

CFP-10, Recombinant Protein Reference Standard

Catalog No. NR-49425

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Contributor and Manufacturer:

BEI Resources

Product Description:

NR-49425 is a recombinant form of the culture filtrate antigen CFP-10 from *Mycobacterium tuberculosis*.¹ The recombinant protein consists of the native protein sequence in addition to a hexa-histidine tag (predicted molecular weight ~ 14.4 kDa). The recombinant protein was expressed in *Escherichia coli* BL21 (DE3) pLysS cells and purified by nickel affinity chromatography. The crystal structure of the CFP-10 protein has been solved at 2.15 Å resolution (PDB: [3FAV](#)).

Material Provided:

Each vial contains approximately 0.2 mg to 2 mg of lyophilized CFP-10 in 10 mM ammonium bicarbonate.

Note: NR-49425 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-49425 was packaged aseptically in glass serum vials. 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-49425."

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. 6th ed. Washington, DC: U.S. Government Printing Office, 2020; see www.cdc.gov/biosafety/publications/bmbl5/index.htm.

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References:

1. MycoBrowser: [Rv3874](#)
2. Spencer, J. S., et al. "Comparative Analysis of B- and T-Cell Epitopes of *Mycobacterium leprae* and *Mycobacterium tuberculosis* Culture Filtrate Protein 10." Infect. Immun. 72 (2004): 3161-3170. PubMed: 15155617.
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. Singh, A., et al. "Dissecting Virulence Pathways of *Mycobacterium tuberculosis* Through Protein-Protein Association." Proc. Natl. Acad. Sci. USA 103 (2006): 11346-11351. PubMed: 16844784.

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