

Staphylococcus aureus, Strain NRS63SH

Catalog No. NR-50109

Product Description:

Staphylococcus aureus (*S. aureus*), strain NRS63SH was originally deposited as part of the NARSA collection, strain NRS63. The phenotypic characteristics obtained during quality control testing did not match the reported phenotype of the deposited item; subsequently, this novel strain was deposited as NRS63SH. *S. aureus*, strain NRS63SH is a vancomycin-resistant *S. aureus* (VRSA) strain. NR-50109 was produced by inoculation of BEI Resources seed lot 63622032 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: 70084644

Manufacturing Date: 23JUL2026

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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 with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood Biochemical characterization Catalase Coagulase ¹ VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results Non-motile β-hemolytic Positive Positive <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive <i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile^{2,3} VITEK® (AST-GP78 card) Beta-lactamase Cefoxitin screen Benzylpenicillin Ciprofloxacin Clindamycin Clindamycin (inducible resistance) Chloramphenicol Daptomycin Erythromycin Gentamicin Levofloxacin Linezolid Minocycline Moxifloxacin Nitrofurantoin Oxacillin Quinupristin/dalfopristin Rifampicin Teicoplanin Tetracycline	Positive Positive Resistant Resistant Resistant Negative Sensitive Sensitive Resistant Resistant Resistant Sensitive Sensitive Resistant Sensitive Sensitive Resistant Sensitive Resistant Report results Sensitive	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (4 µg/mL) Resistant (≥ 4 µg/mL) Negative Sensitive (3 µg/mL) Sensitive (≤ 0.12 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 16 µg/mL) Resistant (4 µg/mL) Sensitive (1 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (3 µg/mL) Sensitive (≤ 16 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 32 µg/mL) Resistant (32 µg/mL) ⁴ Sensitive (4 µg/mL)

Certificate of Analysis for NR-50109

TEST	SPECIFICATIONS	RESULTS
Tigecycline Trimethoprim/sulfamethoxazole Vancomycin	Sensitive Resistant Resistant	Sensitive ($\leq 0.12 \mu\text{g/mL}$) ⁵ Sensitive (1.5 to 3 $\mu\text{g/mL}$)⁶ Resistant ($\geq 32 \mu\text{g/mL}$)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	$\geq 99\%$ sequence identity to <i>S. aureus</i> type strain (GenBank: L37597.1)	99.9% 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 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

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)

³Antibiotic susceptibility was tested using a combination of bioMérieux VITEK®2 GN78 and ETEST®.

⁴*S. aureus*, strain NRS63SH showed MICs of 24 $\mu\text{g/mL}$ and 64 $\mu\text{g/mL}$, which are interpreted as intermediate and resistant, respectively, for lot 63322031 during QC testing, resulting in an inconclusive result.

⁵MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

⁶*S. aureus*, Strain NRS63SH was found to be resistant for trimethoprim/sulfamethoxazole lot 63622031, but showed MICs of 3 $\mu\text{g/mL}$, 2 $\mu\text{g/mL}$ and 1.5 $\mu\text{g/mL}$ (interpreted as sensitive) for lot 70084644 during QC testing.

Figure 1: Colony Morphology



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06 OCT 2026

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