Product sheet

HuT-78 Cells | 300338

General information

Description	Derived from the peripheral blood of a patient with S?zary syndrome. The line has the properties of a mature human T cell with helper/inducer activity. The growth rate is stimulated by IL-2. TNF alpha is an autocrine growth factor for Hut-78.
Organism	Human
Tissue	Blood
Disease	Mycosis fungoides and Sezary syndrome
Synonyms	Hut 78, HUT 78, HuT 78, HUT-78, HuT78, Hut78, HUT78, NCI-H78

Characteristics

Age	53 years
Gender	Male
Ethnicity	Caucasian
Morphology	Round cells
Cell type	T lymphoblast
Growth properties	Suspension

Identifiers / Biosafety / Citation

Citation	HuT-78 (Cytion catalog number 300338)
Biosafety level	1
Depositor	T. Lindl

Expression / Mutation

Receptors expressed	interleukin-2 (interleukin 2, IL-2)

Protein expression	p53 negative
Antigen expression	CD4
Products	interleukin-2 (interleukin 2, IL-2), tumor necrosis factor alpha (TNF alpha)

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Medium supplements	Supplement the medium with 10% FBS
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 2 x 10^5 cells/ml and keep the cell concentration within the range of 1 x 10^5 to 1 x 10^6 cells/ml for optimal growth.
Seeding density	1 x 10^5 cells/ml
Fluid renewal	2 to 3 times per week
Freezing recovery	Allow the cells to recover from the freezing process for 24 to 48 hours.
Freeze medium	CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

Handling of cryopreserved cultures

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. Optionally, skip centrifugation but remove any remaining freezing medium after 24 hours.
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.

Quality control / Genetic profile / HLA

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.

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STR profile	**Amelogenin**: x,y **CSF1PO**: 11,12 **D13S317**: 8,12 **D16S539**: 11,12 **D5S818**: 11,12 **D7S820**: 8,11 **TH01**: 8,9 **TPOX**: 8,9 **vWA**: 14,15 **D3S1358**: 15,16 **D21S11**: 30 **D18S51**: 18 **Penta E**: 13,15 **Penta D**: 9 **D8S1179**: 12,14 **FGA**: 21,25
HLA alleles	**A***: 01:01:01 **B***: 15:01:01 **C***: 03:03:02 **DRB1***: 04:01:01 **DQA1***: 03:01:01 **DQB1***: 03:02:01 **DPB1***: 04:01:01 **E**: 01:03:02