

SK-MEL-5 Cells | 300157

Description	This is one of a very extensive series of melanoma lines which have been isolated by T. Takahashi and associates. The lines served as source of target cells for the detection of melanoma specific antibody in patients with this disease.
Organism	Human
Tissue	Skin
Disease	Melanoma
Metastatic site	Axillary lymph node
Applications	Melanoma research; skin cancer biology; melanoma drug sensitivity; checkpoint inhibitor evaluation; MAPK/ERK pathway studies; cell migration and invasion; xenograft models; NK cell and T cell cytotoxicity assays (target cells)
Synonyms	SK-Mel-5, SK MEL 5, SK.MEL.5, SK-MEL5, SKMel-5, SKMEL-5, SKMEL5, SKMel5, SKmel5, AA-Mel
Age	24 years
Gender	Female
Ethnicity	Caucasian
Morphology	Stellate
Cell type	Melanocyte/melanoma cells
Growth properties	Adherent
Citation	SK-MEL-5 (Cytion catalog number 300157)
Biosafety level	1

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NCBI_TaxID 9606

CellosaurusAccession CVCL_0527

GMO Status No genetic modification; wildtype melanoma cell line isolated by T. Takahashi et al.

Protein expression P53 positive

Isoenzymes PGM1, 1-2, PGM3, 1, ES-D, 1, AK-1, 1, GLO-1, 1-2, G6PD, B, Phenotype Frequency Product: 0.0860

Tumorigenic Yes, in nude mice, forms malignant melanoma

Products Melanin

Culture Medium EMEM (MEM Eagle), w: 2 mM L-Glutamine, w: 2.2 g/L NaHCO₃, w: EBSS (Cytion article number 820100a)

Supplements Supplement the medium with 10% FBS and 1% NEAA

Dissociation Reagent Accutase

Doubling time approx. 24 to 36 hours

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 1 to 3

Seeding density 1×10^4 cells/cm²

Fluid renewal 2 to 3 times per week

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Post-Thaw Recovery

After thawing, plate the cells at 5×10^4 cells/cm² and allow the cells to recover from the freezing process and to adhere for at least 24 hours.

Freeze medium

As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

Thawing and Culturing Cells

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.
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.

Incubation Atmosphere

37°C, 5% CO₂, humidified atmosphere.

Shipping Conditions

Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately -78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.

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Storage Conditions

For long-term preservation, place vials in vapor-phase liquid nitrogen at about -150 to -196 °C. Storage at -80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

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.