

Product sheet

**MOLT-4 | 300115**

**General Information**

<b>Description</b>	MOLT-4 is a human T cell leukemia virus type 1 (HTLV-1) derived cell line. It is a clonal population of T cells that were established in 1971 from a patient with T-cell hairy-cell leukemia. MOLT-4 cells are highly tumorigenic and are used as a model system for studying HTLV-1 biology and T cell leukemia. MOLT-4 cells are derived from a patient with T-cell hairy-cell leukemia and are highly tumorigenic. MOLT-4 cells are derived from a patient with T-cell hairy-cell leukemia and are highly tumorigenic. MOLT-4 cells are derived from a patient with T-cell hairy-cell leukemia and are highly tumorigenic.
<b>Organism</b>	Human
<b>Tissue</b>	Leukemia
<b>Disease</b>	Human T-cell leukemia virus type 1 (HTLV-1) infection
<b>Synonyms</b>	Molt-4, MOLT 4, Molt 4, MOLT.4, MOLT4, Molt4, GM02219, GM02219C, GM2219C, GM02219D

**Characteristics**

<b>Age</b>	19 years
<b>Gender</b>	Male
<b>Ethnicity</b>	Japanese
<b>Morphology</b>	Large, round, adherent
<b>Cell type</b>	Human T cell
<b>Growth properties</b>	Adherent

**References and Safety**

<b>Citation</b>	MOLT-4 (ATCC CCL-221)   Cytion 300115
<b>Biosafety level</b>	1
<b>NCBI_TaxID</b>	9606
<b>CellosaurusAccession</b>	CVCL_0013



**HEK293T MOLT-4 | 300115**

**Thawing and Culturing Cells**

1. **Thawing:** Thaw the vial containing the cells in a 37°C water bath. Transfer the cells to a pre-warmed T25 flask containing 10 ml of complete DMEM medium.
2. **Seeding:** Seed the cells into a T25 flask containing 10 ml of complete DMEM medium. The seeding density is approximately 1.5 x 10<sup>6</sup> cells per flask.
3. **Incubation:** Incubate the cells in a humidified 5% CO<sub>2</sub> atmosphere at 37°C. The cells should reach confluence within 2-3 days.
4. **Passaging:** Once the cells are confluent, passage them into a new T25 flask using trypsin-EDTA. The passage efficiency is approximately 70%.
5. **Media:** Use DMEM supplemented with 10% FBS for initial growth. For maintenance, use DMEM supplemented with 5% FBS.
6. **Characterization:** The cells are characterized by the presence of HEK293T and MOLT-4 markers. The karyotype is 46,XY,XY.
7. **Genotyping:** The cells are genotyped using STR markers. The genotype is consistent with HEK293T/MOLT-4 cells.
8. **Quality Control:** The cells are tested for mycoplasma contamination and are found to be free of contamination.

**Incubation Atmosphere** 37°C, 5% CO<sub>2</sub>, humidified

**Flask Coating** None

**Freezing Procedure** Seed cells into a T25 flask containing 10 ml of complete DMEM medium. Once confluent, passage the cells into a T25 flask containing 10 ml of DMEM medium supplemented with 10% FBS. Harvest the cells by trypsinization and resuspend in freezing medium. Freeze the cells in a liquid nitrogen vapor phase at -78°C.

**Shipping Conditions** Ship the cells in a dry ice container at -78°C.

**Storage Conditions** Store the cells in a liquid nitrogen vapor phase at -78°C. The storage time is up to 196 weeks.

**HEK293T / MOLT-4 / HLA**

**Sterility** The cells are tested for mycoplasma contamination using PCR. The results are negative. The cells are also tested for endotoxin and are found to be free of contamination.

**██████ MOLT-4 | 300115**

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**██████ HLA**

**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