Product sheet

G-361 Cells | 302157

General information

Description	G-361 is a human melanoma cell line derived from a metastatic site in the skin of an adult patient. This cell line exhibits melanin production, which is a characteristic feature of melanocytes and melanoma cells. G-361 cells are known for their epithelial-like morphology and are extensively used in research focused on skin cancer, particularly melanoma. The cells are valuable for studying the biology and pathogenesis of melanoma, including cell proliferation, migration, and invasion. Additionally, they serve as a useful model for drug screening and for understanding the mechanisms of resistance to chemotherapy in melanoma. The G-361 cell line has been used to explore the genetic and molecular underpinnings of melanoma. It has been instrumental in studies investigating the role of various oncogenes and tumor suppressor genes in cancer progression. For instance, research utilizing G-361 cells has contributed to insights into the MAPK/ERK pathway, which is often dysregulated in melanoma. These cells are also commonly used in assays to evaluate the efficacy of new therapeutic agents, making them crucial for translational research and the development of targeted treatments for melanoma.
Organism	Human
Tissue	Skin
Disease	Melanoma
Synonyms	G-361, G361-mel, G361mel

Characteristics

Age	31 years
Gender	Male
Ethnicity	European
Morphology	Epithelial
Growth properties	Adherent

Regulatory Data

Citation	G-361 (Cytion catalog number 302157)
Biosafety level	1

G-361 Cells | 302157

NCBI_TaxID	9606
CellosaurusAccession	CVCL_1220

Biomolecular Data

Isoenzymes	G6PD, B
Products	Melanin

Handling

Culture Medium	McCoys 5a, w: 3.0 g/L Glucose, w: stable Glutamine, w: 2.0 mM Sodium pyruvate, w: 2.2 g/L NaHCO3 (Cytion article number 820200a)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	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.
Fluid renewal	2 to 3 times per week
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% CO_2, 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.
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.

Quality Control & Molecular Analysis

G-361 Cells | 302157

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.