

Certificate of Analysis for NR-45909

Staphylococcus aureus, Strain Becker

Catalog No. NR-45909

Product Description: Staphylococcus aureus (S. aureus), strain Becker was isolated in 1979 from a human blood culture in the United States and is a prototype strain for capsular polysaccharide type 8 production. Strain Becker is a methicillan-sensitive S. aureus (MSSA) strain which is reported to also display spontaneous rifampicin resistance.

Lot¹: 62471617 Manufacturing Date: 02APR2014

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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
VITEK® MS (MALDI-TOF)	Consistent with S. aureus	Consistent with <i>S. aureus</i>
VITER WIS (WINCEST TOT)	Consistent with C. dareas	Consistent with Cr dared
Antibiotic Susceptibility Profile		
VITEK® (AST-GP71 card)4		
Beta-lactamase ⁵	Report results	Positive
Cefoxitin screen	Report results	Negative
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)
Oxacillin	Sensitive	Sensitive (= 2 µg/mL)
Gentamicin	Sensitive	Sensitive (≤ 0.5 μg/mL)
Ciprofloxacin	Sensitive	Sensitive (≤ 0.5 µg/mL)
Levofloxacin	Report results	Sensitive (≤ 0.12 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 (= 1 µg/mL)
Daptomycin	Report results	Sensitive (= 0.5 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 (= 32 µg/mL)
Rifampicin	Report results	Resistant (≥ 32 µg/mL)
Trimethoprim/sulfamethoxazole	Sensitive	Sensitive (≤ 10 µg/mL)
Etest [®] antibiotic test strips ⁶		/
Chloramphenicol ⁷	Report results	Sensitive (= 2.0 µg/mL)
Teicoplanin ⁷	Sensitive	Sensitive (= 1.0 µg/mL)
	00.10.11.10	σοποιατό (= πο μg/πιε/
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1460 base pairs)		
Viability (post-freeze) ²	Growth	Growth
Tidolity (post-liceze)	STOWER	CIOWIII

BEI Resources www.beiresources.org E-mail: contact@beiresources.org

Tel: 800-359-7370 Fax: 703-365-2898



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¹S. aureus, strain Becker was deposited to BEI Resources as part of the NARSA collection. NR-45909 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 24 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 24 hours at 37°C in an aerobic atmosphere to produce this lot. Purity of this lot was assessed for 7 days under propagation conditions.

²21 hours at 37°C in an 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 in an 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.

Figure 1



Date: 08 JUL 2014

Signature:

Title: Technical Manager, BEI Authentication or designee

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BEI Resources www.beiresources.org E-mail: contact@beiresources.org
Tel: 800-359-7370

Fax: 703-365-2898