



Product Sheet

# *Acidithiobacillus thiooxidans* (ATCC® 53990™)

Please read this **FIRST**



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

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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.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: *Acidithiobacillus thiooxidans* (ATCC® 53990™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

## Description

**Designation:** BNL-3-25

**Deposited Name:** *Thiobacillus thiooxidans* Waksman and Joffe

## Propagation

### Medium

ATCC® Medium 125: Thiobacillus medium

### Growth Conditions

**Temperature:** 26°C

**Atmosphere:** Aerobic

### Propagation Procedure

1. For best results have the media prepared ahead of time. If media is not ready when the frozen culture arrives place the frozen vial at -80°C until it is to be used
2. Place the vial at room temperature and let thaw. Once the culture has thawed, transfer to a test tube containing 5 to 10 mL of ATCC Medium #125. Transfer 0.5 mL of the culture to a second tube of #125.
3. Slant the tubes and incubate at 26°C for 2 to 4 weeks. Growth is indicated by all of the sulfur settling to the bottom of the tube.
4. After the sulfur has settled to the bottom of the test tube examine the culture by phase microscopy to insure growth has occurred.
5. After growth has been obtained, inoculate multiple tubes of ATCC Medium #125, slant the tubes and incubate at 26°C.
6. Use 10 to 20 mL of culture to inoculate 100 mL of #125 (in a 250 mL screw cap flask) and then place the flask on a shelf at room temperature (26°C).
7. Let the flask incubate for 2 to 4 weeks. Growth is indicated when the sulfur settles to the bottom of the flask.

## Notes

This strain is a released patent culture and it is not axenic.

Additional information on this culture is available on the ATCC® web site at [www.atcc.org](http://www.atcc.org).

## References

References and other information relating to this product are available online at [www.atcc.org](http://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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Product Sheet

***Acidithiobacillus*  
*thiooxidans* (ATCC®  
53990™)**

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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