

**Plasmid pMRLB.5 Containing Gene Rv3841 (Protein BfrB) from *Mycobacterium tuberculosis*****Catalog No. NR-13278**

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NIH - TB Vaccine Testing and Research Materials Contract

**Product Description:**

NR-13278 is a recombinant expression vector containing *Mycobacterium tuberculosis* gene Rv3841, which encodes a probable bacterioferritin protein (BfrB).<sup>1,2</sup> Gene Rv3841 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 20 kDa. The expected purified protein yield from a one liter culture is approximately 1.0 mg (high endotoxin) or 0.1 mg after endotoxin removal.

A plasmid map of NR-13278 is attached.

**Note:** Plasmid pMRLB.5 contains the gene required for ampicillin (Ap) resistance. The recommended concentration of Ap in culture is 100 µg/mL.

**Material Provided:**

Each vial contains 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-13278 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 the NIH Biodefense and Emerging Infection Research Resources Repository, NIAID, NIH: Plasmid pMRLB.5 Containing Gene Rv3841 (Protein BfrB) from *Mycobacterium tuberculosis*, NR-13278."

**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, 2007; see [www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmb15/bmb15toc.htm).

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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: [Gene Rv3841](#)

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**pMRLB5 – Rv3841 – bfrB in pET23b**

