SUPPORTING INFECTIOUS DISEASE RESEARCH

Pseudomonas aeruginosa, Strain PA14

Catalog No. NR-50573

Product Description: *Pseudomonas aeruginosa (P. aeruginosa)*, strain PA14 was isolated in the early 1970s from the blood of a burn patient at Mercy Hospital in Pittsburgh, Pennsylvania, USA. *P. aeruginosa*, strain PA14 was deposited as resistant to rifampicin and susceptible to meropenem, ofloxacin, ceftazidime, amikacin and tobramycin.

Lot¹: 70002165

Manufacturing Date: 02FEB2017

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Rifampicin ⁶ Streptomycin ⁷ Trimethoprim/sulfamethoxazole ⁸ Report results Report results32 µg/mL 1024 µg/mL 4 µg/mL ⁹ Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1530 base pairs)≥ 99% sequence identity to P. aeruginosa type strain100% sequence identity to P. aeruginosa type strain	
Streptomycin ⁷ Report results 1024 µg/mL Trimethoprim/sulfamethoxazole ⁸ Report results 4 µg/mL ⁹ Genotypic Analysis ≥ 99% sequence identity to 100% sequence identity to (~ 1530 base pairs) P. aeruginosa type strain 100% sequence identity to	
Trimethoprim/sulfamethoxazole ⁸ Report results 4 μg/mL ⁹ Genotypic Analysis ≥ 99% sequence identity to (~ 1530 base pairs) 100% sequence identity to <i>P. aeruginosa</i> type strain	
Sequencing of 16S ribosomal RNA gene (~ 1530 base pairs)≥ 99% sequence identity to P. aeruginosa type strain100% sequence identity to P. aeruginosa type strain	
(~ 1530 base pairs) <i>P. aeruginosa</i> type strain <i>P. aeruginosa</i> type strain	
(GenBank: CP000438) (GenBank: CP000438)	
Digital DNA-DNA hybridization (dDDH)10 \geq 70% for species identificationP. aeruginosa (87.2%)11	
Purity (post-freeze) ¹² Growth consistent with expected Growth consistent with expected	ed
colony morphology colony morphology	
Viability (post-freeze) ² Growth	

¹NR-50573 was produced by inoculation of the deposited material into Nutrient broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Nutrient 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 Nutrient agar

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Certificate of Analysis for NR-50573

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³Minimum Inhibitory Concentration (MIC); MIC interpretation was determined using VITEK[®] 2 software version 07.01 combined with the bioMérieux Advanced Expert System[™] (AES) software using the interpretation standard CLSI M100-S22 (2012) and the interpretation guideline "Natural Resistance." For more information, please refer to Sanders, C. C. et al. "Potential Impact of the VITEK 2 System and the Advanced Expert System on the Clinical Laboratory of a University-Based Hospital." J. Clin. Microbiol. 39 (2001): 2379-2385. PubMed: 11427542.

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

⁵Minimum Inhibitory Concentration (MIC); MIC interpretation guidelines CLSI M100-S22 (2012)

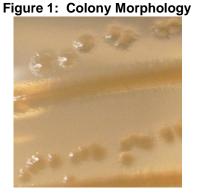
⁶Rifampicin MIC interpretive standards are not available for *P. aeruginosa*. Strain PA14 was reported by the depositor to be resistant to rifampicin. ⁷Streptomycin MIC interpretive standards are not available for *P. aeruginosa*.

⁸Trimethoprim/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.
⁹MIC result is based on the trimethoprim component of the test strip.

¹⁰Relatedness between bacterial strains has traditionally been determined using DDH. For additional information, please refer to Auch, A.F., et al. "Digital DNA-DNA Hybridization for Microbial Species Delineation by Means of Genome-to-Genome Sequence Comparison." <u>Stand Genomic Sci.</u> 2 (2010): 117-134, PubMed: 21304684.

¹¹The whole genome of *P. aeruginosa*, strain PA14 (Contig Total Length ~ 5.9 megabase pairs) was sequenced using the Illumina[®] MiSeq[®] system and was assembled and analyzed with CLC Genomics Workbench Version 7.0.2.

¹²Purity of this lot was assessed for 7 days on Nutrient agar at 37°C in an aerobic atmosphere with 5% CO₂



Date: 29 SEP 2017

Signature:

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