

Product Sheet

H_α4β7 HEK-293 Cell Line

Catalog number: GM-C44963

Version 3.3.1.26.916

Description	H_α4β7 HEK-293 Cell Line is a clonal stable HEK-293 cell line that constitutively expresses the Human ITGA4 and ITGB7 genes, 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_ITGA4 & Human_ITGB7
Gene ID/Uniprot ID	P13612-1 & P26010-1
Host Cell	HEK-293
Recovery Medium	DMEM+10% FBS+1% P.S
Growth medium	DMEM+10% FBS+1% P.S+125 µg/mL Hygromycin+0.75 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.

Materials

Reagent	Manufacturer/Catalogue No.
DMEM	Gibco/C11995500BT
Fetal Bovine Serum	ExCell/FSP500
Pen/Strep	Thermo/15140-122
Hygromycin	Genomeditech/ GM-040403
Puromycin	Genomeditech/ GM-040401
Anti-Integrin $\alpha 4\beta 7$ hIgG1 Reference Antibody (Vedobio)	Genomeditech/ GM-87988MAB
Integrin beta 7 Rat mAb (FITC)	Aladdin/Ab190040

Figures

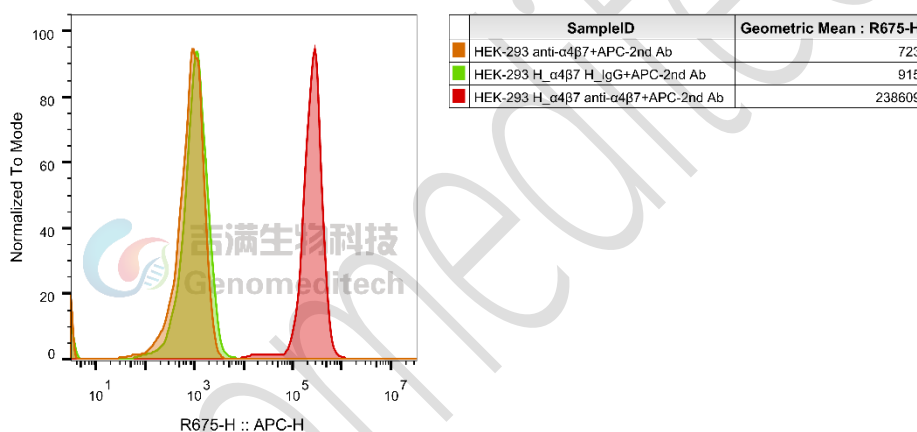


Figure 1 | H_ $\alpha 4\beta 7$ HEK-293 Cell Line (Cat. GM-C44963) was determined by flow cytometry using Anti-Integrin $\alpha 4\beta 7$ hIgG1 Reference Antibody (Vedobio) (Cat. [GM-87988MAB](#)).

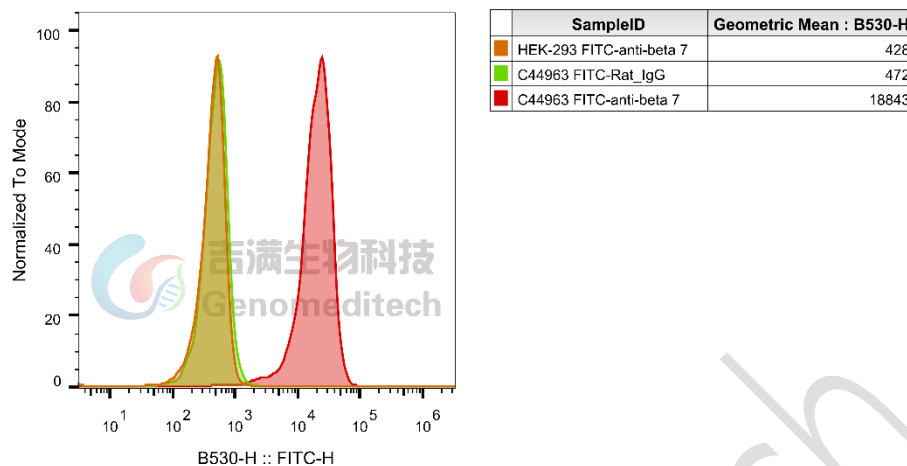


Figure 2 | H_α4β7 HEK-293 Cell Line (Cat. GM-C44963) was determined by flow cytometry using Integrin beta 7 Rat mAb (FITC) (Aladdin/Ab190040-25μg).

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.

- 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).
- 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.
- 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.
- Adjust the viable cell density to 2–3E5 cells/mL by supplementing with recovery medium. Based on the total volume of the cell suspension, seed the cells into appropriate culture vessels.
- Incubate the culture at 37°C in a suitable incubator. A 5% CO₂ in air atmosphere is recommended if using the medium described on this product sheet.

Cell Freezing

Freezing Medium: 90% FBS+10% DMSO

- Centrifuge at 176 x g for 3 minutes to collect cells.
- Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.
- 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+125 $\mu\text{g/mL}$ Hygromycin+0.75 $\mu\text{g/mL}$ Puromycin

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

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

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

Medium Renewal: Every 2 to 3 days

Notes

- A certain proportion of dead cells is commonly observed immediately after thawing, which is a normal phenomenon. The situation will improve markedly following an adaptation period; once the culture has stabilized, the number of dead cells after passaging decreases and the cell growth rate becomes consistent. During the first 1–3 days post-thaw, the cells may show poor or no attachment. If this occurs, the serum concentration can be increased by an additional 5% and the observation period extended accordingly. Generally, cells begin to attach on day 4, and the first passage can be performed on day 5. After a single passage at a 1:2 split ratio, cell growth gradually returns to normal, reaching over 80% confluence within 2–3 days.
- It is important to maintain the cell density below 80%, as exceeding this threshold can lead to decreased cell viability and metabolic activity due to overcrowding.
- FBS requires heat inactivation at 56°C for 30 minutes, which can inactivate complement and some viruses, but does not significantly affect the activity of most growth factors and cytokines.

Sequence

ITGA4 P13612-1

MAWEARREPGPRRAAVRETVMLLLCLGVPTGRPYNVDTESALLYQGPHNTLFGYSVVLHSHGANRWLLVG
APTANWLANASVINPGAIIYRCRIGKNPGQTCEQLQLGSPNGEPCGKTCLEERDNQWLGVTLRQPGENGSI

TCGHRWKNIFYIKNENKLPTGGCYGVPPDLRTELKRIAPCYQDYVKKFGENFASCQAGISSFYTKDLIVMGA
PGSSYWTGSLFVYNITTNKYKAFLDKQNQVKFGSYLGYSVGAGHFRSQHTTEVVGGAPQHEQIGKAYIFSID
EKELNILHEMKGKKLGSYFGASVCAVDLNADGFSDDL VGAPMQSTIREEGRVFVYINSGSGAVMNMAMETNL
VGSDKYAARFGESIVNLGDIDNDGFEDVAIGAPQEDDLQGAIIYINGRADGISSTFSQRIEGLQISKSLSMFGQ
SISGQIDADNNGYVDVAVGAFRSDSAVLLRTRPVVIVDASLSHPESVNRTKFDCVENGWPSVCIDLTLCSYK
GKEVPGYIVLFYNMSLDVNRKAESPFRFYSSNGTSDVITGSIQVSSREANCRTHQAFMRKDVDRILTPIQIEA
AYHLGPHVISKRSTEEFPPLQPILQKKEKDIMKKTINFARFCAHENC SADLQVSAKIGFLKPHENKTYLAVGS
MKTMLNLNVS LFNAGDDAYETTLHVKLPGLYFIKILEEEKQINCEVTDNSGVVQLDCSIGYIYVDHLRIDIS
FLLDVSSLSRAEEDLSITVHATCENEEEMDNLKHRSVTVAIPLKYEVKLT VHGFVNPTSFVYGSNDENEPETC
MVEKMNLTFHVINTGNSMAPNVSV EIMVPNSFSPQTDKLFNILDVQTTTGECHFENYQRVCALEQQKSAMQ
TLKGIVRFLSKTDKRLLYCIKADPHCLNFCNFGKMESGKEASVHIQLEGRPSILEMDETSALKFEIRATGFPEP
NPRVIELNKDENVAHVLLLEGLHHQRPKRYFTIVISSSLLLGLIVLLLISYVMWKAGFFKRQYKSILQEENRRD
SWSYINSKSNDD

ITGB7 [P26010-1](#)

MVALPMVLVLLLVL SRGESELDKIPSTGDATEWRNPHLSMLGSCQPAPSCQKCILSHPSCAWCKQLNFTAS
GEAEARRCARREELLARGCPLEEELEPRGQQEVLQDQPLSQGARGEGATQLAPQVRVTLRPGEPQQLQVRF
LRAEGYPVDLYYLMDSL SYSMKDDL ERVRLGHALLVRLQEVTHSVRIGFGSFVDKTVLPFVSTVPSKLRHPC
PTRLERCQSPFSFHHVLSLTGDAQAFEREVGRQSVSGNLDSPGGFDAILQAALCQEIQWRNVSRLLVFTSD
DTFHTAGDGKLGIFMPSDGHCHLDSNGLYSRSTEFDYPSVGQVAQALSAANIQPIFAVTS AALPVYQELSKL
IPKSAVGELSESSNVVQLIMDAYNSLSSTVTLEHSSLPPGVHISYESQCEGPEKREGKAEDRGQCNHVRINQT
VTFWVSLQATHCLPEPHLLRLRALGFSEELIVELHTLDCNCSDTQPQAPHCS DGQGHLCGVCSCAPGRLG
RLCECSVAELSSPDLESGCRAPNGTGPLCSGKGHCQCGRCS CSGQSSGHLCECDDASCERHEGILCGGFGRQC
CGVCHCHANRTGRACECSGDMDSISP EGGLC SGHGRCKCNRCQCLDGYYGALCDQCPGCKTPCERHRDC
AECGAFRTGPLATNCSTACAHTNVTLALAPILDDGWCKERTLDNQLFFFLVEDDARGTVVLRVRPQEKGAD
HTQAIVLGCVGGIVAVGLGLVLAYRLSVEIYDRREYSRFEKEQQQLNWKQDSNPLYKSAITTTINPRFQEADS
PTL

Related Products

IL-23	
H_IL-23 Reporter 293 Cell Line	H_IL-23 Reporter 293 DDX35TM Cell Line
Cynomolgus_IL-23R HEK-293 Cell Line	H_IL-23R HEK-293 Cell Line
H_IL-23R IL12RB1 HEK-293 Cell Line	Membrane bound H_IL-23 CHO-K1 Cell Line
Anti-IL23A hIgG1 Reference Antibody (Gusebio)	Anti-IL23A hIgG1 Reference Antibody (Risbio)
Anti-IL-23R hIgG1 Antibody(5D4)	
Biotinylated Human IL-23A&IL-12B Heterodimer Protein; His-Avi Tag	Cynomolgus IL-23A & Human IL-12B Heterodimer Protein; His Tag
Cynomolgus IL-23A & Mouse IL-12B Heterodimer Protein; His Tag	Cynomolgus IL-23R Protein; hFc Tag
Human IL-23A & Mouse IL-12B Heterodimer Protein; His Tag	Human IL-23A&IL-12B Heterodimer Protein; His Tag
Human IL-23R Protein; hFc Tag	Human IL-23R Protein; His Tag
Mouse IL-23A&IL-12B Heterodimer Protein; His Tag	
TNF:TNFR2:TNFR1	

H_TNFR2 Null Reporter Cell Line	H_TNFR2 Reporter Jurkat Cell Line
H_TNFR2 Reporter V2 Cell Line	Cynomolgus_TNFRSF1B(TNFR2) CHO-K1 Cell Line
H_TNFR1 CHO-K1 Cell Line	H_TNFRSF1B(TNFR2) CHO-K1 Cell Line
H_TNFRSF1B(TNFR2) HEK-293 Cell Line	Membrane Bound H_TNF α CHO-K1 Cell Line
Membrane Bound H_TNF α (cleavage-resistant) CHO-K1 Cell Line	
Anti-H_TNFRSF1B(TNFR2) hIgG1 Antibody(UC2.3.8)	Anti-TNFR1 hIgG1 Antibody(Atrosab)
Anti-TNF- α hIgG1 Reference Antibody (Adabio)	
Cynomolgus TNF alpha Protein; His Tag	Cynomolgus TNFR2 Protein; His Tag
Human TNF alpha Protein; hFc Tag	Human TNF alpha Protein; His Tag
Human TNFR1 Protein; hFc Tag	Human TNFR1 Protein; His Tag
Human TNFR2 Protein; hFc Tag	Human TNFR2 Protein; His Tag
TL1A:DR3(TNFRSF25)	
H_TNFRSF25(DR3) Reporter Jurkat Cell Line	H_TNFSF15(TL1A) Reporter Cell Line
Mouse_TNFRSF25(DR3) Reporter Jurkat Cell Line	Cynomolgus_TNFRSF25(DR3) CHO-K1 Cell Line
Cynomolgus_TNFSF15(TL1A) HEK-293 Cell Line	H_TNFRSF25(DR3) CHO-K1 Cell Line
H_TNFRSF25(DR3) HEK-293 Cell Line	H_TNFSF15(TL1A) CHO-K1 Cell Line
H_TNFSF15(TL1A) HEK-293 Cell Line	Mouse_TNFSF15(TL1A) HEK-293 Cell Line
Anti-H_TNFSF15(TL1A) hIgG1 Antibody(PF-06480605)	Anti-H_TNFSF15(TL1A) hIgG1 Antibody(Tulisokibart、PRA-023)
Anti-H_TNFSF15(TL1A) hIgG4 Antibody	Anti-TL1A hIgG1 Reference Antibody (Duvbio)
Anti-TL1A hIgG1 Reference Antibody (Tulbio)	Anti-TNFRSF25(DR3) hIgG1 Antibody(PTX-35)
Biotinylated Cynomolgus TL1A Protein; His-Avi Tag	Biotinylated Human TL1A Protein; His-Avi Tag
Cynomolgus TL1A Protein; His Tag	Human TL1A Protein; His Tag
Human TL1A Protein; His Tag (Trimer Design)	
ITGA4 ITGB7	
H_ITGB7 CHO-K1 Cell Line	H_ITGB7 HEK-293 Cell Line
H_MADCAM1 CHO-K1 Cell Line	H_MADCAM1 HEK-293 Cell Line
H_ α 4 β 7 CHO-K1 Cell Line	H_ α E β 7 CHO-K1 Cell Line
H_ α E β 7 HEK-293 Cell Line	H_ α E β 7 K562 Cell Line
Anti-Integrin α 4 β 7 hIgG1 Reference Antibody (Vedobio)	

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