



***Acidithiobacillus ferrooxidans* (Temple and Colmer) Kelly and Wood**

14119™

Description

Formerly *Thiobacillus ferrooxidans*. Produces hydrogen sulfide:ferric ion oxidoreductase.

Deposited As: *Ferrobacillus sulfooxidans* Kinsel

Type strain: No

Storage Conditions

Product format: Test tube

Storage conditions: See handling procedure

Intended Use

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

BSL 1

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

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ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may 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 vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Medium:ATCC Medium 2039: *Acidithiobacillus ferrooxidans* Medium**Temperature:** 26°C**Atmosphere:** Aerobic

Handling Procedures

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

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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.
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Notes

The cells are motile and rod-shaped.

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

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: *Acidithiobacillus ferrooxidans* (Temple and Colmer) Kelly and Wood (ATCC 14119)

References

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

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