

Staphylococcus aureus, Strain TN-151

Catalog No. NR-46265

Product Description: *Staphylococcus aureus* (*S. aureus*), TN-151 is of unknown origin. *S. aureus*, strain TN-151 is a clinically-associated methicillin-resistant *S. aureus* (MRSA) strain.

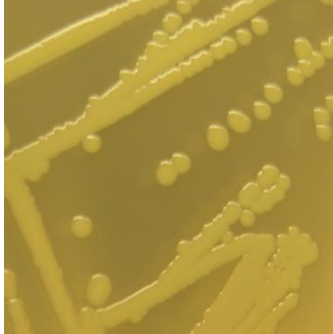
Lot¹: 2135

Manufacturing Date: 03NOV2016

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) Voges-Proskauer (VP) Pyrrolidonyl Arylamidase (PYR) VITEK [®] MS (MALDI-TOF)	Gram-positive cocci Report results Report results Report results Positive Report results ≥ 90% probability of being <i>S. aureus</i> Positive Negative Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive Inconclusive ⁵ Positive ⁵ Negative ^{5,6} <i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁷ Beta-lactamase ⁸ 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 ¹⁰ Chloramphenicol ¹¹ Teicoplanin ¹¹	Report results Report results Report results Resistant Sensitive Report results Sensitive Report results Report results Resistant Sensitive Report results Sensitive Sensitive Sensitive Report results Sensitive Report results Report results Sensitive Sensitive Sensitive Report results Sensitive 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) Sensitive (= 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Negative Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 0.25 µg/mL) Sensitive (= 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) ⁹ Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1440 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-151 was deposited to BEI Resources as part of the NARSA collection. NR-46265 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
- ⁴4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
- ⁵The VITEK® 2 Compact (GP card) performed in duplicate could not distinguish between *S. aureus* and *S. pseudintermedius* based on the leucine arylamidase and D-mannitol test results. Additional individual biochemical testing was completed and was consistent with *S. aureus*. For additional information on the differentiating characteristics of *S. aureus* and *S. pseudintermedius*, please refer Devriese, L. A., et al. "Staphylococcus *pseudintermedius* sp. nov., a Coagulase-Positive Species from Animals." *Int. J. Syst. Evol. Microbiol.* 55 (2005): 1569-1573. PubMed: 16014483.
- ⁶*S. aureus* is expected to be negative for PYR and *S. pseudintermedius* is expected to be positive for PYR
- ⁷Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
- ⁸The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).
- 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 with 5% CO₂ on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 12 MAY 2017

Signature:

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

ATCC® is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

