SUPPORTING INFECTIOUS DISEASE RESEARCH

Staphylococcus aureus, Strain CO-34

Catalog No. NR-46191

Product Description: *Staphylococcus aureus* (*S. aureus*), strain CO-34 was isolated in June 2005 from the blood of a 45-year-old male in Colorado, USA. *S. aureus*, strain CO-34 is a methicillin-resistant *S. aureus* (MRSA) strain.

Lot¹: 62471633

Manufacturing Date: 03APR2014

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, low convex, entire, smooth
, , , , , , , , , , , , , , , , , , , ,		and gray (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ²	Report results	β-hemolytic
Biochemical characterization		
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-GP71 card) ⁴		
Beta-lactamase ⁵	Report results	Positive
Cefoxitin screen	Report results	Positive
Benzylpenicillin	Report results	Resistant ($\geq 0.5 \mu g/mL$)
Oxacillin	Resistant	Resistant ($\geq 4 \ \mu g/mL$)
Gentamicin	Sensitive	Sensitive ($\leq 0.5 \ \mu g/mL$)
Ciprofloxacin	Report results	Sensitive (≤ 0.5 µg/mL)
Levofloxacin	Sensitive	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	Sensitive	Sensitive (≤ 0.25 µg/mL)
Quinupristin/dalfopristin	Report results	Sensitive (≤ 0.25 µg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Sensitive	Sensitive (= $1 \mu g/mL$)
Vancomycin	Sensitive	Sensitive (= 1 μ g/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 [®] antibiotic test strips ⁶		
Chloramphenicol ⁷	Sensitive	Sensitive (= 3 µg/mL)
Teicoplanin ⁷	Report results	Sensitive (= 1.5 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1490 base pairs)		
Viability (post-freeze) ²	Growth	Growth

¹S. aureus, strain CO-34 was deposited to BEI Resources as part of the NARSA collection. NR-46191 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% defibrinated sheep blood kolles which were grown 23 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed

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Certificate of Analysis for NR-46191

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for 7 days under propagation conditions.

²21 hours at 37°C and aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood

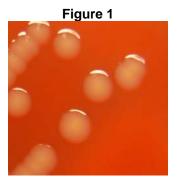
³4 hours at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)

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

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

⁶24 hours at 37°C and aerobic atmosphere on Mueller Hinton agar

⁷For 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.



Date: 10 JUN 2014

Signature:

Title:

Technical Manager, BEI Authentication or designee

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