



# THP-1-CD16A

CRL-3575™

Product Sheet

## Description

THP-1-CD16A is a derivative of THP-1 (ATCC TIB-202). THP-1 were transduced with a lentivirus for the expression of human Fc gamma receptor IIIA (CD16A) and the Fc receptor gamma chain. THP-1-CD16A expresses Fc gamma receptor IIIA with phagocytic capability through this receptor when cells are grown in puromycin.

**Organism:** *Homo sapiens*, human

**Tissue:** Peripheral blood

**Morphology:** Lymphoblast-like

**Growth properties:** Suspension

**Disease:** Acute monocytic leukemia

**Cells per vial:**  $\geq 5.0 \times 10^6$

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## Storage Conditions

**Product format:** Frozen

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

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## 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.

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## BSL 2

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.

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## Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at [www.atcc.org](http://www.atcc.org).

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## Growth Conditions

**Temperature:** 37°C

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

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## Handling Procedures

### Complete medium:

The base medium for this cell line is ATCC-formulated RPMI-1640 Medium (ATCC 30-2001). To make the complete growth medium, add the following components to the

base medium:

- fetal bovine serum (FBS; 30-2020) to a final concentration of 10%
- puromycin to a final concentration of 5 µg/mL

**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 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, T75 flask.
6. Place the flask in a 37°C incubator with 5% CO<sub>2</sub>.

**Subculturing procedure:**

Cultures can be maintained by addition or replacement of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 2 to 4 X 10<sup>5</sup> viable cells/mL. Subculture when cell concentration reaches 8 X 10<sup>5</sup> cells/mL. Do not allow the cell concentration to exceed 1.2 X 10<sup>6</sup> cells/mL. Corning® T-75 flasks (catalog #431464) are recommended for subculturing this product.

**Reagents for cryopreservation:** Complete Culture Medium + 5% DMSO (ATCC 4-X)

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## Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: THP-1-CD16A (ATCC CRL-3575)

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## References

References and other information relating to this material are available at [www.atcc.org](http://www.atcc.org).

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