Product sheet

HEL 92.1.7 | 300462

General information

Description	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).
Organism	Human
Tissue	Bone marrow
Disease	Erythroleukemia
Synonyms	HEL92.1.7, HEL-92.1.7, HEL-92-1-7, HEL-92_1_7, HEL-92, HEL92

Characteristics

Age	30 years
Gender	Male
Ethnicity	Caucasian
Morphology	Round cells
Cell type	Erythroblast
Growth properties	Adherent/suspension

Identifiers / Biosafety / Citation

Citation	HEL 92.1.7 (Cytion catalog number 300462)
Biosafety level	1

Expression / Mutation

Antigen expression	HLA A3, Aw32, Bw35, Ia+
Products	Hemoglobin, globin (G gamma, A gamma, epsilon, zeta and alpha chains), beta-2-microglobulin, glycophorin

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	Accutase
Subculturing	Gather the suspension cells in a 15 ml tube and gently wash the adherent cells with PBS lacking calcium and magnesium (use 3-5 ml for T25 flasks and 5-10 ml for T75 flasks). Apply Accutase (1-2 ml for T25 flasks, 2.5 ml for T75 flasks) ensuring full coverage of the cell layer. Allow the cells to incubate at room temperature for 10 minutes. Following incubation, combine and centrifuge both the suspension and adherent cells. After centrifugation, carefully resuspend the cell pellet and transfer the cell suspension into new flasks containing fresh medium.
Split ratio	A ratio of 1:3 is recommended
Fluid renewal	2 to 3 times per week
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

Quality control / Genetic profile / HLA

Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.

To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.

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STR profile	**Amelogenin**: x,y **CSF1PO**: 10 **D13S317**: 9,11 **D16S539**: 11 **D5S818**: 11 **D7S820**: 7 **TH01**: 7 **TPOX**: 11 **vWA**: 14,17 **D3S1358**: 15 **D21S11**: 29,30.2 **D18S51**: 12,16 **Penta E**: 13,18 **Penta D**: 11,13 **D8S1179**: 13,15 **FGA**: 22,23
HLA alleles	**A***: 03:01:01, 32:01:01 **B***: 35:01:01, 35:08:01 **C***: 04:01:01 **DRB1***: 07:01:01, 13:03:01 **DQA1***: 02:01:01, 05:05:01 **DQB1***: 02:02:01, 03:01:01 **DPB1***: 02:01:02, 04:01:01 **E**: 01:01:01, 01:03:02