



Product Sheet

# MEF (CF-1) MITC (ATCC® SCRC-1040.2a™)

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 15%

This medium is formulated for use with a 5% CO<sub>2</sub> in air atmosphere. (Standard DMEM formulations contain 3.7 g/L sodium bicarbonate and a 10% CO<sub>2</sub> in air atmosphere is then recommended).

## Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: MEF (CF-1) MITC (ATCC® SCRC-1040.2a™)

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:** CF-1, non-inbred mouse strain (non-agouti albino) from Carworth Farms  
**Tissue:** Embryo  
**Cell Type:** Fibroblast  
**Age:** 14 days gestation embryo  
**Gender:** Male and female mixed  
**Morphology:** Fibroblast  
**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 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 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°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°C. Storage at -70°C will result in loss of viability.

To insure the highest level of viability, be sure to warm media to 37°C before use.

Note: Flasks do not need to be coated before plating MEFs.

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.
2. Remove the vial from the water bath as soon as the contents are half way thawed (approximately 90 seconds), 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 15 mL centrifuge tube containing 5 mL of complete growth medium. Use an additional 1 ml of complete growth media to rinse the vial and transfer it to the 15 mL tube. Add 4 mL more complete growth medium to bring the total volume to 10 mL.
4. Gently mix and pellet the cells by centrifugation at 270 xg for 5 minutes.
5. Discard the supernatant and resuspend the cells with fresh complete growth medium (warm) and plate the cells at a seeding density of 6 X 10<sup>4</sup> cells/cm<sup>2</sup>.
6. Add fresh complete growth medium (warm) to the appropriate size flask.
7. Place flasks in a 5% CO<sub>2</sub> incubator at 37°C.
8. Fluid change twice a week or when pH decreases.

*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 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).*

**Note: Cells should be plated 24 hours before use as a feeder layer for ES cells and kept for no more than 7 days.**

## Subculturing Procedure

Once the feeder cells have attached, the culture medium can be changed to accommodate the cells to be supported. It is recommended that the feeder cells be plated 24 hours before use at 6 X 10<sup>4</sup> cells/cm<sup>2</sup> in order to obtain a supportive monolayer for stem cell growth.

**Medium Renewal:** Twice a week or when pH decreases



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## Comments

These cells are provided for use as feeder cells to support the growth of stem cells in the undifferentiated state. They have been treated with Mitomycin C at passage #3 and will not replicate. The cells will begin to deteriorate 7 days after plating.

## 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.

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## 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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