



# *Thermus aquaticus* Brock and Freeze

25104™

## Description

*Thermus aquaticus* strain YT-1 is a thermophilic bacterium that was isolated from a hot spring at Yellowstone National Park. This strain is part of the National Park Service (NPS) Special Collection and is cited to produce the restriction endonucleases TaqI and Taq II.

**Strain designation:** YT-1 [DSM 625, JCM 10724, LMG 8924, NCAIM B.01703, NCIB 11243]

**Deposited As:** *Thermus aquaticus* Brock and Freeze

**Type strain:** Yes

---

## Storage Conditions

**Product format:** Freeze-dried

**Storage conditions:** 2°C to 8°C

---

## 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

## ***Thermus aquaticus* Brock and Freeze**

25104

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.

---

### **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).

---

### **Growth Conditions**

**Medium:**

ATCC Medium 461: Castenholz TYE medium

**Temperature:** 70°C

---

### **Handling Procedures**

1. Open vial according to enclosed instructions.
2. Using a single tube of #461 broth (5 to 6 ml), withdraw approximately 0.6 ml

with a Pasteur or 1.0 ml pipette. Rehydrate the entire pellet.

3. Aseptically transfer 0.3 ml of this suspension back into the broth tube. Mix well.
4. Use the remaining 0.3 ml of the suspension to inoculate a slant of #461 agar.
5. Incubate tubes at 70°C. For best results, incubate tubes within a closed jar with a moistened paper towel added to maintain humidity and prevent desiccation.
6. Once growth is obtained in broth, plates can be inoculated with approximately 0.2 ml per plate. Better growth is achieved on plates when incubated at 60°C rather than 70°C. Plates should be incubated in a jar as described above or taped shut to prevent desiccation.

---

## **Notes**

Yellow growth should be visible in broth and slant tubes after 24 to 48 hours of incubation. At 1000X magnification, cells are long, regular rods occurring singly or occasionally as end-to-end pairs.

After 48 hours, the colonies on plates are circular with a convex elevation, entire margin, and a smooth surface. They are dark yellow in color and can be up to 1 mm in diameter.

---

## **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Thermus aquaticus* Brock and Freeze (ATCC 25104)

---

## **References**

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

---

## **Warranty**

## ***Thermus aquaticus* Brock and Freeze**

25104

The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

---

### **Disclaimers**

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. Any proposed commercial use is prohibited without a [license from ATCC](#).

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This

product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at [www.atcc.org](http://www.atcc.org).

---

## **Copyright and Trademark Information**

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

---

## **Revision**

This information on this document was last updated on 2026-06-20

---

## **Contact Information**

ATCC

10801 University Boulevard

Manassas, VA 20110-2209

USA

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: [tech@atcc.org](mailto:tech@atcc.org) or contact your local distributor

---