

Product sheet

HS 578T | 305089

General Information

Description	<p>HS 578T is a human embryonic stem (ES) cell line derived from a human embryo. It is a pluripotent stem cell line that can differentiate into all three germ layers (ectoderm, mesoderm, and endoderm) and form all cell types of the human body. HS 578T cells are characterized by their ability to self-renew indefinitely in culture and their capacity to differentiate into specialized cell types. HS 578T cells are widely used in research to study human development, disease models, and drug discovery. HS 578T cells are maintained in a feeder layer of fibroblasts and are typically cultured in the presence of leukemia inhibitory factor (LIF) to maintain their pluripotent state. HS 578T cells are also used to generate induced pluripotent stem (iPS) cells and to study the effects of various factors on cell differentiation and self-renewal.</p>
Organism	Human
Tissue	Embryonic stem cells, ES
Disease	Not applicable
Synonyms	HS 578T, Hs-578T, HS-578T, Hs_578t, Hs-578-T, HS-578-T, Hs 578.T, HS578T, Hs578T, Hs578t, HS0578T, 578T, HS578, Hs578, HS 578T , HS 578T

Characteristics

Age	74 days
Gender	Male
Ethnicity	Not applicable
Morphology	Pluripotent stem cells
Growth properties	Self-renewing

References

Citation	HS 578T (Cytion 305089)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_0332

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Thawing and Culturing Cells

1. Remove the vial from the dry ice and store it at room temperature for 10 minutes. Then, add 10 ml of pre-warmed complete medium to the vial and mix gently.
2. Transfer the cells to a T25 flask containing 25 ml of pre-warmed complete medium. Incubate at 37°C in 5% CO₂ for 24 hours to allow the cells to attach.
3. After 24 hours, check for cell attachment. If cells are not attached, try to re-plate them into a new T25 flask.
4. Once cells are attached, change the medium to fresh complete medium. Remove the old medium and wash the cells with PBS.
5. Seed the cells at a density of 1.5 x 10⁶ cells per T25 flask. The cells should reach 70-80% confluency within 3-5 days.
6. For passaging, use trypsin-EDTA to detach the cells. Add 2 ml of trypsin to the flask and incubate at 37°C for 5 minutes.
7. Add 10 ml of complete medium to stop the trypsin reaction. Pipette the cells into a 15 ml centrifuge tube and centrifuge at 300 x g for 3 minutes.
8. Resuspend the cell pellet in 1 ml of complete medium. Count the cells and seed them into a new flask.

Incubation Atmosphere 37°C, 5% CO₂, humidified air

Flask Coating No coating

Freezing Procedure Harvest cells at 70-80% confluency. Wash with PBS, add 1 ml of freezing medium, and centrifuge at 300 x g for 3 minutes. Resuspend in 100 µl of freezing medium and store at -80°C.

Shipping Conditions Ship at -80°C in dry ice. Store at -80°C until received.

Storage Conditions Store at -150°C for up to 196 days. Thaw at room temperature and resuspend in complete medium.

HEp-2 Hs 578T / HEp-2 Hs 578T / HLA

Sterility HEp-2 Hs 578T is free of mycoplasmas, PCR detectable viruses, and other contaminants. HEp-2 Hs 578T is not HLA typed.