b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-45891

Staphylococcus epidermidis, Strain W25756

Catalog No. NR-45891

Product Description: *Staphylococcus epidermidis* (*S. epidermidis*), strain W25756 was isolated in April 2001 from the bloodstream of a 73-year-old woman in Oregon, USA. Strain W25756 is a vancomycin-intermediate *S. epidermidis* (VISE) strain.

Lot[1]: 63822407 **Manufacturing Date: 21OCT2015**

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	Non-hemolytic
Biochemical characterization		
Catalase	Positive	Positive
Coagulase[3]	Report results	Negative
VITEK® 2 Compact (GP Card)	Consistent with *S. epidermidis*	Consistent with *S. epidermidis*
VITEK® MS (MALDI-TOF)	Consistent with *S. epidermidis*	Consistent with *S. epidermidis*
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	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	Resistant	Resistant (≥ 8 µg/mL)
Clindamycin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Quinupristin/dalfopristin	Sensitive	Sensitive (≤ 0.25 µg/mL)
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Report results	Susceptible (= 1 µg/mL)[6]
Minocycline	Report results	Sensitive (≤ 0.5 µg/mL)
Tetracycline	Report results	Resistant (≥ 16 µg/mL)
Tigecycline	Report results	Sensitive (≤ 0.12 µg/mL)[7]
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Report results	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	Sensitive (= 40 µg/mL)[8]
Etest® antibiotic test strips[9]		
Teicoplanin[10]	Intermediate	Intermediate (= 12 µg/mL)
Vancomycin[10]	Intermediate	Sensitive (= 4 µg/mL)[11]
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1440 base pairs)	Consistent with *S. epidermidis*	Consistent with *S. epidermidis*[12]
Purity (post freeze)[13]	Growth consistent with *S. epidermidis*	Growth consistent with *S. epidermidis*
Viability (post-freeze)[2]	Growth	Growth

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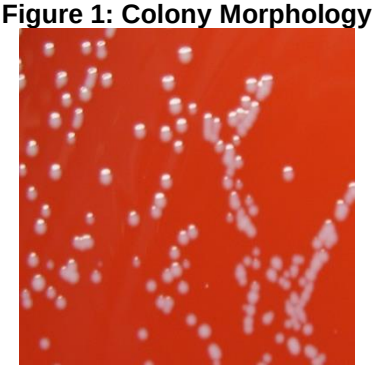
[1]*S. epidermidis*, strain W25756 was deposited to BEI Resources as part of the NARSA collection. NR-45891 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.
[2]1 day at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood
[3]1 day at 37°C in rabbit serum with 0.15% EDTA (Coagulase Plasma BBL™ 240827)
[4]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
[5]The production of beta-lactamase was detected using a Cefinase™ Paper Disc (BBL™ 231650).
[6]*S. epidermidis*, strain W25756 was deposited as being non-susceptible to daptomycin. Antibiotic susceptibility testing performed in duplicate determined that *S. epidermidis*, strain W25756 is susceptible to daptomycin.
[7]MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
[8]*S. epidermidis*, strain W25756 was deposited as being resistant to trimethoprim/sulfamethoxazole. Antibiotic susceptibility testing performed in duplicate determined that *S. epidermidis*, strain W25756 is susceptible to trimethoprim/sulfamethoxazole.
[9]2 days at 37°C in an aerobic atmosphere on Mueller Hinton agar
[10]For 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. For vancomycin (bioMérieux Etest® 412486), a MIC ≤ 4 µg/mL is sensitive, a MIC = 8-16 µg/mL is intermediate and a MIC ≥ 32 µg/mL is resistant.
[11]*S. epidermidis*, strain W25756 was deposited as having an intermediate susceptibility to vancomycin. Antibiotic susceptibility testing using bioMérieux Etest® antibiotic test strips and performed in duplicate determined that strain W25756 is sensitive to vancomycin. For additional information on susceptibility testing of gylcopeptide intermediate *S. epidermidis* (GISE) 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.
[12]Also consistent with other *Staphylococcus* species
[13]Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Date: 18 DEC 2015

Signature:

BEI Resources Authentication

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