Product sheet

JHH-7 Cells | 305386

General information

Description	JHH-7 is a human hepatocellular carcinoma (HCC) cell line established from a primary HCC of a 53-year-old Japanese male patient, also designated FLC-7 (Functional Liver Cell-7). The line harbors a TP53 p.Arg267Pro mutation (unspecified zygosity), which affects the DNA-binding domain of p53 and impairs its tumor suppressor function. JHH-7 is one of several JHH-series HCC lines derived from Japanese patients at Jikei University, providing a well-characterized panel of HCC models with different TP53 mutational backgrounds and metabolic profiles. JHH-7 is applicable in hepatocellular carcinoma research, including studies of HCC metabolism, hepatocyte differentiation markers, TP53 mutant tumor phenotype, drug sensitivity and resistance to sorafenib, lenvatinib, and other systemic HCC therapies, and comparative analyses within the JHH-series HCC panel. Its retained expression of liver-specific functions (albumin, AFP) makes it a relevant model for studying differentiated HCC biology. It is also applicable in xenograft studies.
Organism	Human
Tissue	Liver
Disease	Adult hepatocellular carcinoma
Metastatic site	Primary liver tumor
Applications	Hepatocellular carcinoma research; HCC metabolism; TP53-mutant HCC biology; drug sensitivity (sorafenib, lenvatinib); JHH-series comparative studies; liver cancer drug evaluation; xenograft models
Synonyms	Jhh-7, JHH7, FLC-7, FLC7, Functional Liver Cell-7

Characteristics

Age	53 years
Gender	Male
Ethnicity	Japanese
Morphology	Epithelial-like
Cell type	Hepatocyte-like
Growth properties	Adherent

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Regulatory Data

Citation	JHH-7 (Cytion catalog number 305386)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_2805

Biomolecular Data

Mutational profile	Mutation: p.Arg267Pro, Unspecified

Handling

Culture Medium	Williams' E medium or MEM + 10% FBS (verify from product CoA)
Supplements	Supplement the medium with 10% FBS
Dissociation Reagent	0.25% Trypsin-EDTA or Accutase
Doubling time	26.4 hours ; 17.1 hours ; 30 hours , ~29 hours , ~26 hours
Subculturing	Remove medium, wash with PBS without calcium and magnesium, cover with 0.25% Trypsin-EDTA or Accutase, incubate 5–8 min at RT, resuspend in medium, centrifuge 300×g 3 min, discard supernatant, reseed in fresh medium.
Split ratio	1 to 5
Seeding density	1 to 3 × 10^4 cells/cm^2
Fluid renewal	Every 2 to 3 days
Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium. 7. Follow the procedure described under Post-Thaw Recovery
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