Data Sheet

BCRJ Code:	0261
Cell Line:	KU812
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Peripheral Blood
Cell Type:	Basophil
Morphology:	Myeloblast
Disease:	Chronic Myelogenous Leukemia
Growth Properties:	Suspension
Sex:	Male
Age/Ethinicity:	38 Year / Japanese
Derivation:	The KU812 cell line was established from the peripheral blood of a patient in blast crisis of chronic myelogenous leukemia.
Products:	TRANSFORMING GROWTH FACTOR BETA (TGF BETA)
Biosafety:	1
Addtional Info:	The cells contain at least one Ph1 (Philadelphia) chromosome. The cell line has some characteristics of basophilic leukocytes (Fc receptors, basophilic granules, histamine production), and are negative for lymphoid markers. The cell line has some characteristics of basophilic leukocytes (Fc receptors, basophilic granules, histamine production), and are negative for lymphoid markers.

Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose 10% of fetal bovine serum.
Subculturing:	Cultures can be maintained by addition of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 3 X 10e5 viable cells/mL. NOTE: Do not allow the cell concentration to exceed 3 x 10e6 cells/mL. Population Doubling Time: 20 to 30 hours
Subculturing Medium Renewal:	Every 2 to 3 days
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:	44220: Kishi K. A new leukemia cell line with Philadelphia chromosome characterized as basophil precursors. Leuk. Res. 9: 381-390, 1985. PubMed: 3858609 44221: Okano H, et al. Hemoglobin synthesis of both adult and fetal types in a human CML cell line. J. Biochem. 104: 162-164, 1988. PubMed: 2460439 44222: Okamura S, et al. Expression of cytokine genes in hematological malignancies. Nippon Ketsueki Gakkai Zasshi 52: 1423-1432, 1989. PubMed: 2698048 61145: Blom T, et al. Phenotypic characterization of KU812, a cell line identified as an immature human basophilic leukocyte. Eur. J. Immunol. 22: 2025-2032, 1992. PubMed: 1639103
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