b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-45961

Staphylococcus aureus, Strain HT 2000 0509

Catalog No. NR-45961

Product Description: *Staphylococcus aureus* (*S. aureus*), strain HT 2000 0509 was isolated from the skin infection of a 26-year-old male in France. *S. aureus*, strain HT 2000 0509 is a clinically associated methicillin-sensitive *S. aureus* (MSSA) strain.

Lot[1]: 63622040 **Manufacturing Date: 15JUL2015**

TEST	SPECIFICATIONS	RESULTS - Colony Type 1	RESULTS - Colony Type 2
Phenotypic Analysis[2,3]			
Cellular morphology	Gram-positive cocci	Gram-positive cocci	Gram-positive cocci
Colony morphology[4]	Report results	Circular, flat, entire, smooth and cream (Figure 1)	Circular, flat, entire, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile	Non-motile
Hemolysis[4]	Report results	β-hemolytic	Non-hemolytic[5]
Biochemical Analysis[6]			
Catalase	Positive	Positive	
Coagulase[7]	Report results	Positive	
VITEK® 2 Compact (GP card)	Consistent with *S. aureus*	Consistent with *S. aureus*	
Antibiotic Susceptibility Profile[6]			
VITEK® (AST-GP71 card)[8]			
Beta-lactamase[9]	Report results	Positive	
Cefoxitin screen	Report results	Negative	
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)	
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)[10]	
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[11]			
Chloramphenicol[12]	Report results	Sensitive (= 3 µg/mL)	
Teicoplanin[12]	Sensitive	Sensitive (= 1 µg/mL)	
Genotypic Analysis[6]			
Sequencing of 16S ribosomal RNA gene (~ 1490 base pairs)	Consistent with *S. aureus*	Consistent with *S. aureus*	
Purity (post-freeze)[13]	Growth consistent with *S. aureus*	Growth consistent with *S. aureus*	
Viability (post-freeze)[4]	Growth	Growth	

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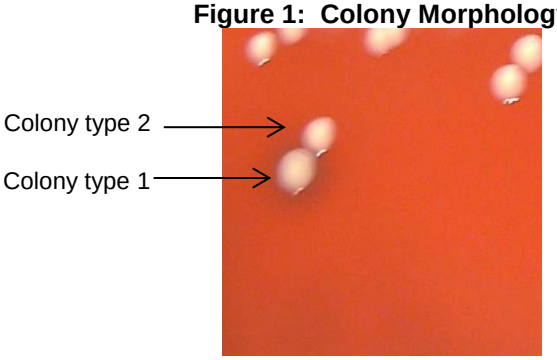
[1]*S. aureus*, strain HT 2000 0509 was deposited to BEI Resources as part of the NARSA collection. NR-45961 was produced by inoculation of the deposited material into Tryptic Soy broth, which was used to inoculate a Tryptic Soy agar with 5% defibrinated sheep blood slant and grown for 1 day at 37°C in an aerobic atmosphere. After a hold at room temperature for 6 days, colonies from agar growth were used to inoculate Tryptic Soy broth and grown for 1 day under propagation conditions. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 1 day under propagation conditions to produce this lot
[2]*S. aureus*, strain HT 2000 0509 was deposited as having two colony variants: a β-hemolytic variant and a non-hemolytic variant. The two colony variants are identical by pulsed-field gel electrophoresis (PFGE).
[3]Two colony types were observed. Plating of the individual colony types showed that they did not revert to the mixed colony type. The antibiogram for each colony types was determined using a VITEK® AST-GP71 card and found to be identical to the other colony type and with the depositor's antibiogram.
[4]1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
[5]Limited β-hemolysis may be observed
[6]Testing was performed using mixed colony suspension.
[7]4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
[8]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
[9]The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).
[10]MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
[11]1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
[12]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.
[13]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: 06 NOV 2015 **Signature:**

BEI Resources Authentication

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