



Product Sheet

# *Protostelium mycophaga* (ATCC® PRA-154™)

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: *Protostelium mycophaga* (ATCC® PRA-154™)

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Manassas, VA 20108 USA  
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## Description

**Strain Designation:** Type

**Deposited Name:** *Protostelium mycophaga* Olive et Stoianovitch

**Depositor:** FW Spiegel

**Isolation:**

plant (*Phragmites australis* (Cav.) Steudel (*Phragmites communis*, common reed) dead inflorescence, New Jersey meadowland)

New Jersey, United States

**Isolation date:** 1959

## Propagation

**Growth Conditions**

**Temperature:** 15-20.0°C

**Growth condition:** Grown with *Rhodotorula mucilaginosa* ATCC MYA-3510 as food source

**Medium**

ATCC® Medium 2432: wMY (weak Malt Yeast Extract)

## Instructions for Complete Medium

ATCC Medium 2432 inoculated with *Rhodotorula mucilaginosa* (ATCC® MYA-3510)

## Protocols

Frozen ampules packed in dry ice should either be thawed immediately or stored in liquid nitrogen. If liquid nitrogen storage facilities are not available, frozen ampules may be stored at or below -70°C for approximately one week. **Do not under any circumstance store frozen ampules at refrigerator freezer temperatures (generally -20°C).** Storage of frozen material at this temperature will result in the death of the culture.

1. To thaw a frozen ampule, place it in a 35°C water bath such that the lip of the ampule remains above the water line. Thawing time is approximately 2 to 3 minutes. Do not agitate the ampule. Do not leave ampule in water bath after it is thawed.
2. Immediately after thawing, aseptically transfer contents to a plate of ATCC medium 2432. Distribute the material evenly over the plate using a spread bar.
3. Wrap the entire edge of the plate with parafilm and incubate upright at 25°C. Amoeboid trophozoites and/or stalked fruiting bodies should be seen within 2-5 d.

## Culture Maintenance

1. Prepare an ATCC medium 2432 plate with a lawn of *Rhodotorula mucilaginosa* (ATCC® MYA-3510) and incubate at 25°C overnight.
2. Remove an agar block (~5 mm<sup>2</sup>) with trophozoites from the edge of an agar plate culture and invert the block at the edge of the freshly prepared plate.
3. Wrap the entire edge of the plate with parafilm and incubate upright at 25°C.
4. Repeat steps 1-3 at 7-10 d intervals.

## Cryopreservation

### Cryoprotective Solution

DMSO	1.5 ml
Fresh growth medium w/o bacteria	8.5 ml

1. Mix the components in the order listed. When the medium is added to the DMSO the solution will warm up due to chemical heat.
2. Harvest cells from a culture which is at or near peak density by adding 5 ml ATCC medium 5080 (Dryl's solution) and washing cells into suspension. Rub the surface of the plate with a spread bar to detach adhering trophozoites.
3. Adjust the concentration of cells to at least 2 x 10<sup>4</sup>/ml in fresh medium.
4. Mix the cell preparation and the cryoprotective solution in equal portions.
5. Dispense in 0.5 ml aliquots into 1.0 - 2.0 ml sterile plastic screw-capped cryules (special plastic vials for cryopreservation).
6. Place vials in a controlled rate freezing unit. From room temperature cool at -1°C/min to -40°C. If freezing



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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.)

7. Ampules are stored in either the vapor or liquid phase of a nitrogen refrigerator.
8. To establish a culture from the frozen state place the vial in a 35°C water bath. Immerse the vial to a level just above the surface of the frozen material. Do not agitate the vial. Immediately after thawing, aseptically transfer the contents of the ampule to the center of a fresh plate of ATCC medium 2432. Distribute the material evenly over the plate using a spread bar.
9. Wrap the entire edge of the plate with parafilm and incubate upright at 25°C.
10. Follow the protocol for maintenance of culture.



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### 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.

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

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