**Description**

**Organism:** Homo sapiens, human  
**Tissue:** peripheral blood  
**Disease:** acute monocytic leukemia  
**Cell Type:** monocyte  
**Age:** 1 year infant  
**Gender:** male  
**Morphology:** monocyte  
**Growth Properties:** suspension  
**DNA Profile:**  
Amelogenin: X,Y  
CSF1PO: 11,13  
D13S317: 13  
D16S539: 11,12  
D5S818: 11,12  
D7S820: 10  
TH01: 8,9,3  
TPOX: 8,11  
vWA: 16

**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 growth medium, and spin at approximately 125 x g for 5 to 7 minutes.
4. Resuspend cell pellet with the recommended complete growth medium (Refer to the Certificate of Analysis for specific batch information and recommended seeding density) and dispense into the appropriate number of culture flasks. 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). pH (7.0 to 7.6).
5. Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is recommended if using the medium described on this product sheet.

**Handling Procedure for Flask Cultures**

The flask was seeded with cells (see specific batch information), grown, and completely filled with medium at ATCC to prevent loss of cells during shipping.

1. Upon receipt visually examine the culture for macroscopic evidence of any microbial contamination.
Incubate the flask in an upright position for several hours at 37°C. After the temperature has
from the U.S.
Every 2 to 3 days
Incubate the culture, horizontally, at 37°C in a 5% CO

Biosafety Level: 1

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following
manner: THP-1 (ATCC® TIB-202™)

Subculturing Procedure

Protocol: Cultures can be maintained by the addition of fresh medium or replacement of medium.
Alternatively, cultures can be established by centrifugation with subsequent resuspension at 2-4 x 10^5 viable
cells/mL. Subculture when cell concentration reaches 8x10^5 cells/mL. Do not allow the cell concentration to
exceed 1 x 10^6 cells/mL. Coming® T-75 flasks (catalog #431464) are recommended for subculturing this
product.

Medium Renewal: Every 2 to 3 days

Cryopreservation Medium

Cryoprotectant Medium
Complete growth medium described above supplemented with 5% (v/v) DMSO.
Cell culture tested DMSO is available as ATCC Catalog No. 4-X.

Comments

The cells are phagocytic (for both latex beads and sensitized erythrocytes) and lack surface and cytoplasmic
immunoglobulin.
Monocytic differentiation can be induced with the phorbol ester 12-O-tetradecanoylphorbol-13-acetate (TPA).

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

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.
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ATCC makes no warranties or representations as to its accuracy. Citations from scientific literature and
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is made to insure 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 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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**Product Sheet**

**THP-1 (ATCC® TIB-202™)**

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**Please read this FIRST**

**Storage Temp.**

- liquid nitrogen
- vapor phase

**Biosafety Level**

1

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**Intended Use**

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

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**Complete Growth Medium**

The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium: 2-mercaptoethanol to a final concentration of 0.05 mM; fetal bovine serum to a final concentration of 10%.

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**Citation of Strain**

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: THP-1 (ATCC® TIB-202™)