

Product sheet

Kasumi-1 | 300226

General Information

Description	Kasumi-1 is a cell line derived from a 7-year-old patient with acute myeloid leukemia (AML), FAB M2. It is characterized by a t(8;21)(q22;q22) translocation resulting in the fusion of the FET3 and MLL genes, forming the FET3-MLL fusion protein. This cell line is used for studying the pathogenesis of AML and for testing novel therapies.
Organism	Human
Tissue	Leukemia
Disease	Acute Myeloid Leukemia (AML)
Synonyms	KASUMI-1, KASUMI 1, KASUMI1, KASUMI1

Characteristics

Age	7 years
Gender	Male
Ethnicity	Japanese
Morphology	Leukemia cells, blastoid morphology
Cell type	Leukemia cells (AML - M2)
Growth properties	Adherent

Accession and Safety

Citation	Kasumi-1 (Cytion 300226)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0589

Kasumi-1 | 300226

Cell Line

Antigen expression CD4+ (37.1%, CD34⁺CD33⁻), CD13+ (OKM13), CD15+ (LeuM1), CD33+, CD34+ (MY10), CD38+ (OKT10, 50.1%), CD71+ (Nu-TERf), HLA-DR+ (OKDR).

Karyotype 46,XX,T(8,21)

Characteristics

Culture Medium RPMI 1640, w: 2.0 mM NaCl , w: 2.0 g/L NaHCO_3 (Cytion 820700a)

Supplements 10% FBS

Doubling time 40-45 days

Subculturing 1:5, 1:6, 1:10

Seeding density 1×10^5 cells/cm²

Fluid renewal 20-30% every 2-3 days

Post-Thaw Recovery

Freeze medium RPMI 1640, w: 2.0 mM NaCl , w: 2.0 g/L NaHCO_3 (Cytion 820700a) + 10% DMSO + 10% FBS

Kasumi-1 | 300226

Thawing and Culturing Cells

1. Thaw the cells rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed medium.
2. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
3. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
4. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
5. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
6. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
7. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.
8. Harvest the cells by trypsinization. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ until the cells reach 70-80% confluency.

Incubation Atmosphere

37°C, 5% CO₂, humidified

Flask Coating

None

Freezing Procedure

Resuspend cells in freezing medium. Freeze cells in a controlled rate freezer at -1°C/min to -78°C.

Shipping Conditions

Store cells at -78°C. Ship cells in a dry ice container.

Storage Conditions

Store cells at -150°C for up to 196 weeks.

Genotype / HLA

Sterility

Cells are tested for mycoplasma contamination. PCR testing is performed. Cells are free of mycoplasma contamination.

████████ Kasumi-1 | 300226

████████ HLA

A*: '26:01:01, '26:02:01

B*: '40:06:01, '48:01:01

C*: '03:03:01, '08:01:01

DRB1*: 09:01:02, 14:54:01

DQA1*: '01:04:01, '03:02:01

DQB1*: 03:03:02, 05:03:01

DPB1*: '02:01:02, '02:01:02

E: 01:03:01