

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

Catalog No. NR-122

Product Description: *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.

Lot¹: 3685764

Manufacturing Date: 29JUL2004

TEST	SPECIFICATIONS	RESULTS
Phenotypic Analysis ² Cellular morphology Colony morphology on Middlebrook 7H10 Agar with OADC enrichment ³ Growth on Brain Heart Infusion agar ⁴ Growth on MacConkey agar (without crystal violet) ⁴ Growth at 26°C, 45°C and 55°C ³ Motility Acid-fast stain Pigmentation (light or dark) Photoinduction (1 hour) Biochemical characterization Nitrate reduction Pyrazinamidase ⁵ Urease Aryl sulfate (3 and 14 days) Catalase (semiquantitative) Catalase (68°C, pH 7) Iron uptake Tween 80 hydrolysis Growth in the presence of 5% sodium chloride ⁶ Growth in the presence of thiophene-2 carboxylic acid	Gram-positive rod Report results Report results No growth Report results Non-motile Positive (Red colonies) No pigment No pigment Positive Report results Positive Negative Negative Negative Negative Report results Report results Report results	Gram-positive rod Irregular, low convex, undulate and rough Growth No growth No growth Non-motile Positive (Red colonies) No pigment No pigment Positive Positive Positive Negative Negative Negative Negative Positive Negative Positive
Viability (post-freeze) ⁷	Growth	Growth

¹NR-122 was produced by propagation of ATCC[®] 25177™ on Middlebrook 7H10 Agar with OADC enrichment in an aerobic atmosphere for 4 weeks at 37°C.

²Lévy-Frébault, V. V. and F. Portaels. "Proposed Minimal Standards for the Genus *Mycobacterium* and for Description of New Slowly Growing *Mycobacterium* Species." *Int. J. Syst. Bacteriol.* 42 (1992): 315-323. PubMed: 1581193; see also, Kubica, G. P., T. H. Kim, and F. P. Dunbar. "Designation of Strain H37Rv as the Neotype of *Mycobacterium tuberculosis*." *Int. J. Syst. Bacteriol.* 22 (1972): 99-106.

³4 weeks at 37°C and aerobic atmosphere

⁴3 weeks at 37°C and aerobic atmosphere

⁵85% of *M. tuberculosis* strains are positive

⁶Less than 15% of *M. tuberculosis* strains are positive

⁷4 weeks at 37°C and aerobic atmosphere on Middlebrook 7H10 Agar with OADC enrichment

Date: 12 AUG 2013

Signature: 

Title: Technical Manager, BEI Authentication or designee

ATCC[®], on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC[®]'s knowledge.

ATCC[®] is a trademark of the American Type Culture Collection.

You are authorized to use this product for research use only. It is not intended for human use.

