Product sheet

HMy2 Cells | 302008

General information

Description	The HMy2 cell line is a human B lymphoblastoid cell line derived from an adult individual. This cell line was originally established for the study of human B cell function, lymphoma, and immunological responses. The HMy2 cells are commonly used in research due to their capacity to produce a wide range of immunoglobulins and cytokines, which makes them an excellent model for investigating B cell activation, differentiation, and the molecular mechanisms underlying lymphoid malignancies. HMy2 cells exhibit typical characteristics of B lymphoblastoid cells, such as a high nuclear-to-cytoplasmic ratio and the presence of surface markers indicative of B cell lineage, including CD19 and CD20. These cells are also known to express HLA-DR antigens, making them suitable for studies related to antigen presentation and immune response modulation. Researchers often utilize HMy2 cells in experiments involving gene expression, transfection, and hybridoma technology, contributing to advancements in therapeutic antibody development and cancer immunotherapy.
Organism	Human
Tissue	Hematopoietic
Disease	Plasma cell leukemia
Applications	Hybridoma fusion partner, Analysis of B cell surface antigens, testing of cytotoxic drugs, mutational analysis, analysis of apoptotic mechanisms, HLA-standard.
Synonyms	LICR-Lon-HMy-2, LICR-LON-HMy2, LICR.LON.HMy2, Licr.Lon.Hmy2, LICRLON/My2, HMy.2 B, LICR-2

Characteristics

Age	33 years
Gender	Female
Ethnicity	Caucasian
Morphology	Round cells
Cell type	Lymphoblast
Growth properties	Adherent

Regulatory Data

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Citation	HMy2 (Cytion catalog number 302008)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_8119

Biomolecular Data

Karyotype	46, hypodiploid

Handling

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
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 5 x 10^5 cells/ml and keep the cell concentration within the range of 3 x 10^5 to 1 x 10^6 cells/ml for optimal growth.
Seeding density	1 x 10^5 cells/mL
Fluid renewal	Every 3 to 5 days
Post-Thaw Recovery	Fast
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.

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.

Quality Control & Molecular Analysis

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.