

TF-1 | 300434

TF-1

Description TF-1 is a T cell line derived from a 35-year-old male patient with T cell acute lymphoblastic leukemia (T-ALL) in 1987. The cell line is characterized by a clonal expansion of CD4+ CD8- T cells with a TCR α gene rearrangement. The cell line is maintained in RPMI 1640 medium supplemented with 10% fetal bovine serum (FBS) and 1% penicillin-streptomycin. The cell line is used for studying T cell biology and immunotherapy.

Organism Human

Tissue T cell

Disease T cell acute lymphoblastic leukemia

Applications TF-1 is used for studying T cell biology and immunotherapy. The cell line is used for generating T cell lines and for studying T cell activation and differentiation.

Synonyms TF1, MFD-1

TF-1

Age 35 years

Gender Male

Ethnicity Caucasian

Morphology T cell

Growth properties T cell

TF-1

Citation TF-1 (Cytion 300434)

Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_0559

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Cell Line

Receptors expressed TF-1 A I.

Mutational profile p.Gln61Pro, p.Ile251Thrfs*94,

Media

Culture Medium RPMI 1640, w: 2.1 mM, w: 2.0 g/L NaHCO3 (Cytion 820700a)

Supplements 10% FBS, 5 GM-CSF; IL-3

Doubling time 39 +- 6, 22, ~70

Subculturing

Seeding density > 2 x 10⁵

Fluid renewal 2 3

Freeze medium (FBS) + 10% DMSO

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Thawing and Culturing Cells

1. Thaw the vial rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300 x g for 3 minutes. Resuspend the cells in 15 ml of pre-warmed medium.
3. Seed the cells into a T25 flask containing 37 ml of pre-warmed medium.
4. Incubate the cells at 37°C in 5% CO₂ until they reach 70% confluency.
5. Harvest the cells by trypsinization and resuspend them in 15 ml of pre-warmed medium.
6. Seed the cells into a T25 flask containing 37 ml of pre-warmed medium.
7. Incubate the cells at 37°C in 5% CO₂ until they reach 70% confluency.
8. Harvest the cells by trypsinization and resuspend them in 15 ml of pre-warmed medium.

Incubation Atmosphere 37°C, 5% CO₂, humidified

Flask Coating No

Freezing Procedure Freeze cells in 1 ml of freezing medium in a cryovial. Store at -80°C.

Shipping Conditions Ship at -80°C.

Storage Conditions Store at -150°C for up to 196 months.

Genotype / HLA

Sterility The cells are free of mycoplasmas and PCR detectable. They are also free of endotoxins.

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██████ HLA

A*: '02:01:01, '33:03:01

B*: '44:03:01, '51:01:01

C*: '01:02:01, '14:03:01

DRB1*: '09:01:02G, '13:02:01

DQA1*: '01:02:01, '03:02:01

DQB1*: 03:03:02, 06:04:01

DPB1*: '02:01:02, '04:01:01

E: '01:01:01, '01:03:01