

Hs-746T Cells | 305121

General information

Description

The Hs-746T cell line is derived from human gastric carcinoma, representing a valuable in vitro model for studying gastric cancer biology and therapeutic interventions. These cells exhibit epithelial morphology and are known for their adherent growth properties. The Hs-746T cells harbor a MET gene amplification, which is a significant feature as it contributes to the oncogenic signaling pathways involved in gastric cancer. This amplification makes the Hs-746T cell line particularly useful for research focused on targeted therapies against MET and its downstream signaling pathways.

Researchers utilize the Hs-746T cell line to investigate various aspects of tumor biology, including cell proliferation, migration, invasion, and response to chemotherapeutic agents. The genetic and phenotypic characteristics of Hs-746T cells make them an essential tool for studying the molecular mechanisms underlying gastric carcinoma and for the development and testing of new anti-cancer drugs. The availability of this cell line has facilitated numerous studies aimed at understanding the role of MET amplification in cancer progression and treatment resistance, thereby contributing to the advancement of precision medicine in oncology.

Organism

Human

Tissue

Stomach

Disease

Gastric adenocarcinoma

Metastatic site

Left leg, skeletal muscle

Synonyms

Hs 746T, HS 746T, Hs 746.T, HS-746T, Hs746T, HS746T, Hs746-T, 746T

Characteristics

Age

74 years

Gender

Male

Ethnicity

European

Morphology

Epithelial

Growth properties

Adherent

Regulatory Data

Citation

Hs-746T (Cytion catalog number 305121)

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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0333

Biomolecular Data

Handling

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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Fluid renewal	2 to 3 times per week
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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.
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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 $300 \times g$ 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

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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.