

***Streptococcus pneumoniae*, Strain SPEC20B**

**Catalog No. NR-59137**

**Product Description:**

*Streptococcus pneumoniae* (*S. pneumoniae*), strain SPEC20B was derived from human wild-type *S. pneumoniae*, strain DS3014-06 (serotype 20B) by natural selection using increasing concentrations of spectinomycin. NR-59137 was produced by the inoculation of the deposited material into Todd-Hewitt broth containing 0.5% (w/v) yeast extract and grown for 1 day at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub>. 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<sub>2</sub> to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

**Lot: 70058473**

**Manufacturing Date: 24FEB2023**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis</b> Cellular morphology Colony morphology  Motility (wet mount) Hemolysis Catalase VITEK® MS (MALDI-TOF)	Gram-positive cocci Report results  Report results α-hemolytic Report results <i>S. pneumoniae</i>	Gram-positive cocci Circular, low convex, entire, translucent and gray Non-motile α-hemolytic Negative <i>S. pneumoniae</i> (99.9%)
<b>Antibiotic Susceptibility Profile<sup>1</sup></b> Etest® antibiotic test strips 1 day at 35°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Mueller Hinton agar with 5% defibrinated sheep blood Spectinomycin	Report results	Resistant (1024 µg/mL)
<b>Genotypic Analysis</b> Sequencing of 16S ribosomal RNA gene (~1480 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)
<b>Purity (post-freeze)</b> 7 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Tryptic Soy agar with 5% defibrinated sheep blood	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
<b>Viability (post-freeze)</b>	Growth	Growth

<sup>1</sup>Minimum 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.

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