Certificate of Analysis for NR-45922

Staphylococcus haemolyticus, Strain NRS116

Catalog No. NR-45922

Product Description: *Staphylococcus haemolyticus (S. haemolyticus)*, strain NRS116 was isolated in February 2002 from a 45-year-old male inpatient in California, USA. Strain NRS116 is a co-isolate with *S. haemolyticus*, strain NRS115 from the same patient. *S. haemolyticus*, strain NRS116 is reported to be a glycopeptide-intermediate *S. haemolyticus* strain.

Lot[1]: 70011779 **Manufacturing Date: 14FEB2018**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology[2]	Report results	Circular, convex, entire, smooth and cream (Figure 1)
Motility (wet mount)	Report results	Non-motile
Hemolysis[2]	Report results	Non-hemolytic
Biochemical characterization		
Catalase	Positive	Positive
Coagulase[3]	Negative	Negative
VITEK® 2 Compact (GP card)	*S. haemolyticus* (≥ 89%)	*S. haemolyticus* (99%)
Antibiotic Susceptibility Profile[4]		
VITEK® (AST-GP78 card)		
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 (= 4 µg/mL)
Ciprofloxacin	Resistant	Resistant (≥ 8 µg/mL)
Levofloxacin	Report results	Resistant (= 4 µg/mL)
Moxifloxacin	Report results	Intermediate (= 1 µg/mL)
Clindamycin (inducible resistance)	Report results	Negative
Erythromycin	Resistant	Resistant (≥ 8 µg/mL)
Clindamycin	Sensitive	Sensitive (= 0.25 µg/mL)
Ceftaroline	Report results	Sensitive (= 0.5 µg/mL)[6]
Linezolid	Sensitive	Sensitive (= 2 µg/mL)
Daptomycin	Susceptible	Susceptible (= 0.25 µg/mL)
Vancomycin	Report results	Sensitive (= 4 µg/mL)
Minocycline	Report results	Sensitive (= 1 µg/mL)
Tetracycline	Report results	Resistant (≥ 16 µg/mL)
Tigecycline	Report results	Resistant (= 1 µg/mL)[6]
Nitrofurantoin	Report results	Sensitive (≤ 16 µg/mL)
Rifampicin	Report results	Sensitive (≤ 0.5 µg/mL)
Trimethoprim/sulfamethoxazole	Resistant	Resistant (≥ 320 µg/mL)
Etest® antibiotic test strips[7]		
Teicoplanin	Intermediate	Sensitive (= 3 µg/mL)[8]
Quinupristin/dalfopristin	Report results	Sensitive (= 0.25 µg/mL)
Vancomycin	Sensitive	Sensitive (= 2 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 730 base pairs)	≥ 99% sequence identity to *S. haemolyticus,* type strain (GenBank: D83367.1)	100% sequence identity to *S. haemolyticus,* type strain (GenBank: D83367.1)[9]
Purity (post-freeze)[10]	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze)[2]	Growth	Growth

BEI Resources
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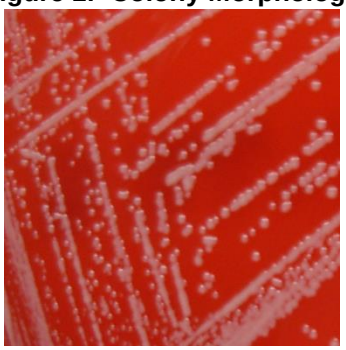
[1]*S. haemolyticus*, strain NRS116 was deposited to BEI Resources as part of the NARSA collection. NR-45922 was produced by inoculation of the deposited material into Tryptic Soy broth and grown 1 day at 37°C in an aerobic atmosphere. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated 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]MIC Interpretation Guideline: EUCAST Version 4.0 (2014)
[7]1 day at 37°C in an aerobic atmosphere on Mueller Hinton agar
[8]*S. haemolyticus*, strain NRS116 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 NRS116 is sensitive to teiocoplanin. For additional information, 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.
[9]Also consistent with other *Staphylococcus* species
[10]Purity of this lot was assessed for 8 days at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood.

Figure 1: Colony Morphology



Heather Couch
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Date: 2018.06.12 08:40:02 -04'00'
12 JUN 2018
Program Manager or designee, ATCC Federal Solutions

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.

Support Provided by NIAID

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