Data Sheet

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/Ethinicity:	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
Addtional 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 x 10e5 and 1.0 x 10e6 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 strongly recommended to always wear protective gloves, clothing, and a full-face mask when handling frozen vials. Some vials may leak when submerged in liquid nitrogen, allowing nitrogen to slowly enter the vial. Upon thawing, the conversion of liquid nitrogen back to its gas phase may cause the vial to explode or eject its cap with significant force, creating flying debris. 1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize 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 its contents are thawed and decontaminate it by dipping in or spraying with 70% ethanol. From this point, all operations must be performed under strict aseptic conditions. 3. For cells sensitive to DMSO, it is recommended to remove the cryoprotective agent immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge at approximately 125 × g for 5 to 7 minutes. 4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio). 5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during cell recovery. To minimize this risk, it is recommended to place the culture vessel containing the growth medium in the incubator for at least 15 minutes before adding the vial contents. This allows the medium to stabilize at 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
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Cellosaurus:	CVCL_0374