

## **Certificate of Analysis for NR-46182**

## Staphylococcus aureus, Strain CA-513

## Catalog No. NR-46182

**Product Description:** Staphylococcus aureus (S. aureus), strain CA-513 was isolated in November 2006 from peritoneal fluid of a 40-year-old male in California, USA. S. aureus, strain CA-513 is a methicillin-resistant S. aureus (MRSA) strain.

Lot<sup>1</sup>: 62471622 Manufacturing Date: 02APR2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology <sup>2</sup>	Report results	Circular, low convex, entire, smooth
, , ,	·	and gray (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis <sup>2</sup>	Report results	β-hemolytic
Biochemical characterization	·	
Catalase	Positive	Positive
Coagulase <sup>3</sup>	Report results	Positive
VITEK® 2 Compact (GP card)	Consistent with S. aureus	Consistent with S. aureus
VITEK® MD (MALDI-TOF)	Consistent with S. aureus	Consistent with S. aureus
Antibiotic Susceptibility Profile		
VITEK® (AST-GP71 card) <sup>4</sup>		
Beta-lactamase <sup>5</sup>	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	Resistant (≥ 8 μg/mL)
Levofloxacin	Resistant	Resistant (= 4 µg/mL)
Moxifloxacin	Report results	Intermediate (= 1 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
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 (≤ 0.12 μg/mL)
Vancomycin	Sensitive	Sensitive (≤ 0.5 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	Sensitive	Sensitive (≤ 10 µg/mL)
Etest <sup>®</sup> antibiotic test strips <sup>6</sup>		, , , ,
Chloramphenicol <sup>7</sup>	Sensitive	Sensitive (= 2 µg/mL)
Teicoplanin <sup>7</sup>	Report results	Sensitive (= 1 µg/mL)
Erythromycin <sup>7</sup>	Resistant	Resistant (= 8 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1480 base pairs)		
Viability (post-freeze) <sup>2</sup>	Growth	Growth
<u> </u>		<u> </u>

S. aureus, strain CA-513 was deposited to BEI Resources as part of the NARSA collection. NR-46182 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar

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with 5% defibrinated sheep blood kolles which were grown 24 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed for 7 days under propagation conditions.

<sup>2</sup>21 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

<sup>3</sup>4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

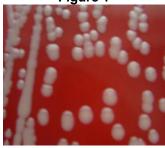
<sup>4</sup>Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

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

<sup>6</sup>24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

<sup>7</sup>For both chloramphenicol (bioMérieux Etest<sup>®</sup> 412308) and teicoplanin (bioMérieux Etest<sup>®</sup> 412459) a MIC ≤ 8 μg/mL is sensitive, a MIC = 16 μg/mL is intermediate and a MIC ≥ 32 μg/mL is resistant. For erythromycin (bioMérieux Etest<sup>®</sup> 412333), a MIC ≤ 0.5 μg/mL is sensitive, a MIC between 1 and 4 μg/mL is intermediate and a MIC ≥ 8 μg/mL is resistant.

Figure 1



**Date:** 25 JUN 2014

Signature:

Title:

Technical Manager, BEI Authentication or designee

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