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Product Sheet

H_LAT1(SLC7A5) HEK-293 Cell Line

Catalog number: GM-C49400

Version 4.0.26.1028

Specifications

Description	H_LAT1(SLC7A5) HEK-293 Cell Line is a clonal stable HEK-293 cell line that constitutively expresses the human LAT1(SLC7A5) 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	Human LAT1(SLC7A5)
Gene ID/Uniprot ID	Q01650
Host Cell	HEK-293
Recovery Medium	DMEM+10% FBS+1% P.S
Growth medium	DMEM+10% FBS+1% P.S+4 μg/mL Blasticidin
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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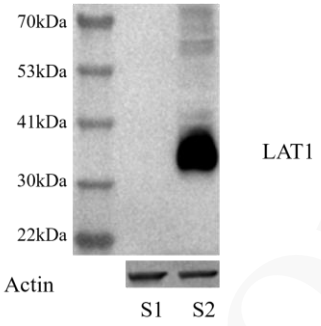
Materials

Reagent	Manufacturer/Catalogue No.
DMEM	Gibco/C11995500BT
Fetal Bovine Serum	ExCell/FSP500
Pen/Strep	Thermo/15140-122
Blasticidin	Genomeditech/GM-040404
Anti-SLC7A5/LAT1 antibody [EPR26260-66]	abcam/ab305251
Anti-CD98 hIgG1 Antibody(NPB15)	Genomeditech/GM-88220AB
NovoCyte Flow Cytometer	Agilent/NovoCyte 2060R
Countess 3 Automated Cell Counter	ThermoFisher/A49891

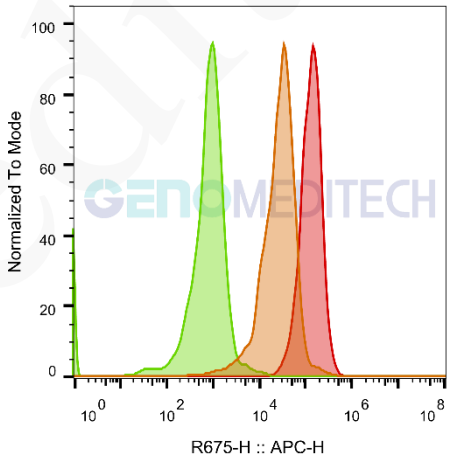
Data

Expression



Primary Antibody：1:1000 Secondary Antibody：rabbit，1:3000
S1：Con S2：H_LAT1(SLC7A5) HEK-293 Cell Line

The protein expression levels of LAT1 in the H_LAT1(SLC7A5) HEK-293 Cell Line (Cat. GM-C49400) were determined by Western blotting (WB).



	SampleID	Geometric Mean : R675-H
	HEK-293 anti-CD98+APC-2nd Ab	25325
	HEK-293 H_LAT1(SLC7A5) H_IgG+APC-2nd Ab	595
	HEK-293 H_LAT1(SLC7A5) anti-CD98+APC-2nd Ab	126257

H_LAT1(SLC7A5) HEK-293 Cell Line (Cat. GM-C49400) was determined by flow cytometry using Anti-CD98 hIgG1 Antibody(NPB15) (Cat. GM-88220AB).

Cell Recovery

Recovery Medium: DMEM+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.
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: DMEM+10% FBS+1% P.S+4 μg/mL Blasticidin

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

a) Remove and discard culture medium.
b) Briefly rinse the cell layer with PBS to remove all traces of serum that contains trypsin inhibitor.
c) 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 30 to 60 seconds at 37°C).
d) 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.
e) Add 2.0 mL of growth medium to mix well and aspirate cells by gently pipetting.
f) After centrifugation, resuspend the pellet and add appropriate aliquots of the cell suspension to new culture vessels.
g) Incubate cultures at 37°C.

Subcultivation Ratio: A subcultivation ratio of 1:3 - 1:4 is recommended

Medium Renewal: Every 3 to 4 days

Notes

a) During the first 1–3 days post-thaw, the cells may fail to attach. If this occurs, supplement the medium with an additional 5% FBS and extend the observation period. Cells generally begin to attach by day 4, and the first passage can be performed on day 5. After one passage at a 1:2 split ratio, cell growth gradually recovers, reaching 80% confluency or higher within 2–3 days.

b) The cells are difficult to recover after cryopreservation. When frozen at 5E6 cells/mL, the initial viable cell count upon thawing and seeding may be only approximately 2E6 cells/mL. However, following medium optimization and culture adaptation, the recovery markedly improves. Once the culture stabilizes, the proportion of dead cells decreases after passage, and the cell growth rate becomes consistent.

c) It is important to maintain the cell density below 80% confluence; otherwise, excessive crowding may lead to reduced cell viability due to compression stress.

d) FBS should be heat-inactivated at 56°C for 30 minutes to inactivate complement proteins and certain viruses, without significantly affecting the activity of most growth factors and cytokines.

Sequence

LAT1(SLC7A5) Q01650

MAGAGPKRRALAAPAAEEKEEAREKMLAAKSADGSAPAGEGEGVTLQRNITLLNGVAIIVGTIIGSGIFVTPTGV
LKEAGSPGLALVVWAACGVFSIVGALCYAELGTTISKSGGDYAYMLEVYGSLPAFLKLWIELLIIRPSSQYIVALV
FATYLLKPLFPTCPVPEEAAKLVACLCVLLLTAVNCYSVKAATRVQDAFAAAKLLALALIILLGFVQIGKGDVSN
LDPNFSFEGTKLDVGNIVLALYSGLFAYGGWNYLNFVTEEMINPYRNLPLAIIISLPIVTLVYVLTNLAYFTTLSTE
QMLSSEAVAVDFGNYHLGVMSWIIPVFVGLSCFGSVNGSLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFT
CVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIGMIWLRHRKPELERPIKVNLALPVFFILACLFLIAVSFWKTPVEC
GIGFTIILSGLPVYFFGVWWKNKPKWLLQGIFSTTVLCQKLMQVVPQET

Related Products

SLC3A2(CD98):SLC7A5	
Cynomolgus_CD98hc(SLC3A2) CHO-K1 Cell Line	H_CD98hc(SLC3A2) CHO-K1 Cell Line
H_LAT1(SLC7A5) CD98hc(SLC3A2) CHO-K1 Cell Line	Mouse_CD98hc(SLC3A2) CHO-K1 Cell Line
Anti-CD98 hIgG1 Antibody(NPB15)	

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