

# CRL-3639<sup>™</sup>

# Description

ROM1 is an adherent epithelial-like cell line derived from a pediatric patient with recurrent otitis media with effusion (inflammatory condition of the middle ear). Due to the characteristic inflammatory gene expression and responses, ROM1 is intended for the study of pediatric recurrent otitis media. Relative to normal non-inflamed pediatric middle ear derived from a patient without otitis media, ROM1 demonstrated greater cytokine expression and response, supporting the retention of an inflamed OM-affected phenotype.

Tissue: Ear; Middle ear; Near eustachian tube orifice

Age: 1.5 years **Gender:** Female

Morphology: Epithelial-like **Growth properties:** Adherent

Disease: Otitis media Cells per vial:  $\geq 1.0 \times 10^6$ 

## **Storage Conditions**

**Product format:** Frozen

**Storage conditions:** Vapor phase of liquid nitrogen

#### 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>2</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.

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**

Temperature: 33°C

Atmosphere: 95% Air, 5% CO<sub>2</sub>

## **Handling Procedures**



**Complete medium:** The base medium for this cell line is PneumaCult™-Ex Plus Medium Kit (StemCell™ Technologies catalog # 05040). To make the complete growth medium, follow the instructions provided by StemCell™ Technologies, including the addition of 0.5 mL hydrocortisone stock solution (StemCell™ Technologies catalog #07925).

**Handling Procedure:** To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

- 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
- 2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
- 3. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 to 400 x g for 8 to 12 minutes.
- 4. Carefully aspirate the supernatant and discard, leaving the cell pellet.
- 5. Gently resuspend the cell pellet in 15 mL fresh pre-warmed complete growth medium, and transfer cell suspension into a vented, collagen I coated T-75 (Corning® Catalog # 356485).
- 6. Place the flask in a 33°C incubator with 5% CO2.

#### **Subculturing procedure:**

It is recommended to subculture upon 85 to 90% confluence. Do not allow cultures to become over confluent.

Volumes used in this protocol are for 75 cm<sup>2</sup> flask; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.

- 1. Remove and discard culture medium.
- 2. Briefly rinse the cell layer with PBS to remove all traces of serum that contains trypsin inhibitor.
- 3. Add 2.0 to 3.0 mL of Gibco™ TrypLE™ Express Enzyme (1X), no phenol red (Thermofisher Scientific catalog # 12604-013) to flask and observe cells under



an inverted microscope until the cell layer is dispersed (usually within 5 minutes).

**Note:** To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 33°C to facilitate dispersal.

- 4. Add 6.0 to 8.0 mL of Trypsin Neutralizing Solution (ATCC PCS-999-004) and aspirate cells by gently pipetting.
- 5. Centrifuge the cell suspension at approximately 150 to  $400 \times g$  for 8 to 12 minutes to remove dissociation agent.
- 6. Resuspend the cell pellet in an appropriate amount of complete culture medium.
- 7. Add appropriate aliquots of the cell suspension to new collagen I coated culture vessels.
  - Cultures can be established between 1.5 x  $10^4$  and 4.0 x  $10^4$  viable cells/cm<sup>2</sup>.
- 8. Incubate cultures at 33°C.

**Interval:** Maintain cultures at a cell concentration between  $1.0 \times 10^4$  and  $4.0 \times 10^4$  cells/cm<sup>2</sup>.

**Subcultivation Ratio:** A subcultivation ratio of 1:4 is recommended.

Medium Renewal: Every 2 to 3 days.

Reagents for cryopreservation: Complete culture medium + 10% DMSO (ATCC 4-X)

#### Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: ROM1 (ATCC CRL-3639)

#### References

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

### Warranty



The product is provided 'AS IS' and the viability of ATCC® products is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product information sheet, website, and Certificate of Analysis. For living cultures, ATCC lists the media formulation and reagents that have been found to be effective for the product. While other unspecified media and reagents may also produce satisfactory results, a change in the ATCC and/or depositor-recommended protocols may affect the recovery, growth, and/or function of the product. If an alternative medium formulation or reagent is used, the ATCC warranty for viability is no longer valid. Except as expressly set forth herein, no other warranties of any kind are provided, express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose, manufacture according to cGMP standards, typicality, safety, accuracy, and/or noninfringement.

#### **Disclaimers**

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. Any proposed commercial use is prohibited without a license from ATCC.

While ATCC uses reasonable efforts to include accurate and up-to-date information on this product sheet, ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. ATCC does not warrant that such information has been confirmed to be accurate or complete and the customer bears the sole responsibility of confirming the accuracy and completeness of any such information.

This product is sent on the condition that the customer is responsible for and assumes all risk and responsibility in connection with the receipt, handling, storage, disposal, and use of the ATCC product including without limitation taking all appropriate safety and handling precautions to minimize health or environmental risk. As a condition of receiving the material, the customer agrees that any activity undertaken with the ATCC product and any progeny or modifications will be conducted in compliance with all applicable laws, regulations, and guidelines. This



product is provided 'AS IS' with no representations or warranties whatsoever except as expressly set forth herein and in no event shall ATCC, its parents, subsidiaries, directors, officers, agents, employees, assigns, successors, and affiliates be liable for indirect, special, incidental, or consequential damages of any kind in connection with or arising out of the customer's use of the product. While reasonable effort is made to ensure authenticity and reliability of materials on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of such materials.

Please see the material transfer agreement (MTA) for further details regarding the use of this product. The MTA is available at www.atcc.org.

## Copyright and Trademark Information

© ATCC 2023. All rights reserved.

ATCC is a registered trademark of the American Type Culture Collection.

#### Revision

This information on this document was last updated on 2025-10-18

#### **Contact Information**

**ATCC** 

10801 University Boulevard

Manassas, VA 20110-2209

**USA** 

US telephone: 800-638-6597

Worldwide telephone: +1-703-365-2700

Email: tech@atcc.org or contact your local distributor

