

Product Sheet

H_FcRn-GFP HEK-293 Cell Line

Catalog number: GM-C40447

Version 3.3.1.251212

Description	H_FcRn-GFP HEK-293 Cell Line is a clonal stable HEK-293 cell line that constitutively expresses the Human FcRn-GFP and B2M 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_FcRn(FCGRT) & Human_B2M
Gene ID/Uniprot ID	P55899 & P61769
Host Cell	HEK-293
Recovery Medium	DMEM+10% FBS+1% P.S
Growth medium	DMEM+10% FBS+1% P.S+4 µg/mL Blasticidin+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
Blasticidin	Genomeditech/ GM-040404
Puromycin	Genomeditech/ GM-040401
Anti-H_FcRn IgG4 Antibody(Rozanolixizumab)	Genomeditech/ GM-37413AB
APC anti-human β 2-microglobulin Antibody	Biolegend/395712

Figures

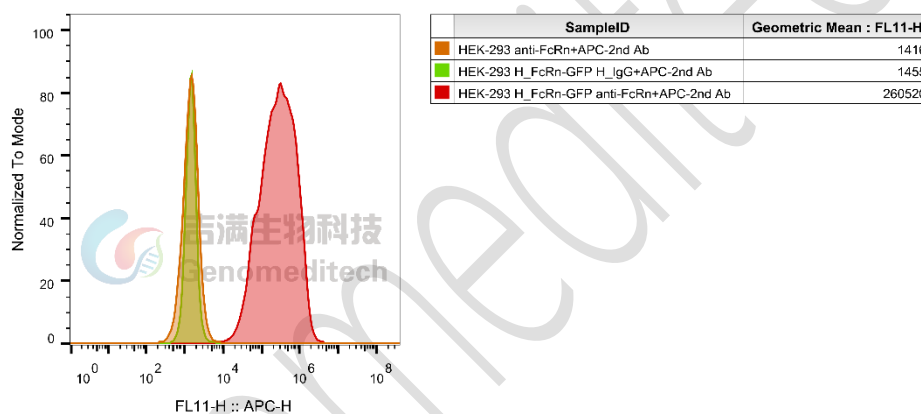


Figure 1 | H_FcRn-GFP HEK-293 Cell Line (Cat. GM-C40447) was determined by flow cytometry using Anti-H_FcRn IgG4 Antibody(Rozanolixizumab) (Cat. [GM-37413AB](#)).

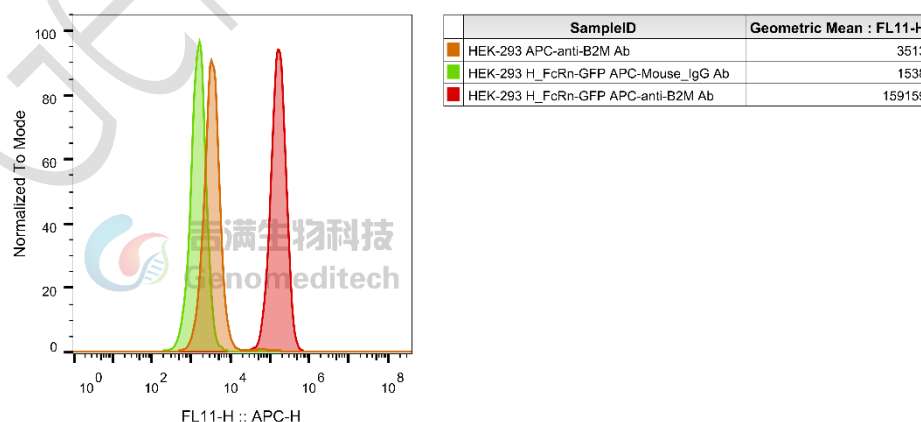


Figure 2 | H_FcRn-GFP HEK-293 Cell Line (Cat. GM-C40447) was determined by flow cytometry using APC anti-human β 2-microglobulin (Biolegend/395712).

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.
- Resuspend cell pellet with the recommended recovery medium. And dispense into appropriate culture dishes.
- 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.
- 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+0.75 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.

- Subculturing is necessary when the cell density reaches 80%. It is recommended to perform subculturing at a ratio of 1:3 to 1:4 every 2-3 days. Ensure that the density does not exceed 80%, as overcrowding can lead to reduced viability due to compression.
- 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.

- 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 1:3 - 1:4 is recommended

Medium Renewal: Every 2 to 3 days

Notes

- a) Upon initial thawing, a higher number of dead cells is observed, which is a normal phenomenon. Significant improvement is seen after adaptation. Once the cells reach a stable state, the number of dead cells decreases after subculturing and the cell growth rate becomes stable.
- b) Ensure that the cell density does not exceed 80%, as overcrowding may lead to reduced viability due to compression.

Sequence

FcRn(FCGRT) [P55899](#)

MGVPRPQPWALGLLLFLPGSLGAESHLSELLYHLTAVSSPAPGTPAFWVSGWLGPPQYLSYNSLRGEAEPCG
 AWWWENQVSWYWEKETDRLRIKEKLFLEAFKALGGKGPYTLQGLLGCELGPDNTSVPTAKFALNGEEFMN
 FDLKQGTWGGDWPEALASQRWQQDKAANKELTFLFSCPHRLREHLERGRGNLEWKEPPSMRLKARPS
 PGFSVLTCSAFSFYPELQLRFLRNGLAAGTGQDGFNSDGSFHASSSLTVKSGDEHHYCCIVQHAGLAQPL
 RVELESPAKSSVLVVGIVIGVLLLTAAAVGGALLWRRMRSGLPAPWISLRGDDTGVLPTPGEAQDADLKDV
 NVIPATA

B2M [P61769](#)

MSRSVALAVLALLSLSGLEAIQRTPKIQVYSRHPAENGKSNFLNCYVSGFHPSDIEVDLLKNGERIEKVEHSDL
 SFSKDWSEFYLLYYTEFTPEKDEYACRVNHVTLSPQKIVKWDRDM

Related Products

FcγR	
H_CD32B aAPC CHO-K1 Cell Line	Cynomolgus_FcRn MDCK Cell Line
H_FCGR1A(CD64) CHO-K1 Cell Line	H_FCGR1A(CD64) HEK-293 Cell Line
H_FCGR2A(CD32A) CHO-K1 Cell Line	H_FCGR2B(CD32B) CHO-K1 Cell Line
H_FCGR3A(CD16a) 158F CHO-K1 Cell Line	H_FCGR3A(CD16a) 158V CHO-K1 Cell Line
H_FCGR3B(CD16b) CHO-K1 Cell Line	H_FcRn CHO-K1 Cell Line
H_FcRn MDCK Cell Line	Mouse_FcγRIV FcγRIIb aAPC CHO-K1 Cell Line
Mouse_FcRn MDCK Cell Line	
Anti-FcRn hIgG4 Reference Antibody(Rozabio)	Anti-H_FcRn IgG4 Antibody(Rozanolixizumab)
Anti-Mouse CD16/32 mIgG2b Antibody(2.4G2)	
ADCCP	
ADCC FcγRIIIa(158F) Jurkat Effector Cell Line	ADCC FcγRIIIa(158V) DDX35TM Jurkat Effector Cell Line
ADCC FcγRIIIa(158V) Jurkat Effector Cell Line	ADCC M_FcγRIV Jurkat Effector Cell Line

ADCP FcγRI Jurkat Effector Cell Line	ADCP FcγRIIa DDX35TM Jurkat Effector Cell Line
ADCP FcγRIIa Jurkat Effector Cell Line	ADCP FcγRIIa R131 Jurkat Effector Cell Line
ADCP FcγRIIb Jurkat Effector Cell Line	

License Agreement:

By purchasing and using this cell line product, the user voluntarily agrees to accept and abide by the following policies:

- This cell line product is restricted to research use only and shall not be used for any commercial purposes.
- This product is strictly prohibited from being used in the diagnosis or treatment of human or animal diseases, and shall not be directly used in experiments involving humans.
- Users and their contractors engaged for their benefit may use this material and its derivatives only within the agreed research scope; modification of the material is not permitted, nor may it be distributed, sold, transferred, or otherwise provided to any other entity (including affiliates).
- If use beyond the above scope is required, prior written permission from Genomeditech (Shanghai) Co.,Ltd. must be obtained. For details, please contact Genomeditech (Shanghai) Co.,Ltd.