SUPPORTING INFECTIOUS DISEASE RESEARCH

Staphylococcus aureus, Strain CA-409

Catalog No. NR-46180

Product Description: *Staphylococcus aureus* (*S. aureus*), strain CA-409 was isolated in 2006 from the peritoneal fluid of a 61-year-old female in California, USA. *S. aureus*, strain CA-409 is a methicillin-resistant *S. aureus* (MRSA) strain.

Lot¹: 62363090

Manufacturing Date: 07FEB2014

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	Non-hemolytic ³
Biochemical characterization		
Catalase	Positive	Positive
Coagulase ⁴	Report results	Positive
VITEK [®] 2 Compact (GP card)	Consistent with S. aureus	Consistent with S. aureus
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁵		
Beta-lactamase ⁶	Report results	Positive
Cefoxitin screen	Report results	Positive
Oxacillin	Resistant	Resistant (≥ 4 µg/mL)
Gentamicin	Resistant	Resistant (≥ 16 µg/mL)
Ciprofloxacin	Report results	Resistant (≥ 8 µg/mL)
Levofloxacin	Resistant	Resistant (= 8 µg/mL)
Moxifloxacin	Report results	Resistant (= 4 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Resistant	Resistant (≥ 8 µg/mL)
Clindamycin	Resistant	Resistant (≥ 8 µg/mL)
Quinupristin/dalfopristin	Report results	Sensitive (≤ 0.5 µg/mL)
Linezolid	Sensitive	Sensitive (= $2 \mu g/mL$)
Daptomycin	Sensitive	Sensitive (= $1 \mu g/mL$)
Vancomycin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Minocycline	Report results	Sensitive (≤ 0.5 µg/mL)
	Sensitive	Sensitive (≤ 1 µg/mL)
Tigecycline	Report results	Sensitive ($\leq 0.12 \mu g/mL$)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁷	Sensitive	Sensitive (= 20 µg/mL)
Etest antibiotic test strips	la terre e die te	Operatives (Operator) ⁹
	Intermediate	Sensitive (= $2 \mu g/mL$) ⁹
Teicoplanin ⁸	Report results	Sensitive (= 1 µg/mL)
Benzylpenicillin ⁸	Report results	Resistant (= 32 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1470 base pairs)		
Viability (post-freeze) ²	Growth	Growth

¹S. aureus, strain CA-409 was deposited to BEI Resources as part of the NARSA collection. NR-46180 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 23 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar

BEI Resources www.beiresources.org E-mail: <u>contact@beiresources.org</u> Tel: 800-359-7370 Fax: 703-365-2898 **b**|**e**|**i** resources

Certificate of Analysis for NR-46180

SUPPORTING INFECTIOUS DISEASE RESEARCH

with 5% defibrinated sheep blood kolles which were grown 23 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed for 8 days under propagation conditions.

²20 hours at 37°C and aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

 3 Limited β -hemolysis was observed after 48 hours.

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

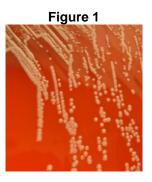
⁵Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁶The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

⁷24 hours at 37°C and aerobic atmosphere on Mueller Hinton agar

⁸For 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. For benzylpenicillin (bioMérieux Etest[®] 412262) a MIC ≤ 0.12 µg/mL is sensitive and a MIC ≥ 0.25 µg/mL is resistant.

⁹S. *aureus*, strain CA-409 was deposited as having an intermediate susceptibility to chloramphenicol. ATCC[®] quality control determined that *S. aureus*, strain CA-409 is sensitive to chloramphenicol. Repeat testing confirmed ATCC[®]'s initial results.



Date: 19 MAY 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

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.

ATCC[®] is a trademark of the American Type Culture Collection. You are authorized to use this product for research use only. It is not intended for human use.

