

HCC-LM3 | 305504

General information

Description HCC-LM3 is a cell line derived from a human hepatocellular carcinoma (HCC), characterized by the presence of microRNA-148a-3p, Syntaxin 3 (STX3), and PTEN (phosphatase and tensin homology domain 1) (PTEN). HCC-LM3 cells are highly tumorigenic and metastatic, and are used for studying the biology of HCC and for drug discovery.

Organism Human

Tissue Liver

Disease Hepatocellular carcinoma

Metastatic site Liver, Lung, Bone

Synonyms HCCLM-3, HCC-LM3, LM3, MHCC-LM3, MHCCLM3

Cell characteristics

Age 39 days

Gender Male

Ethnicity Chinese

Morphology Epithelial

Cell type Hepatocellular carcinoma

Growth properties Adherent

References and safety

Citation HCC-LM3 (ATCC: CCL-222) | Cytion: 305504

Biosafety level 2

NCBI_TaxID 9606

Product sheet

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CellosaurusAccession CVCL_6832

Cell Line ID HCC-LM3

Protein expression CK8, CK19, CK20, CK23, CK5, CK14, CK17, CK18, CK10, CK13, CK16, CK7, CK9, CK6, CK11, CK12, CK4, CK8, CK19, CK20, CK23, CK5, CK14, CK17, CK18, CK10, CK13, CK16, CK7, CK9, CK6, CK11, CK12, CK4

Antigen expression HBsAg-

Oncogenes AFP+, P53-, P16+, nm23-

Viruses Hepatitis B (HBV)

Mutational profile BRD7, p.Glu277Glyfs*18 (c.830_831delAG); KEAP1, p.Pro445Glnfs*13 (c.1334delC); TP53, p.Glu51Ter (c.151G>T)

Karyotype 46,XX,del(1)(p11),del(1)(p13),del(1)(p21),del(1)(p22),del(1)(p23),del(1)(p24),del(1)(p25),del(1)(p26),del(1)(p27),del(1)(p28),del(1)(p29),del(1)(p30),del(1)(p31),del(1)(p32),del(1)(p33),del(1)(p34),del(1)(p35),del(1)(p36),del(1)(p37),del(1)(p38),del(1)(p39),del(1)(p40),del(1)(p41),del(1)(p42),del(1)(p43),del(1)(p44),del(1)(p45),del(1)(p46),del(1)(p47),del(1)(p48),del(1)(p49),del(1)(p50),del(1)(p51),del(1)(p52),del(1)(p53),del(1)(p54),del(1)(p55),del(1)(p56),del(1)(p57),del(1)(p58),del(1)(p59),del(1)(p60),del(1)(p61),del(1)(p62),del(1)(p63),del(1)(p64),del(1)(p65),del(1)(p66),del(1)(p67),del(1)(p68),del(1)(p69),del(1)(p70),del(1)(p71),del(1)(p72),del(1)(p73),del(1)(p74),del(1)(p75),del(1)(p76),del(1)(p77),del(1)(p78),del(1)(p79),del(1)(p80),del(1)(p81),del(1)(p82),del(1)(p83),del(1)(p84),del(1)(p85),del(1)(p86),del(1)(p87),del(1)(p88),del(1)(p89),del(1)(p90),del(1)(p91),del(1)(p92),del(1)(p93),del(1)(p94),del(1)(p95),del(1)(p96),del(1)(p97),del(1)(p98),del(1)(p99),del(1)(p100)

Cell Line ID HCC-LM3

Culture Medium DMEM, w: 4.5 g/L D-glucose, w: 4 mM L-glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM beta-mercaptoethanol (Cytion 820300a)

Supplements 10% FBS

Dissociation Reagent Trypsin

Subculturing 1:3 to 1:10 in DMEM, w: 4.5 g/L D-glucose, w: 4 mM L-glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM beta-mercaptoethanol (Cytion 820300a), 10% FBS

Freeze medium DMEM, w: 4.5 g/L D-glucose, w: 4 mM L-glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM beta-mercaptoethanol (Cytion 820300a), 10% FBS + 10% DMSO

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Thawing and Culturing Cells

1. **Thawing:** Thaw the vial quickly in a 37°C water bath. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed tube.
2. **Centrifugation:** Centrifuge the cells at 300 x g for 3 minutes at 4°C. Remove the supernatant and resuspend the cells in 150 µl of pre-warmed medium.
3. **Seeding:** Seed the cells into a 24-well plate at a density of 150,000 cells per well. Incubate for 24 hours at 37°C with 5% CO₂.
4. **Medium Change:** After 24 hours, change the medium to fresh pre-warmed medium. Remove 70% of the medium.
5. **Passaging:** When cells reach 80-90% confluency, passage them into a new 24-well plate at a density of 150,000 cells per well.
6. **Freezing:** For long-term storage, harvest cells into a 300 x g centrifuge tube. Resuspend in 300 µl of freezing medium.
7. **Storage:** Store the cells at -80°C in a vapor phase of liquid nitrogen. Do not store for more than 10 months.
8. **Thawing:** Thaw the cells quickly in a 37°C water bath. Do not allow the cells to reach room temperature.

Incubation Atmosphere 37°C, 5% CO₂, humidified

Shipping Conditions Store at -78°C

Storage Conditions Store at -150 °C for 196 days

HLA

Sterility PCR confirmed