Product sheet

Li-7 Cells | 305102

General information

Description	The Li-7 cell line is a human hepatocellular carcinoma (HCC) cell line that is commonly used in cancer research, particularly in the study of liver cancer. Derived from a primary liver tumor, Li-7 cells exhibit the typical characteristics of HCC, including the ability to produce alpha-fetoprotein (AFP), a marker often elevated in liver cancer. These cells are also known for their genetic stability, which makes them a reliable model for long-term studies. Genomic analysis of Li-7 cells has revealed various chromosomal abnormalities that are characteristic of HCC, including gains in regions such as 5p, 8q, and 11q, and losses in 13q and 14q. These chromosomal changes are indicative of the complex genetic alterations that drive hepatocarcinogenesis. Specifically, the gain in 8q is associated with the amplification of the MYC oncogene, which plays a crucial role in cell cycle progression and proliferation, further emphasizing the utility of Li-7 cells in oncogenic pathway studies. Li-7 cells also serve as a valuable model for studying the molecular mechanisms underlying HCC, including the pathways involving key genes like TFDP1, CUL4A, and CDC16, which have been identified as targets of amplification in HCC. These genes are involved in cell cycle regulation and DNA repair, processes that are often dysregulated in cancer. Thus, the Li-7 cell line is instrumental in elucidating the molecular events that lead to the development and progression of liver cancer, providing insights that could guide therapeutic strategies.
Organism	Human
Tissue	Liver
Disease	Adult hepatocellular carcinoma
Synonyms	LI7, Li7, C-Li-7

Characteristics

Age	45 years
Gender	Male
Ethnicity	Asian
Morphology	Epithelial
Growth properties	Adherent

Regulatory Data

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Citation	Li-7 (Cytion catalog number 305102)
NCBI_TaxID	9606
CellosaurusAccession	CVCL_3840

Biomolecular Data

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Subculturing	Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with Accutase, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.
Freeze medium	As a cryopreservation medium, 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.

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.