Genomeditech (Shanghai) Co.,Ltd.
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Product Sheet

H_LPA HEPG2 Cell Line

Catalog number: GM-C48323

Version 3.3.1.260805

Description	H_LPA HEPG2 Cell Line is a clonal stable HEPG2 cell line that constitutively expresses the human LPA gene, constructed using lentiviral technology.
Quantity	5E6 Cells per vial,1 mL
Product Format	1 vial of frozen cells
Shipping	Shipped on dry ice
Storage Conditions	Liquid nitrogen immediately upon receipt
Target	H_LPA
Gene ID/Uniprot ID	P08519 2022-02-23 v2
Host Cell	HEPG2
Recovery Medium	MEM+10% FBS+1% P.S
Growth medium	MEM+10% FBS+1% P.S+1 μg/mL Puromycin
Note	None
Freezing Medium	90% FBS+10% DMSO
Growth properties	Adherent
Growth Conditions	37°C, 5% CO_2
Mycoplasma Testing	The cell line has been screened to confirm the absence of Mycoplasma species.
Safety considerations	Biosafety Level 2
Note	It is recommended to expand the cell culture and store a minimum of 10 vials at an early passage for potential future use.

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Materials

Reagent	Manufacturer/Catalogue No.
MEM	Viva Cell/C3050-0500
Fetal Bovine Serum	ExCell/FSP500
Pen/Strep	Thermo/15140-122
Puromycin	Genomeditech/GM-040401
Human LP-a(Lipoprotein A) ELISA Kit	elabscience/E-EL-H0160

Figures

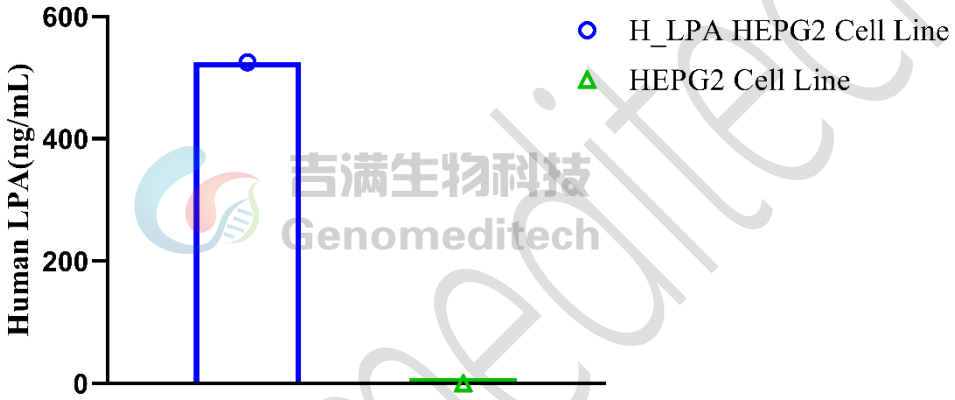

Figure 1 | LPA expression analysis in H_LPA HEPG2 Cell Line (Cat. GM-C48323) by ELISA. Cell culture supernatant was collected from wild-type HEPG2 and H_LPA HEPG2 Cell Line. Expression level of human LPA were analyzed by ELISA (Human LP-a(Lipoprotein A) ELISA Kit/elabscience/E-EL-H0160).

Cell Recovery

Recovery Medium: MEM+10% FBS+1% P.S

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at -70°C. Storage at -70°C will result in loss of viability.

a) Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 - 3 minutes).

b) Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.

c) Transfer the vial contents to a centrifuge tube containing 5.0 mL complete culture medium. And spin at approximately 176 x g for 5 minutes. Discard supernatant.

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d) Resuspend cell pellet with the recommended complete medium. And dispense the suspension into an appropriate culture flask and initially place the flask in an upright position after thawing.

e) Incubate the culture at 37°C in a suitable incubator. A 5% CO_2 in air atmosphere is recommended if using the medium described on this product sheet.

Cell Freezing

Freezing Medium: 90% FBS+10% DMSO

a) Centrifuge at 176 x g for 3 minutes to collect cells.

b) Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.

c) Aliquot 1 mL into each vial.

d) Place the vial in a controlled-rate freezing container and store at -80°C for at least 1 day, then transfer to liquid nitrogen as soon as possible.

Cell passage

Growth medium: MEM+10% FBS+1% P.S+1 μg/mL Puromycin

For the first 1 to 2 passages post-resuscitation, use the recovery medium. Once the cells have stabilized, switch to a growth medium.

a) Subculturing is necessary when the cell density reaches 90%. It is recommended to perform subculturing at a ratio of 1:2 to 1:3 every 3-6 days. Ensure that the density does not exceed 90%, as overcrowding can lead to reduced viability due to compression.

b) Remove and discard culture medium.

c) Briefly rinse the cell layer with PBS to remove all traces of serum that contains trypsin inhibitor.

d) Add 1.0 mL of 0.25% (w/v) Trypsin-EDTA solution to dish and observe cells under an inverted microscope until cell layer is dispersed (usually within 5 to 10 minutes at 37°C).

e) Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

f) Add 2.0 mL of growth medium to mix well and aspirate cells by gently pipetting.

g) After centrifugation, resuspend the pellet and add appropriate aliquots of the cell suspension to new culture vessels.

h) Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:2 - 1:3 is recommended

Medium Renewal: Every 3 to 6 days

Notes

a) HepG2 cells exhibit clustered growth. During passaging, enzymatic digestion should be terminated only after the cell clusters have completely detached; otherwise, the cells may readily aggregate.

b) HepG2 cells are sensitive to serum quality and should be cultured using high-quality serum.

c) FBS should be heat-inactivated at 56°C for 30 minutes to inactivate complement proteins and certain viruses, while generally preserving the activity of most growth factors and cytokines.

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Sequence

LPA P08519

MEHKEVVLLLLLFLKSAAPEQSHVVQDCYHGDGQSYRGTYSTTVTGRTCQAWSSMTPHQHNRTTENYPNA
GLIMNYCRNPDAVAAPYCYTRDPGVRWEYCNLTQCSDAEGTAVAPPTVTPVPSLEAPSEQAPTEQRPGVQE
CYHGNGQSYRGTYSTTVTGRTCQAWSSMTPHSHSRTPEYYPNAGLIMNYCRNPDAVAAPYCYTRDPGVRW
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SWSSMTPHRHQRTPENYPNDGLTMNYCRNPDADTGPWCFTMDPSIRWEYCNLTRCSDTEGTVVAPPTVIQV
PSLGPPSEQDCMFGNGKGYRGKKATTVTGTPCQEWAAQEPHRHSTFIPGTNKWAGLEKNYCRNPDGDINGP
WCYTMNPRKLFDYCDIPLCASSSFDCGKPQVEPKKCPGSIVGGCVAHPHSWPWQVSLRTRFGKHFCGGTLIS
PEWVLTAAHCLKKSSRPSSYKVILGAHQEVNLESHVQEIEVSRLFLEPTQADIALLKLSRPAVITDKVMPACLP
SPDYMVTARTECYITGWGETQGTFGTGLLKEAQLLVIENEVCNHYKYICAEHLARGTDSCQGDSGGPLVCFE
KDKYILQGVTSWGLGCARPNKPGVYARVSRFVTWIEGMMRNN

Related Products

LPA	
H_LPA HEK-293 Cell Line	

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