

Streptococcus pneumoniae, Strain SPEC1

Catalog No. NR-51849

Product Description:

The antibiotic-resistant variant *Streptococcus pneumoniae* (*S. pneumoniae*), strain SPEC1 was derived from human wild-type *S. pneumoniae*, strain L82006 by natural selection using increasing concentrations of spectinomycin. NR-51849 lot 70081129 was produced by the inoculation of BEI Resources seed lot 70029620 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% 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.

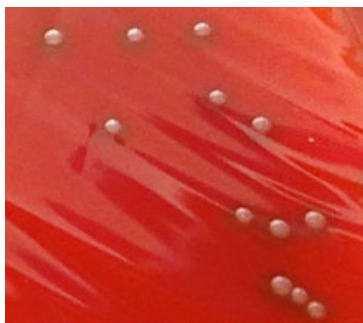
Lot: 70081129

Manufacturing Date: 04FEB2026

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis Cellular morphology 1 day at 37°C in an aerobic atmosphere with 5% CO ₂ on Todd-Hewitt agar containing 0.5% (w/v) yeast extract Colony morphology 1 day at 37°C in an aerobic atmosphere with 5% CO ₂ on Todd-Hewitt agar containing 0.5% (w/v) yeast extract 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, 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 35°C in an aerobic atmosphere with 5% CO ₂ on Mueller Hinton agar with 5% defibrinated sheep blood Spectinomycin	Resistant	Resistant (> 1024 µg per mL)
Genotypic Analysis Sequencing of 16S ribosomal RNA gene (~ 1460 base pairs)	≥ 99% sequence identity to <i>S. pneumoniae</i> strain SPC1 (GenBank: JAXIJK010000042.1)	99.8% sequence identity to <i>S. pneumoniae</i> strain SPEC1 (GenBank: JAXIJK010000042.1)
Purity (post-freeze) 8 days at 37°C in an aerobic atmosphere with 5% CO ₂ on Tryptic Soy agar with 5% defibrinated	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 Todd-Hewitt agar containing 0.5% (w/v) yeast extract	Growth	Growth

¹Minimum Inhibitory Concentration (MIC); MIC 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.

Figure 1: Colony Morphology



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