L-138

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 cells:citation[oaicite:0]{index=0} .

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 .

Tissue	Hematopoietic, hybridoma

Synonyms

- M138
- M 138
- M-24 (M138)
- M-24
- L138

CLASSIFICATION

Organism	Mouse
Growth properties	Suspension
Biosafety level	1

CHARACTERISTICS

Morphology	Round cells
Cell type	Lymphoblast

IDENTIFIERS

Citation

L-138 (Cytion catalog number 400384)

NCBI TaxID	10090
Cellosaurus	CVCL_J758

EXPRESSION AND SUSCEPTIBILITY

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 AND CULTURE

Culture medium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

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

Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit. 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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

QUALITY CONTROL AND CRYOPRESERVATION

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.

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.

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.

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.

DONOR

Breed / subspecies	BALB/c

LEGAL AND SAFETY

Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Disclaimer

Our cells are provided for in vitro laboratory research purposes exclusively and are not intended for clinical or diagnostic use, nor are they to be administered to humans or used for veterinary purposes. Users must adhere to all applicable guidelines and regulations for the handling and use of these cells in a research setting.

Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Material Transfer Agreement required	Yes

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