

Staphylococcus aureus, Strain GA-810

Catalog No. NR-46304

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Product Description:

Staphylococcus aureus (*S. aureus*), strain GA-810 was isolated in 2007 from a patient in Georgia, USA. *S. aureus*, strain GA-810 was deposited to BEI Resources as part of the NARSA collection. NR-46304 was produced by inoculation of the deposited material into Tryptic Soy broth and grown for 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 for 1 day at 37°C in an aerobic atmosphere to produce this lot.

Lot: 70062934

Manufacturing Date: 31AUG2023

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Gram-positive cocci	Gram-positive cocci
Colony morphology 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	Circular, convex, entire, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	β-hemolytic
Biochemical characterization		
Catalase	Positive	Positive
Coagulase ¹	Report results	Positive
VITEK® MS (MALDI-TOF)	<i>S. aureus</i>	<i>S. aureus</i> (99.9%)
Antibiotic Susceptibility Profile²		
VITEK® (AST-GP78 card)		
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL) ⁴
Beta-lactamase ³	Report results	Positive
Cefoxitin screen	Report results	Positive
Ceftaroline	Report results	Sensitive (0.5 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Clindamycin	Report results	Sensitive (0.25 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Daptomycin	Sensitive	Sensitive (0.25 to 0.5 µg/mL)
Erythromycin	Resistant	Resistant (≥ 8 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Levofloxacin	Report results	Sensitive (≤ 0.12 µg/mL)
Linezolid	Sensitive	Sensitive (2 µg/mL)
Minocycline	Sensitive	Sensitive (≤ 0.5 µg/mL)
Moxifloxacin	Report results	Sensitive (≤ 0.25 µg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Oxacillin	Sensitive	Sensitive (≥ 4 µg/mL)
Rifampicin	Report results	Sensitive (≤ 0.5 µg/mL)

TEST	SPECIFICATIONS	RESULTS
Tetracycline Tigecycline Trimethoprim/sulfamethoxazole Vancomycin Etest® antibiotic test strips ^{2,4} 1 day at 35°C in an aerobic atmosphere on Mueller Hinton agar Chloramphenicol Quinupristin/dalfopristin Teicoplanin	Report results Report results Report results Report results Report results Sensitive Sensitive	Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) ⁴ Sensitive (≤ 10 µg/mL) Sensitive (1 µg/mL) Sensitive (3 µg/mL) Sensitive (0.75 µg/mL) Sensitive (0.38 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>S. aureus</i> , strain GA-810 (GenBank: CAIHHA010000021.1)	100% sequence identity to <i>S. aureus</i> , strain GA-810 (GenBank: CAIHHA010000021.1)
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) 1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood	Growth	Growth

¹4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

²Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2018)

³The production of beta-lactamase was detected using a DrySlide™ Nitrocefin (BBL™ 231749).

⁴MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

Figure 1: Colony Morphology



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Technical Manager or designee, ATCC Federal Solutions

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