Genomeditech (Shanghai) Co.,Ltd.
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Product Sheet

H_LILRB3 Reporter Jurkat Cell Line

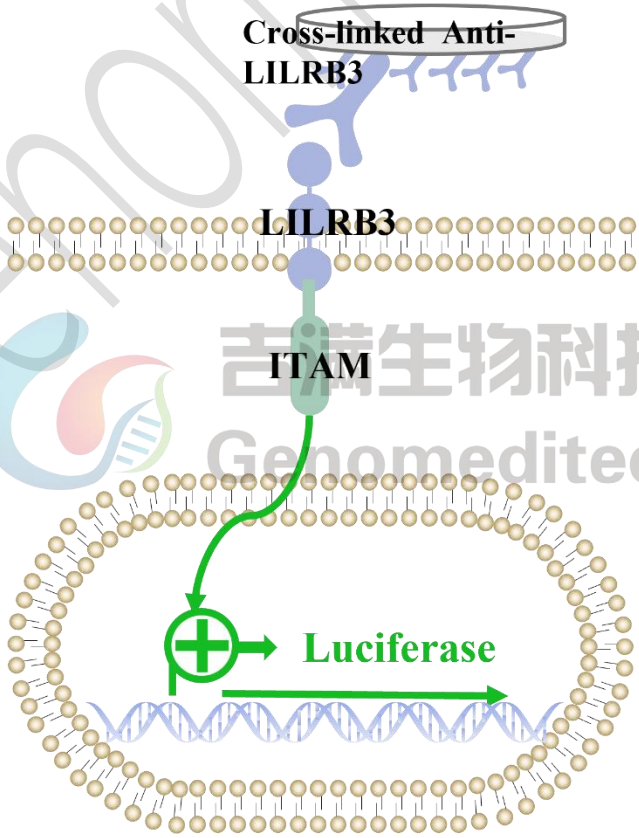
Catalog number: GM-C20152

Version 3.3.1.250103

LILRB3 (Leukocyte Immunoglobulin-Like Receptor B3) is an important receptor in the immune system, primarily expressed on immune cells like monocytes, macrophages, and dendritic cells. It regulates immune responses by binding to ligands, inhibiting T cell activation, and promoting immune tolerance, thus maintaining immune homeostasis and preventing autoimmune diseases.

LILRB3 transmits inhibitory signals through its intracellular immunoreceptor tyrosine-based motif (ITIM). Upon ligand binding, the ITIM region is phosphorylated, recruiting inhibitory molecules such as SHP-1 and SHP-2, which inhibit downstream signaling pathways. This mechanism regulates cell proliferation, differentiation, and cytokine production, influencing the strength and duration of the immune response.

H_LILRB3 Reporter Jurkat Cell Line is a clonal stable Jurkat cell line constructed using lentiviral technology, constitutive expression of the LILRB3 chimeric gene, along with signal-dependent expression of a luciferase reporter gene. When its ligands bind to LILRB3, it activates downstream signaling pathways, leading to the expression of luciferase. The luciferase activity measurement indicates the activation level of the signaling pathway and can thus be used to evaluate the in vitro effects of drugs related to LILRB3.



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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
Growth medium	RPMI 1640+10% FBS+1% P.S+3.5 μg/mL Blasticidin+0.75 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	Cegrogen biotech/A0500-3010
Pen/Strep	Thermo/15140-122
Blasticidin	Genomeditech/GM-040404
Puromycin	Genomeditech/GM-040401
Clear Flat-Bottom Immuno Nonsterile 96-Well Plates	Thermo/442404
Anti-LILRB3 hIgG1 Antibody(7C5)	Genomeditech/GM-27367AB
GMOne-Step Luciferase Reporter Gene Assay Kit	Genomeditech/GM-040503

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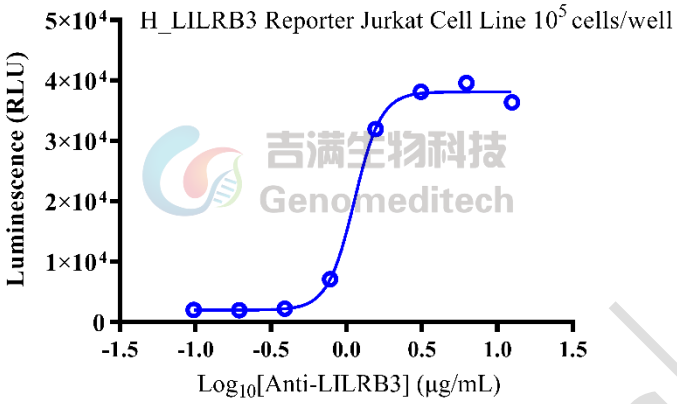
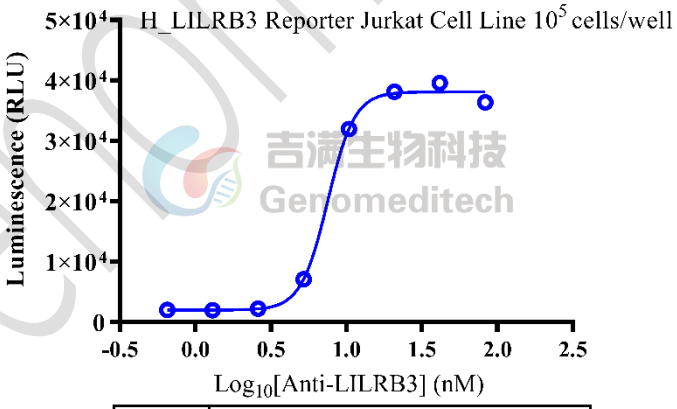
Figures



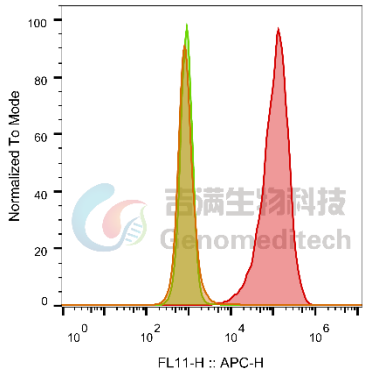
	H_LILRB3 Reporter Jurkat Cell Line
EC50	1.131

Figure 1 | Response to Anti-LILRB3 hIgG1 Antibody(7C5). H_LILRB3 Reporter Jurkat Cell Line (Cat. GM-C20152) at a concentration of 1E5 cells/well in a 96-well format. The wells were coated overnight with serial dilutions of Anti-LILRB3 hIgG1 Antibody(7C5) (Cat. GM-27367AB) in assay buffer (RPMI 1640 + 1% FBS + 1% P.S). After coating, the cells were added and incubated for 24 hours. The firefly luciferase activity was measured using the GMOne-Step Luciferase Reporter Gene Assay Kit (Cat. GM-040503). The maximum induction fold was approximately [18.3]. Data are shown by drug mass concentration.



	H_LILRB3 Reporter Jurkat Cell Line
EC50	7.538

Figure 2 | Response to Anti-LILRB3 hIgG1 Antibody(7C5). H_LILRB3 Reporter Jurkat Cell Line (Cat. GM-C20152) at a concentration of 1E5 cells/well in a 96-well format. The wells were coated overnight with serial dilutions of Anti-LILRB3 hIgG1 Antibody(7C5) (Cat. GM-27367AB) in assay buffer (RPMI 1640 + 1% FBS + 1% P.S). After coating, the cells were added and incubated for 24 hours. The firefly luciferase activity was measured using the GMOne-Step Luciferase Reporter Gene Assay Kit (Cat. GM-040503). The maximum induction fold was approximately [18.3]. Data are shown by drug molar concentration.



SampleID	Geometric Mean : FL11-H
Jurkat anti-H_LILRB3+APC-2nd Ab	863
H_LILRB3 Reporter Jurkat H_IgG+APC-2nd Ab	901
H_LILRB3 Reporter Jurkat anti-H_LILRB3+APC-2nd Ab	105414

Figure 3 | H_LILRB3 Reporter Jurkat Cell Line (Cat. GM-C20152) was determined by flow cytometry using Anti-LILRB3 hIgG1 Antibody(7C5) (Cat. GM-27367AB).

Cell Recovery

Recovery Medium: RPMI 1640+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.

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 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.

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Cell passage

Growth medium: RPMI 1640+10% FBS+1% P.S+3.5 μg/mL Blasticidin+0.75 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 1.5 - 2E6 cells/mL, subculture the cells. Do not allow the cell density to exceed 2E6 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

LILRB2(ILT4)	
H_LILRB2(ILT4) Reporter Jurkat Cell Line	H_LILRB2(ILT4) CHO-K1 Cell Line
H_LILRB2(ILT4) HEK-293 Cell Line	
Anti-H_LILRB2(ILT4) hIgG4 Antibody(MK-4830)	
LILRB1(ILT2)	
H_LILRB1(ILT2) Reporter Jurkat Cell Line	H_LILRB1(ILT2) CHO-K1 Cell Line
H_LILRB1(ILT2) HEK-293 Cell Line	Rhesus_LILRB1 CHO-K1 Cell Line
Anti-LILRB1(ILT2) mIgG1 Antibody(12D12)	
LILRB4(ILT3)	
H_LILRB4(ILT3) CHO-K1 Cell Line	H_LILRB4(ILT3) HEK-293 Cell Line
LILRB5	
H_LILRB5 CHO-K1 Cell Line	
LILRB3(ILT5)	
H_LILRB3(ILT5) CHO-K1 Cell Line	H_LILRB3(ILT5) HEK-293 Cell Line
Anti-LILRB3 hIgG1 Antibody(7C5)	

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