

## Plasmid pMRLB.7 Containing Gene Rv3875 (Protein Esat6) from *Mycobacterium tuberculosis*

### Catalog No. NR-13280

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

#### Contributor:

NIH - TB Vaccine Testing and Research Materials Contract

#### Product Description:

NR-13280 is a recombinant expression vector containing *Mycobacterium tuberculosis* gene Rv3875, which encodes the early secretory antigenic target Esat6, also known as esxA.<sup>1,2</sup> Gene Rv3875 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 10 kDa.

A plasmid map of NR-13280 is attached.

**Note:** Plasmid pMRLB7 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 09.EC.8.26.pMRLB7.BS.Rv3875 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-13280 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 Infections Research Resources Repository, NIAID, NIH: Plasmid pMRLB.7 Containing Gene Rv3875 (Protein Esat6) from *Mycobacterium tuberculosis*, NR-13280."

#### 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/bmbl5/bmbl5toc.htm](http://www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.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: [Rv3875](#)

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