

**Staphylococcus aureus, Strain RN4220**

**Catalog No. NR-45946**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain RN4220 was generated through UV and chemical mutagenesis of *S. aureus*, strain NCTC 8325-4.

**Lot<sup>1</sup>: 62280943**

**Manufacturing Date: 08JAN2014**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology 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, low convex, entire, smooth and gray (Figure 1) Non-motile β-hemolytic  Positive Positive Consistent with <i>S. aureus</i>
<b>Antibiotic Susceptibility Profile</b> VITEK <sup>®</sup> (AST-GP71card) <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 Etest <sup>®</sup> antibiotic test strips <sup>6</sup> Chloramphenicol <sup>7</sup> Teicoplanin <sup>7</sup>	Report results Report results Sensitive Sensitive Sensitive Sensitive Report results Report results Report results Report results Sensitive Sensitive Sensitive Sensitive Report results Sensitive Report results Report results Report results Report results Report results Report results Sensitive Report results Sensitive	Negative Negative Sensitive (≤ 0.03 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (= 0.25 µg/mL) Sensitive(≤ 0.25 µg/mL) Negative Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 0.25 µg/mL) Sensitive (≤ 0.5 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 (= 3 µg/mL) Sensitive (= 1.5 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1500 base pairs) Riboprinter <sup>®</sup> Microbial Characterization System	Consistent with <i>S. aureus</i>  Consistent with <i>S. aureus</i>	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 RN4220 was deposited to BEI Resources as part of the NARSA collection. NR-45946 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 21 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 25 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed for 7 days under propagation conditions.

<sup>2</sup>19 hours at 37°C and 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)

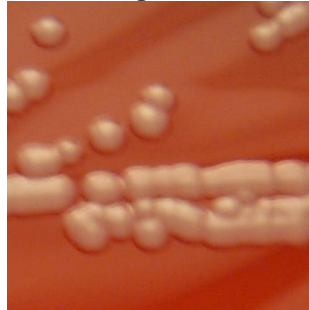
<sup>4</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

<sup>5</sup>The production of beta-lactamase was detected using a Nitrocefin dry slide (BBL™ 231749).

<sup>6</sup>24 hours at 37°C and 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.

Figure 1



Date: 26 MAR 2014

Signature:

Title:

Technical Manager, BEI Authentication or designee

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