

***Mycobacterium tuberculosis*, Strain 96-2402**

**Catalog No. NR-30658**

**Product Description:**

*Mycobacterium tuberculosis* (*M. tuberculosis*), strain 96-2402 was isolated between 1995 and 2000 from human sputum from an HIV-negative patient with drug-susceptible tuberculosis in North America. Strain 96-2402 deposited as a drug-sensitive strain of tuberculosis with sensitivity to rifampicin and isoniazid. NR-30658 was produced by inoculation of the deposited material into Middlebrook 7H9 broth with ADC enrichment and grown for 32 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 20 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub> to produce this lot.

**Lot: 63103800**

**Manufacturing Date: 12FEB2015**

TEST	SPECIFICATIONS	RESULTS
<b>Phenotypic Analysis<sup>1</sup></b> Cellular morphology 18 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Middlebrook 7H10 agar with OADC enrichment Colony morphology 18 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Middlebrook 7H10 agar with OADC enrichment Growth rate Growth at 26°C Acid-fast stain Pigmentation in the dark (Scotochromogen) Photoinduction for 1 hour (Photochromogen) Nonchromogen (no pigment) Biochemical tests Niacin production <sup>2</sup> Nitrate reduction Pyrazinamidase	Gram-positive rods  Report results  ≥ 7 days Negative Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment)  Positive Positive Positive	Gram-positive rods  Irregular, low convex, undulate, rough and cream  18 days Negative Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment)  Positive Positive Positive
<b>Genotypic Analysis</b> Sequencing of Heat Shock Protein 65 gene (370 base pairs)	≥ 99% sequence identity to <i>M. tuberculosis</i> type strain (GenBank: AL123456)	100% sequence identity to <i>M. tuberculosis</i> type strain (GenBank: AL123456) <sup>3</sup>
<b>Purity (post-freeze)</b> Middlebrook 7H10 agar with OADC enrichment 18 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> Tryptic Soy agar 18 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub>	Growth consistent with expected colony morphology Report results	Growth consistent with expected colony morphology Growth consistent with expected colony morphology
<b>Viability (post-freeze)</b> 18 days at 37°C in an aerobic atmosphere with 5% CO <sub>2</sub> on Middlebrook 7H10 agar with OADC enrichment	Growth	Growth

<sup>1</sup>Information on *Mycobacterium* testing is available from Ribón, W. "Biochemical Isolation and Identification of Mycobacteria." *Biochemical Testing*. (2012) Jose C. Jimenez-Lopez (Ed.), InTech, [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.

<sup>2</sup>All mycobacteria produce niacin but only *M. tuberculosis* accumulates it, resulting in a positive test for *M. tuberculosis*.

<sup>3</sup>Also consistent with other members of the *M. tuberculosis* complex.

/Sonia Bjorum Brower/

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30 OCT 2023

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