

Mycobacterium tuberculosis, Strain H37Rv, Purified Mycolic Acid Methyl Esters

Catalog No. NR-14854

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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 and NIH - TB Vaccine Testing and Research Materials Contract

Product Description:

NR-14854 contains a preparation of mycolic acid methyl esters (MAME) that were purified from the mycolyl-arabinogalactan peptidoglycan (mAGP) complex of *Mycobacterium tuberculosis* (*M. tuberculosis*). mAGP was subjected to alkaline hydrolysis and the mycolic acids were collected and neutralized. Chloroform and water were added to the mycolic acid suspension to form a biphasic partition, and the organic fraction containing mycolic acid was collected and dried.

The purified MAME of *M. tuberculosis* consists of three fractions representing the α -, methoxy- and keto-mycolic acid esters, which vary in polarity. The purity of NR-14854 was verified by thin layer chromatography.

Material Provided:

Each vial contains approximately 1 mg of dried MAME from *M. tuberculosis*, strain H37Rv.

Note: MAME is soluble in chloroform or dichloromethanol.

Packaging/Storage:

NR-14854 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 Mycolic Acid Methyl Esters, NR-14854."

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 \(BMBL\)](#). 6th ed. Washington, DC: U.S. Government Printing Office, 2020.

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References:

1. Cole, S. T., et al. "Deciphering the Biology of *Mycobacterium tuberculosis* from the Complete Genome Sequence." *Nature* 393 (1998): 537-544. PubMed: 9634230. Erratum in: *Nature* 396 (1998): 190-198.
2. Slayden, R. A. and C. E. Barry. "Analysis of the Lipids of *Mycobacterium tuberculosis*." *Methods. Mol. Med.* 54 (2001): 229-245. PubMed: 21341079.

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