Designation: 122-1B2 [AMRC C165, DSM 1728]
Deposited Name: Thermoplasma acidophilum Darland et al.

Medium
ATCC® Medium 569: Thermoplasma medium

Growth Conditions
Temperature: 60.0°C

Propagation Procedure
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 passed 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.

Notes
This organism does not have a cell wall and grows by budding. Under 1000x magnification the cells appear as spheres and pleomorphic filaments.

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

Biosafety Level: 1
Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the Biosafety in Microbiological and Biomedical Laboratories from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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