

Mycobacterium insubricum, Strain FI-06250T

Catalog No. NR-49077

For research use only. Not for human use.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*

Species: *Mycobacterium insubricum*

Strain: FI-06250T (also referred to as DSM 45132^T and CIP 109609^T)¹

Original Source: *Mycobacterium insubricum* (*M. insubricum*), strain FI-06250T was isolated in 2006 from the sputum of a 62-year-old patient with chronic obstructive pulmonary disease in Varese, Italy.¹

Comments: *M. insubricum*, strain FI-06250T was deposited to BEI Resources as the type strain for the species.¹ The complete genome of *M. insubricum*, strain FI-06250T is currently being sequenced by BEI Resources.

M. insubricum is a Gram-positive, acid-fast, non-motile species of rapidly growing nontuberculous mycobacteria characterized by distinct 16S ribosomal RNA, RNA polymerase beta subunit (*rpoB*), 16S-23S internal transcribed spacer (ITS) 1 and 65 kDa heat shock protein (*hsp65*) gene sequences.¹ Lipid analysis of *M. insubricum* indicates a rare mycolic acid pattern with only α -mycolates.¹ *M. insubricum* has been isolated from sputum of patients with various pulmonary diseases, the skin of a patient with extra-pulmonary disease, as well as from the freshwater fish tench (*Tinca tinca*).^{1,2,3,4}

Material Provided:

Each vial contains approximately 0.5 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-49077 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 Lowenstein-Jensen agar or equivalent

Incubation:

Temperature: 37°C

Atmosphere: Aerobic with 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, slant and/or plate at 37°C for 5 to 7 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium insubricum*, Strain FI-06250T, NR-49077."

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/bmbl5/index.htm.

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References:

1. Tortoli, E., et al. "*Mycobacterium insubricum* sp. nov." Int. J. Syst. Evol. Microbiol. 59 (2009): 1518-1523. PubMed: 19502346.
2. Varghese, B., et al. "Emergence of Rare Species of Nontuberculous Mycobacteria as Potential Pathogens in Saudi Arabian Clinical Setting." PLoS Negl. Trop. Dis. 11 (2017): e0005288. PubMed: 28076350.
3. Slany, M., et al. "First Isolation of a Newly Described *Mycobacterium insubricum* from Freshwater Fish." Vet. Microbiol. 144 (2010): 254-255. PubMed: 20056356.
4. Mrlik, V., et al. "A Low Prevalence of Mycobacteria in Freshwater Fish from Water Reservoirs, Ponds and Farms." J. Fish Dis. 35 (2012): 497-504. PubMed: 22537026.

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