

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 a fusion of the FET and MLL genes.
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,XY,T(8,21)

Media

Culture Medium RPMI 1640, w: 2.0 mM CaCl_2 , w: 2.0 g/L NaHCO_3 (Cytion 820700a)

Supplements 10% FBS

Doubling time 40-45 days

Subculturing 1:5 to 1:6

Split ratio A ratio of about 1:2 to 1:3 every 3 to 4 days is recommended

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 CaCl_2 , 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 in a humidified atmosphere.
3. Monitor the cell growth and morphology. The cells should reach 70-80% confluency within 3-5 days.
4. Harvest the cells by trypsinization. Seed the cells into a fresh medium.
5. Repeat the process for subsequent passages. Maintain the cells at 70-80% confluency.
6. For long-term storage, harvest the cells and freeze them in a cryoprotective medium.
7. Thaw the cells rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature.
8. Seed the cells into a pre-warmed medium. Incubate at 37°C with 5% CO₂ in a humidified atmosphere.

Incubation Atmosphere 37°C, 5% CO₂, humidified atmosphere

Flask Coating Cell culture medium, 10% FBS

Freezing Procedure Harvest cells and freeze in cryoprotective medium at -80°C

Shipping Conditions Store at -80°C

Storage Conditions Store at -150°C for up to 196 months

Genotype / Phenotype / HLA

Sterility Cells are tested for mycoplasma contamination. PCR testing is performed. All cells are found to be free of mycoplasma contamination.

████████ Kasumi-1 | 300226

████████ STR

Amelogenin: x,x
CSF1PO: 10,12
D13S317: 11,13
D16S539: 9,12
D5S818: 9,11
D7S820: 8,11
TH01: 6,9
TPOX: 8,9
vWA: 14
D3S1358: 15,17
D21S11: 30,31
D18S51: 15,16
Penta E: 11
Penta D: 12
D8S1179: 13,14
FGA: 22,24

████████ 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