

Mycobacterium leprae Phenolic Glycolipid-I (PGL-I)

Catalog No. NR-19342

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Contributor:

BEI Resources or NIH – Leprosy Research Support Contract

Manufacturer:

Karen Dobos, Ph.D., Colorado State University, Fort Collins, Colorado, USA or NIH – Leprosy Research Support Contract

Product Description:

NR-19342 is a preparation of the phenolic glycolipid-I (PGL-I) of *Mycobacterium leprae* (*M. leprae*) extracted from infected armadillo liver and spleen tissue. Crude lipids were obtained from chloroform:methanol (2:1) extraction of tissues and eluted on a silica gel column followed by preparative thin layer chromatography. The fractions containing PGL-I were pooled in chloroform:methanol (2:1) and dried under a nitrogen bath.

PGL-I is unique to *M. leprae* where it is produced in copious amounts. It plays a role in the invasion of human nerves by binding to the receptors on the Schwann cells. PGL-I causes a specific antibody to be produced in the sera of leprosy patients.¹

Material Provided:

Each vial contains approximately 1 mg of dried PGL-I 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: PGL-I can be reconstituted in 100% ethanol or chloroform methanol (2:1). PGL-I is not soluble in aqueous buffers.

Note: PGL-I has a glassy appearance and can be difficult to observe in the glass vial.

Packaging/Storage:

NR-19342 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* Phenolic Glycolipid-I (PGL-I), NR-19342."

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). Current Edition. Washington, DC: U.S. Government Printing Office.

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References:

1. Zhang, J., et al. "A Modified Synthesis and Serological Evaluation of Neoglycoproteins Containing the Natural Disaccharide of PGL-I from *Mycobacterium leprae*." *Bioorg. Med. Chem. Lett.* 20 (2010): 3250-3253. PubMed: 20462755.

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