

## Certificate of Analysis for NR-13297

## Plasmid pMRLB.46 Containing Gene Rv3874 (Protein Cfp10) from *Mycobacterium tuberculosis*

## Catalog No. NR-13297

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

**Product Description:** NR-13297 is a recombinant expression vector containing *Mycobacterium tuberculosis* gene Rv3874, which encodes a 10 kDa culture filtrate protein, Cfp10. Gene Rv3874 was amplified by PCR and cloned into pET23b for expression in *Escherichia coli*.

Lot<sup>1</sup>: 59415499 Manufacturing Date: 15NOV2010

TEST	SPECIFICATIONS	RESULTS
PCR Amplification and Sequencing of Insert (~ 300 bp)	Insert identical to <i>M. tuberculosis</i> , strain H37Rv gene Rv3874	Insert identical to <i>M. tuberculosis</i> , strain H37Rv gene Rv3874
Agarose Gel Electrophoresis  Linearization with Ndel <sup>2</sup> Linearization with HindIII <sup>3</sup> Linearization with SacII <sup>4</sup> Digestion with Ndel and HindIII	~ 3.9 kb ~ 3.9 kb ~ 3.9 kb ~ 0.3 kb (insert); ~ 3.6 kb (vector)	~ 3.9 kb (Figure 1) ~ 3.9 kb (Figure 1) ~ 3.9 kb (Figure 1) ~ 0.3 kb; ~ 3.6 kb (Figure 1)
Concentration by PicoGreen® Measurement	0.7 to 1.5 μg in 25 to 100 μL per vial	1.1 µg in 27 µL per vial (41 µg/mL)
Absorbance Ratio (OD <sub>260</sub> /OD <sub>280</sub> )	≥ 1.7 to ≤ 2.0	1.9
Effective Bacterial Transformation	≥ 100 colonies per 10 ng	≥ 100 colonies per 10 ng

<sup>&</sup>lt;sup>1</sup>Produced in *Escherichia coli* MAX Efficiency<sup>®</sup> DH5α<sup>™</sup> cells (Invitrogen<sup>™</sup> 18258-012) and extracted using the Qiafilter Plasmid Midi Kit (QIAGEN<sup>®</sup> 12243)

12000 5000

2000

1000

500

100

## Figure 1: Agarose Gel of Undigested and Restriction Enzyme Digested NR-13297.

Lane 1: NR-13297 digested with *Ndel* Lane 3: NR-13297 digested with *HindIII* Lane 2: NR-13297 digested with *SacII* 

Lane 4: Invitrogen™ TrackIt 1 Kb Plus DNA Ladder™ Lane 5: NR-13297 digested with *Nde*I and *Hind*III

Lane 6: Undigested NR-13297

Signature:

**Title:** Technical Manager, BEI Authentication or designee

ATCC<sup>®</sup>, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contractor 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<sup>®</sup>'s knowledge.

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<sup>&</sup>lt;sup>2</sup>Ndel (New England BioLabs, Inc. R0111L)

<sup>&</sup>lt;sup>3</sup>HindIII (New England BioLabs, Inc. R0104M)

<sup>&</sup>lt;sup>4</sup>SacIII (New England BioLabs, Inc. R0157L)