



Product Sheet

# *Lotmaria passim* (ATCC® PRA-403™)

Please read this FIRST

Storage Temp.  
**Frozen Cultures:**  
**-70°C for 1 week;**  
**liquid N<sub>2</sub> vapor**  
**for long term**  
**storage**



**Freeze-dried**  
**Cultures:**  
**2-8°C**

**Live Cultures:**  
**See Protocols**  
**section for**  
**handling**  
**information**



Biosafety Level  
**1**

## 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: *Lotmaria passim* (ATCC® PRA-403™)

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  
Email: [Tech@atcc.org](mailto:Tech@atcc.org)

Or contact your local distributor

## Description

**Strain Designation:** SF  
**Deposited Name:** *Crithidia mellificae*  
**Depositor:** J DeRisi  
**Isolation:** Honey bee gut, 2010, CA

## Propagation

**Growth Conditions**  
**Temperature:** 20°C to 25°C  
**Atmosphere:** Aerobic

**Medium**  
ATCC® Medium 1034: Modified PYNFH medium (Available from ATCC as ATCC cat. no. 327-X)

## Instructions for Complete Medium

**Media:** ATCC medium 1034 Modified PYNFH medium (Available from ATCC as Cat. no. 327-X)

## Protocols

### Storage and Culture Initiation

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 the entire contents to a T-25 flask containing 10 mL complete medium.
3. Incubate with the cap tightly sealed at 20-25°C.

### Culture Maintenance

Subculture at peak density (approximately every 7-10d) to a fresh T-25 flask of complete medium in the following manner:

1. Vigorously agitate the flask and aseptically transfer 0.1 – 0.2 mL to a T-25 tissue culture flask containing 10 mL complete medium.
2. Incubate with the cap tightly sealed at 20-25°C.

## Cryopreservation

### Reagents

Cryoprotective Solution  
DMSO, 1.0 mL  
Fresh complete growth medium, 9.0 mL

### Harvest and Preservation

1. Harvest cells from a culture which is at or near peak density by centrifugation at 800-1000 x g for 5 min.
2. Adjust concentration of cells to between 2 x 10<sup>7</sup> and 2 x 10<sup>8</sup> cells/mL in fresh medium. If the cell concentration is too low, centrifuge at 800-1000 x g for 5 minutes and resuspend the cell pellet with a volume of supernatant to yield the desired concentration.
3. While cells are centrifuging, prepare a 10% (v/v) solution of sterile DMSO in fresh medium (broth). The DMSO solution when first prepared will warm up due to chemical heat. The solution should be allowed to return to room temperature prior to use.
4. Mix the cell preparation and the DMSO solution in equal portions. The final concentration will be 10<sup>7</sup> – 10<sup>8</sup> cells/mL and 5% (v/v) DMSO. The time from the mixing of the cell preparation and DMSO stock solution to the start of the freezing process should be no less than 15 min and no more than 30 min.
5. Dispense in 0.5 mL aliquots into 1.0 - 2.0 mL sterile plastic screw-capped cryules (special plastic vials for cryopreservation).



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6. Place the ampules 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.) 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.
7. Store in either the vapor or liquid phase of a nitrogen refrigerator.
8. To establish a culture from the frozen state, place an ampule in a 35°C water bath (2-3 min). Immerse the vial just sufficiently to cover the frozen material. Do not agitate the vial.
9. Remove the vial from the water bath immediately after thawing. Aseptically transfer the entire contents of the ampule into a T-25 tissue culture flask containing 10.0 mL complete medium. Incubate with the cap tightly sealed at 20-25°C.
10. Maintain as described above.



### **References**

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

### **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**

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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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