Product sheet

SNU-761 Cells | 305637

General information

Description	The SNU-761 cell line is a human hepatocellular carcinoma (HCC) model derived from an adult patient. As part of the Cancer Cell Line Encyclopedia (CCLE) and LIMORE (Liver Cancer Model Repository) initiatives, SNU-761 has been extensively characterized at multiple molecular levels. The cell line has been used to explore the genetic and transcriptomic heterogeneity typical of primary liver cancers, including those associated with hepatitis B virus (HBV) infection, which is prevalent in many East Asian HCC cases. Genomic profiling has revealed that LIMORE models such as SNU-761 often retain the mutational and copy number alteration landscapes of primary tumors, including alterations in key oncogenic drivers like TP53, CTNNB1, and FGF19. SNU-761 and other liver cancer models in the LIMORE collection have undergone high-throughput drug sensitivity screening across a wide panel of chemotherapeutics and targeted agents. These pharmacogenomic datasets have allowed researchers to identify potential biomarkers predictive of response, such as gene-drug associations and synthetic lethalities relevant to common mutations in liver cancer. Furthermore, comparisons of transcriptomic and epigenetic data—such as DNA methylation and histone modification patterns—have helped classify SNU-761 within liver cancer subtypes and assess its functional attributes, including invasiveness and response to pathway-specific inhibitors. This extensive profiling makes SNU-761 a valuable model for studying HBV-related HCC and evaluating personalized therapeutic strategies.
Organism	Human
Tissue	Liver
Disease	hepatocellular carcinoma
Synonyms	SNU761, NCI-SNU-761

Characteristics

Age	49 years
Gender	Male
Ethnicity	Korean
Morphology	Polygonal
Cell type	Epithelial
Growth properties	Adherent, monolayer

SNU-761 Cells | 305637

Regulatory Data

Citation	SNU-761 (Cytion catalog number 305637)
Biosafety level	2
NCBI_TaxID	9606
CellosaurusAccession	CVCL_5089

Biomolecular Data

Mutational profile	Mutation: TP53, Simple, p.Ser313Glyfs*13 (c.937_968delAGCTCCTCTCCCCAGCCAAAGAAGAAACCACT), Unspecified

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% heat-inactivated FBS, add 2.5 g/L glucose and 10 mM HEPES
Dissociation Reagent	Accutase
Doubling time	24 hours
Subculturing	Remove medium, add fresh 0.25 % trypsin 0.02 % EDTA solution, stand culture flask at 37''''C for 3 to 5 minutes, add culture medium and collect the cells, transfer the medium into 15ml tube, centrifuge, aspirate the medium, resuspend the pellets with culture medium and dispense into the culture flask
Seeding density	1 to 3 x 10^4 cells/cm^2
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.

SNU-761 Cells | 305637

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.