

## Certificate of Analysis for NR-30601

## Mycobacterium tuberculosis, Strain 95-2451

## Catalog No. NR-30601

This reagent is the tangible property of the U.S. Government.

**Product Description:** *Mycobacterium tuberculosis* (*M. tuberculosis*), strain 95-2451 was isolated between 1995 and 2000 from human sputum from an HIV-negative patient infected with pulmonary tuberculosis in North America. Strain 95-2451 was deposited as a multi-drug sensitive (MDS) strain of tuberculosis with sensitivity to rifampicin and isoniazid.

Lot<sup>1</sup>: 61255107 Manufacturing Date: 19OCT2012

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis <sup>2</sup>		
Cellular morphology	Gram-positive rods	Gram-positive rods
Colony morphology <sup>3</sup>	Report results	Circular, flat, rough and white (Figure 1)
Growth rate	≥ 7 days	≥ 7 days
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)
Genotypic Analysis Sequencing of Heat Shock Protein 65 gene (~ 420 base pairs)	Consistent with M. tuberculosis	Consistent with <i>M. tuberculosis</i> <sup>4</sup>
Purity (post-freeze) <sup>5</sup>	Consistent with expected colony morphology	Consistent with expected colony morphology
Viability (post-freeze) <sup>3</sup>	Growth	Growth

<sup>&</sup>lt;sup>1</sup>NR-30601 was produced by inoculation of the deposited material into Middlebrook 7H9 broth with ADC enrichment and grown for 22 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub>. Broth inoculum was added to Middlebrook 7H10 agar with OADC enrichment kolles which were grown for 14 days at 37°C in an aerobic atmosphere with 5% CO2 to produce this lot.

<sup>&</sup>lt;sup>5</sup>Purity of this lot was assessed for 30 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub> on Middlebrook 7H10 agar with OADC enrichment.





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

<sup>&</sup>lt;sup>3</sup>25 days at 37°C in an aerobic atmosphere with 5%CO<sub>2</sub> on Middlebrook 7H10 Agar with OADC enrichment

<sup>&</sup>lt;sup>4</sup>Also consistent with *M. africanum*, *M. bovis*, *M. canettii* and *M. microti* 



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**Date:** 05 NOV 2015

Signature:

**BEI Resources Authentication** 

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