



# *Thermoplasma acidophilum* Darland

## 5905™

### Description

- **Strain designation** 122-1B2 [AMRC C165, DSM 1728]
  - **Deposited As** *Thermoplasma acidophilum* Darland et al.
  - **Type strain** Yes
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### Storage Conditions

- **Product format** Frozen
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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 569: \*Thermoplasma\* medium](#)
  - **Temperature** 60°C
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## Handling Procedures

- **1. Keep cryovial frozen until ready for use, then thaw slowly at room temperature.**
  - **2. Add 1.5 ml of #569 broth to the vial. Make serial dilutions from this suspension by passing 0.5 ml into a tube containing 4.5 ml of the same medium. Repeat this procedure for a total of 7 to 8 passages.**
  - **3. Incubate the tubes at 55-60°C. *Thermoplasma acidophilum* requires oxygen, so slant the rack of tubes to provide greater surface area.**
  - **4. Growth appears in the first few tubes in 3 to 5 days. Subsequent transfers grow more rapidly, and should be passaged every 2 to 3 days. The inoculum size is 10 to 20%. Once stationary phase is reached, there is a drastic loss in viability. 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% F.C.) added. Small amounts of this suspension are aliquoted into small cryovials and immediately placed in liquid nitrogen storage.**
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## Notes

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This organism does not have a cell wall and grows by budding. 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](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: *Thermoplasma acidophilum* Darland et al. (ATCC 25905)

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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

This information on this document was last updated on 2023-02-25

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