b|e|i RESOURCES
SUPPORTING INFECTIOUS DISEASE RESEARCH

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[1]: 63829570 **Manufacturing Date: 16DEC2015**

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 *M. tuberculosis* ≥ 99% sequence identity to *M. tuberculosis* type strain (GenBank: AL123456)	Consistent with *M. tuberculosis*[2,3] 100% sequence identity to *M. tuberculosis* type strain (GenBank: AL123456)[3]
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 131 µL per vial (6.3 µg/mL)[4]
Functional Activity by PCR Amplification 16S ribosomal RNA gene	~ 1500 base pair amplicon	~ 1500 base pair amplicon
OD_{260}/OD_{280} Ratio	1.7 to 2.1	1.8
Bacterial Inactivation 10% of total yield plated on Middlebrook 7H10 agar with OADC[5,6]	No viable bacteria detected	No viable bacteria detected

[1]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.
[2]Sequencing was performed on the source organism, BEI Resources NR-13648 lot: 59031923.
[3]Also consistent with *M. africanum*, *M. bovis*, *M. canetti*, *M. caprae* and *M. microti*
[4]The volume of material in the vial exceeds the current specifications in order to provide the amount of genomic DNA to meet the current specifications.
[5]35 days at 37°C in an aerobic atmosphere with 5% CO_2
[6]An extraction procedure was used that has been shown to consistently inactivate 100% of Gram-negative and Gram-positive bacteria.

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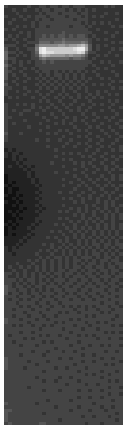
Figure 1: 1.2% Agarose Gel Loaded with Approximately 150 ng of NR-48669



Date: 04 APR 2016 **Signature:**

BEI Resources Authentication

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