

**KG-1a | 300234**

**General information**

<b>Description</b>	The KG-1a cell line is derived from the KG-1 cell line and is almost identical. They do not spontaneously differentiate to granulocyte and macrophage like cells, do not express DR and do not respond to colony stimulating factor (CSF).
<b>Organism</b>	Human
<b>Tissue</b>	Bone marrow
<b>Disease</b>	Acute myelogenous leukemia
<b>Synonyms</b>	KG-1A, KG1A, KG1a

**Characteristics**

<b>Age</b>	59 years
<b>Gender</b>	Male
<b>Ethnicity</b>	Caucasian
<b>Cell type</b>	Myeloblast
<b>Growth properties</b>	Suspension

**Identifiers / Biosafety / Citation**

<b>Citation</b>	KG-1a (Cytion catalog number 300234)
<b>Biosafety level</b>	1

**Expression / Mutation**

<b>Antigen expression</b>	HLA A30, A31, B35, Cw4
<b>Isoenzymes</b>	G6PD, B, PGM1, 1-2, PGM3, 0, ES-D, 1, Me-2, 1, AK-1, 0, GLO-1, 2
<b>Viruses</b>	EBNA (EBNA ): negative

**Reverse transcriptase** Negative

## Handling

**Culture Medium** IMDM

**Medium supplements** w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 25 mM HEPES, w: 1.0 mM Sodium pyruvate, w: 3.024 g/L NaHCO<sub>3</sub>

**Passaging solution** The utilization of a passaging solution is not necessary when passaging cells that are cultured in suspension. The appropriate procedure is to dilute the cells in accordance with the indicated guidelines.

**Doubling time** 45 hours

**Subculturing** Transfer the cell suspension into sterile centrifuge tubes. Collect the cells by spinning down at 300xg for 3 minutes. Discard the supernatant and resuspend the pelleted cells in fresh cell culture medium. Adjust to an optimal cell density between 1 - 3 x 10<sup>5</sup> cells/ml. Split the cells when a maximum cell density of 1 - 2 x 10<sup>6</sup> cells/ml is reached.

**Split ratio** A ratio of 1:2 is recommended

**Fluid renewal** Every 3 days

**Freezing recovery** Allow the cells to recover from the freezing process for at least 24 hours.

**Freeze medium** CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

**Handling of cryopreserved cultures** The cells come deep-frozen shipped on dry ice. Please make sure that the vial is still frozen. If immediate culturing is not intended, the cryovial must be stored below -150 degree Celsius after arrival. If immediate culturing is intended, please follow the below instructions: Quickly thaw by rapid agitation in a 37 degree Celsius water bath within 40-60 seconds. The water bath should have clean water containing an antimicrobial agent. As soon as the sample has thawed, remove the cryovial from the water bath. A small ice clump should still remain and the vial should still be cold. From now on, all operations should be carried out under aseptic conditions. Transfer the cryovial to a sterile flow cabinet and wipe with 70% alcohol. Carefully open the vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of culture medium (room temperature). Resuspend the cells carefully. Centrifuge at 300 x g for 3 min and discard the supernatant. The centrifugation step may be omitted, but in this case the remains of the freeze medium have to be removed 24 hours later. Resuspend the cells carefully in 10 ml fresh cell culture medium and transfer them into two T25 cell culture flasks. All further steps are described in the subculture section.

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### Handling of proliferating cultures

One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in 1 or 2 x 50 ml centrifuge tubes, respectively. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Control the cell morphology and confluency under the microscope. Incubate at 37 degree Celsius for a minimum of 24 hours. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Incubate at 37 degree Celsius for a minimum of 24 hours.

## Quality control / Genetic profile / HLA

### Sterility

Mycoplasma contaminations are ruled out through PCR-based and luminescence-based mycoplasma assays. The absence of bacterial, fungal or yeast contamination is controlled through daily visual cell monitoring.

### STR profile

**Amelogenin:** x,Y  
**CSF1PO:** 7  
**D13S317:** 11,12  
**D16S539:** 11  
**D5S818:** 13  
**D7S820:** 8,10  
**TH01:** 7,8  
**TPOX:** 7,9  
**vWA:** 14,19  
**D3S1358:** 15,16  
**D21S11:** 28,29  
**D18S51:** 10,2,18  
**Penta E:** 7,13  
**Penta D:** 8,9  
**D8S1179:** 13,14  
**FGA:** 22