

Staphylococcus aureus, Strain HIP5836

Catalog No. NR-45859

Product Description:

Staphylococcus aureus (*S. aureus*), Strain HIP5836 was isolated in 1997 in New Jersey, USA from a 66-year-old male diabetic with bacteremia and congestive heart failure that was secondary to recurrent methicillin-resistant *S. aureus* (MRSA) bacteremia and who had a prior 18-week course of vancomycin therapy. NR-45859 is a vancomycin-intermediate *S. aureus* (VISA) strain and was deposited to BEI Resources as part of the NARSA collection. NR-45859 was produced by inoculation of the BEI Resources seed lot 62990865 into Tryptic Soy broth and grown for 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood 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: 70054855

Manufacturing Date: 31AUG2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology Motility (wet mount) Hemolysis 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood Biochemical characterization Catalase Coagulase ¹ VITEK® 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive Report results <i>S. aureus</i> (≥ 89.9%)	Gram-positive cocci Circular, convex, entire, smooth and white (Figure 1) Non-motile Non-hemolytic Positive Positive <i>S. aureus</i> (99% probability)
Antibiotic Susceptibility Profile² VITEK® (AST-GP78 card) Benzylpenicillin Beta-lactamase ³ Cefoxitin screen Ciprofloxacin Clindamycin Clindamycin (inducible resistance) Daptomycin Erythromycin Gentamicin Levofloxacin Linezolid Minocycline Nitrofurantoin Oxacillin Rifampin Tetracycline Tigecycline Trimethoprim/sulfamethoxazole	Resistant Positive Positive Resistant Resistant Negative Sensitive Resistant Sensitive Resistant Sensitive Sensitive Sensitive Sensitive Sensitive Resistant Resistant Sensitive Sensitive Sensitive	Resistant (≥ 0.5 µg/mL) Positive Positive Resistant (≥ 8 µg/mL) Resistant (≥ 4 µg/mL) Negative Sensitive (0.5 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (2 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 16 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) ⁴ Sensitive (≤ 10 µg/mL)

TEST	SPECIFICATIONS	RESULTS
Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Moxifloxacin Quinupristin/dalfopristin Teicoplanin Vancomycin	Sensitive Resistant Sensitive Sensitive Intermediate	Sensitive (3 µg/mL) Resistant (2 µg/mL) Sensitive (0.25 µg/mL) Sensitive (4 µg/mL) Intermediate (4 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597.1)	100% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597.1)
Purity (post-freeze) 7 days at 37°C in an aerobic atmosphere with or 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

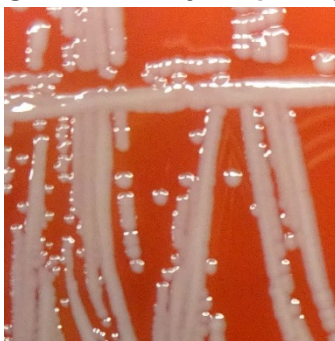
¹4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

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

³The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650)

⁴MIC Interpretation Guideline: EUCAST Version 8.0 (2018)

Figure 1: Colony Morphology


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