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

## Catalog No. NR-13297

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## For research use only. Not for human use.

### Contributor:

NIH - TB Vaccine Testing and Research Materials Contract

### Manufacturer:

BEI Resources

### Product Description:

NR-13297 is a recombinant expression vector containing *Mycobacterium tuberculosis* gene Rv3874, which encodes a 10 kDa culture filtrate protein, Cfp10.[1,2] Gene Rv3874 was amplified by PCR and cloned into pET23b for expression in *Escherichia coli.* The gene was cloned without a signal sequence. The expressed protein is histidine-tagged and has an observed molecular weight of 11 kDa. The expected purified protein yield from a one liter culture is approximately 1 mg.

A plasmid map of NR-13297 is attached.

Note: Plasmid pMRLB.46 contains the gene required for ampicillin (Ap) resistance. The recommended concentration of Ap in culture is 100 µg/mL.

### Material Provided:

Each vial contains approximately 1 µg of plasmid DNA in 10 mM Tris-HCl, pH 8.5. Lot 07.EC.02.06 contains approximately 1 µg of plasmid DNA in 10 mM Tris-HCl, pH 7.5. The concentration is shown on the Certificate of Analysis.

### Packaging/Storage:

NR-13297 was packaged aseptically in 0.5 mL screw-capped cryovials. The product is provided frozen on dry ice and should be stored at -20°C or colder immediately upon arrival. Freeze-thaw cycles should be minimized.

### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: Plasmid pMRLB.46 Containing Gene Rv3874 (Protein Cfp10) from *Mycobacterium tuberculosis*, NR-13297."

### Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see http://www.cdc.gov/biosafety/publications/bmbl5/index.htm.

### Disclaimers:

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### References:

1. Cole, S. T., et al. "Deciphering the Biology of *Mycobacterium tuberculosis* from the Complete Genome Sequence." Nature 393 (1998): 537-544. PubMed: 9634230. Erratum in: Nature 396 (1998): 190-198.
2. TubercuList: Rv3874

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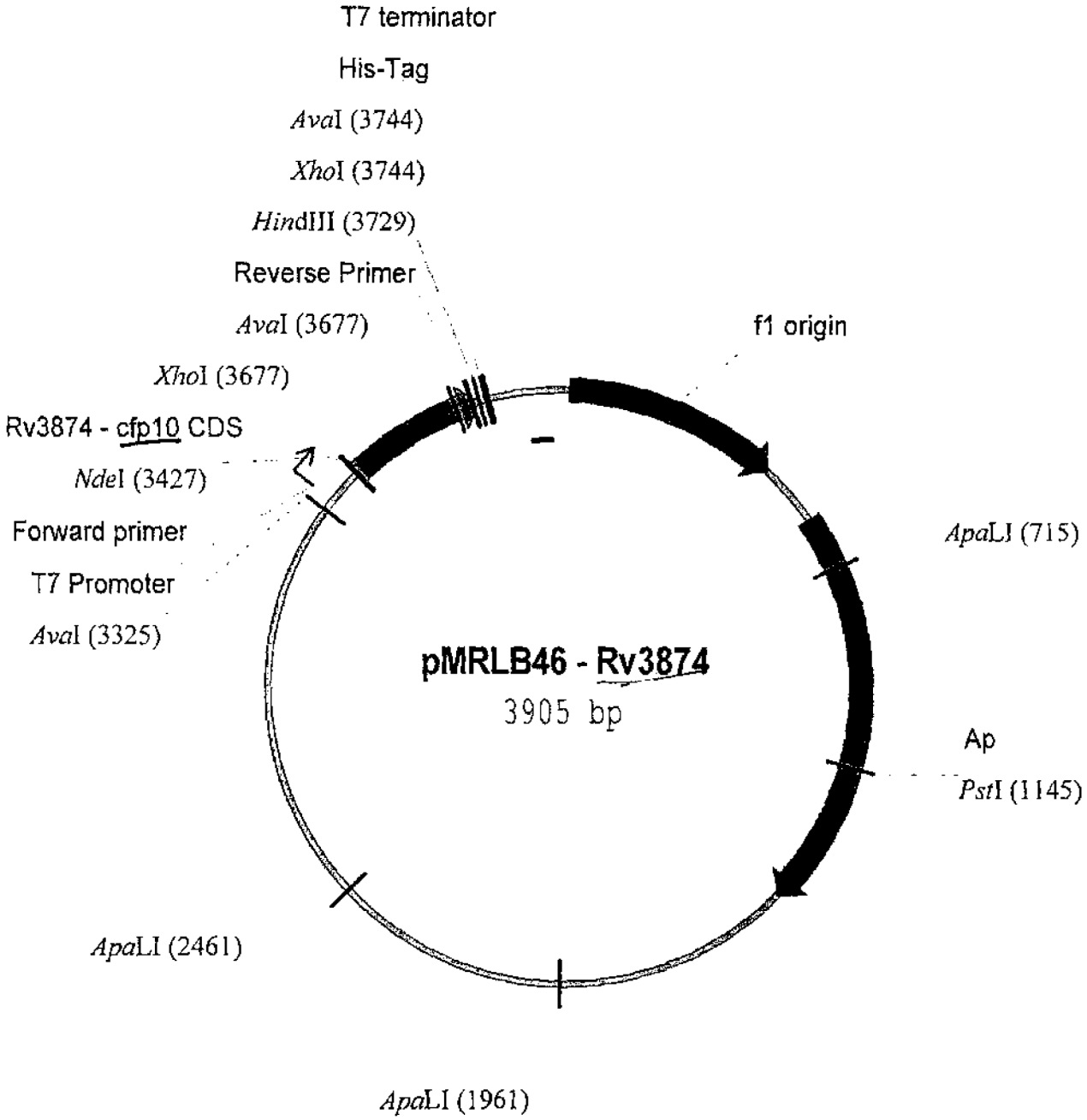
**BEI Resources**
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898


T7 terminator
His-Tag
AvaI (3744)
XhoI (3744)
HindIII (3729)
Reverse Primer
AvaI (3677)
XhoI (3677)
Rv3874 - cfp10 CDS
NdeI (3427)
Forward primer
T7 Promoter
AvaI (3325)
f1 origin
ApaLI (715)
Ap
PstI (1145)
ApaLI (2461)
ApaLI (1961)
pMRLB46 - Rv3874
3905 bp