

Product sheet

THP-1 | 300356

THP-1

Description

THP-1 is a human T cell leukemia virus type 1 (HTLV-1) immortalized T cell line. It is a clonal cell line derived from a patient with T-cell hairy-cell leukemia. The cells are characterized by the presence of HTLV-1 provirus and are used for studying HTLV-1 biology and T cell leukemia. THP-1 cells are highly proliferative and can be maintained in culture for extended periods. They are used in various research applications, including studies on HTLV-1 infection, T cell differentiation, and cancer biology.

Organism Human

Tissue T cells

Disease T-cell hairy-cell leukemia

Applications HTLV-1 research, T cell biology, cancer research

Synonyms THP1, THP 1, THP 10, THPI, O-THP-1, HTLV-1 immortalized T cells

Characteristics

Age 1 year

Gender Male

Morphology Lymphoblastoid

Cell type T cells

Growth properties THP-1 cells are highly proliferative and can be maintained in culture for extended periods. They are used in various research applications, including studies on HTLV-1 infection, T cell differentiation, and cancer biology.

References

Citation THP-1 (HTLV-1 immortalized T cells 300356)

Biosafety level 1

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NCBI_TaxID 9606

CellosaurusAccession CVCL_0006

THP-1

Receptors expressed HLA-A2, -A9, -A9, -B5, -DRw1, -DRw2Fc, -DRw2Fc, C3b

Isoenzymes THP-1 CD4 CCR5 CxCR4

Products

Karyotype THP-1

THP-1

Culture Medium RPMI 1640 2.0 2.0 NaHCO3 (820700a)

Supplements 10% FBS

Doubling time THP-1 19 50 35

Subculturing

Seeding density 0.5×10^6

Fluid renewal 2 3

Freeze medium (FBS) + 10% DMSO

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Thawing and Culturing Cells

1. Thaw the vial rapidly in a 37°C water bath. Transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300 x g for 3 minutes. Resuspend the cells in 10 ml of pre-warmed medium.
3. Seed the cells into a T75 flask containing 37 ml of pre-warmed medium.
4. Incubate the cells at 37°C in a 5% CO2 atmosphere until they reach 70% confluency.
5. Harvest the cells by trypsinization and seed them into a T75 flask containing 15 ml of pre-warmed medium.
6. Incubate the cells at 37°C in a 5% CO2 atmosphere until they reach 70% confluency.
7. Harvest the cells by trypsinization and seed them into a T75 flask containing 10 ml of pre-warmed medium.
8. Incubate the cells at 37°C in a 5% CO2 atmosphere until they reach 70% confluency.

Incubation Atmosphere 37°C, 5% CO2

Flask Coating None

Freezing Procedure Harvest cells and resuspend in freezing medium. Store at -150°C.

Shipping Conditions Dry ice, -78°C

Storage Conditions -150°C to -196°C

HLA

Sterility The cells are free of mycoplasmas and other contaminants. PCR testing is available.

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XXXXXXXX HLA

A*: '02:01:01
B*: '15:11:01
C*: '03:03:01
DRB1*: '01:01:01, '15:01:01
DQA1*: '01:01:01, '01:02:01
DQB1*: '05:01:01, '06:02:01
DPB1*: '02:01:01:02XXXX'04:02:01X
E: '01:03:02