

## ***Mycobacterium tuberculosis*, Strain H37Rv, Purified Peptidoglycan**

### **Catalog No. NR-14853**

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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-14853 is a preparation of peptidoglycan (PG) derived from the cell wall of *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv.

The mycolyl-arabinogalactan peptidoglycan complex of *M. tuberculosis* was hydrolyzed and the insoluble fraction, arabinogalactan-protein, was collected. The arabinogalactan (AG) was released from the PG by mild acid hydrolysis. The soluble AG was separated from the insoluble PG by centrifugation, and the PG pellets were resuspended in 50% methanol and dried.

#### **Material Provided:**

Each vial contains approximately 500 µg dried purified PG from *M. tuberculosis*, strain H37Rv.

Note: PG is soluble in 50% methanol. Bath sonication may be required to achieve a uniform suspension.

#### **Packaging/Storage:**

NR-14853 was packaged aseptically in glass vials. The product is provided at room temperature and should be stored at room temperature in a dry atmosphere.

#### **Citation:**

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium tuberculosis*, Strain H37Rv, Purified Peptidoglycan, NR-14853."

#### **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](http://www.cdc.gov/biosafety/publications/bmbl5/index.htm).

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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. Daffe, M., P. J. Brennan and M. McNeil. "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 <sup>1</sup>H and <sup>13</sup>C NMR Analyses." *J. Biol. Chem.* 265 (1990): 6734-6743. PubMed: 2108960.
3. Grzegorzewicz, A. E. and M. Jackson. "Subfractionation and Analysis of the Cell Envelope (Lipo)polysaccharides of *Mycobacterium tuberculosis*." *Methods Mol. Bio.* 966 (2013): 309-324. PubMed: 23299743.

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