Product sheet

SK-MEL-2 growing culture | 330423

General information

Description	Introducing SK-MEL-2 cells, a cell line derived from a 60-year-old, White, male patient with malignant melanoma. These cells express wildtype B-Raf and mutant N-Ras (Q61R). With a doubling time of 32 hours, SK-MEL-2 cells provide a valuable tool for studying melanoma. Melanoma arises when mutations occur in melanocytes, leading to uncontrolled multiplication and cancer development. By using SK-MEL-2 cells, researchers can gain insights into melanoma's mechanisms and explore potential treatments.
Organism	Human
Tissue	Skin
Disease	Melanoma
Metastatic site	Skin of thigh
Synonyms	SK-Mel-2, SK-Mel 2, SK-mel-2, SK-MEL2, SK.MEL.2, SK Mel 2, SK MEL 2, SKMEL-2, SKMEL2, SKmel2, SK-ML2, SKml2

Characteristics

Age	60 years
Gender	Male
Ethnicity	Caucasian
Morphology	Polygonal
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	SK-MEL-2 (Cytion catalog number 300423)
Biosafety level	1

Expression / Mutation

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

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Tumorigenic	Yes, in nude mice. Forms malignant melanoma
Karyotype	(P6) hypodiploid to hypertetraploid with abnormalities including dicentrics, secondary constrictions and large telocentric marker. Phenotype Frequency Product: 0.0742

Handling

Culture Medium	DMEM
Medium supplements	10% FBS, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO3, w: 1.0 mM Sodium pyruvate
Passaging solution	Accutase
Subculturing	Remove medium and rinse the adherent cells using PBS without calcium and magnesium (3-5 ml PBS for T25, 5-10ml for T75 cell culture flasks). Add Accutase (1-2ml per T25, 2.5ml per T75 cell culture flask), the cell sheet must be covered completely. Incubate at ambient temperature for 10 minutes. Carefully resuspend the cells with medium (10 ml), centrifuge for 3 min at 300 g, resuspend cells in fresh medium and dispense into new flasks which contain fresh medium.
Split ratio	A ratio of 1:3 to 1:6 is recommended
Seeding density	1 x 10^4 cells/cm^2
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 x 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 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. 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**: 10,12 **D13S317**: 11 **D16S539**: 8,9 **D5S818**: 12,13 **D7S820**: 11,12 **TH01**: 9 **TPOX**: 8,9 **vWA**: 17,18 **D3S1358**: 14,16 **D21S11**: 29,30 **D18S51**: 15,16 **Penta E**: 7,16 **Penta D**: 10,15 **D8S1179**: 12,13 **FGA**: 19,21,25