



Product Sheet

# *Prototheca ulmea* (ATCC® 50112™)

Please read this **FIRST**



## Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: *Prototheca ulmea* (ATCC® 50112™)

American Type Culture Collection  
PO Box 1549  
Manassas, VA 20108 USA  
[www.atcc.org](http://www.atcc.org)

800.638.6597 or 703.365.2700  
Fax: 703.365.2750  
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## Description

**Strain Designation:** RSP-1275

**Deposited Name:** *Prototheca ulmea* Pore

**Depositor:** RS Pore

**Isolation:**

American elm, *Ulmus americana*, Pennsylvania, 1984

## Propagation

### Growth Conditions

**Temperature:** 25.0°C

Duration: axenic

**Protocol:** ATCCNO: 16522 SPEC: This strain is distributed as a freeze-dried preparation. See the general procedures for opening a freeze-dried vial. Aseptically add 0.5 ml of ice cold medium to containing 12% sucrose to the freeze-dried inner shell vial. Once completely rehydrated, aseptically transfer the material to a 100 mm agar plate of the appropriate medium and evenly distribute the material over the surface of the agar with a spread bar. Subculture 4-6 weeks when incubated at 25C. Subculture 6-12 months when incubated at 18C To subculture, transfer a loopful of material to a fresh plate and spread evenly over the surface.

### Medium

ATCC® Medium 1371: *Prototheca* isolation medium (PIM)

### Instructions for Complete Medium

ATCC Medium 28

### Culture Maintenance

1. Transfer cells with an inoculating loop to a tube or plate of fresh agar medium from a growing culture at or near peak density.
2. Incubate as described in step 3 under the section for establishing a culture.

## Cryopreservation

1. Harvest cells from a culture which is at or near peak density by adding 3.0-5.0 ml fresh ATCC medium 28 broth to the slant or plate and washing cells into suspension. It may be helpful to rub the surface of the agar with a spread bar or inoculating loop to detach adhering cells.
2. Adjust the concentration of cells to  $2 \times 10^7$ /ml with fresh broth medium, then dilute to half this concentration by adding an equal amount of a 20% (v/v) sterile solution of either DMSO or glycerol in fresh ATCC medium 28 broth.
3. Dispense in 0.5 ml aliquots into 1.0 - 2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation). The time from mixing of the cell preparation and the cryoprotective solution to the start of the cooling cycle should be no less than 15 min and no greater than 30 min.
4. Place vials in a controlled rate freezing unit. From room temperature cool at -1°C/min to -40°C. If freezing unit can compensate for the heat of fusion, maintain rate at -1 C/min through heat of fusion. At -40°C plunge ampules into liquid nitrogen. Alternatively, place the vials in a Nalgene 1°C freezing apparatus. Place the apparatus at -80°C for 1.5 to 2 hours and then plunge ampules into liquid nitrogen. (The cooling rate in this apparatus is approximately -1°C/min.)
5. The frozen preparations should be stored in either the vapor or liquid phase of a nitrogen refrigerator. Frozen preparations stored below -130°C are stable indefinitely. Those stored at temperatures above -130°C are progressively less stable as the storage temperature is elevated. Vials can be stored between -80 and -70°C for no longer than one week.
6. To establish a culture from the frozen state place an ampule in a water bath set at 35°C until thawed (2-3 min). Immerse the ampule enough to cover only the frozen material. Do not agitate the ampule.
7. Immediately after thawing, do not leave in the water bath, aseptically remove the contents of the ampule and add to a fresh slant of ATCC medium 28 or the surface of an agar plate of ATCC medium 28.
8. Maintain as described above.

## References

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



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## 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.

## ATCC Warranty

The viability of ATCC® products is warranted for 30 days from the date of shipment, and is valid only if the product is stored and cultured according to the information included on this product information sheet. ATCC lists the media formulation that has been found to be effective for this strain. While other, unspecified media may also produce satisfactory results, a change in media or the absence of an additive from the ATCC recommended media may affect recovery, growth and/or function of this strain. If an alternative medium formulation is used, the ATCC warranty for viability is no longer valid.

## Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this product. The MTA is also available on our Web site at [www.atcc.org](http://www.atcc.org)

Additional information on this culture is available on the ATCC web site at [www.atcc.org](http://www.atcc.org).

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