Product Information Sheet for NR-49075

Mycobacterium monacense, Strain B9-21-178T

Catalog No. NR-49075

For research use only. Not for human use.

Contributor:
Dr. Enrico Tortoli, Senior Scientist, Emerging Bacterial Pathogens Unit, San Raffaele Scientific Hospital, Milan, Italy

Manufacturer:
BEI Resources

Product Description:
Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*
Species: *Mycobacterium monacense*
Strain: B9-21-178T (also referred to as DSM 44395^T and CIP 109237^T)[1,2]
Original Source: *Mycobacterium monacense (M. monacense)*, strain B9-21-178T was isolated in 2008 from bronchial lavage of an 80-year-old patient with chronic multifocal lung carcinoma and insulin-dependent diabetes mellitus in Munich, Germany.[2]
Comments: *M. monacense*, strain B9-21-178T was deposited to BEI Resources as the type strain for the species.[1,2] The complete genome of *M. monacense*, strain B9-21-178T is available (GenBank: MVIA00000000).

M. monacense is an acid-fast, Gram-positive, scotochromogenic species of rapidly growing nontuberculous mycobacteria characterized by unique 16S ribosomal RNA (rRNA), 65 kDa heat-shock protein (*hsp*65) and 16S-23S internal transcribed spacer (ITS) gene sequences and a distinct mycolic acid analysis pattern by high pressure liquid chromatography (HPLC).[2] *M. monacense* has been isolated from clinical samples in Germany, Italy, Ecuador, China, India and Iran.[2,3,4,5,6] *M. monacense* has also been isolated from oil refinery river sediment in Iran with the ability to degrade polycyclic aromatic hydrocarbons (PAHs) and crude oil, suggesting a possible use as a bioremediation agent.[7]

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-49075 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% CO_2
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 3 to 5 days.

Citation:
Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium monacense*, Strain B9-21-178T, NR-49075."

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.

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

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www.beiresources.org
E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898

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References:

1. Tortoli, E., Personal Communication.
2. Reischl, U., et al. "*Mycobacterium monacense* sp. nov." Int. J. Syst. Evol. Microbiol. 56 (2006): 2575-2578. PubMed: 17082393.
3. Hogardt, M., et al. "*Mycobacterium monacense* in a Patient with a Pulmonary Tumor." Jpn. J. Infect. Dis. 61 (2008): 77-78. PubMed: 18219141.
4. Therese, K. L., et al. "First Report on Isolation of *Mycobacterium monacense* from Sputum Specimen in India." Lung India 28 (2011): 124-126. PubMed: 21712923.
5. Shojaei, H., et al. "Chronic Pulmonary Disease due to *Mycobacterium monacense* Infection: The First Case from Iran." Ann. Lab. Med. 32 (2012): 87-90. PubMed: 22259785.
6. Romero, J. J., et al. "Panniculitis Caused by *Mycobacterium monacense* Mimicking Erythema Induratum: A Case in Ecuador." New Microbes New Infec. 10 (2016): 112-115. PubMed: 26933504.
7. Azadi, D., et al. "Screening, Isolation and Molecular Identification of Biodegrading Mycobacteria from Iranian Ecosystems and Analysis of their Biodegradation Activity." AMB Express 7 (2017): 180. PubMed: 28933031.

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BEI Resources
www.beiresources.org

E-mail: contact@beiresources.org
Tel: 800-359-7370
Fax: 703-365-2898