



## THP-1

CSI400Hu11

*Instruction manual*

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Revised in May, 2024)

### [ DESCRIPTION ]

THP-1 is a monocyte isolated from peripheral blood from an acute monocytic Product Sheet leukemia patient. This cell line can be used in immune system disorder research, immunology research, and toxicology research.

**Synonyms:** THP1; THP 1; THPI; THP-1(ATCC); Tohoku Hospital Pediatrics-1

**Organism:** Homo sapiens, human

**Tissue:** Peripheral blood

**Disease:** Acute monocytic leukemia

**Age:** 1 years

**Gender:** Male

**Cell Type:** monocyte

**Morphology:** monocyte

**Growth properties:** Suspension

### [ PROPERTIES ]

**Cell activity:** >85% (Viability by Trypan Blue Exclusion).

**Formulation:** Frozen 1 mL or T25 flask.

**Biosafety:** Negative for HIV-1, HBV, HCV, mycoplasma, bacteria, yeast and fungi.

**Applications:** For research use only. It is not approved for human or animal use, or for application in clinical diagnostic procedures.

**Size:** >5×10<sup>5</sup>cell/vial

### [ STORAGE ]

Upon receiving, check all containers for leakage or breakage. directly and immediately transfer the cells from dry ice to liquid nitrogen and keep the cells in liquid nitrogen until they are needed for experiments.

**Form & Buffer:** Supplied as solution form in frozen stock solution, containing 50% base medium +40%FBS+10%DMSO.

**Storage conditions:** liquid nitrogen

### [ USAGE ]

**Culture conditions:**

Complete growth medium: RPMI-1640+10% FBS+1% P/S



Temperature: 37°C

Condition: 95% air, 5% carbon dioxide

### **Cell recovery:**

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the cap out of the water. The thawing time is about 2 minutes.
2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by spraying with 75% 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 9.0mL complete culture medium. and spin at approximately 1000 rpm for 5 minutes.
4. Resuspend cell pellet with the recommended complete medium . and dispense into a T25 culture flask.
5. Incubate the culture at 37°C, 5% CO<sub>2</sub> in a suitable incubator.

### **Cell passage:**

The cells are suspended cells, and maintain cultures at a cell concentraion between  $1 \times 10^5$  and  $8 \times 10^5$  viable cells/mL. Do not allow the cell density to exceed  $1 \times 10^6$  cells/mL. 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  $1-4 \times 10^5$  viable cells/mL, and centrifugal speed reference 1200 rpm centrifuge 3 min. According to culture experience, it is recommended to use the "half-change solution method" for passage, that is, directly add an equal amount of fresh culture solution to the cell culture bottle, then the cells are blown evenly and transferred to two new T25 culture bottles for further culture. Depending on cell density, it is recommended to add fresh medium every 2-3 days. Full fluid changes should be performed by centrifuging and resuspending the cells in fresh media at least every 7 days.

## **[ Shipping ]**

Dry ice.

## **[ IMPORTANTNOTE ]**

1. 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.
2. 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.
3. After cell recovery, please take regular microscopic examination and photos to record the growth status of cells.
4. Read the instructions carefully, and keep and operate in strict accordance with the instructions. If you observe abnormalities or have questions about cell culture operations, please contact us in time.



**[ Figure ]**

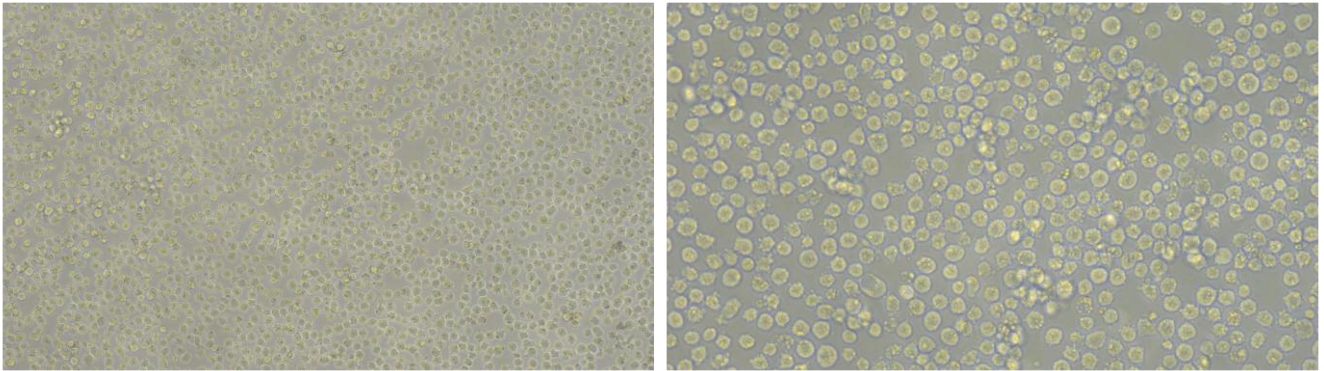


Figure 1 Morphology of THP-1 (Optical microscope, 100x, 200x)