Meth A sarcoma

400284

GENERAL INFORMATION

Description

Meth A sarcoma cells, originating from a chemically induced tumor in Balb/c mice, provide a crucial model for understanding tumor biology and the molecular mechanisms driving sarcoma development. A key aspect of Meth A sarcoma cell research involves the study of the transformation-related protein p53, known for its role in tumor suppression. Typically, p53 is highly labile, but its stability is markedly increased in many fibrosarcoma cell lines derived from tumors induced by physical or chemical agents. This stabilization often correlates with the formation of a stable complex with the heat shock protein cognate hsc70.
Interestingly, Meth A sarcoma cells exhibit unique behavior regarding p53 stability. Despite p53 being very stable in these cells, there is no detectable interaction with hsc70. This suggests that the inability to form such a complex is likely due to the primary structure of the endogenous p53. When other p53 variants are introduced into Meth A sarcoma cells, a p53-hsc70 complex does form, indicating that the primary structure of p53 is a critical determinant of its interaction with hsc70 and, consequently, its stability.
Further investigations using stable transfection experiments have revealed that different p53 variants are degraded at distinct rates in various transformed cell types, emphasizing the role of p53's primary structure in determining its turnover rate. Additionally, the cellular environment also influences p53 stability, as evidenced by differing degradation rates of at least one p53 variant in nontransformed BALB/c-3T3 cells compared to transformed fibrosarcoma cells. This highlights the complex interplay between genetic factors and cellular context in regulating p53 stability and function in Meth A sarcoma cells.

Tissue	Skin
Disease	Fibrosarcoma

Synonyms

- Meth A
- Meth-A
- Meth-A-sarkom

CLASSIFICATION

Organism	Mouse
Sex	Female
Growth properties	Suspension
Biosafety level	1

CHARACTERISTICS

Morphology	Round cells
Tumourigenic	Yes
Doubling time	28 to 30 hours

IDENTIFIERS

Citation

Meth A sarcoma (Cytion catalog number 400284)

NCBI TaxID	10090

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Cellosaurus	CVCL_5798

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

Allow cell aggregates to settle to the bottom of the flask, discard the supernatant medium, disperse the cells with gentle pipetting and dispense into new flasks. Resuspend cell suspension in the flask and take representative aliquot to count the cell number per ml. Dilute cell suspension to 1x10^5 cells/ml with fresh medium and transfer into new flasks.

Seeding density	Start new cultures using 2 to 3 x 10^6 cells/ml. Once the cells have recovered from the freezing and thawing process after 1 to 2 passages, adjust the cell density to 1 x 10^6 cells/ml when splitting the cells.
Fluid renewal	2 to 3 times per week
Post-thaw recovery	About 53% of the initial cell number was collected after freezing.

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
Donor age	Adult

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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