

Streptococcus pneumoniae, Strain GA17545

Catalog No. NR-19220

Product Description:

Streptococcus pneumoniae (*S. pneumoniae*), strain GA17545 was isolated in 2000 from the cerebral spinal fluid of a patient with meningitis in Georgia, USA. Strain GA17545 was deposited to BEI Resources as sensitive to amoxicillin, chloramphenicol, clindamycin, gatifloxacin, levofloxacin, cefotaxime, tetracycline and vancomycin, intermediately resistant to meropenem and resistant to cefuroxime, erythromycin, penicillin and trimethoprim/sulfamethoxazole. NR-19220 was produced by inoculation of BEI Resources seed lot 62743354 into Todd-Hewitt broth and grown for 1 day at 37°C in an aerobic atmosphere with 5% CO₂. Broth inoculum was added to Tryptic Soy agar with 5% defibrinated sheep blood kolles, which were grown for 1 day at 37°C in an aerobic atmosphere with 5% CO₂ to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70060193

Manufacturing Date: 19MAY2023

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TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology Colony morphology 1 day at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood Hemolysis Motility (wet mount) Catalase VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results Report results Report results Negative <i>S. pneumoniae</i>	Gram-positive cocci Circular, low convex, entire, smooth and gray (Figure 1) α-hemolytic Non-motile Negative <i>S. pneumoniae</i> (99.9%)
Antibiotic Susceptibility Profile¹ Etest® antibiotic test strips 1 day at 37°C in an aerobic atmosphere with 5% CO ₂ on Mueller Hinton agar Cefaclor Cefuroxime Ciprofloxacin Clindamycin Gatifloxacin Quinupristin/dalfopristin Rifampin VITEK® (AST-GP74 card) Amoxicillin Benzylpenicillin Cefotaxime Ceftriaxone Chloramphenicol Ertapenem Erythromycin Levofloxacin Linezolid Meropenem Moxifloxacin	Resistant Resistant Report results Sensitive Sensitive Sensitive Sensitive Intermediate Resistant Resistant Resistant Sensitive Sensitive Resistant Sensitive Sensitive Intermediate Sensitive	Resistant (24 to 32 µg/mL) Resistant (8 to 12 µg/mL) 0.38 µg/mL ² Sensitive (0.19 µg/mL) Sensitive (0.19 µg/mL) ³ Sensitive (0.5 µg/mL) Sensitive (0.023 to 0.032 µg/mL) Resistant (≥ 8 µg/mL) ^{4,5} Intermediate (4 µg/mL) ⁵ Resistant (≥ 4 µg/mL) ⁶ Resistant (≥ 4 µg/mL) Sensitive (≤ 2 µg/mL) Sensitive (1 µg/mL) Resistant (≥ 1 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 2 µg/mL) Resistant (1 µg/mL) ⁵ Sensitive (≤ 0.25 µg/mL)

Certificate of Analysis for NR-19220

TEST	SPECIFICATIONS	RESULTS
Ofloxacin Telithromycin Tetracycline Trimethoprim/sulfamethoxazole Vancomycin	Sensitive Resistant Sensitive Resistant Sensitive	Sensitive ($\leq 1 \mu\text{g/mL}$) Sensitive ($0.5 \mu\text{g/mL}$)⁷ Sensitive ($\leq 1 \mu\text{g/mL}$) Resistant ($160 \mu\text{g/mL}$) Sensitive ($\leq 1 \mu\text{g/mL}$)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1460 base pairs)	$\geq 99\%$ sequence identity to <i>S. pneumoniae</i> , strain GA17545 (GenBank: AFGA01000010.1)	100% sequence identity to <i>S. pneumoniae</i> , strain GA17545 (GenBank: AFGA01000010.1)
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

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: Clinical & Laboratory Standards Institute (CLSI) M100-S28 (2018)

²CLSI interpretations of this antibiotic for *S. aureus* are currently available.

³Testing was performed on BEI Resources seed lot 62743354.

⁴*S. pneumoniae*, strain GA17545 was deposited as sensitive to amoxicillin, but showed a MIC of 4 $\mu\text{g/mL}$ (interpreted as intermediately resistant) for lot 62743353 during QC testing

⁵The susceptibility result for this antibiotic is within one doubling dilution of specification, which is considered an equivalent result.

⁶*S. pneumoniae*, strain GA17545 was deposited as sensitive to cefotaxime, but showed a MIC was $\geq 4 \mu\text{g/mL}$ (interpreted as resistant) for lot 62743353 during QC testing.

⁷*S. pneumoniae*, strain GA17545 showed a MIC of $\geq 4 \mu\text{g/mL}$ (interpreted as resistant) for telithromycin for lot 62743353 during QC testing.

Figure 1: Colony Morphology



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