

Staphylococcus aureus, Strain HIP13419

Catalog No. NR-46413

Product Description *Staphylococcus aureus* (*S. aureus*), strain HIP13419 was isolated in 2004 in New York, USA, from a polymicrobial infected nephrostomy tube exit site of a 64-year-old female who had no recent history of vancomycin therapy. *S. aureus*, strain HIP13419 is a vancomycin-resistant *S. aureus* (VRSA) strain and is reported to be resistant to a number of other antimicrobial agents. It was co-isolated with *S. aureus*, strain HIP13170. The strains are similar in most aspects except the vancomycin resistant phenotype for HIP13170 is less stable than that of HIP13419.

Lot¹: 63341068

Manufacturing Date: 11MAR2015

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 Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic Positive Positive Consistent with <i>S. aureus</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁵ Beta-lactamase ⁶ 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 ⁷ Chloramphenicol ⁸ Teicoplanin ⁸	Report results Report results Report results Resistant Resistant Resistant Resistant Report results Report results Report results Resistant Resistant Sensitive Sensitive Susceptible Resistant Report results Report results Report results Report results Report results Sensitive Report results Resistant	Positive Positive Resistant (≥ 0.5 µg/mL) Resistant (≥ 4 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Resistant (= 4 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 1 µg/mL) Susceptible (= 0.25 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (= 1 µg/mL) Resistant (≥ 16 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 10 µg/mL) Sensitive (= 4 µg/mL) Resistant (= 48-64 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~1490 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) ⁹	Growth consistent with <i>S. aureus</i>	Growth consistent with <i>S. aureus</i>
Viability (post-freeze) ²	Growth	Growth

¹*S. aureus*, strain HIP13419 was deposited to BEI Resources as part of the NARSA collection. NR-46413 was produced by inoculation of the deposited material into Brain Heart Infusion broth with 6 µg/mL vancomycin and an aliquot was used to inoculate a Brain Heart Infusion agar slant which was grown 21 hours at 37°C in an aerobic atmosphere. After a hold at room temperature in an aerobic atmosphere for 5 days, colonies from the slant were used to inoculate Brain Heart Infusion broth which was grown for 24 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Brain Heart Infusion agar with 6 µg/mL vancomycin kolles which were grown 23 hours at 37°C in an aerobic atmosphere to produce this lot.

²19 hours at 37°C in an aerobic atmosphere on Brain Heart Infusion agar with 6 µg/mL vancomycin

³24 hours 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)

⁵Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

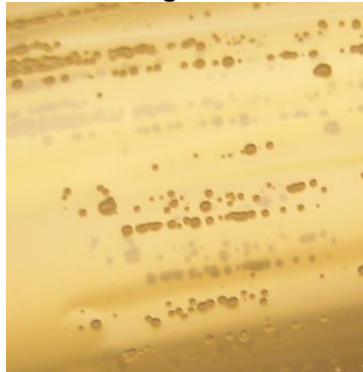
⁶The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

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

⁸For 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.

⁹The purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1



Date: 20 MAY 2015

Signature: 

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