b|e|i RESOURCES

SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-59132

Streptococcus pneumoniae, Strain SPEC9N

Catalog No. NR-59132

Product Description:

Streptococcus pneumoniae (S. pneumoniae), strain SPEC9N was derived from human wild-type *S. pneumoniae,* strain DS1398-00 (serotype 9N) by natural selection using increasing concentrations of spectinomycin. NR-59132 was produced by 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_2. 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% CO_2 to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70058465 **Manufacturing Date: 24FEB2023**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology	Report results	Circular, low convex, entire, translucent and smooth
Hemolysis	α-hemolytic	α-hemolytic
Motility (wet mount)	Report results	Non-motile
Biochemical characterization		
Catalase	Report results	Negative
VITEK® MS (MALDI-TOF)	*S. pneumoniae*	*S. pneumoniae* (99.9%)
Antibiotic Susceptibility Profile[1]		
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 (bioMérieux 231637)	Report results	Resistant (1024 µg/mL)
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1460 base pairs)	≥ 99% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)	99.8% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)
Purity (post-freeze)	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
7 days at 37°C in an aerobic atmosphere with 5% CO_2 on Tryptic Soy agar with 5% defibrinated sheep blood		
Viability (post-freeze)	Growth	Growth

[1]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.

/Sonia Bjorum Brower/
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Technical Manager or designee, ATCC Federal Solutions

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