Certificate of Analysis for NR-51854

Streptococcus pneumoniae, Strain OREP7F

Catalog No. NR-51854

Product Description:

Streptococcus pneumoniae (S. pneumoniae), strain OREP7F was derived from human wild-type *S. pneumoniae*, strain DS2617-97 (serotype 7F) by natural selection using increasing concentrations of optochin. NR-51854 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_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 to produce this lot. Quality control testing was completed under propagation conditions unless otherwise noted.

Lot: 70052225 **Manufacturing Date: 28APR2022**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis		
Cellular morphology	Gram-positive cocci	Gram-positive cocci
Colony morphology	Report results	Circular, flat, entire, smooth and gray (Figure 1)
Hemolysis	α-hemolytic	α-hemolytic
Motility (wet mount)	Report results	Non-motile
Biochemical characterization		
Catalase	Report results	Negative
VITEK® MS (MALDI-TOF)	*S. pneumoniae* (≥ 89%)	*S. pneumoniae* (99.9%)
Antibiotic Susceptibility Profile[1]		
Thermo Scientific™ Susceptibility Testing Disc 1 day at 35°C in an aerobic atmosphere with 5% CO_2 on Mueller Hinton agar with 5% defibrinated sheep blood		
Optochin (Thermo Scientific™ DD0001T)	Report results	0 mm
Genotypic Analysis		
Sequencing of 16S ribosomal RNA gene (~ 1480 base pairs)	≥ 99% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)	99.7% sequence identity to *S. pneumoniae* type strain (GenBank: NR_028665.1)
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)	Growth	Growth

[1]Zone of Inhibition; Interpretation Guideline: Burton, R. L. and M. H. Nahm. "Development and Validation of a Fourfold Multiplexed Opsonization Assay (MOPA4) for Pneumococcal Antibodies." Clin. Vaccine Immunol. 13 (2006): 1004-1009. PubMed: 16960111.

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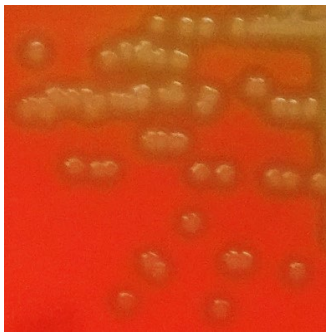
Figure 1: Colony Morphology



/Sonia Bjorum Brower/
Sonia Bjorum Brower 10 OCT 2022
Technical Manager or designee, ATCC Federal Solutions

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