pseudomonas aeruginosa*, Strain MRSN 2444**

Catalog No. NR-51540

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Product Description:

Pseudomonas aeruginosa (*P. aeruginosa*), strain MRSN 2444 was isolated in 2009 from a human respiratory sample as part of a surveillance program in the United States. *P. aeruginosa*, strain MRSN 2444 was deposited as sensitive to amikacin, cefepime, ceftazidime and piperacillin/tazobactam, intermediately resistant to aztreonam and resistant to ciprofloxacin, gentamicin, imipenem, levofloxacin, meropenem and tobramycin.

Lot: 70024952¹

Manufacturing Date: 10MAY2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) VITEK [®] 2 (GN card)	Gram-negative rods Report results Report results <i>P. aeruginosa</i> (≥ 89%)	Gram-negative rods Circular, low convex, undulate, opaque and cream (Figure 1) Motile <i>P. aeruginosa</i> (99%)
Antibiotic Susceptibility Profile³ VITEK [®] (AST-GN81 Card) Ampicillin Amoxicillin/Clavulanic Acid Piperacillin/Tazobactam Cefazolin Cefoxitin Ceftazidime Ceftriaxone Cefepime Meropenem Amikacin Gentamicin Tobramycin Ciprofloxacin Levofloxacin Tetracycline Nitrofurantoin Trimethoprim/Sulfamethoxazole	Report results Report results Sensitive Report results Report results Sensitive Report results Sensitive Report results Sensitive Resistant Sensitive Resistant Resistant Resistant Resistant Resistant Report results Report results Report results	Resistant (≥ 32 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (16 µg/mL) Resistant (≥ 64 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (2 to 4 µg/mL) Resistant (≥ 64 µg/mL) Sensitive (4 µg/mL) Resistant (≥ 16 µg/mL) Intermediate (32 µg/mL) ⁴ Resistant (≥ 16 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 512 µg/mL) ≥ 320 µg/mL ⁵
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1430 base pairs)	≥ 99% sequence identity to <i>P. aeruginosa</i> , strain MRSN 2444 (GenBank: RXUP01000183.1)	100% sequence identity to <i>P. aeruginosa</i> , strain MRSN 2444 (GenBank: RXUP01000183.1)
Purity (post-freeze)⁶	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-51540 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

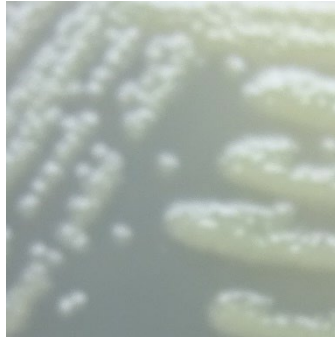
³Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

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

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*." *Antimicrob. Agents Chemother.* 40 (1996): 2288-2290. PubMed: 9036831.

⁶Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere with and without 5% CO₂ on Tryptic Soy agar.

Figure 1: Colony Morphology



/Heather Couch/
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