

# Product Sheet

## H\_CD28 CHO-K1 Cell Line

Catalog number: GM-C18999

Version 3.3.1.241205

<b>Description</b>	H_CD28 CHO-K1 Cell Line is a clonal stable CHO-K1 cell line that constitutively expresses the human CD28 gene, constructed using lentiviral technology.
<b>Quantity</b>	5E6 Cells per vial, 1 mL
<b>Product Format</b>	1 vial of frozen cells
<b>Shipping</b>	Shipped on dry ice
<b>Storage Conditions</b>	Liquid nitrogen immediately upon receipt
<b>Target</b>	Human_CD28
<b>Gene ID/Uniprot ID</b>	P10747-1
<b>Host Cell</b>	CHO-K1
<b>Recovery Medium</b>	F12K+10% FBS+1% P.S
<b>Growth medium</b>	F12K+10% FBS+1% P.S+4 µg/mL Puromycin
<b>Note</b>	None
<b>Freezing Medium</b>	90% FBS+10% DMSO
<b>Growth properties</b>	Adherent
<b>Growth Conditions</b>	37°C, 5% CO <sub>2</sub>
<b>Mycoplasma Testing</b>	The cell line has been screened to confirm the absence of Mycoplasma species.
<b>Safety considerations</b>	Biosafety Level 2
<b>Note</b>	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	Cegrogen biotech/A0500-3010
Pen/Strep	Thermo/15140-122
Puromycin	Genomeditech/ <a href="#">GM-040401</a>
Anti-H_CD28 hIgG4 Antibody(Theralizumab)	Genomeditech/ <a href="#">GM-27197AB</a>

## Figures

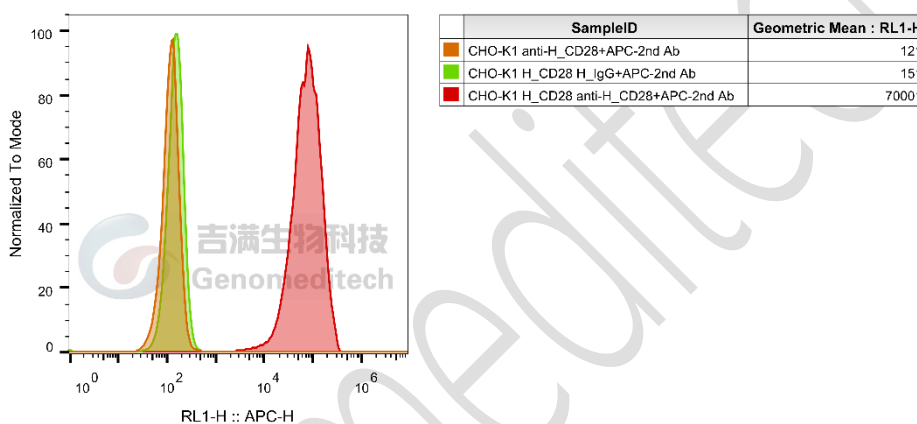


Figure 1 | H\_CD28 CHO-K1 Cell Line (Cat. GM-C18999) was determined by flow cytometry using Anti-H\_CD28 hIgG4 Antibody(Theralizumab) (Cat. [GM-27197AB](#)).

## 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.

- e) Incubate the culture at 37°C in a suitable incubator. A 5% CO<sub>2</sub> 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: F12K+10% FBS+1% P.S+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.

- 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 2 to 3 minutes 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 1:4 - 1:5 is recommended**

**Medium Renewal: Every 2 to 3 days**

## Notes

- 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

CD28 [P10747-1](#)

MLRLLLALNLFPSIQVTGNKILVKQSPMLVAYDNAVNLCKYSYNLFSREFRASLHKGLDSAVEVCVVYGNYSQQLQVYSKTFNCDGKLGNESVTFYLNLYVNQTDIYFCKIEVMYPPPYLDNEKSNGTIIHVKGKHLCPSPLPFGPSKPFVWLVVVGGVLACYSLLVTVAFIIFWVRSKRSRLLHSDYMNMTPRRPGPTRKHYPYAPPRDFAA  
YRS

## Related Products

CD28	
<a href="#">H_CD28 Reporter Jurkat Cell Line</a>	<a href="#">Cynomolgus_CD28 CHO-K1 Cell Line</a>
<a href="#">H_CD28 HEK-293 Cell Line</a>	
<a href="#">Anti-CD28 hIgG4 Antibody(FR104)</a>	<a href="#">Anti-H_CD28 hIgG4 Antibody(Theralizumab)</a>
CD3	
<a href="#">Jurkat CD3-BsAb Reporter Cell Line</a>	<a href="#">Cynomolgus_CD3 HEK-293 Cell Line</a>
<a href="#">Cynomolgus_CD3E(Membrane Bound ECD) CHO-K1 Cell Line</a>	<a href="#">H_CD3 CHO-K1 Cell Line</a>
<a href="#">H_CD3 HEK-293 Cell Line</a>	<a href="#">H_CD3E(Membrane Bound ECD) CHO-K1 Cell Line</a>
<a href="#">Mouse_CD3 HEK-293 Cell Line</a>	
<a href="#">Anti-CD3 epsilon hIgG1 Antibody [OKT-3 (muromonab)]</a>	<a href="#">Anti-CD3 hIgG1 Antibody(CH2527)</a>

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