Data Sheet

BCRJ Code:	0292
Cell Line:	K1
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Thyroid
Disease:	Carcinoma
Growth Properties:	Adherent
Sex:	Male
Derivation:	Derived from a primary papillary thyroid carcinoma. Retains thyroid follicular cell differentiation e.g. thyroglobulin synthesis
DNA Profile:	Amelogenin: X,Y CSF1PO: 11,12 D13S317: 11,14 D16S539: 11,12 D5S818: 10,11 D7S820: 11 THO1: 6,9 TPOX: 8 vWA: 17,18
Products:	Expresses wild-type p53 tumour suppresser gene
Biosafety:	1
Addtional Info:	Expresses wild-type p53 tumour suppresser gene. It has been reported (Ribeiro et al., 2008 Pubmed: 19087340; Schweppe et al., 2008 Pubmed: 18713817) that K1 cells have their origin in the thyroid papillary carcinoma cell line GLAG-66 (Antonini et al 1993 Pubmed: 8330267)
Culture Medium:	DMEM:Ham's F12:MCDB 105 (2:1:1) + 2mM L-Glutamine + 10% Foetal Bovine Serum (FBS).

Subculturing:	Split sub-confluent cultures (70-80%). Remove and discard culture medium. Briefly rinse the cell layer with PBS without calcium and magnesium to remove all traces of serum which contains trypsin inhibitor. Add 2.0 to 3.0 mL of Trypsin-EDTA solution to flask and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 15 minutes). Add 6.0 to 8.0 mL of complete growth medium and aspirate cells by gently pipetting. Seeding at 2-4 x 10,000 cells/cm² into new culture vessels. Incubate cultures at 37°C. NOTE: For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 12 in Culture of Animal Cells, a manual of Basic Technique by R. Ian Freshney, 6th edition, published by Alan R. Liss, N.Y., 2010.
Subculturing Medium Renewal:	2 to 3 times 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: Is highly recommend 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. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the Oring 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 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 a 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:	Ribeiro et al., 2008 PMID: 19087340 Schweppe et al., 2008 PMID: 18713817 that K1 cells have their origin in the thyroid papillary carcinoma cell line GLAG-66 (Antonini et al 1993 PMID: 8330267) Wyllie FS, Lemoine NR, Barton CM, Dawson T, Bond J, Wynford-Thomas D. 1993 Direct growth stimulation of normal human epithelial cells by mutant p53. Mol Carcinog: 7(2):83-8
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