

Staphylococcus aureus, Strain AJUL12

Catalog No. NR-55226

Product Description:

Staphylococcus aureus (*S. aureus*), strain AJUL12 is deposited as a mupirocin-resistant strain derived from *S. aureus*, strain SH1000 through introduction of plasmid pSK5487M containing the antibiotic resistance gene *mupA* (encoding mupirocin-resistant isoleucine) and a chloramphenicol resistance gene (*cat*) for selection. NR-55226 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 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: 70052844

Manufacturing Date: 18MAY2022

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis 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 cream-to-yellow (Figure 1) Non-motile β-hemolytic Positive <i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile¹ Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Mupirocin	Resistant	Resistant (≥ 1024 µg per mL)
Genotypic Analysis 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) ²
Purity (post-freeze) 7 days at 37°C in an aerobic atmosphere with and without 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

²Also consistent with other *Staphylococcus* species

Figure 1: Colony Morphology



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