

***Mycobacterium tuberculosis*, Strain H37Rv, Purified Mycolylarabinogalactan-Peptidoglycan (mAGP)**

Catalog No. NR-14851

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

For research use only. Not for human use.

Contributor:

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

Manufacturer:

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

Product Description:

NR-14851 is a preparation of the mycolylarabinogalactan-peptidoglycan (mAGP) complex of the *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv cell wall core.

The culture was grown to late-log phase in glycerol-alanine-salts medium, washed with PBS pH 7.4 and inactivated by gamma irradiation. The bacilli were suspended at a concentration of 2 g/mL in PBS containing 8 mM EDTA, DNase, RNase and a proteinase inhibitor tablet, and broken in a French Press pressure cell at 4°C. Unbroken cells were removed by low speed (3,000 × g) centrifugation. The cell wall was isolated by centrifugation at 27,000 × g for one hour, the pellet suspended in PBS with 2% SDS and the cell wall associated proteins and lipoglycans were extracted at room temperature. Residual contaminating proteins were removed from the cell wall by further SDS extraction and proteinase-K treatment at 55°C, followed by several extractions with boiling SDS. The resulting mAGP was washed several times with water, and residual SDS was removed by extraction with large volumes of acetone.

Material Provided:

Each vial contains approximately 5 mg of dried, purified mAGP from *M. tuberculosis*, strain H37Rv.

Note: mAGP is soluble in acetone. DMSO or water can also be used depending on the downstream application. mAGP is poorly soluble and sonication is generally required to achieve a uniform suspension.

Packaging/Storage:

NR-14851 was packaged aseptically in glass vials. The product is provided at room temperature and should be stored at room temperature in a dry atmosphere immediately upon arrival.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium tuberculosis*, Strain H37Rv, Purified Mycolylarabinogalactan-Peptidoglycan (mAGP), NR-14851."

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. Daffe, M., et al. "Predominant Structural Features of the Cell Wall Arabinogalactan of *Mycobacterium tuberculosis* as Revealed through Characterization of Oligoglycosyl Alditol Fragments by Gas Chromatography/Mass Spectrometry and by ¹H and ¹³C NMR Analyses." J. Biol. Chem. 265 (1990): 6734-6743. PubMed: 2108960.

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

