Product sheet

L-138 Cells | 400384

General information

Description	The L-138 cell line, also known by its original designation M138, is a melanoma cell line derived from cutaneous melanoma. Melanoma is a type of skin cancer originating from melanocytes, the cells responsible for producing melanin. This cell line has been crucial in understanding the surface antigens involved in melanoma and melanocyte differentiation. The L-138 cells are characterized by their expression of specific antigens that define subsets of melanoma, contributing to the classification and differentiation studies of melanoma types based on antigenic profiles. L-138 cells exhibit unique surface antigens, including the M-24 antigen, identified through monoclonal antibodies. These antigens have been analyzed serologically, revealing that the L-138 cell line expresses antigens detectable by several monoclonal antibodies specific to melanoma. These include the HLA-A,B,C antigens and β2-microglobulin, which are highly reactive in most melanoma cell lines, providing insights into the immune recognition and classification of melanoma cellsfcitation[oaicite:0]{index=0}fi Moreover, the L-138 cell line has been utilized in tyrosinase activity assays, an enzyme crucial for melanin synthesis. The tyrosinase activity in L-138 cells was measured using radiolabeled tyrosine, demonstrating the functional properties of melanoma cells in pigment production. This activity is compared against non-pigmented renal cancer cells, showcasing the distinct enzymatic activity in melanoma. Such studies help elucidate the metabolic pathways and potential therapeutic targets in melanoma treatment .
Organism	Mouse
Tissue	Hematopoietic, hybridoma
Synonyms	M138, M 138, M-24 (M138), M-24, L138

Characteristics

Breed/Subspecies	BALB/c
Morphology	Round cells
Cell type	Lymphoblast
Growth properties	Suspension

Regulatory Data

Citation	L-138 (Cytion catalog number 400384)
Biosafety level	1

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NCBI_TaxID	10090
CellosaurusAccession	CVCL_J758

Biomolecular Data

Products	Monoclonal antibody (immunoglobulin, IgG1) against human cutaneous melanocytes (M-24 antigen system). CLS does not warrant for antibody production of this cell line.

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 5 x 10^5 cells/ml and keep the cell concentration within the range of 3 x 10^5 to 1 x 10^6 cells/ml for optimal growth.
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

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.