

***Mycobacterium tuberculosis*, Strain H37Rv, Cell Wall Fraction**

**Catalog No. NR-14828**

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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 or NIH - TB Vaccine Testing and Research Materials Contract

**Product Description:**

NR-14828 is a preparation of the cell wall fraction of *Mycobacterium tuberculosis* (*M. tuberculosis*), strain H37Rv and contains proteins and non-protein compounds such as mAGP.

The culture was grown to late-log phase in glycerol-alanine-salts medium, washed with PBS pH 7.4, and inactivated by gamma irradiation. The bacilli were suspended at a concentration of 2 g/mL in PBS containing 8 mM EDTA, DNase, RNase, and a proteinase inhibitor tablet, and broken in a French Press pressure cell at 4°C. Unbroken cells were removed by low speed (3,000 × g) centrifugation. The cell wall was isolated by centrifugation at 27,000 × g for one hour and washed two times in PBS. The final cell wall pellet was suspended and dialyzed in 10 mM ammonium bicarbonate, quantified by BCA protein assay for protein content, and frozen.

**Material Provided:**

Each vial of NR-14828 contains approximately 1 mg of cell wall fraction from *M. tuberculosis*, strain H37Rv provided in 10 mM ammonium bicarbonate.

**Packaging/Storage:**

NR-14828 was packaged aseptically in cryovials. The product is provided frozen on blue 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, Cell Wall Fraction, NR-14828."

**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. Hirschfield, G. R., et al. "Peptidoglycan-Associated Polypeptides of *Mycobacterium tuberculosis*." *J. Bacteriol.* 172 (1990): 1005-1013. PubMed: 2105289.

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