HCC95

305898

ALLMÄN INFORMATION

Beskrivning

HCC95 is a human non-small cell lung carcinoma (NSCLC) cell line derived from a primary lung tumor of an adult patient and is widely used as a model for lung squamous cell carcinoma (LUSC). This cell line reflects the molecular and phenotypic characteristics typical of squamous lung cancers, including alterations in pathways governing cell proliferation, differentiation, and epithelial integrity. HCC95 cells exhibit adherent epithelial morphology and are commonly utilized in studies investigating tumorigenesis, signaling pathway dysregulation, and therapeutic vulnerabilities in NSCLC.

Molecular characterization of large cancer cell line panels, including proteomic profiling efforts, has demonstrated that lung cancer cell lines such as HCC95 display coordinated expression of proteins involved in key oncogenic pathways, including MAPK, PI3K/AKT/mTOR, and cell cycle regulation. Reverse-phase protein array (RPPA) analyses across hundreds of cancer cell lines have shown that protein and phosphoprotein expression patterns can recapitulate the functional consequences of genomic alterations and serve as robust predictors of drug sensitivity. These findings highlight the importance of post-transcriptional regulation in shaping the signaling landscape of NSCLC models like HCC95, where protein-level data often provide insights not evident from genomic or transcriptomic analyses alone.

HCC95 is used in preclinical research to evaluate targeted therapies and to explore mechanisms of drug response and resistance in lung cancer. Large-scale pharmacogenomic studies employing diverse NSCLC cell line panels have demonstrated that therapeutic sensitivity is influenced by complex interactions between genetic lesions and cellular signaling states, rather than by single genomic alterations alone.

Vävnad	Metastatic
Sjukdom	Lung squamous cell carcinoma
Metastaseringsställe	Pleural effusion

Synonymer

- HCC-95
- HCC0095
- Hamon Cancer Center 95

KLASSIFICERING

Organism	Människa
Kön	Man
Tillväxtegenskaper	Följsam
Biosäkerhetsnivå	1

EGENSKAPER

Fördubblingstid	40.6 hours

IDENTIFIERARE

Källa

HCC95 (Cytion catalog number 305898)

NCBI-skattenummer	9606
Cellosaurus	CVCL_5137

UTTRYCK OCH MOTTAGLIGHET

Mutationsprofil

Mutation: p.Arg335Valfs*10, Homozygous

HANTERING OCH ODLING

Odlingsmedium

RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

Inkubationsatmosfär	37°C, 5% CO_2, humidified atmosphere.

Kosttillskott

Supplement the medium with 10% FBS

Dissociationsmedel	Accutase
Såtäthet	2-4*10^4/cm²

Upptining och odling

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
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.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

KVALITETSKONTROLL OCH KRYOKONSERVERING

Frysmedel	As a cryopreservation medium, we recommend CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

Förvaringsförhållanden

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.

Leveransvillkor

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.

DONATOR

Donatorns ålder	65Y
Etnicitet	Caucasian

JURIDISKA FRÅGOR OCH SÄKERHET

Säkerhetsföreskrifter

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

Garanti

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

Avtal om materialöverföring krävs	Yes

PRODUKTINFORMATION

Sammansättningstabell