

Staphylococcus aureus, Strain 1202582

Catalog No. NR-46424

Product Description:

Staphylococcus aureus (*S. aureus*), strain 1202582 was isolated in 2012 in Delaware, USA, from a chronic foot wound of a 70-year-old male with possible osteomyelitis and who had recently received a 6-week course of vancomycin therapy. *S. aureus*, strain 1202582 is a vancomycin-resistant *S. aureus* (VRSA) strain. NR-46424 lot 70054136 was produced by inoculation of the deposited material into Brain Heart Infusion broth with 6µg/mL vancomycin and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Brain Heart Infusion agar with 6µg/mL vancomycin 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: 70054136

Manufacturing Date: 22JUL2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) Hemolysis Biochemical characterization Catalase Coagulase ¹ VITEK® 2 Compact (GP card)	Gram-positive cocci Report results Report results β-hemolytic Positive Positive <i>S. aureus</i> (≥ 89%)	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive <i>S. aureus</i> (99%)
VITEK® MS (MALDI-TOF)	<i>S. aureus</i>	<i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile² VITEK® (AST-GP78 card) Beta-lactamase Cefoxitin screen Benzylpenicillin Oxacillin Ceftaroline Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole	Report results Report results Resistant Resistant Report results Sensitive Resistant Report results Report results Report results Report results Resistant Resistant Sensitive Sensitive Resistant Report results Report results Report results Report results Sensitive Sensitive	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 8 µg/mL) Resistant (4 µg/mL) Intermediate (1 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (1 µg/mL) Sensitive (0.25 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (4 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.12 µg/mL) ³ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL)

TEST	SPECIFICATIONS	RESULTS
Etest® antibiotic test strips 1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Teicoplanin Quinupristin-dalfopristin Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1460 base pairs)	Report results Sensitive Sensitive ≥ 99% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)	Sensitive (4 µg/mL) Intermediate (16 µg/mL) ⁴ Sensitive (0.094 µg/mL) 100% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)
Purity (post-freeze) 8 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)	Growth	Growth

¹14 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

²Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

³MIC Interpretation Guideline: EUCAST Version 12.0 (2022)

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

Figure 1: Colony Morphology



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