

Product Sheet

Cynomolgus_IL-31RA OSMR Baf3 Cell Line

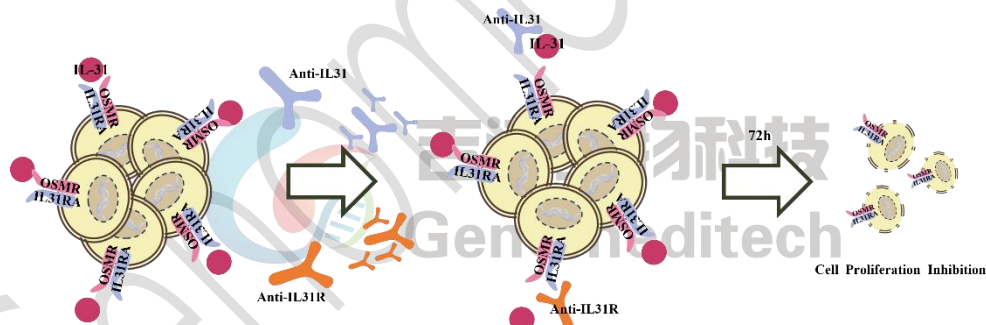
Catalog number: GM-C30334

Version 3.3.1.260708

Interleukin-31 (IL-31) is a novel cytokine whose receptor shares similarity with the IL-6 receptor, and it is therefore classified as part of the IL-6 cytokine family. It is primarily secreted by activated CD4⁺ T lymphocytes, particularly activated Th2 helper T cells, mast cells, macrophages, and dendritic cells. IL-31 mainly regulates cell-mediated immunity in the skin by sensing itching in the peripheral nervous system, modulates lung immunity by increasing airway inflammation, and adjusts intestinal immunity by defending against microorganisms.

IL-31 transmits signals by forming a heterodimeric receptor complex composed of IL31RA and OSMR (oncostatin M receptor). Its signaling pathway is closely linked to chronic pruritic skin conditions, such as atopic dermatitis. Monoclonal antibody therapies targeting IL-31 or IL-31 receptors can effectively reduce itching and sleep disturbances, improve skin lesions, and minimize the use of topical steroids.

Cynomolgus_IL-31RA OSMR Baf3 Cell Line is a clonal stable BaF3 cell line constructed using lentiviral technology, constitutive expression of the Cynomolgus IL-31RA and Cynomolgus OSMR gene. Can be used for the development and validation of related drugs.



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+8 ng/mL Cynomolgus_IL31
Growth medium	RPMI 1640+10% FBS+1% P.S+8 ng/mL Cynomolgus_IL31+50 µg/mL G418+0.25 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
G418	Genomeditech/ GM-040402
Puromycin	Genomeditech/ GM-040401
Cynomolgus IL-31 Protein; His Tag	Genomeditech/ GM-88063RP
Anti-IL31RA hIgG2 Antibody(Nemolizumab)	Genomeditech/ GM-50871AB
Anti-IL31 hIgG1 Antibody(mAb33)	Genomeditech/ GM-50883AB
Anti-OSMR hIgG4 Antibody(Vixarelimab)	Genomeditech/ GM-50874AB
GMTiter™ Luminescent Cell Viability Assay	Genomeditech/ GM-040504

Figures

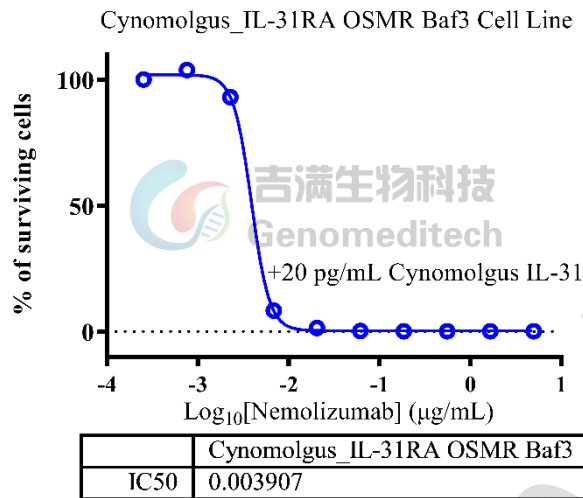


Figure 1 | Cell proliferation assay. The Cynomolgus_IL-31RA OSMR Baf3 Cell Line (Cat. GM-C30334) at a concentration of 1E3 cells/well (96-well format) was treated with serial dilutions of Anti-IL31RA hIgG2 Antibody(Nemolizumab) (Cat. [GM-50871AB](#)) in assay buffer (RPMI 1640+10% FBS+1% P.S) for 120 hours. The firefly luciferase activity was measured the GMTiter™ Luminescent Cell Viability Assay (Cat. [GM-040504](#)).

Cell Recovery

Recovery Medium: RPMI 1640+10% FBS+1% P.S+8 ng/mL Cynomolgus_IL31

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.
- 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+8 ng/mL Cynomolgus_IL31+50 µg/mL G418+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

OX40:OX40L	
H_OX40 Reporter Cell Line	H_OX40 Reporter DDX35TM Cell Line
Cynomolgus_OX40 HEK-293 Cell Line	Cynomolgus_OX40L CHO-K1 Cell Line
H_OX40 CHO-K1 Cell Line	H_OX40L CHO-K1 Cell Line
H_OX40L HEK-293 Cell Line	Mouse_OX40L CHO-K1 Cell Line
Rat_OX40L CHO-K1 Cell Line	
Anti-H_OX40 hIgG2 Antibody(Ivuxolimab)	Anti-OX40L hIgG1 Reference Antibody(Oxebio)
Anti-OX40L hIgG4 Antibody(Amlitelimab)	Anti-OX40L hIgG4 Reference Antibody(Amlbio)
Biotinylated Human OX40L Protein; His-Avi Tag	Cynomolgus OX40 Protein; His Tag

Cynomolgus OX40L Protein; His Tag	Cynomolgus OX40L Protein; mFc Tag
Human OX40 Protein; hFc Tag	Human OX40 Protein; His Tag
Human OX40L Protein; His Tag	Human OX40L Protein; mFc Tag
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-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 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
IL-31	
Cynomolgus_IL-31RA OSMR Reporter Baf3 Cell Line	H_IL-31 Reporter Cell Line
H_IL-31 Reporter DDX35TM Cell Line	Cynomolgus_IL31RA CHO-K1 Cell Line
H_IL31RA CHO-K1 Cell Line	H_IL31RA HEK-293 Cell Line
H_IL-31RA OSMR Baf3 Cell Line	H_IL-31RA OSMR CHO-K1 Cell Line
Anti-IL31 hIgG1 Antibody(mAb33)	Anti-IL-31 hIgG4 Reference Antibody (BMS-981164)
Anti-IL31RA hIgG1 Antibody(NA633)	Anti-IL31RA hIgG2 Antibody(Nemolizumab)
Anti-IL31RA hIgG2 Reference Antibody (Nemobio)	Anti-IL-4R×IL31 hIgG4 Reference Antibody (PRO2198)
Anti-OSMR hIgG4 Antibody(Vixarelimab)	Anti-OSMR hIgG4 Reference Antibody (Vixabio)
Cynomolgus IL-31 Protein; His Tag	Human IL-31 Protein; hFc Tag
Human IL-31 Protein; His Tag	Human IL-31RA Protein; hFc Tag
MRGPRX2	
H_MRGPRX2 Gq Reporter CHO-K1 Cell Line	H_MRGPRX2 Gqi5 Reporter CHO-K1 Cell Line
Tango-H_MRGPRX2 CHO-K1 Cell Line	Cynomolgus_MRGPRX2 CHO-K1 Cell Line
Cynomolgus_MRGPRX2 HEK-293 Cell Line	Flag-Mouse_Mrgprb2 CHO-K1 Cell Line
Flag-Rat_Mrgprb3 HEK-293 Cell Line	H_MRGPRX2 CHO-K1 Cell Line
H_MRGPRX2 HEK-293 Cell Line	H_MRGPRX2 HMC-1 Cell Line
H_MRGPRX2 RBL-2H3 Cell Line	

License Agreement:

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