

**Staphylococcus aureus, Strain C2000001227**

**Catalog No. NR-45903**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain C2000001227 was isolated in 2000 from a 59-year-old male in Minnesota, USA. *S. aureus*, strain C2000001227 was reported as a glycopeptide-intermediate *S. aureus* (VISA) strain.

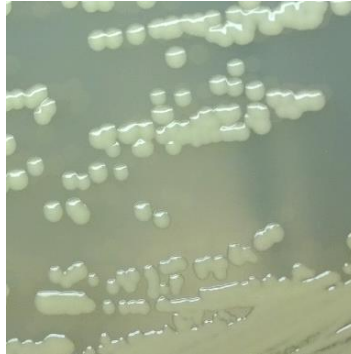
**Lot<sup>1</sup>: 70011773**

**Manufacturing Date: 18JAN2018**

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) VITEK <sup>®</sup> MS (MALDI-TOF)	Gram-positive cocci Report results  Report results Report results  Positive Report results <i>S. aureus</i> (≥ 89%) <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and cream (Figure 1) Non-motile β-hemolytic  Positive Positive <i>S. aureus</i> (90%) <i>S. aureus</i> (99.9%)
<b>Antibiotic Susceptibility Profile<sup>5</sup></b> VITEK <sup>®</sup> (AST-GP78 card) Beta-lactamase <sup>6</sup> Cefoxitin screen Benzylpenicillin Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Ceftaroline Etest <sup>®</sup> antibiotic test strips <sup>9</sup> Chloramphenicol Teicoplanin Quinupristin/dalfopristin	Report results Report results Report results Resistant Sensitive Resistant Report results Report results Report results Resistant Sensitive Non-susceptible Sensitive Report results Report results Report results Report results Sensitive Report results Sensitive 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 (≥ 8 µg/mL) Positive <sup>7</sup> Resistant (≥ 8 µg/mL) Sensitive (= 2-4 µg/mL) Non-susceptible (= 2 µg/mL) Sensitive (= 4 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) <sup>8</sup> Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 10 µg/mL) Sensitive (= 0.5 µg/mL) <sup>8</sup>  Intermediate (= 12 µg/mL) Sensitive (= 3 µg/mL) Sensitive (= 0.25 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 740 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597)	100% sequence identity to <i>S. aureus</i> type strain (GenBank: L37597) <sup>10</sup>
<b>Purity (post-freeze)<sup>11</sup></b>	Consistent with expected colony morphology	Consistent with expected colony morphology
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

- <sup>1</sup>*S. aureus*, strain C2000001227 was deposited to BEI Resources as part of the NARSA collection. NR-45903 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.
- <sup>2</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar
- <sup>3</sup>1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
- <sup>4</sup>1 day 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>The VITEK® AST-GP78 card tests for both clindamycin resistance and inducible clindamycin resistance (ICR). A positive ICR test is indicative of inducible MLS<sub>B</sub> resistance, which confers resistance to macrolides, lincosamides, and type B streptogramin and the isolate should be considered resistant to clindamycin. *S. aureus*, strain C2000001227 was found to be sensitive to clindamycin but had a positive ICR test and therefore is considered resistant to clindamycin. For additional information, please refer to Mahesh, C. B., B. K. Ramakant and V. S. Jagadeesh. "The Prevalence of Inducible and Constitutive Clindamycin Resistance Among the Nasal Isolates of Staphylococci." *J. Clin. Diagn. Res.* 7 (2013): 1620-1622. PubMed: 24086856.
- <sup>8</sup>MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
- <sup>9</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
- <sup>10</sup>Also consistent with other *Staphylococcus* species
- <sup>11</sup>Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub> on Tryptic Soy agar.

Figure 1: Colony Morphology



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