

Data Sheet

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BCRJ Code:	0132
Cell Line:	KG-1
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Bone Marrow
Cell Type:	Macrophage
Morphology:	Myeloblast
Disease:	Acute Myelogenous Leukemia
Growth Properties:	Suspension
Sex:	Male
Age/Ethnicity:	59 Year / Caucasian
Applications:	This cell line is a suitable transfection host.
DNA Profile:	Amelogenin: X,Y CSF1PO: 7 D13S317: 11,12 D16S539: 10,11 D5S818: 13 D7S820: 8,10 THO1: 7,8 TPOX: 7,9 vWA: 14,19
Products:	HLA DR
Biosafety:	1
Additional Info:	KG-1 cells spontaneously differentiate to granulocyte and macrophage like cells. They show a good response to colony stimulating factor (CSF).
Culture Medium:	Iscove's Modified Dulbecco's Medium (IMDM) contains 2 mM L-glutamine, 4500 mg/L glucose and fetal bovine serum to a final concentration of 20%.

Subculturing:

Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension. Maintain at 1.0×10^5 and 1.0×10^6 cells/mL. Population Doubling Time: 38 hrs

Subculturing Medium Renewal:

Twice per week

Culture Conditions:

Atmosphere: air, 95%; carbon dioxide (CO₂), 5% Temperature: 37°C

Cryopreservation:

95% FBS + 5% DMSO (Dimethyl sulfoxide)

Thawing Frozen Cells:

SAFETY PRECAUTION: It is highly recommended 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 submerged 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. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the vial 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. For cells that are sensitive to DMSO it is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4. Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in an appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the 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).

References:

Koeffler HP, Golde DW. Human myeloid leukemia cell lines: a review. Blood 56: 344-350, 1980. PubMed: 6996765 Koeffler HP, Golde DW. Acute myelogenous leukemia: a human cell line responsive to colony-stimulating activity. Science 200: 1153-1154, 1978. PubMed: 306682 Penrose JF, et al. Molecular cloning of the gene for human leukotriene C4 synthase. J. Biol. Chem. 271: 11356-11361, 1996. PubMed: 8626689 Hester JP et al. Principles of blood separation and component extraction in a disposable continuous-flow single-stage channel. Blood 54(1): 254-268 1979. PubMed: 444670

Depositors:

Universitú De Marseille, Marseille, France.

ATCC:

CCL-246