

Ag85A, Recombinant Protein Reference Standard

Catalog No. NR-49427

This reagent is the tangible property of the U.S. Government.

For research use only. Not for use in humans.

Contributor and Manufacturer:

BEI Resources

Product Description:

NR-49427 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* BL21 (DE3) pLysS cells and purified by immobilized-metal affinity chromatography.

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 of NR-49427 contains approximately 400 μ g of lyophilized Ag85A in 10 mM ammonium bicarbonate. Each vial of lots 64001335 and 70021268 contain 1 mg of lyophilized Ag85A in 10 mM ammonium bicarbonate.

Note: NR-49427 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-49427 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: Ag85A, Recombinant Protein Reference Standard, NR-49427."

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.

Disclaimers:

You are authorized to use this product for research use only. It is not intended for human use.

Use of this product is subject to the terms and conditions of the BEI Resources Material Transfer Agreement (MTA). The MTA is available on our Web site at www.beiresources.org.

While BEI Resources uses reasonable efforts to include accurate and up-to-date information on this product sheet, neither ATCC® nor the U.S. Government makes any warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. Neither ATCC® nor the U.S. Government warrants that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, use and disposal. ATCC® and the U.S. Government are not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, the U.S. Government, ATCC®, their suppliers and contributors to BEI Resources are not liable for damages arising from the misidentification or misrepresentation of products.

Use Restrictions:

This material is distributed for internal research, non-commercial purposes only. This material, its product or its derivatives may not be distributed to third parties. Except as performed under a U.S. Government contract, individuals contemplating commercial use of the material, its products or its derivatives must contact the contributor to determine if a license is required. U.S. Government contractors may need a license before first commercial sale. This material may be subject to third party patent rights.

References:

1. MycoBrowser: [Rv3804c](#)
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.

ATCC® is a trademark of the American Type Culture Collection.

