




## Product Sheet


# STC-1 (ATCC® CRL-3254™)

Please read this FIRST



Storage Temp.  
**liquid nitrogen  
vapor phase**

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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.

### Complete Growth Medium

The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

### Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: STC-1 (ATCC® CRL-3254™)

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

**Organism:** *Mus musculus*, mouse  
**Strain:** C57B1/6J  
**Tissue:** intestine  
**Disease:** invasive small intestinal neuroendocrine carcinoma  
**Cell Type:** intestinal neuroendocrine tumor cells  
**Age:** 10 to 13 weeks  
**Morphology:** epithelial-like  
**Growth Properties:** adherent

### Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

### SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submerged 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 vessel exploding or blowing off its cap with dangerous force creating flying debris.

### Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below  $-130^{\circ}\text{C}$ , preferably in liquid nitrogen vapor, until ready for use.

### Handling Procedure for Frozen Cells

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  $-70^{\circ}\text{C}$ . Storage at  $-70^{\circ}\text{C}$  will result in loss of viability.

1. Thaw the vial by gentle agitation in a  $37^{\circ}\text{C}$  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  $125 \times g$  for 5 to 7 minutes.
4. Re-suspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio) and dispense into a  $25 \text{ cm}^2$  or a  $75 \text{ cm}^2$  culture flask. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).
5. Incubate the culture at  $37^{\circ}\text{C}$  in a suitable incubator. A 5%  $\text{CO}_2$  in air atmosphere is recommended if using the medium described on this product sheet.

This item is original depositor material that came in originally from CSHL as a safe deposit item and is repackaged, ATCC has not produced any of this material here, the material has been only QC tested. Therefore, we can only provide our general instructions as above.

### Subculturing Procedure

Cells must be subcultured when they reach ~70% confluence, or else they start to come off the flask into suspension.

Volumes used in this protocol are for  $75 \text{ cm}^2$  flasks; proportionally reduce or increase amount of dissociation medium for culture vessels of other sizes.


1. Remove and discard culture medium. Briefly rinse the cell layer with  $\text{Ca}^{++}/\text{Mg}^{++}$  free Dulbecco's phosphate-buffered saline (D-PBS) (ATCC 30-2200) or 0.05% Trypsin – 0.02% EDTA (ATCC



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- PCS-999-003) solution to remove all traces of serum which contains trypsin inhibitor.
2. Add 2.0 to 3.0 ml of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 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 37°C to facilitate dispersal.
  3. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.
  4. Transfer cell suspension to a centrifuge tube and spin at approximately 125 xg for 5 to 10 minutes.
  5. Discard supernatant. Resuspend the cell pellet in fresh growth medium.
  6. Add appropriate aliquots of the cell suspension to new culture vessels. Incubate cultures at 37°C.

**Subcultivation Ratio:** 1:3 to 1:5 is recommended.

**Medium Renewal:** Every 2 to 3 days



### Cryopreservation Medium

Freeze medium: Complete growth medium supplemented with 10% (v/v) DMSO

Storage temperature: liquid nitrogen vapor phase



### Comments

The STC-1 cell line was derived from the intestinal tumors of double transgenic mice. Transgenic mice harboring a hybrid gene linking the rat insulin promoter (RIP) to polyoma small T (PyST) antigen were mated with transgenic mice harboring rat insulin promoter (RIP) linked to SV40 early region (Tag) creating off-spring harboring both transgenes (double transgenics). These mice were found to have frequent intestinal tumors in addition to pancreatic Beta-cell tumors. Gene expression studies suggested that the intestinal and pancreatic tumors arose as separate entities. The STC-1 cell line produces the hormone secretin. This cell line may be a useful model for human endocrine neoplasms of the gut.



### 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

ATCC® products are warranted for 30 days from the date of shipment, and this warranty is valid only if the product is stored and handled according to the information included on this product information sheet. If the ATCC® product is a living cell or microorganism, ATCC lists the media formulation that has been found to be effective for this product. 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 product. 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. 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.

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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)




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