

Ag85A Recombinant Protein Reference Standard

Catalog No. NR-14871

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Contributor and Manufacturer:

NIH - TB Vaccine Testing and Research Materials Contract

Product Description:

NR-14871 is a recombinant form of the antigen 85 complex A (Ag85A) protein.¹ 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.

Ag85A is one of three components (Ag85A, Ag85B, Ag85C) of the secreted immunodominant 30-32 kDa Antigen 85 Complex present in the culture filtrate of *Mycobacterium tuberculosis* (*M. tuberculosis*).² Each of the three proteins are involved in cell wall formation and have been linked to disease pathogenesis through their fibronectin-binding abilities.³ Antigen Ag85A induces strong T-cell proliferation and interferon- γ in individuals infected with *M. tuberculosis*.⁴

Note: This protein is provided as a reference standard and should be ordered with the corresponding plasmid (pMRLB.41; NR-13292).

Material Provided:

Each vial contains approximately 1 mg of lyophilized NR-14871 in 10 mM ammonium bicarbonate. **Some lots of NR-14871 may have been vialled by ATCC® rather than by Colorado State University under the TB Vaccine Testing and Research Materials Contract. At ATCC® the material provided by Colorado State University was rehydrated, aliquoted into vials and lyophilized.**

Packaging/Storage:

NR-14871 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: Ag85A Recombinant Protein Reference Standard, NR-14871."

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/bmb15/index.htm.

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References:

1. TubercuList: [Rv3804](#)
2. Lozes, E., et al. "Immunogenicity and Efficacy of a Tuberculosis DNA Vaccine Encoding the Components of the Secreted Antigen 85 Complex." *Vaccine* 15 (1997): 830-833. PubMed: 9234526.
3. Belisle, J. T., et al. "Role of the Major Antigen of *Mycobacterium tuberculosis* in Cell Wall Biogenesis." *Science* 30 (1997): 1420-1422. PubMed: 9162010.
4. Romano, M., et al. "Immunogenicity and Protective Efficacy of Tuberculosis DNA Vaccines Combining Mycolyl-Transferase Ag85A and Phosphate Transport Receptor PstS-3." *Immunology* 118 (2006): 321-332. PubMed: 16827893.

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