

***Mycobacterium simiae*, Strain CJ-49089**

Catalog No. NR-50650

For research use only. Not for human use.

Contributor and Manufacturer:

BEI Resources

Product Description:

Bacteria Classification: *Mycobacteriaceae*, *Mycobacterium*

Species: *Mycobacterium simiae*

Strain: CJ-49089

Original Source: *Mycobacterium simiae* (*M. simiae*), strain CJ-49089 is of unknown origin.

M. simiae is an acid-fast, Gram-positive, non-motile, usually photochromogenic¹, rod-shaped and slow-growing nontuberculous mycobacterium, first isolated in 1965 from monkeys.² *M. simiae* has since been implicated in several cases of human pulmonary disease.^{3,4} This species is less environmentally ubiquitous than other nontuberculous mycobacteria, with epidemiological data suggesting its environmental niche is aquatic.⁵ *M. simiae* has demonstrated resistance to a number of antimicrobial agents and most treatments with conventional antituberculous drugs have not been successful.^{3,4,6}

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-50650 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 tube, slant and/or plate at 37°C for 1 to 6 weeks.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium simiae*, Strain CJ-49089, NR-50650."

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.

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.

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References:

1. Rhodes, M. W., et al. "*Mycobacterium shottsii* sp. nov., a Slowly Growing Species Isolated from Chesapeake Bay

- Striped Bass (*Morone saxatilis*)." Int. J. Syst. Evol. Microbiol. 53 (2003): 421-424. PubMed: 12710607.
2. Karassova, V., J. Weissfeiler and E. Krasznay. "Occurrence of Atypical Mycobacteria in *Macacus rhesus*." Acta Microbiol. Acad. Sci. Hung. 12 (1965): 275-282. PubMed: 4955460.
 3. van Ingen, J., et al. "Clinical Relevance of *Mycobacterium simiae* in Pulmonary Samples." Eur. Respir. J. 31 (2008): 106-109. PubMed: 18166593.
 4. Koeck, J. L., et al. "Disseminated *Mycobacterium simiae* Infection in a Patient with AIDS: Clinical Features and Treatment." Clin. Infect. Dis. 23 (1996): 832-833. PubMed: 8909856.
 5. Makovcova, J., et al. "The Water Environment as a Source of Potentially Pathogenic Mycobacteria." J. Water Health 12 (2014): 254-263. PubMed: 24937219.
 6. Philley, J. V. and D. E. Griffith. "Treatment of Slowly Growing Mycobacteria." Clin. Chest Med. 36 (2015): 79-90. PubMed: 25676521.

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