

SK-LU-1 Cells | 300335

General information

Organism	Human
Tissue	Lung
Disease	Adenocarcinoma (grade III)
Synonyms	SK-Lu-1, SK LU 1, SK-Lu1, SK-LU1, SKLU-1, SKLU1, SKLU01

Characteristics

Age	60 years
Gender	Female
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	SK-LU-1 (Cytion catalog number 300335)
Biosafety level	1

Expression / Mutation

Protein expression	p53 positive
Antigen expression	Blood Type O, Rh+, HLA Aw24, Aw32, B27, Bw41
Isoenzymes	Me-2, 1, PGM3, 1, PGM1, 2, ES-D, 2, AK-1, 1, GLO-1, 2, G6PD, B
Tumorigenic	Yes, in immunotolerant rats and nu-nu mice

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Karyotype The stemline chromosome number is hypotetraploid, with the 2S component occurring at 4.4%. Marker chromosomes 1p, t(1q,11q), 11q+, t(13,?), 16q+, t(12q, 18q). M10, t(2q,13q), i(15), and ?t(xp,21q) occurred in all S metaphases, and t(1p,?), t(1p,14q), t(16,?), and t(14,21) occurred in some. In addition, 4 to 9 small markers of unidentifiable origin occurred frequently. Chromosome No. 7 was generally hexasomic, x chromosomes were disomic, and normal No. 15 was absent. No Y chromosome was detected in the QM stained preparation. Phenotype Frequency Product: 0.00003

Handling

Culture Medium EMEM, w: 2 mM L-Glutamine, w: 1.5 g/L NaHCO₃, w: EBSS, w: 1 mM Sodium pyruvate, w: NEAA (Cytion article number 820100c)

Medium supplements Supplement the medium with 10% FBS

Passaging solution Accutase

Subculturing Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with Accutase, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.

Split ratio A ratio of 1:2 is recommended

Seeding density 1 x 10⁴ cells/cm²

Fluid renewal 2 times per week

Freezing recovery After thawing, plate the cells at 5 x 10⁴ cells/cm² and allow the cells to recover from the freezing process and to adhere for at least 24 hours.

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

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Handling of cryopreserved cultures

SK-LU-1 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.

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.

STR profile

Amelogenin: x,y
CSF1PO: 10
D13S317: 10
D16S539: 8
D5S818: 11
D7S820: 9
TH01: 7
TPOX: 8,10
vWA: 16,17
D3S1358: 18
D21S11: 29,30.2
D18S51: 18
Penta E: 5
Penta D: 10,13
D8S1179: 10
FGA: 21,22

HLA alleles

A*: 24:02:01
B*: 40:02:01
C*: 02:02:02
DRB1*: 13:01:01
DQA1*: 01:03:01
DQB1*: 06:03:01
DPB1*: 04:02:01
E: 01:01:01