

***Mycobacterium canettii*, Strain NLA000701671**
Catalog No. NR-49260
Product Description: *Mycobacterium canettii* (*M. canettii*), strain NLA000701671 was isolated in October 2007 from human sputum in the Netherlands.

Lot¹: 63954380
Manufacturing Date: 18MAR2016

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis² Cellular morphology Colony morphology ³ Growth rate Growth at 26°C Growth at 37°C Acid-fast stain Pigmentation in the dark (Scotochromogen) Photoinduction for 1 hour (Photochromogen) Nonchromogen (no pigment) Biochemical tests Niacin production ⁴ Nitrate reduction Pyrazinamidase	Gram-positive rods Report results ≥ 7 days Negative Positive Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment) Report results Positive Positive	Gram-positive rods Circular, slight peaked, undulate, smooth and cream 22 days Negative Positive Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment) Positive ^{4,5} Positive Positive
Genotypic Analysis Sequencing of Heat Shock Protein 65 gene (~ 430 base pairs)	≥ 99% sequence identity to <i>M. canettii</i> strain CIPT 140060007 (GenBank: AJ749924.1)	100% sequence identity to <i>M. canettii</i> strain CIPT 140060007 (GenBank: AJ749924.1) ⁶
Purity (post-freeze) Middlebrook 7H10 agar with OADC enrichment ⁷ Tryptic Soy agar ⁸	Growth consistent with expected colony morphology Report results	Growth consistent with expected colony morphology Growth consistent with expected colony morphology
Viability (post-freeze)³	Growth	Growth

¹NR-49260 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% CO₂ to produce this lot.

²Information 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.

³22 days at 37°C in an aerobic atmosphere with 5% CO₂ on Middlebrook 7H10 agar with OADC enrichment

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

⁵The 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.

⁶Also consistent with *M. africanum*, *M. bovis*, *M. canettii*, *M. caprae* and *M. microti*
⁷Purity of this lot was assessed for 80 days at 37°C in an aerobic atmosphere with 5% CO₂.

⁸Purity of this lot was assessed for 22 days at 37°C in an aerobic atmosphere with 5% CO₂.

Certificate of Analysis for NR-49260

Date: 30 JUL 2017

Signature:



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