

**Staphylococcus aureus, Strain AJUL19**

**Catalog No. NR-55233**

**Product Description:**

*Staphylococcus aureus* (*S. aureus*), strain AJUL19 is deposited as a penicillin G-resistant strain derived from *S. aureus*, strain SH1000 through introduction of plasmid pSK5487M containing the antibiotic resistance gene *blaZ* (encoding beta-lactamase) and a chloramphenicol resistance gene (*cat*) for selection. NR-55233 was produced by resuspension of a lyophilized vial of deposited material in Tryptic Soy broth. Broth inoculum was added to Tryptic Soy broth containing 25 µg per mL chloramphenicol and grown for 1 day at 37°C in an aerobic atmosphere. The material from the initial growth was added to Tryptic Soy broth containing 25 µg per mL chloramphenicol, which was grown for 1 day at 37°C in an aerobic atmosphere to produce this lot. Quality control testing was completed using Tryptic Soy broth or agar containing 25 µg per mL chloramphenicol under propagation conditions unless otherwise noted.

**Lot: 70052859**

**Manufacturing Date: 20MAY2022**

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TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Motility (wet mount) Hemolysis Catalase VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results  Report results Report results Positive <i>S. aureus</i>	Gram-positive cocci Circular, convex, entire, smooth and yellow (Figure 1)  Non-motile β-hemolytic Positive <i>S. aureus</i> (99.9%)
<b>Antibiotic Susceptibility Profile<sup>1</sup></b> Thermo Scientific™ Susceptibility Test Disc 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Penicillin G	Resistant	Resistant (17 mm)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~ 1500 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> , strain SH1000 (GenBank: CP059180.1)	99.9% sequence identity to <i>S. aureus</i> , strain SH1000 (GenBank: CP059180.1) <sup>2</sup>
<b>Purity (post-freeze)</b> 7 days at 37°C in an aerobic atmosphere with and without 5% CO <sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability (post-freeze)</b>	Growth	Growth

<sup>1</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: Clinical & Laboratory Standards Institute (CLSI) M100-S28 (2018)

<sup>2</sup>Also consistent with other *Staphylococcus* species

Figure 1: Colony Morphology



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