Product sheet

A2058 Cells | 305046

General information

Description	The A2058 cell line is a human melanoma cell line derived from a brain metastasis of a patient with malignant melanoma. This cell line is widely used in cancer research due to its high metastatic potential, which makes it an important model for studying melanoma progression and the mechanisms underlying metastasis. A2058 cells are known to express nerve growth factor (NGF) receptors, which are linked to their aggressive and metastatic characteristics. One of the key features of A2058 cells is their ability to produce transforming growth factors (TGFs) that promote anchorage-independent growth, a common indicator of the transformed, cancerous phenotype. These TGFs interact with epidermal growth factor (EGF) receptors, despite the cells themselves lacking detectable EGF receptors. This interaction is critical for enabling the growth of normal fibroblasts and epithelial cells in soft agar, a standard assay for evaluating the transformation potential of cancer cells. A2058's ability to drive such growth highlights its utility in research focused on understanding and combating the spread of melanoma.
Organism	Human
Tissue	Skin
Disease	Amelanotic melanoma
Metastatic site	Lymph node
Synonyms	A 2058, A-2058

Characteristics

Age	43 years
Gender	Male
Ethnicity	European
Morphology	Epithelial
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	A2058 (Cytion catalog number 305046)

Biosafety level	1

Expression / Mutation

Handling

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 1.5 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	Accutase
Doubling time	27 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	1:2 to 1:5
Fluid renewal	2 to 3 times per week
Freeze medium	CM-1 (Cytion catalog number 800100)

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.
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: 10,11
D13S317: 13,14
D16S539: 9,13
D5S818: 9,12
D7S820: 11
TH01: 7,9
TPOX: 8
vWA: 14,18
D3S1358: 14,15
D21S11: 29,30.2
D18S51: 13,15
Penta E: 10,13
Penta D: 9,12
D8S1179: 12,13
FGA: 21,24
D6S1043: 11,17
D2S1338: 17,18
D12S391: 22,23
D19S433: 14