

**Staphylococcus aureus, Strain HIP14300**

**Catalog No. NR-46414**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain HIP14300 was isolated in 2005 in Michigan, USA from a gangrenous toe wound of a 78-year-old male nursing home resident who was recently treated with a nine-week course of vancomycin. *S. aureus*, strain HIP14300 is a vancomycin-resistant *S. aureus* strain.

**Lot<sup>1</sup>: 62363098**

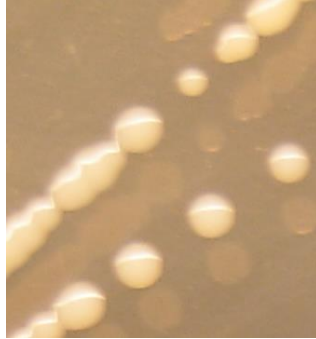
**Manufacturing Date: 05FEB2014**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology <sup>2</sup>  Motility (wet mount) Hemolysis <sup>3</sup> Biochemical Characterization Catalase Coagulase <sup>4</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 β-hemolytic  Positive Positive Consistent with <i>S. aureus</i>
<b>Antibiotic Susceptibility Profile</b> VITEK <sup>®</sup> (AST-GP71 card) <sup>5</sup> Beta-lactamase <sup>6</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 Etest <sup>®</sup> antibiotic test strips <sup>7</sup> Chloramphenicol <sup>8</sup> Teicoplanin <sup>8</sup>	Report results Report results Report results Resistant Sensitive Resistant Report results Report results Report results Resistant Resistant Sensitive Sensitive Report results Resistant Report results Sensitive Report results Report results Report results Sensitive Intermediate Resistant	Negative 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) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 0.25 µg/mL) Resistant (≥ 32 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL)  Sensitive (= 4 µg/mL) <sup>9</sup> Resistant (= 128 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

<sup>1</sup>*S. aureus*, strain HIP14300 was deposited to BEI Resources as part of the NARSA collection. NR-46414 was produced by inoculation of the deposited material into Brain Heart Infusion broth with 6 µg/mL vancomycin and grown 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 24 hours at 37°C in an aerobic atmosphere

- to produce this lot. Purity of this lot was assessed for 8 days under propagation conditions.
- <sup>2</sup>19 hours at 37°C and aerobic atmosphere on Brain Heart Infusion agar with 6 µg/mL vancomycin
- <sup>3</sup>19 hours at 37°C and aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
- <sup>4</sup>4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
- <sup>5</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
- <sup>6</sup>The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650)
- <sup>7</sup>24 hours at 37°C and aerobic atmosphere on Mueller Hinton agar
- <sup>8</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>9</sup>*S. aureus*, strain HIP14300 was deposited as having an intermediate susceptibility to chloramphenicol. ATCC® quality control determined that *S. aureus*, strain HIP14300 is susceptible to chloramphenicol. Repeat testing confirmed ATCC®'s initial results.

Figure 1



**Date:** 08 MAY 2014

**Signature:** 

**Title:** Technical Manager, BEI Authentication or designee

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