

**Staphylococcus aureus, Strain HIP5836**

**Catalog No. NR-45859**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain HIP5836 was isolated in 1997 in New Jersey, USA from a 66-year-old male diabetic with bacteremia and congestive heart failure that was secondary to recurrent methicillin-resistant *S. aureus* (MRSA) bacteremia and who had a prior 18-week course of vancomycin therapy. *S. aureus*, strain HIP5836 is a vancomycin-intermediate *S. aureus* (VISA) strain.

**Lot<sup>1</sup>: 62990871**

**Manufacturing Date: 16OCT2014**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology <sup>2</sup> Colony morphology <sup>2</sup>  Motility (wet mount) Hemolysis <sup>2</sup> Biochemical Characterization Catalase Coagulase <sup>3</sup> VITEK <sup>®</sup> 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 Non-hemolytic  Positive Positive Consistent with <i>S. aureus</i>
<b>Antibiotic Susceptibility Profile</b> VITEK <sup>®</sup> (AST-GP71 card) <sup>4</sup> Beta-lactamase <sup>5</sup> 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 Estest <sup>®</sup> antibiotic test strips <sup>6</sup> Chloramphenicol <sup>7</sup> Teicoplanin <sup>7</sup>	Report results Report results Report results Resistant Sensitive Resistant Report results Report results Report results Report results Report results Sensitive Report results Susceptible Intermediate Report results Sensitive Report results Report results Report results Sensitive  Report results Sensitive	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 (= 2-4 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (= 0.5 µg/mL) Sensitive (= 2 µg/mL) Susceptible (= 1 µg/mL) Intermediate (= 8 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (≤ 10 µg/mL)  Sensitive (= 1.5 µg/ml) Sensitive (= 8 µg/ml)
<b>Genotypic Analysis</b> 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) <sup>8</sup>	Growth consistent with <i>S. aureus</i>	Growth consistent with <i>S. aureus</i>
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>*S. aureus*, strain HIP5836 was deposited to BEI Resources as part of the NARSA collection. NR-45859 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 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.

<sup>2</sup>24 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>3</sup>4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

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

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

<sup>6</sup>24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>7</sup>For 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.

<sup>8</sup>Purity 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: 12 FEB 2015

Signature:

Title: Technical Manager, BEI Authentication or designee

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