

Product Sheet

H_FcRn MDCK Cell Line

Catalog number: GM-C39432

Version 3.3.1.250522

Description	H_FcRn MDCK Cell Line is a clonal stable MDCK cell line that constitutively expresses Human FcRn(FCGRT) and Human B2M 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_FcRn(FCGRT)& Human_B2M
Gene ID/Uniprot ID	P55899 & P61769
Host Cell	MDCK
Recovery Medium	DMEM+10% FBS+1% P.S
Growth medium	DMEM+10% FBS+1% P.S+250 µg/mL Hygromycin+1.5 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	VivaCell/C3110-0500
Fetal Bovine Serum	Cegrogen biotech/A0500-3010
Pen/Strep	Thermo/15140-122
Hygromycin	Genomeditech/ GM-040403
Puromycin	Genomeditech/ GM-040401
Anti-H_FcRn IgG4 Antibody(Rozanolixizumab)	Genomeditech/ GM-37413AB
PE anti-human β 2-microglobulin Antibody	Biolegend/395704

Figures

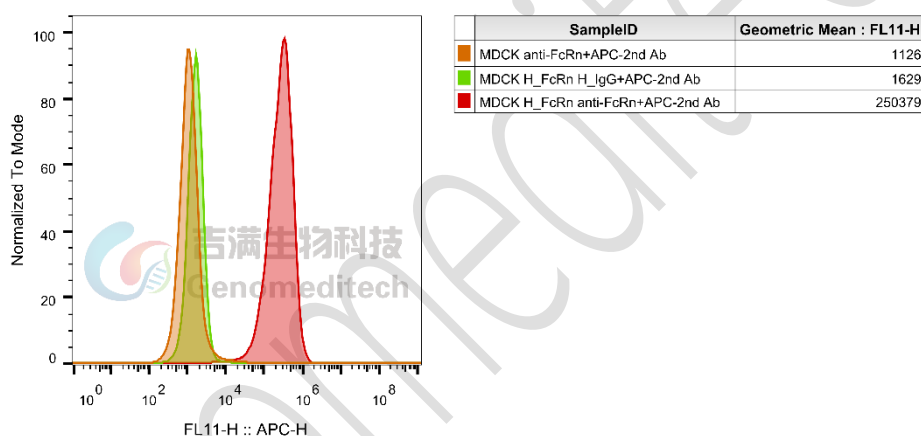


Figure 1 | H_FcRn MDCK Cell Line (Cat. GM-C39432) was determined by flow cytometry using Anti-H_FcRn hIgG4 Antibody(Rozanolixizumab) (Cat. [GM-37413AB](#)).

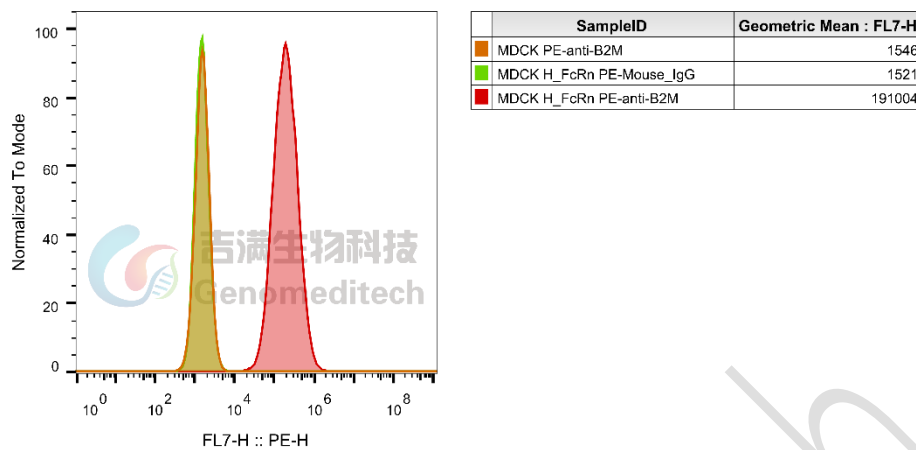


Figure 2 | H_FcRn MDCK Cell Line (Cat. GM-C39432) was determined by flow cytometry using PE anti-human β 2-microglobulin Antibody (Biolegend/395704).

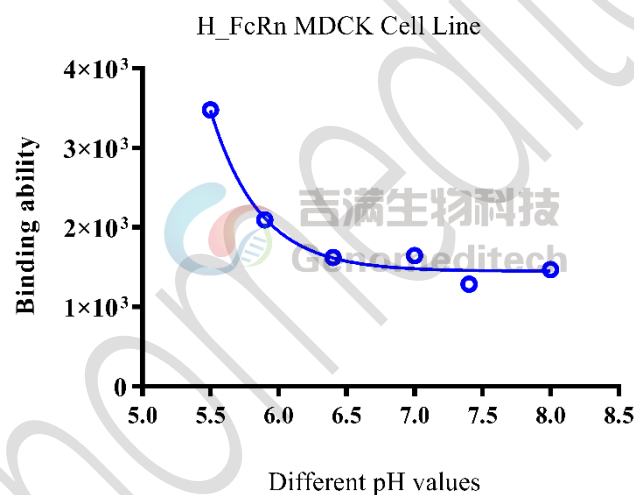


Figure 3 | The H_FcRn MDCK cell line (Cat. GM-C39432) was analyzed by flow cytometry using Human-IgG1 isotype control (Anti-HEL) (Cat. GM-77401AB) in buffers of different pH.

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).

- 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 $176 \times g$ for 5 minutes. Discard supernatant.
- d) Resuspend cell pellet with the recommended recovery medium. And dispense into appropriate culture dishes.
- e) 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

- a) Centrifuge at $176 \times g$ 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+250 µg/mL Hygromycin+1.5 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) 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 the dish to rinse and then aspirate. Repeat this step once. Then, add 2.0 mL of 0.25% (w/v) Trypsin-EDTA solution and observe the cells under an inverted microscope until the cell layer is dispersed (usually within 6 to 8 minutes 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 3.0 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 2 to 3 days

Notes

- a) Once the cellular state stabilizes, the number of dead cells decreases after passaging, the cell growth rate becomes steady, the cell morphology becomes uniform, and the cells exhibit robust and healthy morphology.
- b) Fetal bovine serum (FBS) needs to be heat-inactivated at 56°C for 30 minutes, which can inactivate complement and certain viruses without significantly affecting the activity of most growth factors and cytokines.

Sequence

FcRn(FCGRT) [P55899](#)

MGVPRPQPWALGLLLFLPGSLGAESHLSELLYHLTAVSSPAPGTPAFWVSGWLGPQQYLSYNSLRGEAEPCG
 AWWWENQVSWYWEKETTDLRIKEKLFLEAFKALGGKGPYTLQGLLGCELGPDNTSVPTAKFALNGEEFMN
 FDLKQGTWGGDWPEALAISQRWQQQDKAANKELTFLLFSCPHRLREHLERGRGNLEWKEPPSMRLKARPSS
 PGFSVLTCSAFSFYPPQLRFLRNGLAAGTGQGDGFGPNSDGSFHASSSLTVKSGDEHHYCCIVQHAGLAQPL
 RVELESPAKSSVLVVGIVIGVLLLTAAAVGGALLWRRMRSGLPAPWISLRGDDTGVLPTPGEAQDADLKDV
 NVIPATA

B2M [P61769](#)

MSRSVALAVLALLSLSGLEAIQRTPKIQVYSRHPAENGKSNFLNCYVSGFHPSPDIEVDLLKNGERIEKVEHSDL
 SFSKDWSFYLLYYTEFTPTTEKDEYACRVNHVTLSPQKIVKWDRDM

Related Products

FcγR	
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-GFP HEK-293 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 CD1632 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	

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