

Product Sheet

H_CTLA4 PD-1 CHO-K1 Cell Line (Low Ratio)

Catalog number: GM-C44345

Version 3.3.1.260622

Description	H_CTLA4 PD-1 CHO-K1 Cell Line is a clonal stable CHO-K1 cell line that constitutively expresses the human CTLA4 and PD-1 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_CTLA4 & Human_PD-1
Gene ID/Uniprot ID	P16410 & Q15116
Host Cell	CHO-K1
Recovery Medium	F12K+10% FBS+1% P.S
Growth medium	F12K+10% FBS+1% P.S+50 µg/mL Bleomycin+4 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.
F12K	BOSTER/PYG0036
Fetal Bovine Serum	ExCell/FSP500
Pen/Strep	Thermo/15140-122
Bleomycin	Genomeditech/GM-040407
Puromycin	Genomeditech/GM-040401
PE Rabbit anti-Human CD152/CTLA-4 mAb	Abclonal/A23713
PE Rabbit anti-Human/Monkey PD-1/CD279 mAb	Abclonal/A25730
Anti-H_CTLA-4 hIgG1 Antibody(Ipilimumab)	Genomeditech/GM-27203AB
Anti-PD1 hIgG4 Reference Antibody (Pembio)	Genomeditech/GM-87802MAB
BD Quantibrite™ PE Phycoerythrin Fluorescence Quantitation Kit	BD Biosciences/340495

Figures

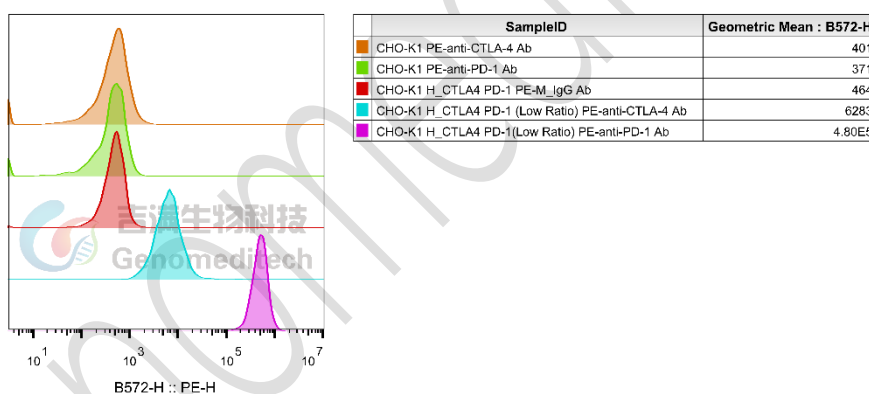


Figure 1 | H_CTLA4 PD-1 CHO-K1 Cell Line (Low Ratio) (Cat. GM-C44345) was determined by flow cytometry using PE Rabbit anti-Human CD152/CTLA-4 mAb (Abclonal/A23713) and PE Rabbit anti-Human/Monkey PD-1/CD279 mAb (Abclonal/A25730).

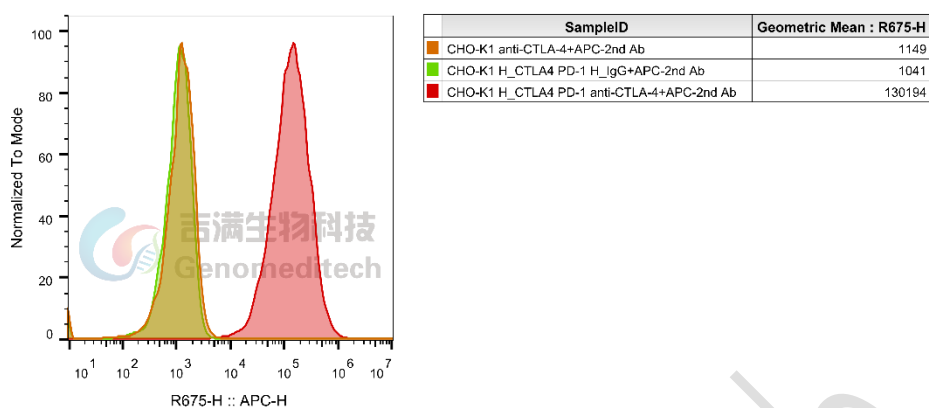


Figure 2 | H_CTLA4 PD-1 CHO-K1 Cell Line (Low Ratio) (Cat. GM-C44345) was determined by flow cytometry using Anti-H_CTLA-4 hIgG1 Antibody(Ipilimumab) (Cat. [GM-27203AB](#)).

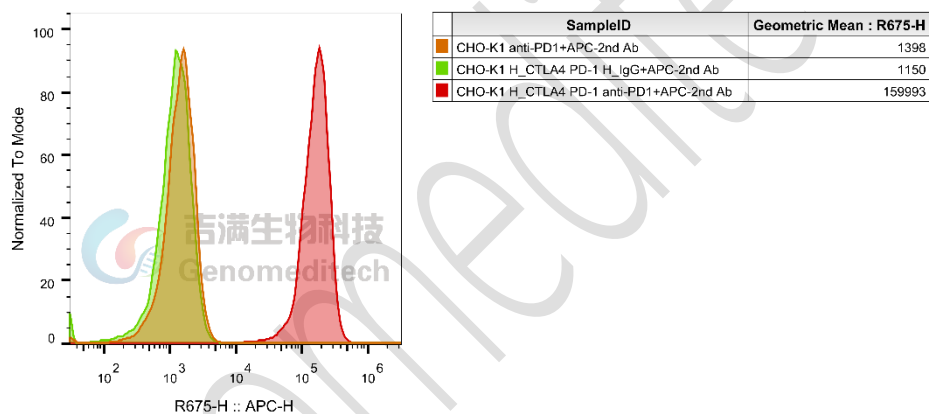


Figure 3 | H_CTLA4 PD-1 CHO-K1 Cell Line (Low Ratio) (Cat. GM-C44345) was determined by flow cytometry using Anti-PD1 hIgG4 Reference Antibody (Pembio) (Cat. [GM-87802MAB](#)).

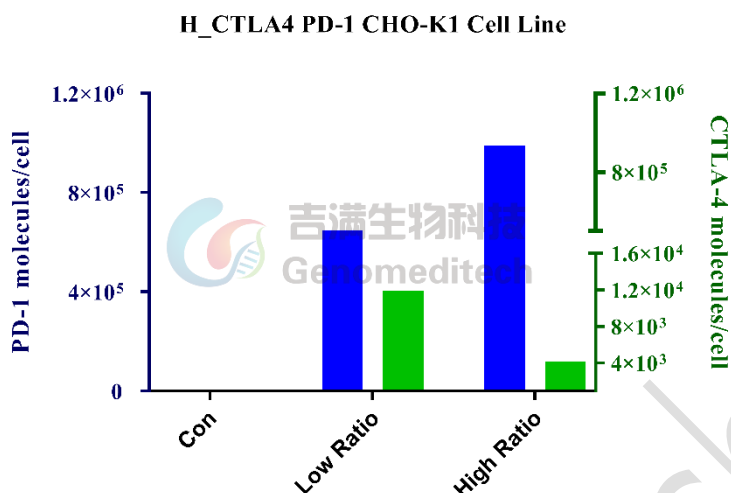


Figure 4 | Surface expression of PD-1 and CTLA-4 on H_CTLA4 PD-1 CHO-K1 Cell Line (High Ratio) (Cat. GM-C39703) and H_CTLA4 PD-1 CHO-K1 Cell Line (Low Ratio) (Cat. GM-C44345) were quantified using the BD Quantibrite™ PE Phycoerythrin Fluorescence Quantitation Kit (BD Biosciences/340495). The bar graph illustrates the Molecules of Equivalent Soluble Fluorochrome Per Cell (MESF) values, demonstrating distinct surface receptor densities for PD-1 (blue) and CTLA-4 (green) in the High and Low Ratio cells compared to the parental CHO-K1 control cells.

Cell Recovery

Recovery Medium: F12K+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.

- 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: F12K+10% FBS+1% P.S+50 µg/mL Bleomycin+4 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 dish and observe cells under an inverted microscope until cell layer is dispersed (usually within 2 to 3 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 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 1:4 - 1:5 is recommended

Medium Renewal: Every 2 to 3 days

Notes

- a) After the stabilization of the cell condition, there will be fewer dead cells post-passage, the cell growth rate will tend to stabilize, cell morphology will become uniform, and the cells will appear robust.

Sequence

CTLA4 P16410-1

MACLGFQRHKAQLNLA TRTW PCTLLFFLLFIPV FCKAMHVAQPA VVLASSRGIASFVCEYASPGKATEVRVT
VLRQADSQVTEVCAATYMMGNELTFLDDSICTGTSSGNQVNLTIQGLRAMDTGLYICKVELMYPPPYLIGIG
NGTQIYVIDPEPCPDSDFLLWILAAVSSGLFFYSFLLTAVSLSKMLKKRSPLTTGVYVKMPPEPECEKQFQPY
FIPIN

PD1 Q15116

MQIPQAPWPVVWAVLQLGWRPGWFLDSPDRPWNPTFSPALLVVTEGDNATFTCSFSNTSESVLNWYRMS
PSNQTDKLAAPEDRSQPGQDCRFRTQLPNGRDFHMSVVRARRNDSTYLCGAIKESLRAELR
VTERRAEVPTAHPSPRPAGQFQTLVVGVVGGLLGSLVLLVWVLAVICSRAARGTIGARRTGQPLKEDPSA
VPVFSVDY GELDFQWREKTPEPPVPCVPEQTEYATIVFSPGMGTSSPARRGSADGPRSAQPLRPEDGHCSWPL

Related Products

CTLA4:CD80:CD86	
H_CD80 aAPC CHO-K1 Cell Line	H_CD80 PDL1 aAPC CHO-K1 Cell Line
H_CTLA4 PD-1 Reporter Cell Line	H_CTLA4 Reporter Jurkat Cell Line
Canine_CTLA4 CHO-K1 Cell Line	Cynomolgus_CTLA4 HEK-293 Cell Line
H_CTLA4 (Full-Length) CHO-K1 Cell Line	H_CTLA4 CHO-K1 Cell Line
H_CTLA4 HEK-293 Cell Line	H_CTLA4 Jurkat Cell Line
H_CTLA4 PD-1 CHO-K1 Cell Line (High Ratio)	
Anti-CTLA4 hIgG1 Reference Antibody (Ipibio)	Anti-CTLA-4/PD-1 hIgG1 Bispecific Antibody(Cadonilimab)
Anti-CTLA4×PD-1 hIgG1 Reference Antibody (Cadbio)	Anti-H_CD80 hIgG1 Antibody(Galiximab)
Anti-H_CTLA-4 hIgG1 Antibody(Ipilimumab)	Anti-mouse CTLA4 mIgG2b Antibody(9D9)
Anti-mouse CTLA4 Syrian Hamster IgG2 Antibody(9H10)	
Biotinylated Cynomolgus CTLA4 Protein; His-Avi Tag	Biotinylated Mouse CTLA4 Protein; His-Avi Tag
Cynomolgus CTLA4 Protein; His Tag	Human CD80 Protein; His Tag
Human CTLA4 Protein; His Tag	Mouse CTLA4 Protein; His Tag

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