

***Mycobacterium tuberculosis* subsp. *tuberculosis*, Strain H37Ra**

Catalog No. NR-122

(Derived from ATCC® 25177™)

For research only. Not for human use.

Contributor:

ATCC®

Product Description:

Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*

Species: *Mycobacterium tuberculosis* subsp. *tuberculosis*¹

Strain: H37Ra

Source: *Mycobacterium tuberculosis* (*M. tuberculosis*) subsp. *tuberculosis*, strain H37Ra is an attenuated strain derived from the virulent parent strain H37. Strain H37 was isolated in 1905 from the sputum of a patient with chronic pulmonary tuberculosis.²

Comment: *M. tuberculosis* subsp. *tuberculosis*, strain H37Ra was deposited at ATCC® in 1969 by Carl L. Larson, M.D., Stella Duncan Institute, University of Montana, Missoula, Montana. The complete genome of *M. tuberculosis*, strain H37Ra has been sequenced (GenBank: [CP000611](#)).³

M. tuberculosis subsp. *tuberculosis* is an acid-fast, Gram-positive, non-motile, rod-shaped aerobic bacterium. It is the causative agent of tuberculosis (TB) and is responsible for more morbidity in humans than any other bacterial disease. *M. tuberculosis* subsp. *tuberculosis* is a slow-growing pathogen with a thick, lipid-rich cell wall, lending bacilli the unusual propensity to shut down its metabolism in the face of adverse conditions and enter a latent phase in which it displays phenotypic resistance to antibiotic therapy. Therefore, persons infected with *M. tuberculosis* can develop active disease within months of infection or can remain latently infected and develop disease later in life. The primary focus of infection is the lungs, with TB being spread by infectious aerosols produced by coughing. The spread of multidrug-resistant and extensively drug-resistant TB is a major medical and public health concern for the world.⁴⁻⁹

Material Provided:

Each vial contains approximately 0.5 mL of bacterial culture in 0.5X Middlebrook 7H9 broth with Middlebrook ADC Enrichment supplemented with 10% glycerol.

Note: If homogeneity is required for your intended use, please purify prior to initiating work.

Packaging/Storage:

NR-122 was packaged aseptically in screw-capped plastic cryovials. The product is provided frozen and should be stored at -60°C or colder immediately upon arrival. For long-term storage, the vapor phase of a liquid nitrogen

freezer is recommended. Freeze-thaw cycles should be avoided.

Growth Conditions:

Media:

Middlebrook 7H9 broth with Middlebrook ADC Enrichment

Middlebrook 7H10 agar with Middlebrook OADC Enrichment

Incubation:

Temperature: 37°C

Atmosphere: Aerobic

Propagation:

1. Keep vial frozen until ready for use; then thaw.
2. Transfer the entire thawed aliquot into a single tube of broth.
3. Use several drops of the suspension to inoculate an agar slant and/or plate.
4. Incubate the tube, slant and/or and plate at 37°C for 4 weeks.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium tuberculosis* subsp. *tuberculosis*, Strain H37Ra, NR-122."

Biosafety Level: 2

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/bmb15/index.htm.

Disclaimers:

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