

**Staphylococcus aureus, Strain No. 66**

**Catalog No. NR-45996**

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain No. 66 was isolated in the United Kingdom as early as 1947. *S. aureus*, strain No. 66 is a methicillin-sensitive *S. aureus* (MSSA) strain.

**Lot<sup>1</sup>: 63622049**

**Manufacturing Date: 10JUL2015**

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, flat, 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>4</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 Report results Report results Report results Sensitive Sensitive Sensitive Sensitive Report results Sensitive Report results Report results Report results Report results Report results Sensitive  Report results Sensitive	Negative Sensitive (≤ 0.03 µg/mL) <sup>5</sup> Sensitive (= 0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.12 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 (≤ 0.12 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 (= 6 µg/mL) Sensitive (= 1 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>Purity<sup>8</sup></b>	Growth consistent with <i>S. aureus</i>	Growth consistent with <i>S. aureus</i>
<b>Viability (post-freeze)<sup>2</sup></b>	Growth	Growth

- <sup>1</sup>*S. aureus*, strain No. 66 was deposited to BEI Resources as part of the NARSA collection. NR-45996 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 with 5% defibrinated sheep blood 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 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>*S. aureus*, strain No. 66 was deposited as resistant to penicillin. Antibiotic susceptibility testing performed in duplicate determined the penicillin MIC for *S. aureus*, strain No. 66 as  $\leq 0.03$  µg/ml, which is considered susceptible; however, this strain tested positive for beta-lactamase production (Cefinase™ Paper Disc BBL™ 231650). While rare, other beta-lactamase producing, penicillin-sensitive *S. aureus* strains have been reported. For addition information, refer to Gill, V. J., C. B. Manning and C. M. Ingalls. "Correlation of Penicillin Minimum Inhibitory Concentrations and Penicillin Zone Edge Appearance with Staphylococcal Beta-Lactamase Production." *J. Clin. Microbiol.* 14 (1981): 437-440. PubMed: 6974738.
- <sup>6</sup>1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
- <sup>7</sup>For both chloramphenicol (bioMérieux Etest® 412486) and teicoplanin (bioMérieux Etest® 412459), a MIC  $\leq 8$  µg/mL is sensitive, a MIC = 16 µg/mL is intermediate and a MIC  $\geq 32$  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: Colony Morphology



Date: 14 OCT 2015

Signature:

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