Genomeditech (Shanghai) Co.,Ltd.
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Product Sheet

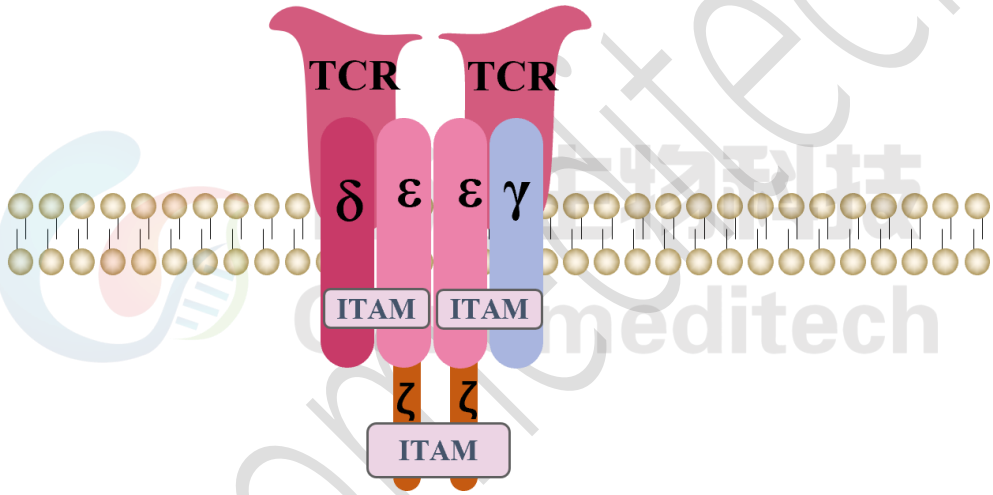
Cynomolgus_CD3 HEK-293 Cell Line

Catalog number: GM-C30879

Version 3.3.1.250811

The CD3 complex, also known as the T3 complex, is a multimeric protein complex composed of four different polypeptide chains: epsilon (ε), gamma (γ), delta (δ), and zeta (ζ). These chains assemble and function as three pairs of dimers: εγ, εδ, and ζζ. The CD3 protein complex is a defining feature of the T-cell lineage, thus anti-CD3 antibodies can be effectively used as markers for T cells.

Cynomolgus_CD3 HEK-293 Cell Line is a clonal stable HEK-293 cell line constitutively expressing Cynomolgus CD3 complex.



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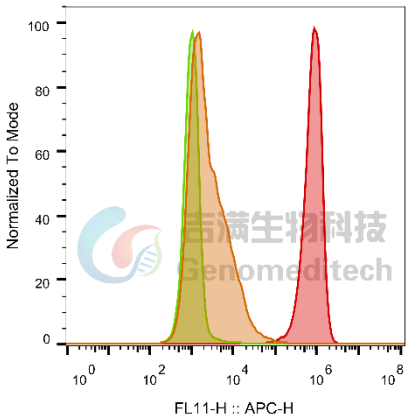
Specifications

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
Recovery Medium	DMEM+10% FBS+1% P.S
Growth medium	DMEM+10% FBS+1% P.S+400 μg/mL G418+125 μg/mL Hygromycin
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.
Hygromycin	Genomeditech/GM-040403
G418	Genomeditech/GM-040402
Pen/Strep	Thermo/15140-122
Fetal Bovine Serum	ExCell/FSP500
DMEM	Gibco/C11995500BT
Anti-CD3 hIgG1 Antibody(CH2527)	Genomeditech/GM-33037AB

Figures



SampleID	Geometric Mean : FL11-H
HEK-293 anti-CD3+APC-2nd Ab	2549
HEK-293 Cyno_CD3 H_IgG+APC-2nd Ab	1041
HEK-293 Cyno_CD3 anti-CD3+APC-2nd Ab	7.67E5

Figure 1 | Cynomolgus_CD3 HEK-293 Cell Line was determined by flow cytometry using Anti-CD3 hIgG1 Antibody(CH2527) (Cat. GM-33037AB).

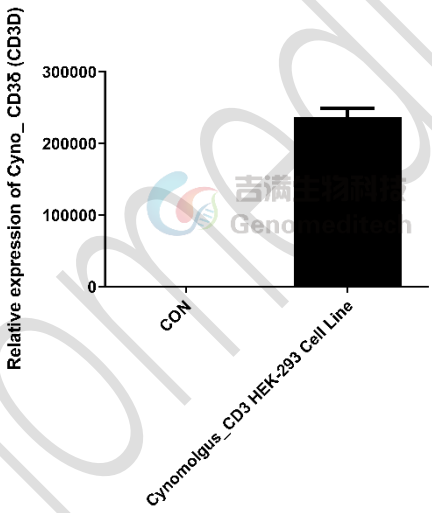


Figure 2 | The mRNA expression levels of Cynomolgus_CD3δ(CD3D) in the Cynomolgus_CD3 HEK-293 Cell Line (Cat. GM-C30879) were determined by RT-qPCR.

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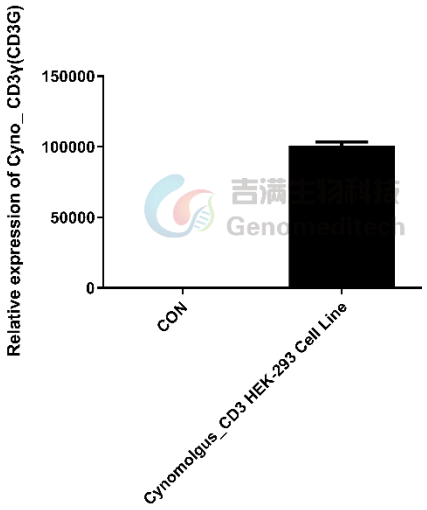

Figure 3 | The mRNA expression levels of Cynomolgus_CD3γ(CD3G) in the Cynomolgus_CD3 HEK-293 Cell Line (Cat. GM-C30879) were determined by RT-qPCR.

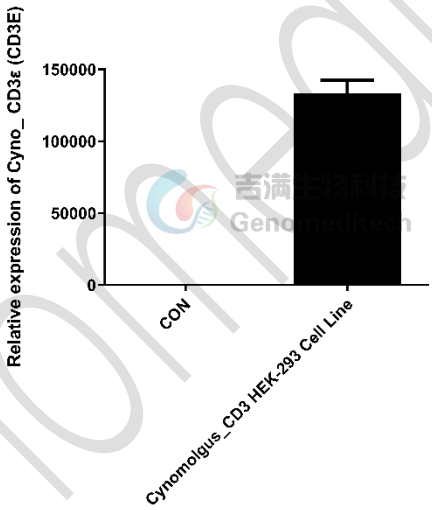

Figure 4 | The mRNA expression levels of Cynomolgus_CD3ε(CD3E) in the Cynomolgus_CD3 HEK-293 Cell Line (Cat. GM-C30879) were determined by RT-qPCR.

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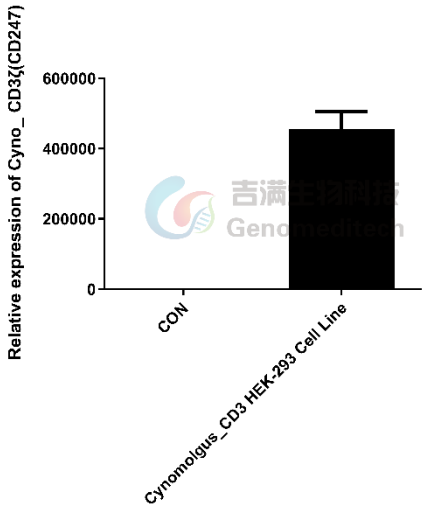

Figure 5 | The mRNA expression levels of Cynomolgus_CD3ζ(CD247) in the Cynomolgus_CD3 HEK-293 Cell Line (Cat. GM-C30879) were determined by RT-qPCR.

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 recovery medium. And dispense into appropriate culture dishes.

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+400 μg/mL G418+125 μg/mL Hygromycin

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 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.

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 30 to 60 seconds 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 1:3 - 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.

Related Products

CD28	
H_CD28 Reporter Jurkat Cell Line	Cynomolgus_CD28 CHO-K1 Cell Line
H_CD28 CHO-K1 Cell Line	H_CD28 HEK-293 Cell Line
Anti-CD28 hIgG4 Antibody(FR104)	Anti-H_CD28 hIgG4 Antibody(Theralizumab)
Anti-mouse CD28 Syrian Hamster IgG2 Antibody(37. 51)	
CD19	
Cynomolgus_CD19 CHO-K1 Cell Line	Cynomolgus_CD19 HEK-293 Cell Line
H_CD19 CHO-K1 Cell line	H_CD19 HEK-293 Cell Line

Mouse_CD19 CHO-K1 Cell Line	
Anti-CD19 hIgG1 Reference Antibody (Loncbio)	Anti-H_CD19 hIgG1/hIgG2 Antibody(Tafasitamab)
CD3	
H_CD3D CD3E KO Jurkat Cell Line	Jurkat CD3-BsAb Reporter Cell Line
Cynomolgus_CD3E(Membrane Bound ECD) CHO-K1 Cell Line	H_CD3 CHO-K1 Cell Line
H_CD3 HEK-293 Cell Line	H_CD3E(Membrane Bound ECD) CHO-K1 Cell Line
Mouse_CD3 HEK-293 Cell Line	
Anti-CD3 epsilon hIgG1 Antibody [OKT-3 (muromonab)]	Anti-CD3 hIgG1 Antibody(CH2527)
Anti-mouse CD3ε mIgG2a Antibody(145-2C11)	
CD2	
Cynomolgus_CD2 CHO-K1 Cell Line	H_CD2 CHO-K1 Cell Line
Anti-CD2 hIgG1 Antibody(BTI-322)	

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