Certificate of Analysis for NR-51853

Streptococcus pneumoniae, Strain SPEC6B

Catalog No. NR-51853

Product Description:

The antibiotic-resistant variant *Streptococcus pneumoniae (S. pneumoniae),* SPEC6B was derived from human wild-type *S. pneumoniae*, strain BG25-9 by natural selection using increasing concentrations of spectinomycin. NR-51853 was produced by the inoculation of BEI Resources seed lot 20090128 into Todd-Hewitt broth containing 0.5% (w/v) yeast extract, which was grown for 1 day at 37°C in an aerobic atmosphere with 5% CO_2. Broth inoculum was added to Todd-Hewitt agar containing 0.5% (w/v) yeast extract kolles, which were grown for 1 day at 37°C in an aerobic atmosphere with 5% CO_2 to produce this lot.

Lot: 70037499 **Manufacturing Date: 16JUL2020**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology 1 day at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood	Gram-positive cocci	Gram-positive cocci
Colony morphology 1 day at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood	Report results	Circular, low convex, entire, smooth and gray (Figure 1)
Hemolysis	α-hemolytic	α-hemolytic
Motility (wet mount)	Report results	Non-motile
Biochemical characterization		
Catalase	Report results	Negative
VITEK® 2 GP card	*S. pneumoniae* (≥ 89%)	*S. pneumoniae* (90%)
Antibiotic Susceptibility Profile[1]		
BD BBL™ Sensi-Disc™ susceptibility test disc 1 day at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% sheep blood		
Spectinomycin (100 µg; SPT100, BBL™ 231637)	Report results	≤ 6 mm[2]
VITEK® (AST-GP74 card)		
Benzylpenicillin	Report results	Sensitive (≤ 0.06 µg/mL)
Amoxicillin	Report results	Sensitive (≤ 0.06 µg/mL)
Cefotaxime	Report results	Sensitive (≤ 0.06 µg/mL)
Ceftriaxone	Report results	Sensitive (≤ 0.06 µg/mL)
Ertapenem	Report results	Sensitive (≤ 0.5 µg/mL)
Meropenem	Report results	Sensitive (≤ 0.06 µg/mL)
Levofloxacin	Report results	Sensitive (≤ 0.05 µg/mL)
Moxifloxacin	Report results	Sensitive (≤ 0.25 µg/mL)
Ofloxacin	Report results	Sensitive (2 µg/mL)
Erythromycin	Report results	Sensitive (≤ 0.25 µg/mL)
Telithromycin	Report results	Sensitive (≤ 0.25 µg/mL)
Linezolid	Report results	Sensitive (≤ 2 µg/mL)
Vancomycin	Report results	Sensitive (≤ 1 µg/mL)
Tetracycline	Report results	Sensitive (≤ 1 µg/mL)
Chloramphenicol	Report results	Sensitive (≤ 2 µg/mL)
Trimethoprim/sulfamethoxazole	Report results	Sensitive (≤ 10 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)	99.8% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)[3]

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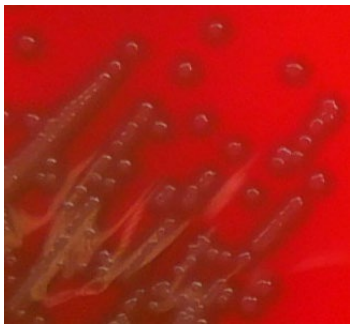
Certificate of Analysis for NR-51853

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) 7 days at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze) 1 day at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood	Growth	Growth

[1]Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S22 (2012)
[2]No Clinical & Laboratory Standards Institute (CLSI) interpretations of this antibiotic for *S. pneumoniae* are currently available.
[3]Also consistent with other *Streptococcus* species

Figure 1: Colony Morphology



/Heather Couch/
Heather Couch 04 MAR 2021
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 by ATCC® 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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