Product sheet

HAL-01 Cells | 305140

Description	The HAL-01 cell line is derived from the peripheral blood of a female adolescent with a diagnosis of acute lymphoblastic leukemia (ALL), specifically the L2 subtype. This cell line is particularly notable for containing the t(17;19)(q22;p13) chromosomal translocation, which results in the TCF3-HLF (E2A-HLF) fusion gene. This genetic feature is critical in the study of leukemia as it influences the behavior of leukemia cells, including aspects of their growth, differentiation, and response to therapies. The presence of the TCF3-HLF fusion gene in the HAL-01 cell line makes it an invaluable resource for oncological research, particularly for studies focused on the mechanisms of leukemogenesis and the development of targeted therapies for leukemia. The fusion protein encoded by this gene is involved in the regulation of gene transcription and has been associated with poor prognosis in patients, underscoring the importance of this cell line in therapeutic development and prognostic research in acute lymphoblastic leukemia.
Organism	Human
Tissue	B Cell Precursor Leukemia
Synonyms	HAL01, HAL-1

Age	17 years
Gender	Female
Morphology	Lymphoblast
Growth properties	Suspension

Citation	HAL-01 (Cytion catalog number 305140)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1242

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Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Doubling time	48 hours
Subculturing	Gently homogenize the cell suspension in the flask by pipetting up and down, then take a representative sample to determine the cell density per ml. Dilute the suspension to achieve a cell concentration of 1 x 10^5 cells/ml with fresh culture medium, and aliquot the adjusted suspension into new flasks for further cultivation.
Fluid renewal	2 to 3 times per week
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 x 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.

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.