

HS-695T Cells | 300211

Renseignements généraux

Description

The HS-695T cell line is derived from human melanoma, a type of skin cancer characterized by the malignant transformation of melanocytes. These cells were originally obtained from an adult patient and have since been extensively utilized in research focused on melanoma biology, tumorigenesis, and cancer metastasis. The HS-695T cell line exhibits key characteristics of melanoma, including the ability to proliferate rapidly and form tumors when transplanted into immunocompromised mice. This cell line retains many of the molecular and genetic features of the original tumor, making it a valuable model for studying the underlying mechanisms of melanoma progression and for testing potential therapeutic agents.

HS-695T cells express various melanoma-associated markers, including Melan-A, tyrosinase, and HMB-45, which are commonly used to identify and study melanocytic tumors. These cells are also known to have mutations in genes such as BRAF and NRAS, which are frequently observed in melanoma and contribute to the oncogenic signaling pathways driving tumor growth and survival. Researchers use the HS-695T cell line to explore the effects of targeted therapies, including BRAF and MEK inhibitors, and to investigate the development of resistance to these treatments. Overall, the HS-695T cell line is a critical tool in melanoma research, aiding in the discovery of new therapeutic strategies and improving our understanding of this aggressive cancer.

Organism

Human

Tissue

Skin

Disease

Amelanotic melanoma

Metastatic site

Lymph node

Synonyms

Hs 695.T, Hs-695-T, Hs 695T, HS 695T, Hs695T, HS695T, Hs695

Caractéristiques

Age

26 years

Gender

Male

Ethnicity

Caucasian

Morphology

Epithelial-like

Growth properties

Adherent

Données réglementaires

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Citation	HS-695T (Cytion catalog number 300211)
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Biosafety level	1
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NCBI_TaxID	9606
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CellosaurusAccession	CVCL_0851
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Données biomoléculaires

Protein expression	P53 positive
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Isoenzymes	G6PD, B, PGM1, 1, PGM3, 1, ES-D, 1, Me-2, 0, AK-1, 1, GLO-1, 1, Phenotype Frequency Product: 0.0427
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Tumorigenic	Yes, in immunosuppressed mice
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Mutational profile	BRAF V600Emut
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Karyotype	(P19-40) mode = 52, Y chromosome present
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Manipulation

Culture Medium	DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO ₃ , w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)
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Supplements	Supplement the medium with 10% FBS
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Dissociation Reagent	Accutase
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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.
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Seeding density	2×10^4 cells/cm ²
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Fluid renewal 2 to 3 times per week

Post-Thaw Recovery After thawing, plate the cells at 5×10^4 cells/cm² and allow the cells to recover from the freezing process and to adhere for at least 24 hours.

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% CO₂, 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.

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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.

Contrôle de la qualité et analyse moléculaire

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.