

Code:	0308
Cell Line:	HEL92.1.7
Species:	Homo sapiens Vulgar Name: Human
Tissue:	Bone Marrow
Morphology:	Lymphoblast
Disease:	Erythroleukemia
Growth Properties:	Suspension
Sex:	Male
Age Ethnicity:	30 YEARS; CAUCASIAN
DNA Profile:	Amelogenin: X,Y CSF1PO: 10 D13S317: 9,11 D16S539: 11 D5S818: 11 D7S820: 7 THO1: 7 TPOX: 11 vWA: 14,17
Products:	Genes Expressed: hemoglobin; globin (G gamma, A gamma, epsilon, eta and alpha chains); beta-2-microglobulin; glycophorin
Biosafety:	1
Additional info:	These cells differentiate spontaneously into erythroblast-like cells. Macrophage-like differentiation can be induced with phorbol esters such as TPA (12-O-tetradecanoyl-phorbol-13-acetate) and PMA (phorbol myristic acid). Antigen expression: HLA A3, Aw32, Bw35; Ia+
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 10 mM HEPES, 1 mM sodium pyruvate, 4500 mg/L glucose, and 1500 mg/L sodium bicarbonate and 10% FETAL BOVINE SERUM.
Subculturing:	Cultures can be maintained by addition or replacement of fresh medium. Start cultures at 2 x 10 ⁵ cells/mL and maintain between 1 x 10 ⁵ and 1 x 10 ⁶ cells/mL. Medium Renewal: Every 2 to 3 days Subcultivation ratio:

Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO ₂), 5% Temperature: 37°C
Cryopreservation:	95% FBS + 5% DMSO (Dimethyl sulfoxide)
Thawing Frozen Cells:	<p>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.</p> <ol style="list-style-type: none"> 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 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 a appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). <p>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).</p>
References:	Papayannopoulou T, et al. Human erythroleukemia cell line (HEL) undergoes a drastic macrophage- like shift with TPA. Blood 62: 832-845, 1983
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