

Staphylococcus aureus, Strain HIP07920

Catalog No. NR-45871

Product Description: *Staphylococcus aureus* (*S. aureus*), strain HIP07920 was isolated in 1999 in Rhode Island, USA from the bloodstream of a 43-year-old male ICU patient with bacteremia and a history of a transjugular intrahepatic portosystemic shunt, recurrent catheter-associated methicillin-resistant *S. aureus* (MRSA) bacteremia and a prior 2-week course of vancomycin therapy. *S. aureus*, strain HIP07920 is a vancomycin-intermediate *S. aureus* (VISA) strain.

Lot¹: 63025321

Manufacturing Date: 29OCT2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology ² Motility (wet mount) Hemolysis ² Biochemical Characterization Catalase Coagulase ³ VITEK [®] 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive Report results Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and white (Figure 1) Non-motile Non-hemolytic Positive Positive Consistent with <i>S. aureus</i>
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 Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁸ Chloramphenicol ⁹ Teicoplanin ⁹ Vancomycin ⁹	Report results Report results Report results Resistant Report results Resistant Report results Resistant Report results Report results Report results Report results Sensitive Report results Report results Report results Resistant Report results Report results Report results Resistant Report results Report results Report results Resistant Report results Sensitive Intermediate	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Inconclusive ⁶ Resistant (≥ 8 µg/mL) Resistant (= 4 µg/mL) Resistant (= 2 µg/mL) Negative Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 1 µg/mL) Susceptible (= 1 µg/mL) ⁷ Sensitive (≤ 0.5 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Resistant (≥ 32 µg/mL) Resistant (≥ 320 µg/mL) Sensitive (= 2 µg/ml) Sensitive (= 0.5 µg/ml) Intermediate (= 3 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 870 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) ¹⁰	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
Viability (post-freeze) ²	Growth	Growth

¹*S. aureus*, strain HIP07920 was deposited to BEI Resources as part of the NARSA collection. NR-45871 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 23 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 24 hours at 37°C in an aerobic atmosphere to produce this lot.

²24 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

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

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 HIP07920 was deposited as resistant to gentamicin. Antibiotic susceptibility testing performed in duplicate was inconclusive and could not confirm if this strain is resistant or susceptible to gentamicin.

⁷*S. aureus*, strain HIP07920 was deposited as being non-susceptible to daptomycin. Antibiotic susceptibility testing performed in duplicate identified *S. aureus*, strain HIP07920 as susceptible to daptomycin.

⁸24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

⁹For 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. For vancomycin (bioMérieux Etest® 412486), a MIC ≤ 2 µg/mL is sensitive, a MIC = 4-8 µg/mL is intermediate, and a MIC ≥ 16 µg/mL is resistant.

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

Figure 1



Date: 16 DEC 2014

Signature:

Title:

Technical Manager, BEI Authentication or designee

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