

***Staphylococcus aureus*, Strain SR3777**

Catalog No. NR-50509

Product Description: *Staphylococcus aureus* (*S. aureus*), strain SR3777 was isolated in 2011 from human blood in Missouri, USA. *S. aureus*, strain SR3777 is a heterogeneous vancomycin-intermediate *S. aureus* (hVISA) strain.

Lot¹: 70001338

Manufacturing Date: 13JAN2017

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ² Biochemical Characterization Catalase VITEK® 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive ≥ 90% probability of being <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and gray (Figure 1) Non-motile β-hemolytic Positive <i>S. aureus</i> (99% probability) ³
Antibiotic Susceptibility Profile VITEK® (AST-GP71 card) ⁴ Beta-lactamase ⁵ Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest® antibiotic test strips ⁸ Teicoplanin ⁹	Report results Report results Report results Resistant Report results Report results Resistant Report results Report results Resistant Resistant Resistant Report results Sensitive Sensitive Sensitive Report results Report results Sensitive Report results Report results Sensitive Sensitive Report results	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Sensitive (≤ 0.5 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Resistant (= 4 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (= 1 µg/mL) Sensitive (≤ 4 µg/mL) Sensitive (= 0.25 µg/mL) Sensitive (= 2 µg/mL) ⁶ Sensitive (≤ 0.5 µg/mL) Sensitive (= 1 µg/mL) Sensitive (= 0.12 µg/mL) ⁷ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (= 20 µg/mL) Sensitive (= 2 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)	99.9% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)
Purity (post-freeze)¹⁰	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

¹NR-50509 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 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 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 with 5% defibrinated sheep blood

³Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism, with a percent probability of 99% being a perfect match between the test reaction pattern and the unique biochemical pattern of the given organism or organism group. For additional information, please refer to O'Hara, C. M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family Enterobacteriaceae and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." J. Clin. Microbiol. 41 (2003): 2096-2101. PubMed: 12734254.

⁴Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁵The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

⁶*S. aureus*, strain SR3777 was deposited as a heterogeneous vancomycin-intermediate *S. aureus* (hVISA) strain as determined by population analysis profiling with area under the curve (PAP-AUC) method. Antibiotic susceptibility testing using the VITEK® AST-GP71 card failed to detect vancomycin resistant subpopulations. Confirmatory vancomycin susceptibility testing is recommended. For additional information, please refer to Richter, S. S., et al. "Detection of *Staphylococcus aureus* Isolates with Heterogeneous Intermediate-Level Resistance to Vancomycin in the United States." J. Clin. Microbiol. 49 (2011): 4203-4207. PubMed: 21976769.

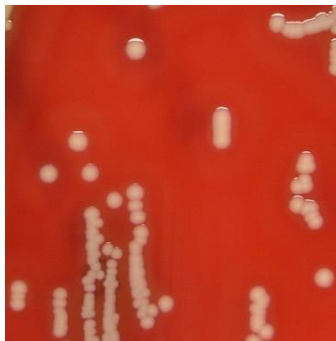
⁷MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

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

⁹For teicoplanin (bioMérieux Etest® 412459), a MIC ≤ 8 µg/mL is sensitive, a MIC = 16 µg/mL is intermediate, and a MIC ≥ 32 µg/mL is resistant.

¹⁰Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO₂ on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 07 APR 2017

Signature:

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