

Product sheet

HL-60 | 300209

HL-60

Description

HL-60 is a human myeloid leukemia cell line established in 1961 from a patient with acute myeloid leukemia. It is a continuous cell line that grows in suspension and is characterized by its ability to differentiate into various myeloid cell types, including granulocytes and monocytes. HL-60 cells are widely used in research to study the biology of myeloid leukemia and to evaluate the effects of various treatments. The cell line is maintained in RPMI 1640 medium supplemented with 10% fetal bovine serum (FBS) and 100 U/ml penicillin, 100 U/ml streptomycin, and 100 U/ml nystatin. HL-60 cells are known for their high tumorigenicity and their ability to form colonies in soft agar. The cell line is also used to study the role of various signaling pathways, including the MAPK pathway, in myeloid leukemia. HL-60 cells are a valuable tool for understanding the pathogenesis of myeloid leukemia and for testing new therapeutic approaches.

Organism Human

Tissue Bone marrow

Disease Acute myeloid leukemia

Applications Cell culture, drug screening, differentiation assays

Synonyms HL 60, hl.60, hl.60, hl60

HL-60

Age 36 years

Gender Male

Ethnicity Caucasian

Morphology Granulocytic leukemia cells

Cell type Myeloid leukemia cells

Growth properties Suspension culture

HL-60

Citation HL-60 (ATCC CCL-240) | 300209

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Thawing and Culturing Cells

1. Thaw the vial in a 37°C water bath. Transfer the cells to a 15 mL centrifuge tube containing 10 mL of pre-warmed complete medium.
2. Centrifuge the cells at 300 x g for 3 minutes. Remove the supernatant and resuspend the cells in 1 mL of complete medium.
3. Seed the cells into a 25 cm² flask containing 10 mL of complete medium. The seeding density is approximately 1.5 x 10⁶ cells per flask.
4. Incubate the cells in a 37°C incubator with 5% CO₂. The cells should reach 70% confluency within 7-10 days.
5. Once the cells reach 70% confluency, they can be used for experiments or passaged. Passaging is performed by trypsinizing the cells and seeding them into a new flask.
6. The cells are maintained in complete medium. The medium is changed every 3-4 days to ensure optimal growth conditions.
7. The cells are characterized by their morphology and growth rate. They form a monolayer of cells that are highly proliferative.
8. The cells are tested for mycoplasma contamination using PCR. The results show that the cells are free of mycoplasma.

Incubation Atmosphere

37°C, 5% CO₂

Flask Coating

None

Freezing Procedure

Cells are harvested and resuspended in freezing medium. The suspension is then aliquoted into 1 mL vials and stored at -150°C.

Shipping Conditions

Cells are shipped in dry ice at -196°C. The shipping container is insulated and labeled with biohazard symbols.

Storage Conditions

Cells are stored in complete medium at -150°C to -196°C. The storage time is unlimited.

HLA

Sterility

The cells are tested for mycoplasma contamination using PCR. The results show that the cells are free of mycoplasma. The cells are also tested for endotoxin contamination, which is found to be below the detection limit.

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A*: '01:01:01

B*: '57:01:01

C*: '06:02:01

DRB1*: '07:01:01

DQA1*: '02:01:01

DQB1*: '03:03:02

DPB1*: '04:01:01, '13:01:01

E: '01:01:01, '01:09