

***Mycobacterium tuberculosis*, Strain HN1744**

Catalog No. NR-20792

Product Description: *Mycobacterium tuberculosis* (*M. tuberculosis*), strain HN1744 was isolated in 1998 from human pulmonary tissue in Texas, USA. Strain HN1744 was deposited as a non-drug-resistant strain.

Lot¹: 64120074

Manufacturing Date: 08APR2016

| 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) Positive Positive Positive | Gram-positive rods Irregular, raised, entire, rough and cream (Figure 1) 21 days Negative Positive Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment) Positive Positive Positive |
| Genotypic Analysis Sequencing of Heat Shock Protein 65 gene (~440 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) ⁵ |
| Purity (post-freeze)⁶ | Growth consistent with expected colony morphology | Growth consistent with expected colony morphology |
| Viability (post-freeze)³ | Growth | Growth |

¹NR-20792 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 29 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.

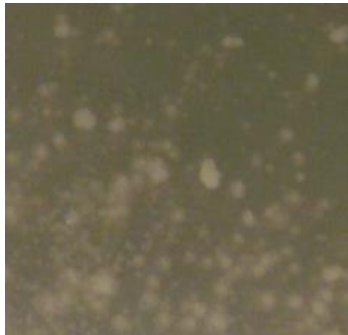
³30 days at 37°C in an aerobic atmosphere with 5% CO₂ on Middlebrook 7H10 agar with OADC enrichment

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

⁵Also consistent with *M. africanum*, *M. bovis* and *M. microti*

⁶Purity of this lot was assessed for 30 days at 37°C in an aerobic atmosphere with 5% CO₂ on Middlebrook 7H10 agar with OADC enrichment and 21 days at 37°C in an aerobic atmosphere with 5% CO₂ on Tryptic Soy agar plates.

Figure 1: Colony Morphology



Date: 28 DEC 2016

Signature: 

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