

Staphylococcus aureus, Strain TN-124

Catalog No. NR-46264

Product Description: *Staphylococcus aureus* (*S. aureus*), strain TN-124 is of unknown origin. *S. aureus*, strain TN-124 is a clinically-associated methicillin-resistant *S. aureus* (MRSA) strain.

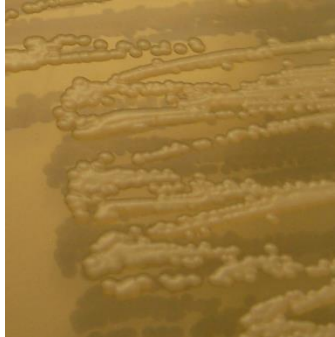
Lot¹: 64044917

Manufacturing Date: 02MAR2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ³ Biochemical characterization Catalase Coagulase ⁴ VITEK [®] 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive Report results ≥ 90% probability of being <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and white (Figure 1) Non-motile Non-hemolytic Positive Positive <i>S. aureus</i> (99% probability) ⁵
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁶ Beta-lactamase ⁷ Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ¹⁰ Chloramphenicol ¹¹ Teicoplanin ¹¹	Report results Report results Report results Resistant Sensitive Report results Resistant Report results Report results Resistant Report results Sensitive Sensitive Sensitive Sensitive Report results Resistant Report results Report results Sensitive 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 (≥ 8 µg/mL) Positive ⁸ Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 0.25 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (= 4 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.12 µg/mL) ⁹ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL) Sensitive (= 4 µg/mL) Sensitive (= 1 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 870 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)	100% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)
Purity (post-freeze)¹²	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze)²	Growth	Growth

- ¹*S. aureus*, strain TN-124 was deposited to BEI Resources as part of the NARSA collection. NR-46264 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 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
- ³1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
- ⁴1 day at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
- ⁵Percent 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.
- ⁶Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
- ⁷The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).
- ⁸The VITEK® AST-GP71 card tests for both clindamycin resistance and inducible clindamycin resistance (ICR). A positive ICR test is indicative of inducible MLS_B resistance, which confers resistance to macrolides, lincosamides, and type B streptogramin and the isolate should be considered resistant to clindamycin. *S. aureus*, strain TN-124 was found to be sensitive to clindamycin but had a positive ICR test and therefore is considered resistant to clindamycin.
- ⁹MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
- ¹⁰1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
- ¹¹For both chloramphenicol (bioMérieux Etest® 412308) and 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.
- ¹²Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar.

Figure 1: Colony Morphology



Date: 23 FEB 2017

Signature:

BEI Resources Authentication

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