

MOLT-4 | 300115

General information

Description	MOLT-4 is a human T leukemia cell line established from a 19-year-old male patient with acute lymphoblastic leukemia (ALL) in 1971. MOLT-4 is a continuous cell line that grows in suspension. It is characterized by its high tumorigenicity and its ability to differentiate into various cell types. MOLT-4 is a derivative of the MOLT-4 cell line, which was established from a patient with acute lymphoblastic leukemia. MOLT-4 is a continuous cell line that grows in suspension. It is characterized by its high tumorigenicity and its ability to differentiate into various cell types. MOLT-4 is a derivative of the MOLT-4 cell line, which was established from a patient with acute lymphoblastic leukemia.
Organism	Human
Tissue	Leukemia
Disease	Acute lymphoblastic leukemia (ALL)
Synonyms	Molt-4, MOLT 4, Molt 4, MOLT.4, MOLT4, Molt4, GM02219, GM02219C, GM2219C, GM02219D

Characteristics

Age	19 years
Gender	Male
Ethnicity	White
Morphology	Clonal
Cell type	Leukemia
Growth properties	Continuous

References and safety

Citation	MOLT-4 (Cytion 300115)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0013

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**Thawing and
Culturing Cells**

1.

Remove the vial from liquid nitrogen storage, and immerse the vial in a water bath at 37°C for 1-2 minutes. Do not allow the vial to touch the bottom of the water bath.
2.

Remove the vial from the water bath, and immediately transfer the cells to a pre-warmed (37°C) tissue culture flask. Add 5-10 ml of pre-warmed medium to the flask.
3.

Incubate the cells in the tissue culture flask for 24-48 hours at 37°C in 5% CO₂ atmosphere. The cells should attach to the flask and start dividing.
4.

When the cells have attached and started dividing, they can be passaged into a new flask. Remove the medium from the flask, and add fresh pre-warmed medium.
5.

The cells can be passaged into a new flask every 2-3 days. The cells should reach confluence in the flask within 1-2 weeks.
6.

When the cells have reached confluence, they can be harvested. Remove the medium from the flask, and add 1-2 ml of trypsin solution. Incubate the cells for 5-10 minutes at 37°C.
7.

Remove the trypsin solution, and add 10 ml of pre-warmed medium. The cells should be detached from the flask and suspended in the medium.
8.

The cells can be harvested from the medium, and resuspended in a new medium. The cells can be stored in liquid nitrogen for long-term storage.

**Incubation
Atmosphere**

37°C, 5% CO₂, humidified air

Flask Coating

Not required

**Freezing
Procedure**

Remove the cells from the flask, and resuspend them in freezing medium. Transfer the cells to a pre-cooled vial, and store the vial in liquid nitrogen for long-term storage.

**Shipping
Conditions**

Remove the cells from the flask, and resuspend them in shipping medium. Transfer the cells to a pre-cooled vial, and ship the vial to the customer in a cool box.

**Storage
Conditions**

Remove the cells from the flask, and resuspend them in storage medium. Transfer the cells to a pre-cooled vial, and store the vial in liquid nitrogen for long-term storage.

Quality Control

Sterility

The cells are tested for sterility using PCR and microscopy. The cells are found to be free of contamination.

██████ MOLT-4 | 300115

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A*: '01:01:01, '25:01:01
B*: '18:01:01, '57:01:01
C*: '06:02:01, '12:03:01
DRB1*: '07:01:01, '12:01:01
DQA1*: '02:01:01, '05:05:01
DQB1*: '02:02:01, '03:01:01
DPB1*: 02:01:02
E: '01:01:01G