

***Streptococcus pneumoniae*, Strain EMC9V**

Catalog No. NR-51855

Product Description:

The antibiotic-resistant variant *Streptococcus pneumoniae* (*S. pneumoniae*), strain EMC9V was derived from human wild type *S. pneumoniae*, strain 1081748 (isolated from the nasopharynx) by natural selection using increasing concentrations of streptomycin. NR-51855 lot 70029623 was produced by the inoculation of seed material into Todd-Hewitt broth containing 0.5% (w/v) yeast extract and an aliquot was inoculated into Tryptic Soy broth, which was incubated 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.

Lot: 70029623

Manufacturing Date: 30MAY2019

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Colony morphology 1 day on Tryptic Soy agar with 5% defibrinated sheep blood Cellular morphology Hemolysis Motility (wet mount) Biochemical Characterization Catalase VITEK® 2 Compact GP card	Report results Gram-positive cocci α-hemolytic Report results Report results <i>S. pneumoniae</i> (≥ 89%)	Circular, low convex, entire, smooth and gray (Figure 1) Gram-positive cocci α-hemolytic Non-motile Negative <i>S. pneumoniae</i> (97%)
Antibiotic Susceptibility Profile¹ Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere with 5% CO ₂ on Mueller Hinton agar with 5% sheep blood Spectinomycin Streptomycin VITEK® (AST-GP74 card) Benzylpenicillin Amoxicillin Cefotaxime Ceftriaxone Ertapenem Meropenem Levofloxacin Moxifloxacin Ofloxacin Erythromycin Telithromycin Linezolid Vancomycin Tetracycline Chloramphenicol Trimethoprim/sulfamethoxazole	Report results Resistant Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results	32 µg/mL Resistant (> 1024 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (≤ 0.5 µg/mL) Sensitive (≤ 0.06 µg/mL) Sensitive (1 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (2 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 0.25 µg/mL) Sensitive (≤ 2 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 1 µg/mL) Sensitive (≤ 2 µg/mL) Sensitive (≤ 10 µg/mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1440 base pairs)	≥ 99% sequence identity to <i>S. pneumoniae</i> type strain (GenBank: NR_028665.1)	99.7% sequence identity to <i>S. pneumoniae</i> type strain (GenBank: NR_028665.1) ²

TEST	SPECIFICATIONS	RESULTS
Purity (post-freeze) 9 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: CLSI M100-S22 (2012)

²Also consistent with other *Streptococcus* species

Figure 1: Colony Morphology



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