ATCC

Product Sheet

MUG-Chor1 (ATCC® CRL-3219™)

Please read this FIRST

Storage Temp.
liquid nitrogen vapor phase

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

Iscove's Modified Dulbecco's Medium (IMDM; ATCC® No. 30-2005): RPMI-1640 Medium (ATCC® No. 30-2001) (4:1) + 10% FBS (ATCC® No. 30-2020) + additional 1% L-glutamine (ATCC® No. 30-2214)

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: MUG-Chor1 (ATCC® CRL-3219™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Organism: *Homo sapiens*, human
Tissue: sacral bone
Disease: tumor, chordoma
Age: 57 years
Gender: female
Morphology: Mesenchymal like, with variable vacuoles
Growth Properties: adherent
DNA Profile: TH01: 9.3
D5S818: 11, 12
D13S317: 11
D7S820: 8, 11
D16S539: 11, 14
CSF1PO: 11
Amelogenin: X
vWA: 15
TPOX: 8

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.

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 x g for 5 to 7 minutes.
4. Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). and dispense into a 25 cm^2 or a 75 cm^2 collagen-coated-culture flask (see subculture on product web page for the coating procedure). 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°C** in a suitable incubator. A 5% CO_2 in air atmosphere is recommended if using the medium described on this product sheet.

Handling Procedure for Flask Cultures

Temperature: 37°C
Atmosphere: air, 95%; carbon dioxide (CO_2), 5%

Subculturing Procedure

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Coating description: Dilute rat tail type I collagen (BD Biosciences, Catalog No. 354236) to 50 µg/ml. Add 7.5 ml coating buffer to flask and incubate at room temperature for one hour. Carefully aspirate remaining solution. Rinse flask 2 times to remove acid, using 1x DPBS. Coated flasks may be used immediately or stored at 2-8ºC up to one week under sterile conditions.

Volumes used in this subculture protocol are for a 75 cm^2 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 5.0ml Ca++/Mg++ free Dulbecco's phosphate-buffered saline (D-PBS) or 0.25% (w/v) Trypsin - 0.53 mM EDTA solution to remove all traces of serum which contains trypsin inhibitor.
3. Add 5.0 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.
4. Add 5.0 ml of complete growth medium and aspirate cells by gently pipetting.
5. Transfer cell suspension to a centrifuge tube and spin at approximately 125 x g for 5 to 10 minutes. Discard supernatant.
6. Resuspend the cell pellet in 10 ml fresh growth medium.
7. Add appropriate aliquots of the cell suspension to new coated culture vessels.
8. Incubate cultures at 37°C.

Cryopreservation Medium

Freeze medium: 70% complete growth medium supplemented with an additional 20% fetal bovine serum

Comments

MUG-Chor1 is a human chordoma cell line that exhibits chordoma-like characteristics and has molecular, genetic, and morphological features typical of chordoma. Chordoma is a rare slow-growing tumor type and MUG-Chor1 is a relatively slow-growing cell line. MUG-Chor1 has a heterogeneous morphology consisting of physaliferous cells with mucinous intercellular substance, which represent typical chordoma features. The cells contain amplification of transcription factor T (Brachyury) that is most specific marker for chordoma, as well as loss of PTEN. This cell line was accessioned with the support of the Chordoma Foundation, a nonprofit organization working to improve the lives of chordoma patients by accelerating research to develop effective treatments for chordoma.

References

References and other information relating to this product are available online at 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.
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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is made to ensure authenticity and reliability of strains on deposit, ATCC is not liable for damages arising from the misidentification or misrepresentation of cultures.
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

Additional information on this culture is available on the ATCC web site at www.atcc.org.
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