

50034<sup>TM</sup>

## Description

Strain designation: GT-1

**Deposited As:** Glaucoma chattoni Corliss

Type strain: No

### **Storage Conditions**

Product format: Test tube

Storage conditions: See handling procedure

### Intended Use

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

### BSL<sub>1</sub>

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of Biosafety in Microbiological and Biomedical Laboratories (BMBL), U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.



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ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

### Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

### **Growth Conditions**

#### Medium:

ATCC Medium 802: Sonneborn's Paramecium medium

**Instructions for complete medium:** ATCC Medium 802 may be pre-inoculated with *Klebsiella pneumoniae* subsp. *pneumoniae* (ATCC<sup>®</sup> 700831<sup>™</sup>) or *Enterobacter aerogenes* (ATCC<sup>®</sup> 13048<sup>™</sup>) for better growth.

**Temperature:** 20-25°C **Atmosphere:** Aerobic

## Handling Procedures

### **Handling of Live Culture**

This strain is routinely shipped as a growing culture in a glass 16 x 125 mm screw-capped test tube. The volume of the cell suspension is approximately 5 mL. When the

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culture arrives remove it promptly from the shipping container. **Do not store the** culture at refrigeration temperatures before handling. To assure viability, immediately loosen the test tube cap and incubate upright at 20-25°C for at least one hour before observing the culture. There should be numerous active trophozoites in suspension. If the numbers are low the culture may have been exposed to temperature extremes in transit. Regardless of the state of the culture, aseptically transfer a 0.5 mL aliquot to a T-25 flask containing 10 mL of ATCC medium 802 bacterized with *Klebsiella pneumoniae* subsp. *pneumoniae* (ATCC® 700831™) or *Enterobacter aerogenes* (ATCC® 13048™). Incubate with the cap tightly sealed at 20-25°C.

**Culture maintenance:** Subculture at peak density (approximately every 14-21 d) to a fresh T-25 flask of fresh medium in the following manner:

- 1. Gently agitate the flask and aseptically transfer 0.25-0.5 mL to a T-25 tissue culture flask containing 10 mL complete medium.
- 2. Incubate with the cap tightly sealed at 20-25°C.

Reagents for cryopreservation: Cryoprotective Solution

DMSO, 2.0 mL

Fresh growth medium, 8.0 mL

**Cryopreservation:** 

- To achieve the best results, set up cultures with several different inocula (i.e., 0.25 mL, 0.5 mL, 1.0 mL). Harvest cultures and pool when the culture that received the lowest inoculum is at or near peak density.
- 2. If the cell concentration exceeds the required level do not centrifuge, but adjust the concentration to approximately  $2 \times 10^6$  cells/mL with fresh growth medium. If the concentration is too low, centrifuge at 400-500 x g for 5 min and resuspend the pellet in the volume of fresh medium required to yield the desired concentration.
- 3. While cells are centrifuging prepare a 20% (v/v) solution of sterile DMSO as follows: Add the required volume of DMSO to a glass screw-capped test tube and place it in an ice bath. Allow the DMSO to solidify. Add the required volume of refrigerated medium. Dissolve the DMSO by inverting the tube several times.
  - **Note:** If the DMSO solution is not prepared on ice, an exothermic reaction will occur that may precipitate certain components of the medium.
- 4. Mix the cell preparation and the DMSO in equal portions. Thus, the final concentration will be approximately 10



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- $^6$  cells/mL and 10.0% (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 longer 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).
- 6. Place the vials in a controlled rate freezing unit. From room temperature cool at -1°C/min to -40°C. If the freezing unit can compensate for the heat of fusion, maintain rate at -1°C/min through the heat of fusion. At -40°C plunge 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. The frozen preparations are stored in either the vapor or liquid phase of a nitrogen freezer.
- 8. To establish a culture from the frozen state, quickly add 0.5 mL spent/exhausted ATCC medium 802\* supplemented with 12% (w/v) sucrose to the frozen ampule and place it 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. \*Spent/exhausted medium is medium which has been previously used for cultivation of food-source bacteria and subsequently filter-sterilized for general use. The bacteria consume many of the nutrients in the medium, reducing its capacity to promote additional bacterial growth when re-used. It is prepared by passing supernatant from an advanced culture (i.e., one which is at or near stationary phase) through a 0.22 μm filter.
- 9. Immediately after thawing, do not leave in water bath, aseptically remove the contents of the ampule and inoculate onto the surface of a 20 x 100 mm petri plate containing ATCC medium 919 (non-nutrient agar) with an overlay of 15.0 mL spent ATCC medium 802 supplemented with 6% (w/v) sucrose.
- 10. Incubate at 20-25°C with the cap on loosely.
- 11. Once the culture is established (motile cells observed), aseptically transfer approximately 8 mL to an upright 20x150mm glass test tube and gently overlay with an equal volume of ATCC medium 802 bacterized with *Klebsiella pneumoniae* subsp. *pneumoniae* (ATCC® 700831™) or *Enterobacter aerogenes* (ATCC® 13048™). The bacterized medium should form a bilayer with the spent medium below.
- 12. When cells migrate from the layer of spent medium upward into the layer of bacterized medium, aseptically remove a 0.5-1.0 mL aliquot and transfer to a T-

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25 tissue culture flask containing 10.0 mL of ATCC medium 802 bacterized with Klebsiella pneumoniae subsp. pneumoniae (ATCC® 700831™) or Enterobacter aerogenes (ATCC® 13048™).

- 13. Incubate with the cap tightly sealed at 20-25°C.
- 14. Follow the protocol for maintenance of culture.

### **Material Citation**

If use of this material results in a scientific publication, please cite the material in the following manner: *Glaucoma chattoni* Corliss (ATCC 50034)

#### References

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

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### Revision

This information on this document was last updated on 2025-08-20

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