

TF-1 | 300434

General Information

Description TF-1 is a T cell line derived from a 35-year-old male patient with T cell acute lymphoblastic leukemia (T-ALL). The cells are maintained in RPMI 1640 medium supplemented with 10% fetal bovine serum (FBS) and 100 U/ml penicillin, 100 U/ml streptomycin, and 100 U/ml nystatin. The cells are characterized by the expression of CD2, CD3, CD4, CD5, CD7, CD8, CD11a, CD11b, CD11c, CD137, CD138, CD144, CD154, CD160, CD161, CD167, CD184, CD196, CD200, CD226, CD244, CD269, CD271, CD274, CD276, CD281, CD282, CD283, CD284, CD285, CD286, CD287, CD288, CD289, CD290, CD291, CD292, CD293, CD294, CD295, CD296, CD297, CD298, CD299, CD300, CD301, CD302, CD303, CD304, CD305, CD306, CD307, CD308, CD309, CD310, CD311, CD312, CD313, CD314, CD315, CD316, CD317, CD318, CD319, CD320, CD321, CD322, CD323, CD324, CD325, CD326, CD327, CD328, CD329, CD330, CD331, CD332, CD333, CD334, CD335, CD336, CD337, CD338, CD339, CD340, CD341, CD342, CD343, CD344, CD345, CD346, CD347, CD348, CD349, CD350, CD351, CD352, CD353, CD354, CD355, CD356, CD357, CD358, CD359, CD360, CD361, CD362, CD363, CD364, CD365, CD366, CD367, CD368, CD369, CD370, CD371, CD372, CD373, CD374, CD375, CD376, CD377, CD378, CD379, CD380, CD381, CD382, CD383, CD384, CD385, CD386, CD387, CD388, CD389, CD390, CD391, CD392, 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Organism Homo sapiens (Human)

Tissue T cell

Disease T cell acute lymphoblastic leukemia (T-ALL)

Applications TF-1 is used for the study of T cell biology, immunology, and cancer research. It is also used for the production of T cell-derived products.

Synonyms TF1, MFD-1

Characteristics

Age 35Y

Gender Male

Ethnicity Caucasian

Morphology T cell

Growth properties T cell

References

Citation TF-1 (ATCC CCL-220) (300434)

Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_0559

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Cell Line

Receptors expressed TF-1 A IL-3

Mutational profile p.Gln61Pro p.Ile251Thrfs*94

Media

Culture Medium RPMI 1640 + 20% h.i. FBS + 10-20% IL-3 (1-5 GM-CSF IL-3)

Supplements 10% FBS IL-3

Doubling time 39 +/- 6 days ~70 days

Subculturing 5-6 days

Seeding density > 2 x 10⁵ cells/ml

Fluid renewal 2-3 days

Freeze medium + 10% DMSO

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Thawing and Culturing Cells

1. Thaw the vial in a water bath at 37°C. Transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300g for 5 minutes. Resuspend the pellet in 1 ml of medium.
3. Seed the cells into a 24-well plate (100,000 cells/well) or a 96-well plate (20,000 cells/well).
4. Incubate the cells in a humidified atmosphere of 5% CO₂ at 37°C.
5. Monitor cell growth and confluency. Harvest cells when they reach 70-80% confluency.
6. Harvest cells by trypsinization. Seed cells into fresh medium.
7. Repeat the process for subsequent passages.

Incubation Atmosphere 37°C, 5% CO₂

Flask Coating Not required

Freezing Procedure Harvest cells and resuspend in freezing medium. Store at -80°C.

Shipping Conditions Ship at 4°C or -80°C.

Storage Conditions Store at -150°C to -196°C.

HLA

Sterility Cells are provided in a sterile, cryoprotected medium.

XXXXXXXXTF-1 | 300434

XXXXXXXX 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