SUPPORTING INFECTIOUS DISEASE RESEARCH

### Staphylococcus aureus, Strain N315

### Catalog No. NR-45898

**Product Description:** *Staphylococcus aureus* (*S. aureus*), strain N315 was isolated in 1982 from a pharyngeal smear of a patient in Japan. *S. aureus*, strain N315 is a methicillin-resistant *S. aureus* (MRSA) strain and is reported to be resistant to clindamycin, erythromycin and spectinomycin.

# Lot<sup>1</sup>: 62280936

## Manufacturing Date: 10JAN2014

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
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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 <sup>®</sup> 2 Compact (GP card)	Consistent with S. aureus	Consistent with S. aureus
Antibiotic Susceptibility Profile		
VITEK <sup>®</sup> (AST-GP71 card) <sup>4</sup>		
Beta-lactamase <sup>5</sup>	Report results	Positive
Cefoxitin screen	Report results	Positive
Benzylpenicillin	Resistant	Resistant (≥ 0.5 µg/mL)
Oxacillin	Resistant	Resistant (≥ 4 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Levofloxacin	Report results	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	Resistant	Resistant (≥ 8 µg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Sensitive (= 0.25 µg/mL)
Vancomycin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Minocycline	Report results	Sensitive (≤ 0.5 µg/mL)
Tetracycline	Report results	Sensitive (≤ 1 µg/mL)
Tigecycline	Report results	Sensitive (≤ 0.12 µg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Report results	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>	Report results	Sensitive (= 3 µg/mL)
Teicoplanin <sup>7</sup>	Sensitive	Sensitive (= 0.75 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1500 base pairs)	Consistent with S. aureus	Consistent with S. aureus
Riboprinter <sup>®</sup> Microbial Characterization System	Consistent with S. aureus	Consistent with S. aureus
Viability (post-freeze) <sup>2</sup>	Growth	Growth

<sup>1</sup>S. aureus, strain N315 was deposited to BEI Resources as part of the NARSA collection. NR-45898 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 25 hours at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5%

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# **Certificate of Analysis for NR-45898**

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defibrinated sheep blood kolles which were grown 21 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>23 hours at 37°C and aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

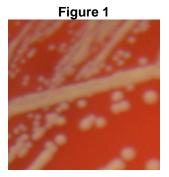
<sup>3</sup>4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

<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 Nitrocefin dry slide (BBL™ 231749).

<sup>6</sup>24 hours at 37°C and 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.



Date: 25 MAR 2014

Signature:

#### Title:

ATCC<sup>®</sup>, 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<sup>®</sup>'s knowledge.

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