

Product Sheet

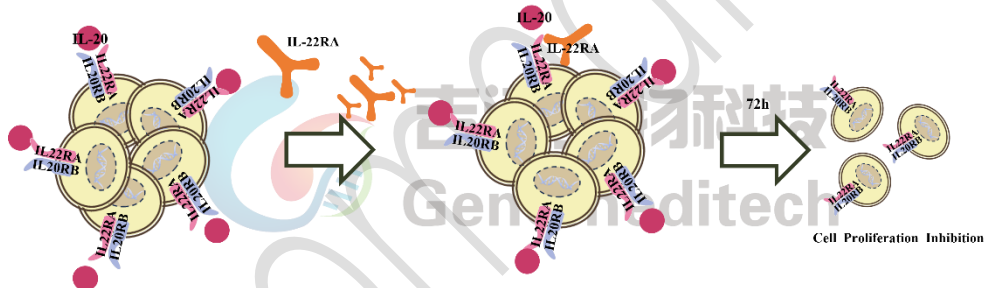
H_IL22RA IL20RB BAF3 Cell Line

Catalog number: GM-C42750

Version 3.3.1.260714

IL-22RA1 and IL-20RB are type II cytokine receptors forming a high-affinity heterodimer essential for IL-22 signaling. Co-expression recruits JAK1/TYK2 to phosphorylate STATs, driving epithelial repair and antimicrobial defenses. This axis is hyperactivated in psoriasis, IBD, and fibrosis, representing a key target for anti-inflammatory drugs. The antagonistic antibody Anti-IL-22RA (280.346.TSY) blocks this interaction and downstream STAT3 activation, serving as a vital tool for in vitro screening.

Native BaF3 cells are a mouse pre-B lymphocyte cell line whose survival depends on mouse IL-3. The H_IL22RA IL20RB BAF3 Cell Line is a clonal, stable BaF3 cell line constructed using lentiviral technology, which constitutively expresses the human IL22RA and human IL20RB genes. In addition to their original dependence on mouse IL-3, these cells can also proliferate in response to human IL20. This "survival dependence" characteristic makes this cell line a highly sensitive and specific tool for detecting IL20 activity and its neutralizing inhibitors.



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+500 ng/mL H_IL20
Growth medium	RPMI 1640+10% FBS+1% P.S+500 ng/mL H_IL20+100 µg/mL Hygromycin+0.25 µg/mL Puromycin
Note	/
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
Hygromycin	Genomeditech/ GM-040403
Puromycin	Genomeditech/ GM-040401
Recombinant Human IL-20 Protein	SinoBiological/13060-HNAE
Anti-IL-22RA hIgG1 Antibody (280.346.TSY)	Genomeditech/ GM-88095AB
GMTiter™ Luminescent Cell Viability Assay	Genomeditech/ GM-040504

Figures

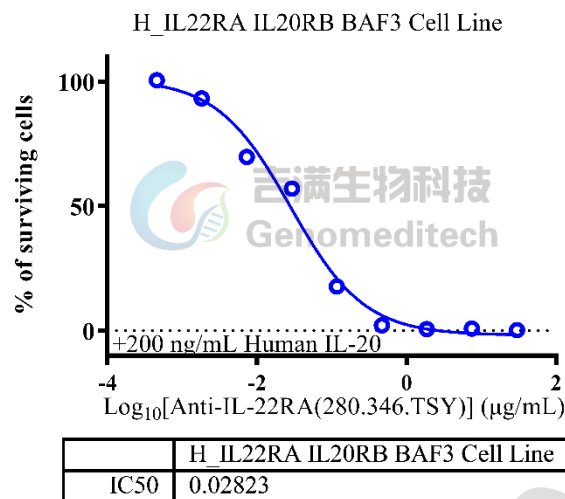


Figure 1 | Cell proliferation assay. The H_IL22RA IL20RB BAF3 Cell Line (Cat. GM-C42750) at a concentration of 3E3 cells/well (96-well format) was treated with serial dilutions of Anti-IL-22RA hIgG1 Antibody (280.346.TSY)(Cat. [GM-88095AB](#)) in assay buffer (RPMI 1640+10% FBS+1% P.S) for 72 hours. The firefly luciferase activity was measured using the GMTiter™ Luminescent Cell Viability Assay (Cat. [GM-040504](#)).

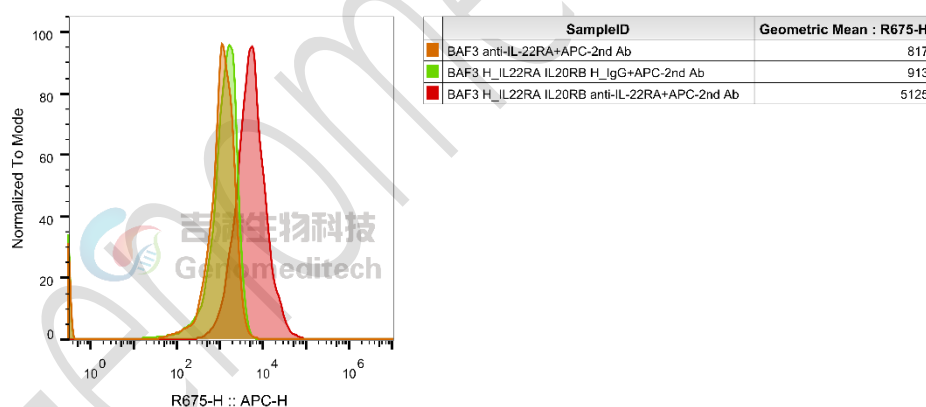


Figure 2 | H_IL22RA IL20RB BAF3 Cell Line (Cat. GM-C42750) was determined by flow cytometry using Anti-IL-22RA hIgG1 Antibody (280.346.TSY) (Cat. [GM-88095AB](#)).

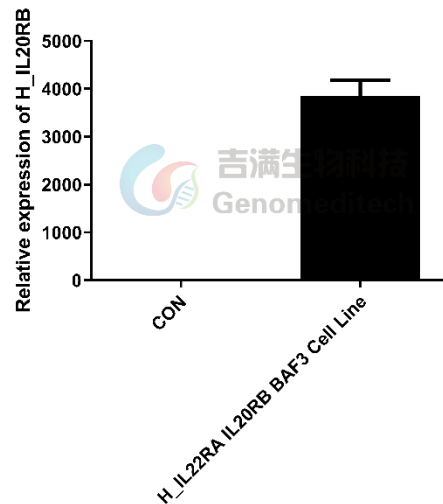


Figure 3 | The mRNA expression levels of H_IL20RB in the H_IL22RA IL20RB BAF3 Cell Line (Cat. GM-C42750) were determined by RT-qPCR.

Cell Recovery

Recovery Medium: RPMI 1640+10% FBS+1% P.S+500 ng/mL H_IL20

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 complete medium. And dispense the suspension into 1-2 T-25 culture flasks.
- 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.
- Resuspend the cells in pre-cooled freezing medium and adjust the cell density to 5E6 cells/mL.
- 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.

Cell passage

Growth medium: RPMI 1640+10% FBS+1% P.S+500 ng/mL H_IL20+100 µg/mL Hygromycin+0.25 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.

- 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.
- It is recommended to use T-25 flasks for subculturing.
- These cells are suspension cells, and it is recommended to use the "half-medium change" method to maintain optimal cell conditions during passaging.
- 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

- These cells are sensitive to density, so please ensure that the cell density is maintained within an appropriate range during culture and subculturing.
- 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-22	
H_IL22RA IL10RB BAF3 Cell Line	Cynomolgus_IL22 Reporter 293 Cell Line
H_IL19 IL20 IL24 Reporter 293 Cell Line	H_IL20 IL22 IL24 Reporter 293 Cell Line
H_IL22 Reporter 293 Cell Line	Cynomolgus_IL22R HEK-293 Cell Line
H_IL22R CHO-K1 Cell Line	H_IL22R HEK-293 Cell Line
Mouse_IL22R HEK-293 Cell Line	
Anti-H_IL-22 hIgG1 Antibody(Fezakinumab)	Anti-H_IL-22R1 hIgG1 Antibody(ARGX-112)
Anti-IL-22RA hIgG1 Antibody (280.346.TSY)	Anti-IL-22RA hIgG1 Reference Antibody (Temtobio)
Biotinylated Human IL-22 Protein; His-Avi Tag	Human IL-22 Protein; His Tag
Human IL-22BP Protein; hFc Tag	Mouse IL-22RA1 Protein; His Tag

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