

## CFP-10, Recombinant Protein Reference Standard

### Catalog No. NR-14869

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#### Contributor:

BEI Resources or NIH - TB Vaccine Testing and Research Materials Contract

#### Manufacturer:

Karen Dobos, Ph.D., Colorado State University, Fort Collins, Colorado, USA or NIH - TB Vaccine Testing and Research Materials Contract

#### Product Description:

NR-14869 is a recombinant form of the culture filtrate antigen CFP-10 from *Mycobacterium tuberculosis*.<sup>1</sup> The recombinant protein consists of the native protein sequence in addition to a hexa-histidine tag. The recombinant protein was expressed in *Escherichia coli* and purified using standard chromatographic techniques followed by endotoxin removal procedures.

Note: This protein is provided as a reference standard and should be ordered with the corresponding plasmid (pMRLB.46; NR-13297).

#### Material Provided:

Each vial contains approximately 1 mg of lyophilized NR-14869 in 10 mM ammonium bicarbonate.

Note: NR-14869 is soluble in 100 mM to 500 mM aqueous buffered salt solutions, such as phosphate buffered saline. A 10 mM ammonium bicarbonate solution can also be used.

#### Packaging/Storage:

NR-14869 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

#### Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: CFP-10, Recombinant Protein Reference Standard, NR-14869."

#### 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 [www.cdc.gov/biosafety/publications/bmbl5/index.htm](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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#### References:

1. TubercuList: [Rv3874](#)
2. Harboe, M., et al. "Evidence for Occurrence of the ESAT-6 Protein in *Mycobacterium tuberculosis* and Virulent *Mycobacterium bovis* and for Its Absence in *Mycobacterium bovis* BCG." Infect. Immun. 64 (1996): 16-22. PubMed: 8557334.
3. Berthet, F. X., et al. "A *Mycobacterium tuberculosis* Operon Encoding ESAT-6 and a Novel Low-Molecular-Mass Culture Filtrate Protein (CFP-10)." Microbiology. 144 (1998): 3195-3203. PubMed: 9846755.
4. Skjøt, R. L., et al. "Comparative Evaluation of Low-Molecular-Mass Proteins from *Mycobacterium tuberculosis* Members of the ESAT-6 Family as Immunodominant T-Cell Antigens." Infect. Immun. 68 (2000): 214-220. PubMed: 10603390.
5. Singh, A., et al. "Dissecting Virulence Pathways of *Mycobacterium tuberculosis* Through Protein-Protein Association." Proc. Natl. Acad. Sci. U. S. A. 103 (2006): 11346-11351. PubMed: 16844784.

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