

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 Colony morphology ² Motility (wet mount) Hemolysis ² Biochemical characterization Catalase Coagulase ⁴ VITEK [®] 2 Compact (GP card)	Gram-positive cocci Report results Report results Report results Positive Report results Consistent with <i>S. aureus</i>	Gram-positive cocci Circular, low convex, entire, smooth and cream (Figure 1) Non-motile Non-hemolytic ³ Positive Positive Consistent with <i>S. aureus</i>
Antibiotic Susceptibility Profile VITEK [®] (AST-GP71 card) ⁵ Beta-lactamase ⁶ Cefoxitin screen Oxacillin Gentamicin Ciprofloxacin Levofloxacin Moxifloxacin Clindamycin (inducible resistance) Erythromycin Clindamycin Quinupristin/dalfopristin Linezolid Daptomycin Vancomycin Minocycline Tetracycline Tigecycline Nitrofurantoin Rifampicin Trimethoprim/sulfamethoxazole Etest [®] antibiotic test strips ⁷ Chloramphenicol ⁸ Teicoplanin ⁸ Benzylpenicillin ⁸	Report results Report results Resistant Resistant Report results Resistant Report results Report results Resistant Resistant Report results Sensitive Sensitive Sensitive Sensitive Report results Sensitive Report results Report results Sensitive Sensitive Intermediate Report results Report results	Positive Positive Resistant (≥ 4 µg/mL) Resistant (≥ 16 µg/mL) Resistant (≥ 8 µg/mL) Resistant (= 8 µg/mL) Resistant (= 4 µg/mL) Negative Resistant (≥ 8 µg/mL) Resistant (≥ 8 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (= 2 µg/mL) Sensitive (= 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 16 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (= 20 µg/mL) Sensitive (= 2 µg/mL) ⁹ Sensitive (= 1 µg/mL) Resistant (= 32 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	Consistent with <i>S. aureus</i>	Consistent with <i>S. aureus</i>
Viability (post-freeze)²	Growth	Growth

¹*S. 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

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

³Limited 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.

⁹*S. 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.

Figure 1



Date: 19 MAY 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

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