SUPPORTING INFECTIOUS DISEASE RESEARCH

Staphylococcus aureus, Strain LIM 3

Catalog No. NR-45882

Product Description: *Staphylococcus aureus* (*S. aureus*), strain LIM 3 was isolated in 1995 from purulent discharge of a 2-year-old female patient with leukemia in France. *S. aureus*, strain LIM 3 is a methicillin-resistant *S. aureus* (MRSA) and a vancomycin-intermediate *S. aureus* (VISA) strain.

Lot¹: 63358422

Manufacturing Date: 21MAR2015

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology ²	Report results	Circular, low convex, entire, smooth
colony morphology		and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis ²	Report results	Non-hemolytic
Biochemical Characterization	Report results	Non hemolytic
Catalase	Positive	Positive
Coagulase ³	Report results	Positive
VITEK [®] 2 Compact (GP card)	Consistent with <i>S. aureus</i>	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 (≥ 0.5 µg/mL)
Oxacillin	Resistant	Resistant (≥ 4 µg/mL)
Gentamicin	Resistant	Resistant (≥ 16 µg/mL)
Ciprofloxacin	Resistant	Resistant (≥ 8 µg/mL)
Levofloxacin	Report results	Resistant (≥ 8 µg/mL)
Moxifloxacin	Report results	Resistant (= 4 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Report results	Resistant (≥ 8 µg/mL)
Clindamycin	Report results	Resistant (≥ 8 µg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (= 0.5 µg/mL)
Linezolid	Report results	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Susceptible (= 1 μ g/mL) ⁶
Vancomycin	Intermediate	Intermediate_(= 8 µg/mL)
Minocycline	Report results	Inconclusive ⁷
Tetracycline	Resistant	Resistant (≥ 16 µg/mL)
Tigecycline	Report results	Sensitive (≤ 0.12 µg/mL)
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Report results	Resistant $(\geq 32 \mu g/mL)$
Trimethoprim/sulfamethoxazole	Sensitive	Sensitive (≤ 10 µg/mL)
Etest [®] antibiotic test strips ⁸		
Chloramphenicol ⁹	Report results	Sensitive (= 3-4 µg/ml)
Teicoplanin ⁹	Intermediate	Sensitive (= 4 µg/ml) ¹⁰
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene	Consistent with S. aureus	Consistent with S. aureus
(~ 1500 base pairs)		
Purity (post-freeze) ¹¹	Growth consistent with S. aureus	Growth consistent with S. aureus
Viability (post-freeze) ²	Growth	Growth

BEI Resources www.beiresources.org E-mail: <u>contact@beiresources.org</u> Tel: 800-359-7370 Fax: 703-365-2898 **b**|**e**|**i** resources

Certificate of Analysis for NR-45882

SUPPORTING INFECTIOUS DISEASE RESEARCH

¹S. aureus, strain LIM 3 was deposited to BEI Resources as part of the NARSA collection. NR-45882 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 28 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 21 hours at 37°C in an aerobic atmosphere to produce this lot.
²19 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).

⁶S. aureus, strain LIM 3 was deposited as being non-susceptible to daptomycin. Antibiotic susceptibility testing performed in duplicate determined that strain LIM 3 is susceptible to daptomycin.

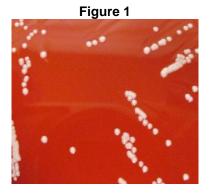
⁷Antibiotic susceptibility testing performed in duplicate was inconclusive and could not confirm if this strain is intermediate or sensitive to minocycline.

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

⁹For 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.

¹⁰S. aureus, strain LIM 3 was deposited as having an intermediate susceptibility to teicoplanin. Antibiotic susceptibility testing using bioMérieux Etest[®] antibiotic test strips and performed in duplicate determined that strain LIM 3 is sensitive to teicoplanin. For additional information on susceptibility testing of gylcopeptide intermediate *S. aureus* (GISA) strains, please refer to Walsh, T. R., et al. "Evaluation of Current Methods for Detection of Staphylococci with Reduced Susceptibility to Glycopeptides." J. Clin. Microbiol. 39 (2001): 2439-2444. PubMed: 11427551.

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: 28 MAY 2015

Signature:

BEI Resources Authentication

ATCC[®], on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC[®]'s knowledge.



ATCC[®] is a trademark of the American Type Culture Collection. You are authorized to use this product for research use only. It is not intended for human use.