

Certificate of Analysis for NR-45988

Staphylococcus aureus, Strain A910371

Catalog No. NR-45988

Product Description: *Staphylococcus aureus* (*S. aureus*), strain A910371 was isolated in 1991 from intervertebral space of a 16-year-old male with suppurative arthritis in France. *S. aureus*, strain A910371 is a methicillin-sensitive *S. aureus* (MSSA) strain.

Lot¹: 2143 Manufacturing Date: 11NOV2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, convex, entire, smooth and
,p.	- Top out to out to	cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ³	Report results	β-hemolytic
Biochemical characterization	- Top out to out to	p
Catalase	Positive	Positive
Coagulase ⁴	Report results	Positive
VITEK® 2 Compact (GP card)	≥ 90% probability of being <i>S. aureus</i>	S. aureus (97% probability) ⁵
Antibiotic Susceptibility Profile		
VITEK® (AST-GP71 card) ⁶		
Beta-lactamase ⁷	Report results	Positive
Cefoxitin screen	Report results	Negative
Benzylpenicillin	Report results	Resistant (≥ 0.5 µg/mL)
Oxacillin	Sensitive	Sensitive (= 0.5 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 (≤ 0.72 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Report results	Sensitive (≤ 0.5 μg/mL) ⁸
Clindamycin	Sensitive	Sensitive (≤ 0.3 μg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (≤ 0.25 μg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Sensitive (= 2 µg/mL) Sensitive (= 0.5 µg/mL)
Vancomycin	Sensitive	Sensitive (= 0.5 µg/mL) Sensitive (= 1 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) ⁹
Nitrofurantoin	Report results	Sensitive (≤ 16 μg/mL)
Rifampicin	Report results	Sensitive (≤ 0.5 μg/mL)
Trimethoprim/sulfamethoxazole Etest® antibiotic test strips ¹⁰	Sensitive	Sensitive (≤ 10 μg/mL)
Chloramphenicol ¹¹	Papart regulto	Sanaitiva (- 2 ug/ml)
Teicoplanin ¹¹	Report results Sensitive	Sensitive (= 3 µg/mL) Sensitive (= 0.75 to 1 µg/mL)
·	Sensitive	Sensitive (= 0.75 to 1 µg/mL)
Genotypic Analysis	> 000/	1000/
Sequencing of 16S ribosomal RNA gene	≥ 99% sequence identity to	100% sequence identity to
(~ 1440 base pairs)	S. aureus type strain	S. aureus type strain
	(GenBank: L37597)	(GenBank: L37597)
Purity (post-freeze) ¹²	Consistent with expected colony	Consistent with expected colony
	morphology	morphology

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SUPPORTING INFECTIOUS DISEASE RESEARCH

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¹S. aureus, strain A910371 was deposited to BEI Resources as part of the NARSA collection. NR-45988 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 kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.

²1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar

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

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

⁵Percent probabilities above 90% indicate a close match to the typical biochemical pattern for the given organism, with a percent probability of 99% being a perfect match between the test reaction pattern and the unique biochemical pattern of the given organism or organism group. For additional information, please refer to O'Hara, C.M. and J. M. Miller. "Evaluation of the VITEK 2 ID-GNB Assay for Identification of Members of the Family Enterobacteriaceae and Other Nonenteric Gram-Negative Bacilli and Comparison with the VITEK GNI+ Card." J. Clin. Microbiol. 41 (2003): 2096-2101. PubMed: 12734254.

⁶Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)

⁷The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).

⁸S. aureus, strain A910371 was deposited as having an intermediate susceptibility to erythromycin. Antibiotic susceptibility testing performed in duplicate identified S. aureus, strain A910371 as being susceptible to erythromycin.

9MIC Interpretation Guideline: EUCAST Version 4.0 (2014)

101 day at 37°C in an aerobic atmosphere on Mueller Hinton agar

¹¹For 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.

¹²Purity of this lot was assessed for 7 days at 37°C in an aerobic atmosphere with 5% CO₂ on Tryptic Soy agar with 5% defibrinated sheep blood.





Date: 09 FEB 2017

Signature:

BEI Resources Authentication

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