

ARH-77 Cells | 300306

General information

Organism	Human
Tissue	Blood
Disease	Plasma Cell Leukemia
Applications	3D cell culture, Immune system disorder research, Immunology
Synonyms	ARH 77, ARH77

Characteristics

Age	33 years
Gender	Female
Ethnicity	European
Morphology	Lymphoblast
Cell type	B lymphoblast
Growth properties	Suspension

Identifiers / Biosafety / Citation

Citation	ARH-77 (Cytion catalog number 300306)
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Biosafety level 2

Expression / Mutation

Antigen expression	CD11a +, CD19 +, CD20 +, CD28 +, CD38 -, CD49e, +CD3 -, CD10 -, CD13 -, CD19 +, CD20 +, CD34 -, CD37 +, CD71 +, cyCD79 +, CD80 +, CD138 -, HLA-DR +, sm/cyIgG +, sm/cyIgM -, sm/cykappa +, sm/cylambda -
Viruses	EBV + (transformant), HBV -, HCV -, HIV-1 -, HIV-2 -, HTLV-1/2 -, MLV -, SMRV

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Karyotype human near diploid karyotype with 8% polyploidy - 46(44-48)xx, +9, del(1)(q23), add(2)(q21), add(3)(p11), der(3)t(2,3)(q23,q26), del(6)(p21), der(9)t(9,17)(q10,q10) - sideline with der(x)t(x,1)(q23,p32), del(16)(p13.2) and unresolved der(3) and der(9)hsr markers - no IGH translocations detected

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 The utilization of a passaging solution is not necessary when passaging cells that are cultured in suspension. The appropriate procedure is to dilute the cells in accordance with the indicated guidelines.

Subculturing Resuspend cell suspension in the flask and take representative aliquote to count the cell number per ml. Dilute cell suspension to 1×10^5 cells/ml with fresh medium and transfer into new flasks.

Freeze medium CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures ARH-77 cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at 300 x g for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.

Handling of proliferating cultures One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in a 50 ml centrifuge tube. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Examine cell morphology and confluency using a microscope. Finally, incubate the flasks at 37 degrees Celsius for at least 24 hours.

Quality control / Genetic profile / HLA

Sterility Mycoplasma contamination is rigorously 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,x
CSF1PO: 6,1
D13S317: 11,13
D16S539: 9,13
D5S818: 10,13
D7S820: 7,12
TH01: 8,9,3
TPOX: 8
vWA: 17
D3S1358: 16
D21S11: 29,3
D18S51: 14,16
Penta E: 12
Penta D: 10
D8S1179: 14,15
FGA: 20,21
D6S1043: 11,19
D2S1338: 17
D12S391: 19,2
D19S433: 14,15