Genomeditech (Shanghai) Co.,Ltd.
Order: +86 021-68455258/50432826/50432825
Toll-free: +86 400 627 9288
Email: service@genomeditech.com

Product Sheet

H_TSLPR IL7RA BaF3 Cell Line

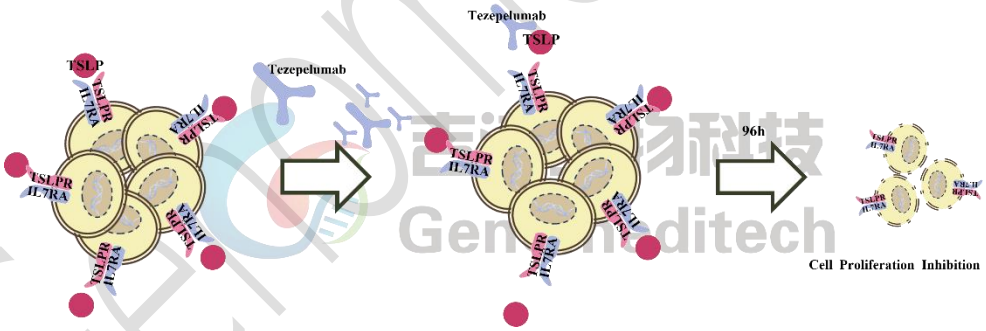
Catalog number: GM-C15622

Version 3.3.1.260526

Thymic stromal lymphopoietin (TSLP) is a protein belonging to the cytokine family. It plays an important role in the maturation of T-cell populations by activating antigen-presenting cells. TSLP is produced primarily by non-hematopoietic cells, such as fibroblasts, epithelial cells, and various types of stromal or stromal-like cells. TSLP forms a ternary signaling complex with the thymic stromal lymphopoietin receptor CRLF2 (TSLPR) and the IL-7Rα chain, thereby activating downstream signaling.

Upon binding to TSLPR, TSLP promotes dimerization that enhances the recruitment of IL-7Rα, forming an extracellular ternary complex that transduces signals. The TSLP-guided complex strengthens the functional polarization of dendritic cells, epithelial cells, and helper T cells (especially Th2/Tfh-like programs) by increasing receptor surface stability and the spatiotemporal persistence of signaling. This, in turn, promotes the production of type 2 inflammatory cytokines such as IL-4, IL-5, and IL-13, and is closely associated with barrier tissue inflammation, allergic responses, and asthma.

H_TSLPR IL7RA BaF3 Cell Line is a clonal stable BaF3 cell line constructed using lentiviral technology, constitutive expression of the human TSLPR and human IL-7Rα genes. Can be used for the development and validation of related drugs.



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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	RPMI 1640+10% FBS+1% P.S+200 ng/mL TSLP
Growth medium	RPMI 1640+10% FBS+1% P.S+200 ng/mL TSLP+400 μg/mL G418+1 μg/mL Puromycin
Note	None
Freezing Medium	90% FBS+10% DMSO
Growth properties	Suspension
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.
RPMI 1640	gibco/C11875500BT
Fetal Bovine Serum	ExCell/FSP500
Pen/Strep	Thermo/15140-122
Human TSLP Protein; His Tag	Genomeditech/GM-87654RP
G418	Genomeditech/GM-040402
Puromycin	Genomeditech/GM-040401
Anti-TSLP hIgG2 Reference Antibody (Tezbio)	Genomeditech/GM-87344MAB
PE anti-human TSLPR (TSLP-R) Antibody	Biolegend/322805
Anti-H_IL-7Rα hIgG4 Antibody(lusvertikimab)	Genomeditech/GM-32425AB
GMTiter™ Luminescent Cell Viability Assay	Genomeditech/GM-040504

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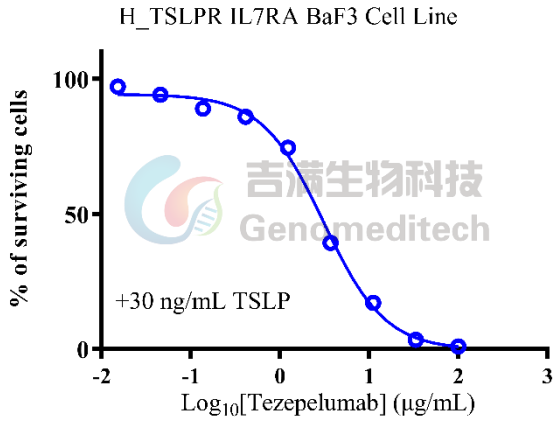
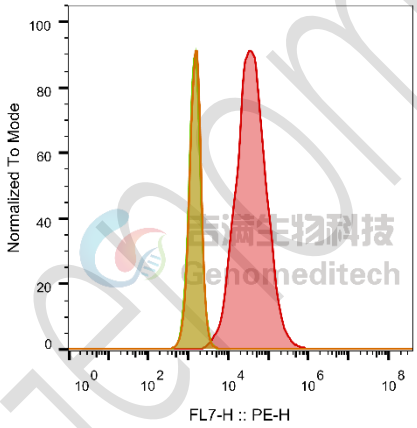
Figures



	H_TSLPR IL7RA BaF3 Cell Line
IC50	3.090

Figure 1 | Cell proliferation assay. The H_TSLPR IL7RA BaF3 Cell Line (Cat. GM-C15622) at a concentration of 1E3 cells/well (96-well format) was treated with serial dilutions of Anti-TSLP hIgG2 Reference Antibody (Tezbio)(Cat. GM-87344MAB) in assay buffer (RPMI 1640+10% FBS+1% P.S) for 96 hours. The firefly luciferase activity was measured using the GMTiter™ Luminescent Cell Viability Assay (Cat. GM-040504).



SampleID	Geometric Mean : FL7-H
Baf3 PE-anti-TSLPR Ab	1506
H_TSLPR IL17RA Baf3 PE-M_IgG Ab	1475
H_TSLPR IL17RA Baf3 PE-anti-TSLPR Ab	37177

Figure 2 | H_TSLPR IL7RA BaF3 Cell Line (Cat. GM-C15622) was determined by flow cytometry using PE anti-human TSLPR (TSLP-R) Antibody (Biolegend/322805).

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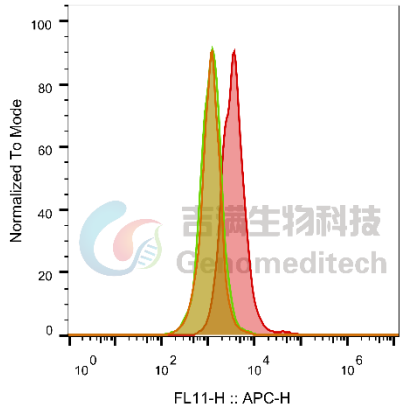

SampleID	Geometric Mean : FL11-H
Baf3 anti-IL-7RA+APC-2nd Ab	1151
H_TSLPR IL7RA Baf3 H_IgG+APC-2nd Ab	1176
H_TSLPR IL7RA Baf3 anti-IL-7RA+APC-2nd Ab	3613

Figure 3 | H_TSLPR IL7RA BaF3 Cell Line (Cat. GM-C15622) was determined by flow cytometry using Anti-H_IL-7Rα hIgG4 Antibody(lusvertikimab) (Cat. GM-32425AB).

Cell Recovery

Recovery Medium: RPMI 1640+10% FBS+1% P.S+200 ng/mL TSLP

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 complete medium. And dispense the suspension into 1-2 T-25 culture flasks.

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 vials 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.

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Cell passage

Growth medium: RPMI 1640+10% FBS+1% P.S+200 ng/mL TSLP+400 μg/mL G418+1 μg/mL Puromycin

Approximately 48-72 hours after the initial thawing, the cells can be passaged for the first time. After this initial passage, the culture medium can be adjusted to growth medium supplemented with antibiotics. If cells are not passaged within 48 hours, it is recommended to add some fresh recovery medium and place the flask horizontally.

a) When the cell density reaches 1 - 1.2E6 cells/mL, subculture the cells. Do not allow the cell density to exceed 1.4E6 cells/mL.

b) It is recommended to use T-25 flasks for subculturing.

c) These cells are suspension cells, and it is recommended to use the "half-medium change" method to maintain optimal cell conditions during passaging.

d) During passaging, you can directly add fresh growth medium to the culture flask, gently pipette to resuspend the cells, and then transfer the cell suspension to a new T-25 flask for continued culture.

Subcultivation Ratio: Maintain cultures at a cell concentraion between 3E5 and 1E6 viable cells/mL.

Medium Renewal: Every 2 to 3 days

Notes

a) These cells are sensitive to density, so please ensure that the cell density is maintained within an appropriate range during culture and subculturing.

b) During the first passage, pay attention to the nutrient supply; if not subculturing, make sure to add fresh recovery medium every other day as needed.

Related Products

IL-4/IL-13	
IL-4 Reporter Cell Line	IL-4/IL-13 Reporter 293 Cell Line
IL-4/IL-13 Reporter 293 DDX35TM Cell Line	Cynomolgus_IL4R CHO-K1 Cell Line
H_IL4R CHO-K1 Cell Line	H_IL4R CHO-K1 Cell Line (Low Expression)
H_IL4R HEK-293 Cell Line	Mouse_IL4R CHO-K1 Cell Line
Anti-IL13 hIgG4 Reference Antibody (Lebribio)	Anti-IL-4 hIgG1 Antibody (pascolizumab)
Anti-IL-4R hIgG1 Antibody(12B5)	Anti-IL4R hIgG4 Antibody(Dupilumab)
Anti-IL4R hIgG4 Reference Antibody (Dupbio)	Anti-IL-4R×IL31 hIgG4 Reference Antibody (PRO2198)
Anti-Mouse IL13 mIgG2a Antibody (BAK209B11)	Anti-Mouse IL-4RA mIgG1 Antibody
Biotinylated Human IL-4R alpha Protein; Avi-His Tag	Cynomolgus IL-13 Protein; His Tag
Cynomolgus IL-4 Protein; His Tag	Cynomolgus IL-4R alpha Protein; His Tag
Human IL-13 Protein; His Tag	Human IL-13RA1 Protein; hFc Tag
Human IL-13RA1 Protein; His Tag	Human IL-4 Protein; His Tag
Human IL-4R alpha Protein; hFc Tag	Human IL-4R alpha Protein; His Tag
Human IL-4R alpha Protein; mFc Tag	Mouse IL-13 Protein; His Tag

Mouse IL-4R alpha Protein; His Tag	Rat IL-4R alpha Protein; His Tag
TSLP:TSLPR	
H_TSLP Reporter 293 Cell Line	H_TSLP Reporter Cell Line
H_TSLPR CHO-K1 Cell Line	
Anti-H_TSLPR hIgG1 Antibody	Anti-TSLP hIgG2 Antibody(Tezepelumab)
Anti-TSLP hIgG2 Reference Antibody (Tezbio)	
Biotinylated Human TSLP Protein; His-Avi Tag	Cynomolgus TSLP Protein; His Tag
Human TSLP Protein; hFc Tag	Human TSLP Protein; His Tag
Human TSLPR Protein; hFc Tag	Human TSLPR Protein; His Tag
IL-5	
H_IL-5 Reporter 293 Cell Line	Cynomolgus_IL-5RA HEK-293 Cell Line
H_IL-5RA CHO-K1 Cell Line	H_IL-5RA HEK-293 Cell Line
Anti-IL5 hIgG4 Antibody(Reslizumab)	Anti-IL-5R hIgG1 Antibody(Benralizumab)
Human IL-5 Protein; His Tag	

License Agreement:

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

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