

***Mycobacterium tuberculosis*, Strain HN3282**

Catalog No. NR-19005

Product Description: *Mycobacterium tuberculosis* (*M. tuberculosis*), strain HN3282 was isolated in 2002 from human pulmonary tissue in Texas, USA. Strain HN3282 was deposited as a non-drug resistant strain.

Lot¹: 63344543

Manufacturing Date: 20MAR2015

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, slight peaked, undulate, rough, opaque and cream (Figure 1) 30 days Negative Positive Positive (red colonies) Negative (no pigment) Negative (no pigment) Positive (no pigment) Positive Positive Positive
Antibiotic Susceptibility Profile Sensititre™ System ^{5,6} Amikacin Cycloserine Ethambutol Ethionamide Isoniazid Kanamycin Moxifloxacin Ofloxacin Para-aminosalicylic acid Rifabutin Rifampin Streptomycin	Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results Report results	≤ 0.12 µg/mL = 4 µg/mL = 1 µg/mL = 1.2 µg/mL ≤ 0.03 µg/mL = 1.2 µg/mL = 1 µg/mL = 1 µg/mL ≤ 0.5 µg/mL ≤ 0.12 µg/mL ≤ 0.12 µg/mL ≤ 0.25 µg/mL
Genotypic Analysis Sequencing of Heat Shock Protein 65 gene (~ 320 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) ⁷
Purity (post-freeze)⁸	Growth consistent with expected colony morphology	Growth consistent with expected colony morphology
Viability (post-freeze)³	Growth	Growth

¹NR-19005 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% 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*.

⁵Sensititre™ System *Mycobacterium tuberculosis* MIC Plate, Thermo Scientific™, catalog number MYCOTB

⁶No interpretations of the Sensititre™ System data for *M. tuberculosis* are currently available.

⁷Also consistent with *M. africanum*, *M. bovis* and *M. microti*

⁸Purity of this lot was assessed for 40 days at 37°C in an aerobic atmosphere with 5% CO₂ on Middlebrook 7H10 agar with OADC enrichment and on Tryptic Soy agar plates.

Figure 1: Colony Morphology



Date: 15 NOV 2016

Signature:

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