b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

Certificate of Analysis for NR-49248

Mycobacterium canettii, Strain NLA000017120

Catalog No. NR-49248

Product Description: *Mycobacterium canettii (M. canettii)*, strain NLA000017120 was isolated in May 1993 from a human in the Netherlands.

Lot[1]: 63847993 **Manufacturing Date: 02DEC2015**

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis[2]		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology[3]	Report results	Irregular, slight peaked, undulate, rough and cream
Growth rate	≥ 7 days	21 days
Growth at 26°C	Negative	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[4]	Report results	Positive[5]
Nitrate reduction	Positive	Positive
Pyrazinamidase	Positive	Positive
Genotypic Analysis		
Sequencing of Heat Shock Protein 65 gene (~ 370 base pairs)	≥ 99% sequence identity to *M. canetti*, strain CIPT 140060007 (GenBank: AJ749924.1)	100% sequence identity to *M. canetti*, strain CIPT 140060007 (GenBank: AJ749924.1)[6]
Purity (post-freeze)[7,8]	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)[3]	Growth	Growth

[1]NR-49248 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 23 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]21 days at 37°C in an aerobic atmosphere with 5% CO_2 on Middlebrook 7H10 agar with OADC enrichment

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

[5]The niacin specification was established following Vincent, V., et al. "*Mycobacterium*: Phenotypic and Genotypic Identification." In: Murray, P. R., et al. (Eds.), Manual of Clinical Microbiology (8th ed.) Washington, D.C.: ASM Press, pp. 560-584, when *M. canettii* was classified as a subspecies of *M. tuberculosis*. *M. canettii* has since been effectively published, though not validly published, as its own species within the *M. tuberculosis* complex and a niacin production specification has not yet been determined since both positive and negative results have been reported in the literature.

[6]Also consistent with *M. africanum*, *M. bovis, M. caprae, M. microti* and *M. tuberculosis*

[7]Purity of this lot was assessed on Middlebrook 7H10 agar with OADC enrichment for 29 days at 37°C in an aerobic atmosphere with 5% CO_2.

[8]Middlebrook 7H10 agar with OADC enrichment contains malachite green, which may inhibit growth of contaminating microorganisms.

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Certificate of Analysis for NR-49248

Heather Couch

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04 APR 2018

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