Mycobacterium tuberculosis, Strain H37Rv, Cytosol Fraction

Catalog No. NR-14834

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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-14834 is a preparation of the cytosol fraction of *Mycobacterium tuberculosis (M. tuberculosis)*, strain H37Rv and contains cytosolic proteins and soluble material released from the cell wall during disruption of the bacilli. The culture was grown to late-log phase in glycerol-alanine-salts medium, washed with PBS 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. The supernatant was subjected to a 100,000 × g centrifugation for four hours, then collected and dialyzed against 10 mM ammonium bicarbonate. The protein content was determined using the BCA protein assay.

Material Provided:

Each vial contains approximately 1 mg of cytosol fraction from *M. tuberculosis*, strain H37Rv provided in 10 mM ammonium bicarbonate.

Packaging/Storage:

NR-14834 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, Cytosol Fraction, NR-14834."

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.

Disclaimers:

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References:

1. Lee, B. Y., S. A. Hefta and P. J. Brennan. "Characterization of the Major Membrane Protein of Virulent *Mycobacterium tuberculosis*." Infect. Immun. 60 (1992): 2066-2074. PubMed: 1563797.
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.
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