



Product Sheet

Kasumi-6 (ATCC® CRL-2775™)

Please read this FIRST



Storage Temp.
**liquid nitrogen
vapor phase**



Biosafety Level
1

Intended Use

This product is intended for research use only. It is not intended for any animal or human therapeutic or diagnostic use.

Complete Growth Medium

RPMI 1640 medium with 2 mM L-glutamine adjusted to contain 1.5 g/L sodium bicarbonate, 4.5 g/L glucose, 10 mM HEPES, and 1.0 mM sodium pyruvate supplemented with 2 ng/ml human recombinant granulocyte macrophage colony stimulating factor (GM-CSF) and 20% fetal bovine serum

Citation of Strain

If use of this culture results in a scientific publication, it should be cited in that manuscript in the following manner: Kasumi-6 (ATCC® CRL-2775™)

American Type Culture Collection
PO Box 1549
Manassas, VA 20108 USA
www.atcc.org

800.638.6597 or 703.365.2700
Fax: 703.365.2750
Email: Tech@atcc.org

Or contact your local distributor

Description

Organism: *Homo sapiens*, human
Tissue: peripheral blood
Disease: acute myeloid leukemia, subtype M2
Cell Type: myeloblast
Age: 64 years adult
Gender: male
Morphology: myeloid leukemia
Growth Properties: suspension
DNA Profile:
Amelogenin: X,Y
CSF1PO: 10,12
D13S317: 8,12
D16S539: 9,10
D5S818: 11
D7S820: 9,11
THO1: 6,9
TPOX: 8,9
vWA: 17
Cytogenetic Analysis: 45, XY,-9,add(12)(p11),add(13)(p11)

Batch-Specific Information

Refer to the Certificate of Analysis for batch-specific test results.

SAFETY PRECAUTION

ATCC highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

Unpacking & Storage Instructions

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Handling Procedure for Frozen Cells

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
3. It is recommended that the cryoprotective agent be removed immediately. Centrifuge the cell suspension at approximately 125 x g for 5 to 10 minutes. Discard the supernatant and resuspend the cell pellet in an appropriate amount of fresh growth medium.
4. Transfer the vial contents to an appropriate sized vessel. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).
5. Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is recommended if using the medium described on this product sheet.

Handling Procedure for Flask Cultures

The flask was seeded with cells (see specific batch information), grown, and completely filled with medium at ATCC to prevent loss of cells during shipping.



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1. Upon receipt, visually examine the culture for macroscopic evidence of any microbial contamination. Using an inverted microscope (preferably equipped with phase-contrast optics), carefully check for any evidence of microbial contamination
2. Incubate the flask in an upright position for several hours at 37°C. After the temperature has equilibrated, aseptically remove the entire contents of the flask and centrifuge at 125 x g for 5 to 10 minutes. Remove shipping medium and save for reuse. Resuspend the cell pellet in 10 mL of this medium.
3. From this cell suspension remove a sample for a cell count and viability. Adjust the cell density of the suspension to 2-5 x 10⁵ viable cells/mL in the shipping medium.
4. Incubate the culture, horizontally, at 37°C in a 5% CO₂ in air atmosphere. Maintain the cell density of the culture as suggested under the subculture procedure.



Subculturing Procedure

Cultures can be established by centrifugation with subsequent resuspension at 2 x 10⁵ viable cells/mL. Maintain cell density between 2 x 10⁵ and 1.5 x 10⁶ viable cells/mL.

Medium Renewal: Add fresh medium every 2 to 3 days (depending on cell density).



Cryopreservation Medium

Complete culture medium described above supplemented with 10% (v/v) DMSO.

Cell culture tested DMSO is available as ATCC Catalog No. 4-X.



Comments

Both the original leukemic cells and the Kasumi-6 cell line harbor a hemizygous point mutation in the gene encoding the CCAAT/enhancer binding protein alpha (C/EBPalpha), a critical myeloid transcriptional factor. The cells express C/EBPalpha protein but lack C/EBPalpha binding activity.

12-O-tetradecanoylphorbol-13-acetate (TPA) induces Kasumi-6 cells to differentiate into adherent, monocytoid appearing cells.

Differentiation Inducers: TPA



References

References and other information relating to this product are available online at www.atcc.org.



Biosafety Level: 1

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the current publication of the *Biosafety in Microbiological and Biomedical Laboratories* from the U.S. Department of Health and Human Services Centers for Disease Control and Prevention and National Institutes for Health.

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Please see the enclosed Material Transfer Agreement (MTA) for further details regarding the use of this

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product. The MTA is also available on our Web site at www.atcc.org

Additional information on this culture is available on the ATCC web site at www.atcc.org.

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