

Product Information Sheet for NR-19022

Mycobacterium tuberculosis, Strain HN901

Catalog No. NR-19022

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*

Species: *Mycobacterium tuberculosis*

Strain: HN901

Original Source: *Mycobacterium tuberculosis*
(*M. tuberculosis*), strain HN901 was isolated in 1997 from
human pulmonary tissue in Texas, USA.¹

Comment: *M. tuberculosis*, strain HN901 was deposited as a
rifampicin and rifabutin resistant strain and is part of the
[Mycobacterium tuberculosis PGG1 Project](#) at the Broad
Institute. The complete genome of *M. tuberculosis*, strain
HN901 is currently being sequenced.

M. tuberculosis is an acid-fast, Gram-positive, non-motile,
rod-shaped aerobic bacterium. It is the causative agent of
tuberculosis and is responsible for more morbidity in humans
than any other bacterial disease. *M. tuberculosis* is a slow-
growing pathogen with a thick, lipid-rich cell wall, lending the
bacilli an unusual propensity to shut down their metabolism in
the face of adverse conditions and enter a latent phase in
which they display phenotypic resistance to antibiotic
therapy. The primary focus of infection is the lungs, with
tuberculosis being spread by infectious aerosols produced by
coughing. The spread of multi-drug resistant (MDR) and
extensively drug-resistant (XDR) tuberculosis is a major
medical and public health concern.²⁻⁶

Material Provided:

Each vial contains approximately 0.7 mL of bacterial culture
in Middlebrook 7H9 broth with ADC enrichment
supplemented with 10% glycerol.

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

Packaging/Storage:

NR-19022 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 or
equivalent

Middlebrook 7H10 agar with Middlebrook OADC enrichment
or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic (with or without 5% CO₂)

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 tubes and plate at 37°C for 2 to 6 weeks.

Citation:

Acknowledgment for publications should read "The following
reagent was obtained through BEI Resources, NIAID, NIH:
Mycobacterium tuberculosis, Strain HN901, NR-19022."

Biosafety Level: 3

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/bmbl5/index.htm.

This publication recommends that practices with this agent
include the use of respiratory protection and the
implementation of specific procedures and use of specialized
equipment to prevent and contain aerosols.

Disclaimers:

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

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References:

1. Graviss, E. A., Personal Communication.
2. Cole, S. T., et al. "Deciphering the Biology of *Mycobacterium tuberculosis* from the Complete Genome Sequence." Nature 393 (1998): 537-544. PubMed: 9634230.
3. Dye, C. "Doomsday Postponed? Preventing and Reversing Epidemics of Drug-Resistant Tuberculosis." Nat. Rev. Microbiol. 7 (2009): 81-87. PubMed: 19079354.
4. Chan, E. D. and M. D. Iseman. "Multidrug-Resistant and Extensively Drug-Resistant Tuberculosis: A Review." Curr. Opin. Infect. Dis. 21 (2008): 587-595. PubMed: 18978526.
5. Balganesh, T. S., P. M. Alzari and S. T. Cole. "Rising Standards for Tuberculosis Drug Development." Trends Pharmacol. Sci. 29 (2008): 576-581. PubMed: 18799223.
6. Murphy, D. J. and J. R. Brown. "Novel Drug Target Strategies against *Mycobacterium tuberculosis*." Curr. Opin. Microbiol. 11 (2008): 422-427. PubMed: 18801459.
7. Feske, M. L., et al. "Including the Third Dimension: A Spatial Analysis of TB Cases in Houston Harris County." Tuberculosis (Edinb) 91 (2011): S24-33. PubMed: 22094150.

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