

## Certificate of Analysis for NR-48669

## Genomic DNA from Mycobacterium tuberculosis, Strain H37Rv

## Catalog No. NR-48669

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

**Product Description:** Genomic DNA was obtained from a preparation of *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv. The H37Rv strain was derived from the virulent parent strain H37. *M. tuberculosis*, strain H37 was isolated in 1905 from the sputum of a patient with chronic pulmonary tuberculosis.

Lot<sup>1</sup>: 64293370 Manufacturing Date: 04MAY2016

TEST	SPECIFICATIONS	RESULTS
Genotypic Analysis Sequencing of heat shock protein (HSP) 65 gene (~ 420 base pairs) Sequencing of 16S ribosomal RNA gene (~830 base pairs)	Consistent with <i>M. tuberculosis</i> ≥ 99% sequence identity to <i>M. tuberculosis</i> type strain (GenBank: AL123456)	Consistent with <i>M. tuberculosis</i> <sup>2,3</sup> 100% sequence identity to <i>M. tuberculosis</i> type strain (GenBank: AL123456) <sup>3</sup>
Agarose Gel Electrophoresis	High molecular weight chromosomal DNA	High molecular weight chromosomal DNA (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 μg in 25 to 100 μL per vial	0.8 μg in 45.5 μL per vial (1.8 μg/mL)
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD <sub>260</sub> /OD <sub>280</sub> Ratio	1.7 to 2.1	1.9
Bacterial Inactivation 10% of total yield plated on Middlebrook 7H10 agar with OADC <sup>4,5</sup>	No viable bacteria detected	No viable bacteria detected

<sup>&</sup>lt;sup>1</sup>The bacterial preparation used for extraction of genomic DNA was produced by culture of BEI Resources NR-13648 lot: 59031923. Genomic DNA was extracted using proprietary technology.

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<sup>&</sup>lt;sup>2</sup>Sequencing was performed on the source organism, BEI Resources NR-13648 lot: 59031923.

<sup>&</sup>lt;sup>3</sup>Also consistent with M. africanum, M. bovis, M. canetti, M. caprae and M. microti

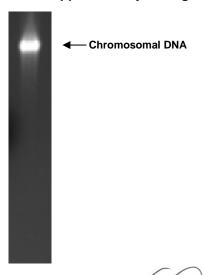
<sup>&</sup>lt;sup>4</sup>30 days at 37°C in an aerobic atmosphere with 5% CO<sub>2</sub>

<sup>&</sup>lt;sup>5</sup>An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.



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Figure 1: 1.2% Agarose Gel Loaded with Approximately 180 ng of NR-48669



Date: 02 DEC 2016 Signature:

**BEI** Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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