

HMy2.CIR | 305126

General information

Description	This cell line is established by gamma irradiation and selection for loss of HLA class I antigen expression from the HMy2 B lymphoblastoid cell line, a fast growing mutant of the ARH-77 cell line. The cells can be utilized as host for transfected class I major histocompatibility antigen genes. The ARH-77 cell line was reported to be positive for Epstein-Barr nuclear antigen (EBNA +) and Epstein-Barr viral capsid antigen (EBVCA +). Therefore, the HMy2.CIR cell line is assumed to be EBNA positive. The cells express small amounts of HLA Cw4 but no HLA A or B locus products.
Organism	Human
Tissue	B-Lymphoblast
Synonyms	Hmy.2 CIR, HMy2.CIR, C1R

Characteristics

Age	33 years
Gender	Female
Ethnicity	Caucasian
Morphology	Lymphoblast
Growth properties	Suspension

Identifiers / Biosafety / Citation

Citation	HMy2.CIR (Cytion catalog number 305126)
Biosafety level	2

Expression / Mutation

Handling

Culture Medium	IMDM
-----------------------	------

HMy2.CIR | 305126

Medium supplements w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 25 mM HEPES, w: 1.0 mM Sodium pyruvate, w: 3.024 g/L NaHCO₃

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.

Split ratio 1×10^5 to 1×10^6 cells/mL

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 The cells come deep-frozen shipped on dry ice. Please make sure that the vial is still frozen. If immediate culturing is not intended, the cryovial must be stored below -150 degree Celsius after arrival. If immediate culturing is intended, please follow the below instructions: Quickly thaw by rapid agitation in a 37 degree Celsius water bath within 40-60 seconds. The water bath should have clean water containing an antimicrobial agent. As soon as the sample has thawed, remove the cryovial from the water bath. A small ice clump should still remain and the vial should still be cold. From now on, all operations should be carried out under aseptic conditions. Transfer the cryovial to a sterile flow cabinet and wipe with 70% alcohol. Carefully open the vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of culture medium (room temperature). Resuspend the cells carefully. Centrifuge at $300 \times g$ for 3 min and discard the supernatant. The centrifugation step may be omitted, but in this case the remains of the freeze medium have to be removed 24 hours later. Resuspend the cells carefully in 10 ml fresh cell culture medium and transfer them into two T25 cell culture flasks. All further steps are described in the subculture section.

Handling of proliferating cultures One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in 1 or 2 x 50 ml centrifuge tubes, respectively. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Control the cell morphology and confluency under the microscope. Incubate at 37 degree Celsius for a minimum of 24 hours. Spin down the collected medium at $300 \times g$ 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. Incubate at 37 degree Celsius for a minimum of 24 hours.

Quality control / Genetic profile / HLA

Sterility Mycoplasma contaminations are ruled out through PCR-based and luminescence-based mycoplasma assays. The absence of bacterial, fungal or yeast contamination is controlled through daily visual cell monitoring.

STR profile

Amelogenin: x,x
CSF1PO: 6,10
D13S317: 11,13
D16S539: 9,13
D5S818: 10,13
D7S820: 7,12
TH01: 8
TPOX: 8
vWA: 17
D3S1358: 16
D21S11: 29,30
D18S51: 14,16
Penta E: 12
Penta D: 10
D8S1179: 15
FGA: 20,21
D6S1043: 11,19
D2S1338: 17
D12S391: 19,20
D19S433: 14,15