

Plasmid pMRLB75 Containing Gene ML0841 (Protein Mmp-1) from *Mycobacterium leprae*

Catalog No. NR-19391

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

Product Description: NR-19391 is a recombinant expression vector containing *Mycobacterium leprae* (*M. leprae*) gene ML0841, which encodes major membrane protein I (Mmp-1). Gene ML0841 was amplified by PCR and cloned into pET28b for expression in *Escherichia coli*, strain TOP10. The expressed protein is histidine-tagged and has an observed molecular weight of 35 kDa. A plasmid map is attached.

Lot¹: 61244539

Manufacturing Date: 24SEP2012

TEST	SPECIFICATIONS	RESULTS
PCR Amplification and Sequencing of Insert (~ 920 base pairs)	Insert identical to <i>M. leprae</i> gene ML0841	Insert identical to <i>M. leprae</i> gene ML0841
Agarose Gel Electrophoresis Linearization with <i>NcoI</i> ² Linearization with <i>NdeI</i> ³ Linearization with <i>HindIII</i> ⁴ Digestion with <i>NdeI</i> and <i>HindIII</i> ^{3,4}	~ 6.2 kb ~ 6.2 kb ~ 6.2 kb ~ 0.9 kb (insert); ~ 5.4 kb (vector)	~ 6.2 kb (Figure 1) ~ 6.2 kb (Figure 1) ~ 6.2 kb (Figure 1) ~ 0.9 kb; ~ 5.4 kb (Figure 1)
Concentration by PicoGreen[®] Measurement	0.7 to 1.5 µg in 25 to 100 µL per vial	0.8 µg in 44 µL per vial (19 µg/mL)
OD₂₆₀/OD₂₈₀ Ratio	1.7 to 2.0	2.0
Effective Bacterial Transformation	≥ 100 colonies per 10 ng	≥ 100 colonies per 10 ng

¹Produced in *Escherichia coli* One Shot[®] TOP10 Chemically Competent cells (Invitrogen[™] C404-003) and extracted using the Qiagen Plasmid Mega Kit (QIAGEN[®] 12181)

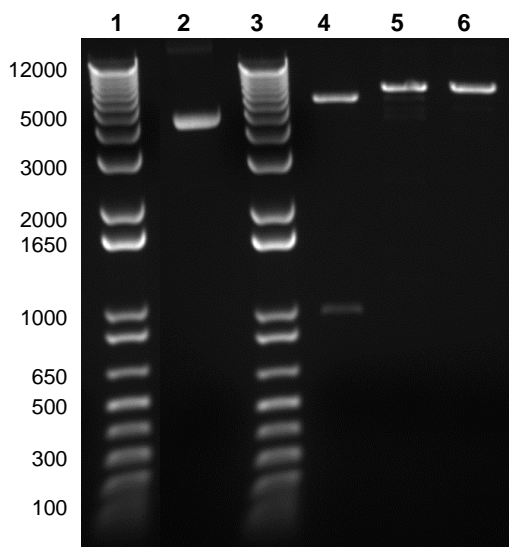
²*NcoI* (New England BioLabs, Inc. R0193M)

³*NdeI* (New England BioLabs, Inc. R0111L)

⁴*HindIII* (New England BioLabs, Inc. R0104M)

Figure 1: Agarose Gel of Undigested and Restriction Enzyme Digested NR-19391

Lane 1: Invitrogen[™] TrackIt 1 Kb Plus DNA Ladder[™]
Lane 2: Undigested NR-19391
Lane 3: NR-19391 digested with *NdeI* and *HindIII*
Lane 4: NR-13298 digested with *NcoI*
Lane 5: NR-13298 digested with *NdeI*
Lane 6: NR-13298 digested with *HindIII*



Date: 20 FEB 2013

Signature:



Title:

Technical Manager, BEI Authentication or designee

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pET-MMP-I

