



# ***Thermoanaerobacter ethanolicus* Wiegel and Ljungdahl**

**31550™**

## **Description**

*Thermoanaerobacter ethanolicus* strain JW 200 was isolated in 1978 from a hot spring at Yellowstone National Park. This thermophilic type strain is propagated anaerobically on *Thermoanaerobacter ethanolicus* medium at 55°C.

**Strain designation:** JW 200 [DSM 2246]

**Deposited As:** *Thermoanaerobacter ethanolicus* Wiegel and Ljungdahl

**Type strain:** Yes

**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:** 4,292,406

**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:** Freeze-dried

**Storage conditions:** 2°C to 8°C

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## **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.

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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**

**Medium:**

ATCC Medium 1190: *Thermoanaerobacter ethanolicus* medium

**Temperature:** 55°C

**Atmosphere:** Anaerobic

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## **Handling Procedures**

1. Open vial according to enclosed instructions.
2. Perform all steps under anaerobic conditions (*see below*).
3. Aseptically transfer 0.5 ml of ATCC Medium #1190 to the vial and rehydrate the freeze-dried pellet, immediately place the rehydrated pellet under a stream of oxygen-free sterile gas. Then transfer the suspension back into the tube of broth. Inoculate a plate of non-selective medium with 0.1 of the culture. Inoculate a non-selective tube of broth.
4. Seal the test tube with a rubber stopper and incubate anaerobically at 55°C. The rubber stoppers should be tapped down to insure that the anaerobic conditions are maintained during incubation. Incubate the plate(s) and aerobic broth at 37°C as a purity check.
5. After one or three days, growth should be evident by turbidity through out the broth. Once growth has been established, the culture should be transferred to fresh broth every 24 to 48 hours.
6. This culture is very sensitive to oxygen; therefore steps should be taken to avoid exposure to oxygen. When the culture exhibits good growth it will remain viable for up to 1 week if stored at 4°C under anaerobic conditions.

### **ANAEROBIC CONDITIONS:**

- Tubes of media are placed under a gassing cannula system hooked to a source of oxygen free gas.
- All transfers are performed while the test tubes are on the cannula system with a gentle stream of oxygen-free gas flowing through the system.
- As the test tubes are removed from the cannula system each is sealed with butyl rubber stopper thus maintaining the anaerobic headspace.

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## **Notes**

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 following manner: *Thermoanaerobacter ethanolicus* Wiegel and Ljungdahl (ATCC 31550)

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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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Product Sheet

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## **Revision**

This information on this document was last updated on 2025-03-22

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