b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-19171

Streptococcus pneumoniae, Strain GA47522

Catalog No. NR-19171

Product Description: *Streptococcus pneumoniae* (*S. pneumoniae*), strain GA47522 was isolated in 2006 from the blood of a patient with bacteremia in Georgia, USA. *S. pneumoniae*, strain GA47522 was deposited as a member of serotype 15C.

Lot[1]: 62743349 **Manufacturing Date: 09JUL2014**

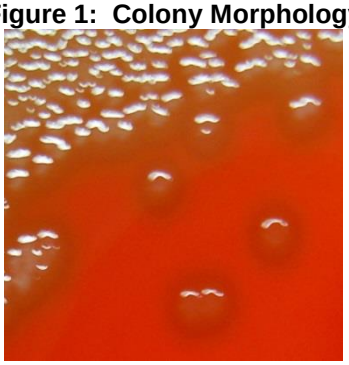
TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology[2]	Report results	Circular, umbilicate, entire, mucoid and gray (Figure 1)
Hemolysis on blood agar[2]	α-hemolytic	α-hemolytic
Motility (wet mount)	Report results	Non-motile
Catalase	Negative	Negative
VITEK® MS (MALDI-TOF)	Consistent with *S. pneumoniae*	Consistent with *S. pneumoniae*
Antibiotic Susceptibility Profile[3]		
Benzylpenicillin[4]	Report results	Inconclusive[5]
Ciprofloxacin[6]	Report results	Sensitive (1.0 µg/mL)
Levofloxacin[4]	Sensitive	Sensitive (≤ 0.5 µg/mL)
Gatifloxacin[6]	Report results	Sensitive (0.19 µg/mL)
Ofloxacin[4]	Report results	Sensitive (2 µg/mL)
Erythromycin[4]	Resistant	Resistant (≥ 1 µg/mL)
Telithromycin[4]	Sensitive	Resistant (≥ 4 µg/mL)[7]
Clindamycin[6]	Sensitive	Sensitive (0.19 µg/mL)
Quinupristin/dalfopristin[6]	Sensitive	Sensitive (0.38 µg/mL)
Linezolid[4]	Sensitive	Sensitive (≤ 2 µg/mL)
Vancomycin[4]	Sensitive	Sensitive (≤ 1 µg/mL)
Tetracycline[4]	Resistant	Sensitive (≤ 1 µg /mL)[8]
Rifampicin[6]	Report results	Sensitive (0.64 µg/mL)
Trimethoprim/sulfamethoxazole[4]	Intermediate	Intermediate (≤ 10 µg/mL)
Amoxicillin[4]	Sensitive	Sensitive (≤ 0.06 µg/mL)
Meropenem[4]	Sensitive	Sensitive (≤ 0.06 µg/mL)
Cefotaxime[4]	Sensitive	Sensitive (≤ 0.06 µg/mL)
Cefuroxine[6]	Sensitive	Sensitive (0.032 µg/mL)
Cefaclor[6]	Report results	Sensitive (0.75 µg/mL)
Ceftriaxone[4]	Sensitive	Sensitive (≤ 0.06 µg/mL)
Chloramphenicol[4]	Sensitive	Sensitive (≤ 2 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1470 base pairs)	Consistent with *S. pneumoniae*	Consistent with *S. pneumoniae*[9]
Riboprinter® Microbial Characterization System	Consistent with *S. pneumoniae*	Consistent with *S. pneumoniae*
Purity (post-freeze)[10]	Consistent with *S. pneumoniae*	Consistent with *S. pneumoniae*
Viability (post-freeze)[2]	Growth	Growth

[1]*S. pneumoniae*, strain GA47522 (also referred to as SPAR99) was deposited by Scott T. Chancey, Ph.D., Division of Infectious Diseases, Department of Medicine, Emory University, Atlanta, Georgia, USA. NR-19171 was produced by inoculation of the deposited material into Todd-Hewitt broth and incubated for 26 hours at 37°C in an aerobic atmosphere with 5% CO_2. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles which were grown 23 hours at 37°C in an aerobic atmosphere with 5% CO_2 to produce this lot.

BEI Resources
www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

[2]23 hours at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood
[3]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
[4]Tested by VITEK® AST-GP74 card (VITEK® 2, version 5.04)
[5]Results from multiple antibiotic susceptibility tests, completed on this lot of NR-19171, produced benzylpenicillin MICs between 4 µg/mL and 8 µg/mL, which indicates both resistant and intermediate benzylpenicillin susceptibilities.
[6]Tested by bioMérieux E-test®: cefuroxime (catalog number 506958), ciprofloxacin (412310), clindamycin (412314), cefaclor (504550), gatifloxacin (530250), rifampicin (412449) and quinupristin/dalfopristin (528750)
[7]*S. pneumoniae*, strain GA47522 was deposited as being sensitive to telithromycin. Antibiotic susceptibility testing performed on this lot of NR-19171, in triplicate, determined that the telithromycin MIC is ≥ 4 µg/mL, which indicates resistant susceptibility.
[8]*S. pneumoniae*, strain GA47522 was deposited as being resistant to tetracycline. Antibiotic susceptibility testing performed on this lot of NR-19171, in triplicate, determined that the tetracycline MIC is ≤ 1 µg/mL, which indicates sensitive susceptibility.
[9]100% identical to *S. pneumoniae*, strain GA47522 (GenBank: AILA01000001.1)
[10]Purity of this lot was assessed for 7 days on Tryptic Soy agar with 5% defibrinated sheep blood at 37°C in an aerobic atmosphere with 5% CO_2.

Figure 1: Colony Morphology



Date: 29 JAN 2016 **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.

Support Provided by NIAID

BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898