

Certificate of Analysis for NR-46212

Staphylococcus aureus, Strain GA-298

Catalog No. NR-46212

Product Description: Staphylococcus aureus (S. aureus), strain GA-298 was isolated in 2005 from the blood of a 46-year-old male with a spinal abscess in Georgia, USA. S. aureus, strain GA-298 is a methicillin-resistant S. aureus (MRSA) strain.

Lot¹: 63406774 Manufacturing Date: 01APR2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, low convex, entire,
, , , , , , , , , , , , , , , , , , , ,		smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ²	Report results	β-hemolytic
Biochemical characterization		
Catalase	Positive	Positive
Coagulase ³	Report results	Positive
VITEK® 2 Compact (GP card)	Consistent with S. aureus	Consistent with S. aureus
Antibiotic Susceptibility Profile		
VITEK® (AST-GP71 card) ⁴		
Beta-lactamase ⁵	Report results	Positive
Cefoxitin screen	Report results	Positive
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)
Oxacillin	Resistant	Resistant (≥ 4 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Ciprofloxacin	Report results	Sensitive (≤ 0.5 μg/mL)
Levofloxacin	Sensitive	Sensitive (= 0.25 µg/mL)
Moxifloxacin	Report results	Sensitive (≤ 0.25 μg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Resistant	Resistant (≥ 8 μg/mL)
Clindamycin	Sensitive	Sensitive (≤ 0.25 μg/mL)
Quinupristin/dalfopristin	Report results	Sensitive (≤ 0.25 µg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Sensitive	Sensitive (= 0.5 µg/mL)
Vancomycin	Sensitive	Sensitive (= 1 µg/mL)
Minocycline	Report results	Sensitive (≤ 0.5 μg/mL)
Tetracycline	Sensitive	Sensitive (≤ 1 µg/mL)
Tigecycline	Report results	Sensitive (≤ 0.12 μg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁶	Sensitive	Sensitive (≤ 10 μg/mL)
Chloromphonical ⁷	Concitive	Consitive (2.2 ug/ml)
Chloramphenicol ⁷ Teicoplanin ⁷	Sensitive	Sensitive (= 2-3 µg/mL) Sensitive (= 1.5 µg/mL)
	Report results	Sensitive (= 1.5 µg/IIIL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1500 base pairs)		
Purity (post-freeze) ⁸	Growth consistent with S. aureus	Growth consistent with S. aureus
Viability (post-freeze) ²	Growth	Growth

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SUPPORTING INFECTIOUS DISEASE RESEARCH

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¹S. aureus, strain GA-298 was deposited to BEI Resources as part of the NARSA collection. NR-46212 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 21 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 23 hours at 37°C in an aerobic atmosphere to produce this lot.

²23 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

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

⁴Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁵The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

⁶24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

Figure 1

Date: 01 JUL 2015

Signature:

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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⁷For both chloramphenicol (bioMérieux Etest[®] 412308) and teicoplanin (bioMérieux Etest[®] 412459), a MIC ≤ 8 μg/mL is sensitive, a MIC = 16 μg/mL is intermediate and a MIC ≥ 32 μg/mL is resistant.

⁸Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.