



Product Sheet

# *Capsaspora owczarzaki* (ATCC® 30864™)

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: *Capsaspora owczarzaki* (ATCC® 30864™)

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:** No designation  
**Deposited Name:** *Nuclearia* sp.  
**Depositor:** C.J Bayne  
**Isolation:** *Biomphalaria glabrata*, Corvallis, OR, 1977

## Notes

This culture may grow poorly in medium with the standard 10% serum, but it proliferates to much greater density if serum concentration is increased to 30%. Heat-inactivated horse serum (HIHS) may be used as an alternative to heat-inactivated fetal bovine serum (HIFBS) for cultivation of this organism.

## Propagation

**Growth Conditions**  
**Temperature:** 25°C  
**Culture System:** Axenic

**Medium**  
ATCC® Medium 1034: Modified PYNFH medium (Available from ATCC as ATCC cat. no. 327-X)  
ATCC® Medium 803: M7 medium

## Instructions for Complete Medium

**Media:** ATCC medium 1034 with serum increased to 30% (ATCC medium 1034 is available in a freeze-dried format from ATCC; Cat# 327-X)

**Alternate Media:** ATCC medium 803 with serum increased to 30%

## 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 ATCC Medium 1034 with serum increased to 30%. Incubate the flask horizontally at 25°C with the cap screwed on tightly.

### Culture Maintenance

Subculture every two to three weeks to a fresh T-25 flask of bacterized medium in the following manner:

1. Vigorously agitate the culture flask (or scrape the flask bottom using a sterile cell scraper) and aseptically transfer 0.1-0.2 mL to a new flask of ATCC medium 1034 with serum increased to 30%.
2. Incubate the flask horizontally at 25°C with the cap screwed on tightly.

## Cryopreservation

### Harvest and Preservation

1. Harvest cells from a culture that is at or near peak density by centrifugation at 800-900 x g for 5 min. Pool the cell pellets into a single tube.
2. Adjust the concentration of cells to 2.0 x 10<sup>7</sup>/mL. If the concentration is too low, centrifuge at 800-900 x g for 5 minutes and resuspend the cell pellet with a volume of supernatant to yield the desired concentration.
3. Prepare a 15% (v/v) sterile DMSO solution in ATCC medium 1034 as follows: Add the required volume of DMSO to a glass screw-capped test tube and place on ice. Allow the DMSO to solidify. Add the required volume of refrigerated ATCC medium 1034. Dissolve the DMSO by inverting several times. If the DMSO solution is not prepared on ice, an exothermic reaction will occur that may precipitate



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- certain components of the medium.
- Mix the cell preparation and the DMSO in equal portions. Thus, the final concentration will be 10<sup>7</sup> and 7.5% (v/v) DMSO. The time from the mixing of the cell preparation and cryoprotective solution to the start of the freezing process should be no less than 15 min. and no more than 60 min.
  - Dispense in 0.5 mL aliquots into 1.0 - 2.0 mL sterile plastic screw-capped cryovials (special plastic vials for cryopreservation).
  - Place the vials in a controlled rate freezing unit. Use the following cooling cycle: From room temperature cool at -10°C/min to the heat of fusion; from the heat of fusion to -40°C, cool at -1°C/min. At -40°C plunge into liquid nitrogen. The cooling cycle should be initiated no less than 15 and no more than 30 minutes after the addition of DMSO to the cell preparation.
  - The frozen preparations are stored in either the vapor or liquid phase of a nitrogen refrigerator.
  - To establish a culture from the frozen state place an ampule in a water bath set at 35°C. Immerse the vial enough to cover only the frozen material. Do not agitate the vial.
  - Immediately after thawing, do not leave in the water bath, aseptically remove the entire contents of the vial and transfer to a T-25 flask containing 10 mL ATCC Medium 1034 with serum increased to 30%.
  - Incubate the flask horizontally at 25°C with the cap screwed on tightly.



## 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

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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