

***Mycobacterium celeriflavum*, Strain AFPC000207T**

Catalog No. NR-49085

For research use only. Not for use in humans.

Contributor:

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Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*

Species: *Mycobacterium celeriflavum*

Strain: AFPC000207T (also referred to as DSM 46765^T and JCM 18439^T)^{1,2}

Original Source: *Mycobacterium celeriflavum* (*M. celeriflavum*), strain AFPC000207T was isolated in 2010 from the sputum of a 44-year-old male patient with chronic obstructive pulmonary disease in Ahvaz, Iran.²

Comments: *M. celeriflavum*, strain AFPC000207T was deposited to BEI Resources as the type strain for the species.^{1,2} The complete genome of *M. celeriflavum*, strain AFPC000207T is available (GenBank: [MVHN000000000](https://www.ncbi.nlm.nih.gov/nuccore/MVHN000000000)).

M. celeriflavum is an acid-fast, Gram-positive, scotochromogenic species of rapidly growing nontuberculous mycobacteria characterized by unique 16S ribosomal RNA (rRNA), RNA polymerase β -subunit (*rpoB*), molecular chaperone DnaK (*dnaK*), DNA gyrase β -subunit (*gyrB*), superoxide dismutase (*sodA*) and 65 kDa heat-shock protein (*hsp65*) gene sequences and a distinct mycolic acid analysis pattern by high pressure liquid chromatography (HPLC).² *M. celeriflavum* has been isolated from clinical respiratory samples in Iran, Turkey and Italy.² *M. celeriflavum* has also been isolated from oil refinery river sediment in Iran with the ability to degrade polycyclic aromatic hydrocarbons (PAHs), suggesting a possible use as a bioremediation agent.³

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-49085 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 4 to 7 days.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium celeriflavum*, Strain AFPC000207T, NR-49085."

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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References:

1. Tortoli, E., Personal Communication.
2. Shahraki, A. H., et al. "*Mycobacterium celeriflavum* sp. Nov., a Rapidly Growing Scotochromogenic Bacterium Isolated from Clinical Specimens." Int. J. Stst. Evol. Microbiol. 65 (2015): 510-515. PubMed: 25389151.
3. 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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