

Streptococcus pneumoniae, Strain OREP18C

Catalog No. NR-51856

Product Description:

The antibiotic-resistant variant *Streptococcus pneumoniae* (*S. pneumoniae*), strain OREP18C was derived from human wild-type *S. pneumoniae*, strain GP116 by natural selection using increasing concentrations of optochin. NR-51856 was produced by inoculation of BEI Resources seed lot 70037502 into Todd-Hewitt broth containing 0.5% (w/v) yeast extract and grown 1 day at 37°C in an aerobic atmosphere with 5% CO₂. Broth inoculum was added to Todd-Hewitt agar containing 0.5% (w/v) yeast extract kolles, which were grown 1 day at 37°C in an aerobic atmosphere to produce this lot.

Lot: 70077573

Manufacturing Date: 14AUG2025

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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 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) Biochemical characterization Catalase VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results α-hemolytic Non-motile Negative <i>S. pneumoniae</i>	Gram-positive cocci Circular, flat, entire and translucent (Figure 1) α-hemolytic Non-motile Negative <i>S. pneumoniae</i> (99.9%)
Antibiotic Susceptibility Profile^{1,2,3} Thermo Scientific™ Oxoid Optochin Disc 1 day at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated sheep blood Optochin (Thermo Scientific™ DD0001T) Amoxicillin Benzylpenicillin Cefotaxime Ceftriaxone Chloramphenicol Clindamycin Ertapenem Erythromycin Ofloxacin Levofloxacin Linezolid Meropenem Moxifloxacin Tetracycline Tigecycline Trimethoprim/sulfamethoxazole Vancomycin	Report results Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Report results Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive Sensitive	Resistant (≤ 6 mm) Sensitive (≤ 0.016 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (4 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.012 µg/mL) Sensitive (≤ 0.12 µg/mL) Sensitive (1 µg/mL) Sensitive (0.5 µg/mL) Sensitive (≤ 2 µg/mL) Sensitive (0.006 µg/mL) Sensitive (0.12 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 10 µg/mL) Sensitive (≤ 0.12 µg/mL)

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TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to <i>S. pneumoniae</i> , strain OREP18C (GenBank: JAXIJP010000034.1)	100% sequence identity to <i>S. pneumoniae</i> , strain OREP18C (GenBank: JAXIJP010000034.1) ⁴
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 in Todd-Hewitt broth containing 0.5% (w/v) yeast extract	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC Interpretation Guideline: CLSI M100-S28 (2018)

²Antibiotic susceptibility was tested using a combination of bioMérieux VITEK®2 ST02, zone of Inhibition and ETEST®

³Zone of Inhibition; Interpretation Guideline: Burton, R. L. and M. H. Nahm. "Development of a Fourfold Multiplexed Opsonophagocytosis Assay for Pneumococcal Antibodies against Additional Serotypes and Discovery of Serological Subtypes in *Streptococcus pneumoniae* Serotype 20." *Clin. Vaccine Immunol.* 19 (2012): 835-841. PubMed: 22518015.

⁴Also consistent with other *Streptococcus* species.

Figure 1: Colony Morphology



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