b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-45986

Staphylococcus aureus, Strain A860325

Catalog No. NR-45986

Product Description: *Staphylococcus aureus* (*S. aureus*), strain A860325 was isolated in 1986 from pus associated with osteitis and/or osteomyelitis of a female in France. *S. aureus*, strain A860325 is a methicillin-sensitive *S. aureus* (MSSA) strain.

Lot[1]: 63622043 **Manufacturing Date: 08JUL2015**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology[2]	Report results	Circular, flat, entire, smooth and gray (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis[2]	Report results	β-hemolytic
Biochemical Analysis		
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-GP71card)[4]		
Cefoxitin screen	Report results	Negative
Benzylpenicillin	Report results	Sensitive (= 0.12 µg/mL)[5]
Oxacillin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Levofloxin	Report results	Sensitive (= 0.25 µg/mL)
Moxifloxacin	Report results	Sensitive (≤ 0.25 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Clindamycin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Sensitive (= 1 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® antibiotic test strips[6]		
Chloramphenicol[7]	Report results	Sensitive (= 3 µg/mL)
Teicoplanin[7]	Sensitive	Sensitive (= 1.5 to 3 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	Consistent with *S. aureus*	Consistent with *S. aureus*
Purity (post-freeze)[8]	Growth consistent with *S. aureus*	Growth consistent with *S. aureus*
Viability (post-freeze)[2]	Growth	Growth

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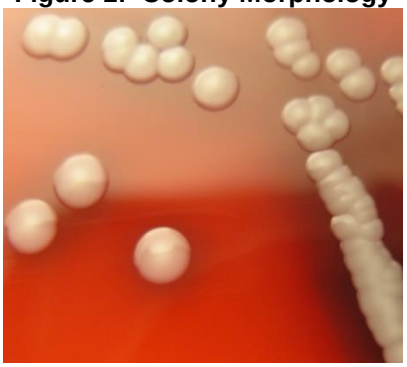
[1]*S. aureus*, strain A860325 was deposited to BEI Resources as part of the NARSA collection. NR-45986 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.
[2]1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
[3]4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
[4]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
[5]*S. aureus*, strain A860325 was deposited as sensitive to penicillin and antibiotic susceptibility testing performed in duplicate by ATCC® determined the penicillin MIC for *S. aureus*, strain A860325 to be 0.12 µg/ml, which is considered susceptible; however, this strain tested positive for beta-lactamase production (Cefinase™ Paper Disc BBL™ 231650). While rare, other beta-lactamase producing, penicillin-sensitive *S. aureus* strains have been reported. For addition information, refer to Gill, V. J., C. B. Manning and C. M. Ingalls. "Correlation of Penicillin Minimum Inhibitory Concentrations and Penicillin Zone Edge Appearance with Staphylococcal Beta-Lactamase Production." J. Clin. Microbiol. 14 (1981): 437-440. PubMed: 6974738.
[6]24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar
[7]For 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.
[8]Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere.

Figure 1: Colony Morphology



Date: 11 SEP 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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