



***Thermoplasma acidophilum* Darland et al.**

27656™

Description

Strain designation: 124-1

Deposited As: *Thermoplasma acidophilum* Darland et al.

Type strain: No

Storage Conditions

Product format: Frozen

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.

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 569: *Thermoplasma* medium

Temperature: 55°C

Handling Procedures

1. Keep cryovial frozen until ready for use, then thaw slowly at room temperature when you are ready to inoculate.
2. Using two sterile 25.0 cm T-flasks, add 10.0 ml of fresh media to each. Place the flasks at 55°C for 30 minutes. Once the vial reaches room temperature remove the flasks from the 55°C incubator. Remove 0.5 ml of #569 broth and add it to the vial. Transfer the entire contents back to the flask. Take 1.0 ml from the first flask and

transfer it to the second flask.

3. Incubate the flasks at 55°C. *Thermoplasma volcanium* requires oxygen, so slanting the flasks will provide greater surface area. Shaking is not recommended.

4. Growth appears in the first flask in 4 to 7 days. Subsequent transfers grow more rapidly, and due to drastic loss in viability, transfers should be done 24 to 48 hours after growth. The inoculum size should be 10 to 20%. Glassware should be free of any trace of detergent or soap. Cells do not tolerate refrigeration.

5. For long term storage, freeze in liquid nitrogen. It is recommended that actively growing cells are harvested by centrifugation at 9000 rpm for 30 minutes, the supernatant removed, and the pellet resuspended in a smaller amount of fresh growth medium with an equal volume of 20% glycerol (10% final concentration) added. Small amounts of this suspension are aliquoted into small cryovials and immediately placed in liquid nitrogen storage.

Notes

Under 1000x magnification the cells appear as spheres and pleomorphic filaments.

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: *Thermoplasma acidophilum* Darland et al. (ATCC 27656)

References

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

Warranty

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.

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 2025-02-27

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 or contact your local distributor