

SK-MEL-1 Cells | 300424**General information**

Description This cell line was established in 1966 by F. Oettgen and associates using cells from the thoracic duct of a patient. Pigment granules relating both to synthesis and to phagocytosis are present. According to our sequencing, WB and PCR results this cell line carries a BRAF V600E mutation. Cells are N-Ras wildtype.

Organism Human

Tissue Skin

Disease Melanoma

Metastatic site Thoracic lymph duct

Synonyms SK-Mel-1, SK Mel 1, SK-Mel 1, SK-Mel1, SKMEL-1, SkMEL-1, SKMEL1, SK 1

Characteristics

Age 29 years

Gender Male

Ethnicity Caucasian

Morphology Spherical

Growth properties Suspension

Identifiers / Biosafety / Citation

Citation SK-MEL-1 (Cyton catalog number 300424)

Biosafety level 1

Expression / Mutation

Antigen expression Blood Type A, Rh+. Antibody to this line was detected in 63% of patients with malignant melanoma and in 10% of patients with other diseases.

Isoenzymes PGM3, 1, PGM1, 1, ES-D, 1, AK-1, 1, GLO-1, 1-2, G6PD, B,

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Tumorigenic	Yes, in nude mice. Forms pigmented malignant melanomas. Also forms tumors in the cheek pouch of cortisone treated hamsters
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Products	Melanin
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Mutational profile	V600E type BRAF Mutation was determined by DNA based methods (sequencing, RT-PCR) and protein based methods (Western Blot)
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Handling

Culture Medium	EMEM, w: 2 mM L-Glutamine, w: 1.5 g/L NaHCO ₃ , w: EBSS, w: 1 mM Sodium pyruvate, w: NEAA (Cytion article number 820100c)
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Medium supplements	Supplement the medium with 10% FBS
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Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 2×10^5 cells/ml and keep the cell concentration within the range of 1×10^5 to 1×10^6 cells/ml for optimal growth.
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Split ratio	A ratio of 1:2 to 1:4 is recommended
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Seeding density	1×10^5 cells/mL
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Fluid renewal	2 to 3 times per week
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Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)
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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: 12,13
D13S317: 11
D16S539: 11,12
D5S818: 12,13
D7S820: 12
TH01: 6
TPOX: 11
vWA: 16,17
D3S1358: 14,16
D21S11: 29,32.2
D18S51: 13,16
Penta E: 7,21
Penta D: 11,13
D8S1179: 13,16
FGA: 18,20

HLA alleles

A*: 26:01:01
B*: 35:01:01, 38:01:01
C*: 04:01:01, 12:03:01
DRB1*: 04:02:01
DQA1*: 03:01:01
DQB1*: 03:02:01
DPB1*: 04:01:01
E: 01:01:01, 01:03:01