





Product Sheet

Acidithiobacillus ferrooxidans deposited as *Thiobacillus ferrooxidans* (53984)

Please read this **FIRST**



Storage Temp.
Frozen: -80°C or colder
Freeze-Dried: 2°C to 8°C
Live Culture: See Propagation Section



Biosafety Level
1

Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

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Manassas, VA 20108 USA
www.atcc.org

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U.S. Patent Number:
5,366,891

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Product Description

Designation: Acidithiobacillus ferrooxidans deposited as Thiobacillus ferrooxidans
Organism: *Acidithiobacillus ferrooxidans* (Temple and Colmer) Kelly and Wood

Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Comments

Solubilization of metal salts in geothermal sludge

Propagation

Complete Growth Medium

ATCC® Medium 2039: Acidithiobacillus ferrooxidans Medium

Propagation Procedure

1. Incubate test tube cultures under above conditions upon receipt. It is helpful to incubate test tubes in a slanted position to increase gas exchange in broth. Transfer culture to fresh media within one week of arrival.
2. Gently vortex the test-tube to dislodge the iron that has oxidized onto the glass. Aseptically withdraw approximately 1.0 mL of the broth culture and transfer into 5 mL of fresh broth.
3. Incubate the broth either on a shaker or in a static and slanted position.
4. Growth is evident within one week, when yellow-orange iron oxide deposits are observed.
5. Transfer the culture approximately every two weeks.

Notes




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Additional information on this culture is available on the ATCC® web site at www.atcc.org.

 **References**

References and other information relating to this product are available online at www.atcc.org.

 **Biosafety Level: 1**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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