

# **Acidithiobacillus thiooxidans (Waksman and Joffe) Kelly and Wood**

53990<sup>TM</sup>

## **Description**

**Strain designation:** BNL-3-25

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

**Type strain:** No

**Patent depository:** This material was deposited with the ATCC Patent Depository to fulfill U.S. or international patent requirements. This material may not have been produced or characterized by ATCC. As an International Depository Authority (IDA) for patent deposits, ATCC is required to complete viability testing only at time of initial deposit of patent material. Patent deposits are made available on behalf of the Depositor when the pertinent U.S. or international patent is issued, but material may not be used to infringe the patent claims.

**Patent number:**

5,366,891

**Technical information:** ATCC Product Experience does not have technical information on patent deposits that are not produced or characterized by ATCC. Additional information can be found in the corresponding patent available from the patent holder or with the U.S. and/or international patent office.

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## **Storage Conditions**

**Product format:** Frozen

**Storage conditions:** -80°C or colder

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## **Intended Use**

This product is intended for laboratory research use only. It is not intended for any

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animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

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### **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.

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.

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### **Certificate of Analysis**

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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### **Growth Conditions**

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**Medium:**

ATCC Medium 0125: Thiobacillus medium

**Temperature:** 26°C

**Atmosphere:** Aerobic

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### **Handling Procedures**

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.

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### **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).

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### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the



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following manner: *Acidithiobacillus thiooxidans* (Waksman and Joffe) Kelly and Wood (ATCC 53990)

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### **References**

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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### **Revision**



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