

***Mycobacterium tuberculosis*, Strain H37Rv, Purified Phosphatidylinositol Mannoside 6 (PIM₆)**

Catalog No. NR-14847

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For research use only. Not for use in humans.

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-14847 is a preparation of the purified phosphatidylinositol mannoside 6 (PIM₆) cell wall glycolipids of *Mycobacterium tuberculosis*, strain H37Rv. The soluble organic fraction was extracted from irradiated cells, dried and titrated with cold acetone. The acetone-insoluble fraction was then applied to preparative thin-layer chromatography plates. PIMs were purified from the dried matrix using 40% methanol in chloroform.

Material Provided:

Each vial contains approximately 250 µg of lyophilized purified PIM₆ from *Mycobacterium tuberculosis*, strain H37Rv. **Lyophilized products may aggregate as a loose powder near the lid. Please take precautionary measures (such as tapping the bottom of the tube on the lab bench) to reduce escape of the reagent when opening the vial to reconstitute contents.**

Note: PIM₆ can be reconstituted in water. A 100 mM to 500 mM aqueous buffered salt solution, such as phosphate buffered saline, may also be used.

Packaging/Storage:

NR-14847 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: *Mycobacterium tuberculosis*, Strain H37Rv, Purified Phosphatidylinositol Mannoside 6 (PIM₆), NR-14847."

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.

Disclaimers:

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References:

1. Brennan, P. and C. E. Ballou. "Biosynthesis of Mannophosphoinositides by *Mycobacterium phlei*. Enzymatic Acylation of Dimannophosphoinositides." J. Biol. Chem. 243 (1968): 2975-2984. PubMed: 4297467.
2. 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. PubMed: 9634230.
3. Khoo, K. H., et al. "Structural Definition of Acylated Phosphatidylinositol Mannosides from *Mycobacterium tuberculosis*: Definition of a Common Anchor for Lipomannan and Lipoarabinomannan." Glycobiology 5 (1995): 117-127. PubMed: 7772860.

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