

Certificate of Analysis for NR-46042

Staphylococcus aureus, Strain HT 20020341

Catalog No. NR-46042

Product Description: *Staphylococcus aureus* (*S. aureus*), strain HT 20020341 was isolated in 2002 from the bloodstream of a 5-year-old male with native valve endocarditis in France. *S. aureus*, strain HT 20020341 is a clinically associated methicillin-resistant *S. aureus* (MRSA) strain.

Lot¹: 63007602 Manufacturing Date: 22OCT2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphologies ^{2,3}	Report results	Colony Type 1: Circular, low convex,
garan, marphanagha		entire, smooth and cream (Figure 1)
		Colony Type 2: Circular, convex, entire,
		smooth and white (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ²	Report results	β-hemolytic
Biochemical Analysis		
Catalase	Positive	Positive
Coagulase⁴	Report results	Positive
VITEK [®] 2 Compact (GP card)	Consistent with S. aureus	Consistent with S. aureus
Antibiotic Susceptibility Profile		
VITEK® (AST-GP71card) ⁵		
Beta-lactamase ⁶	Report results	Positive
Cefoxitin screen	Report results	Positive
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)
Oxacillin	Resistant	Resistant (≥ 4 µg/mL)
Gentamicin	Report results	Sensitive (≤ 0.5 µg/mL) ⁷
Ciprofloxacin	Report results	Sensitive (≤ 0.5 µg/mL) ⁸
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 (= 1 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 Etest [®] antibiotic test strips ⁹	Sensitive	Sensitive (≤ 10 μg/mL)
Chloramphenicol ¹⁰	Report results	Sensitive (= 3 µg/mL)
Teicoplanin ¹⁰	Sensitive	Sensitive (= 3 µg/mL) Sensitive (= 1.5 µg/mL)
Genotypic Analysis	COHOMIVO	- 1.ο μα/πιε/
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1490 base pairs)	Consistent with S. aureus	Consistent with S. aureus
Purity (post-freeze) ¹¹	Growth consistent with S. aureus	Growth consistent with S. aureus
Viability (post-freeze) ²	Growth	Growth
Viability (post-lieeze)	GIOWIII	Ciowiii

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SUPPORTING INFECTIOUS DISEASE RESEARCH

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¹S. aureus, strain HT 20020341 was deposited to BEI Resources as part of the NARSA collection. NR-46042 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 29 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 22 hours at 37°C in an aerobic atmosphere to produce this lot.

²20 hours at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

³Two colony types were observed. Plating of the individual colony types showed that they reverted back to colony type one.

⁴4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁶The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

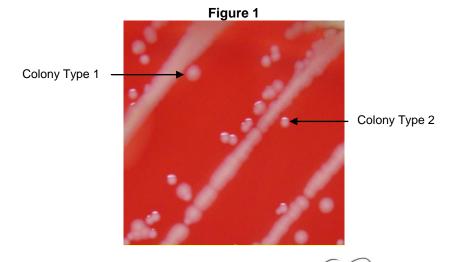
⁷S. *aureus*, strain HT 20020341 was deposited as being resistant to gentamicin. Antibiotic susceptibility testing performed in duplicate identified *S. aureus*, strain HT 20020341 as sensitive to gentamicin.

⁸S. aureus, strain HT 20020341 was deposited as being resistant to ciprofloxacin. Antibiotic susceptibility testing performed in duplicate identified S. aureus, strain HT 20020341 as sensitive to ciprofloxacin.

⁹24 hours at 37°C in an aerobic atmosphere on Mueller Hinton agar

¹⁰For 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.

¹¹Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere.



Date: 26 JAN 2015

Signature:

Title: Technical Manager, BEI Authentication or designee

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