

***Mycobacterium leprae*, Phthiocerol Dimycocerosate (PDIM)**

Catalog No. NR-20804

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

For research use only. Not for human use.

Contributor and Manufacturer:

NIH – Leprosy Research Support Contract

Product Description:

NR-20804 is a preparation of phthiocerol dimycocerosate (PDIM) derived from the total cellular lipids of *Mycobacterium leprae* (*M. leprae*) extracted from a pool of infected armadillo liver and spleen tissue. PDIM is a virulence lipid found within the extracellular peribacillary substance, spherical droplets, and capsular materials unique to *M. leprae*.¹⁻⁴

Material Provided:

Each vial contains approximately 250 µg of dried PDIM pooled from up to three different strains of *M. leprae*. Please refer to the Certificate of Analysis for information regarding the specific strains used in the production of each lot.

Note: PDIM is soluble in chloroform:methanol (2:1). Chloroform or DMSO can also be used depending on the downstream application.

Packaging/Storage:

NR-20804 was packaged aseptically in glass vials. The product is provided at room temperature and can be stored at room temperature until reconstituted. Reconstituted material should be aliquoted and stored frozen at -20°C or colder. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read “The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium leprae*, Phthiocerol Dimycocerosate (PDIM), NR-20804.”

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/bmbl5/index.htm.

Disclaimers:

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References:

1. Brennan, P. J. “*Mycobacterium leprae* – The Outer Lipoidal Surface.” [J. Biosci.](#) 6 (1984): 685-689.
2. Fukunishi, Y, et al. “Isolation of Characteristic Glycolipids Possibly Included in Spherical Droplets Around *M. leprae*.” [Int. J. Lepr. Other Mycobact. Dis.](#) 53 (1985): 447-454. PubMed: 3900252.
3. Kruh, N. A., et al. “A Novel Interaction Linking the FAS-II and Phthiocerol Dimycocerosate (PDIM) Biosynthetic Pathways.” [J. Biol. Chem.](#) 283 (2008): 31719-31725. PubMed: 18703500.
4. Vissa, V. D. and P. J. Brennan. “The Genome of *Mycobacterium leprae*: A Minimal Mycobacterial Gene Set.” [Genome Biol.](#) 2 (2001): reviews1023.1-1023.8. PubMed: 11532219.
5. Draper, P., et al. “Isolation of a Characteristic Phthiocerol Dimycocerosate from *Mycobacterium leprae*.” [J. Gen. Microbiol.](#) 129 (1983): 859-863. PubMed: 6409988.
6. Cole, S. T., et al. “Massive Gene Decay in the Leprosy Bacillus.” [Nature](#) 409 (2001): 1007-1011. PubMed: 11234002.

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