Certificate of Analysis for NR-49256

Mycobacterium caprae, Strain NLA000201913

Catalog No. NR-49256

Product Description: *Mycobacterium caprae* (*M. caprae*), strain NLA000201913 was isolated in October 2002 from human sputum.

Lot[1]: 63954362 **Manufacturing Date: 18MAR2016**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis[2,3]		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology[4]	Report results	Irregular, slight peaked, undulate, rough and cream
Growth rate	≥ 7 days	22 days
Growth at 26°C	Report results	Negative
Growth at 37°C	Positive	Positive
Acid-fast stain	Positive (red colonies)	Positive (red colonies)
Pigmentation in the dark (Scotochromogen)	Negative (no pigment)	Negative (no pigment)
Photoinduction for 1 hour (Photochromogen)	Negative (no pigment)	Negative (no pigment)
Nonchromogen (no pigment)	Positive (no pigment)	Positive (no pigment)
Biochemical tests		
Niacin production[5]	Negative	Negative
Nitrate reduction	Negative	Positive[6]
Pyrazinamidase	Positive	Positive
Genotypic Analysis		
Sequencing of Heat Shock Protein 65 gene (~ 370 base pairs)	≥ 99% sequence identity to *M. caprae* type strain (GenBank: AF547884.1)	100% sequence identity to *M. caprae* type strain (GenBank: AF547884.1)[7]
Purity (post-freeze)		
Middlebrook 7H10 agar with OADC enrichment[8]	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Tryptic Soy agar[8]	Report results	No growth
Viability (post-freeze)[4]	Growth	Growth

[1]NR-49256 was produced by inoculation of the deposited material into Middlebrook 7H9 broth with ADC enrichment. Broth inoculum was added to Middlebrook 7H10 agar with OADC enrichment kolles, which were grown for 37 days at 37°C in an aerobic atmosphere with 5% CO_2 to produce this lot.

[2]Information on Mycobacterium testing is available from Ribón, W. "Biochemical Isolation and Identification of Mycobacteria." Biochemical Testing. (2012) Jose C. Jimenez-Lopez (Ed.), InTech, http://www.intechopen.com/books/biochemical-testing/biochemical-isolation-and-identification-of-mycobacteria and Lévy-Frébault, V. V. and F. Portaels. "Proposed Minimal Standards for the Genus *Mycobacterium* and for Description of New Slowly Growing *Mycobacterium* Species." Int. J. Syst. Bacteriol. 42 (1992): 315-323. PubMed: 1581193.

[3]Phenotypic characterization of *M. caprae* was performed following: Aranaz, A., et al. "*Mycobacterium tuberculosis* subsp. *caprae* subsp. nov.: A Taxonomic Study of a New Member of the *Mycobacterium tuberculosis* Complex Isolated from Goats in Spain." Int. J. Syst. Bacteriol. 49 (1999): 1263-1273. PubMed: 10425790.

[4]22 days at 37°C in an aerobic atmosphere with 5% CO_2 on Middlebrook 7H10 agar with OADC enrichment

[5]All mycobacteria produce niacin but only *M. tuberculosis* accumulates it, resulting in a positive test for *M. tuberculosis*.

[6]NR-49246 was deposited as *M. caprae* and is reported to be negative for nitrate reduction. Testing performed in triplicate by BEI Resources indicates a positive result.

[7]Also consistent with *M. africanum*, *M. bovis*, *M. canettii*, *M. microti* and *M. tuberculosis*

[8]Purity of this lot was assessed for 80 days at 37°C in an aerobic atmosphere with 5% CO_2.

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Certificate of Analysis for NR-49256

Date: 16 AUG 2017 **Signature:** 

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

Support Provided by NIAID

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