abcam

ab315145

PE Anti-KLRF1 antibody [EPR23633-150]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	PE
Excitation/Emission	Ex: 480;565nm, Em: 578nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR23633-150
Purification technique	Affinity purification Protein A

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/2500
Notes	-

Target data

See full target information KLRF1

Function	Functions as an activating receptor involved in immunosurveillance upon binding to various ligands displayed at the surface of myeloid cells. Upon interaction with CLEC2B ligand, stimulates NK-cell cytotoxicity and cytokine production leading to the cytolysis of malignant CLEC2B-expressing myeloid cells. Actviation of the common cytotoxicity pathway involves SRC and SYK kinases (PubMed:21149606).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	KLRF1 also known as CD314 or NKp80 is a receptor protein found primarily on natural killer (NK) cells with a significant mass of about 30 kDa. Researchers have identified its expression mainly in tissues rich in NK cells such as the spleen and peripheral blood. This receptor structurally belongs to the C-type lectin-like domain family and plays an important role in the immune response by binding to the CLEC2B ligand on target cells facilitating NK cell activation and cytotoxicity.
Biological function summary	In immune surveillance and homeostasis KLRF1 acts as an important activating receptor on natural killer cells. It does not form a complex but works independently to control cellular immune responses by recognizing stress-induced ligands on target cells. Upon interaction with its ligand KLRF1 triggers a cascade of intracellular signals that promote cytotoxic activity and cytokine secretion contributing to the elimination of virally infected or transformed cells.
Pathways	In the context of innate immune response signaling KLRF1 interacts with pathways involving NK cell-mediated cytotoxicity. KLRF1 engagement stimulates pathways similar to those activated by other receptors in the natural killer cell repertoire such as KLRK1 (NKG2D). These interactions play roles in maintaining balance within the immune system by modulating NK cell activity and ensuring efficient target cell elimination.
Associated diseases and disorders	KLRF1 has implications in immune system-related conditions such as cancers and viral infections. Altered expression or function of KLRF1 may contribute to the escape of tumor cells from immune surveillance or decreased viral clearance. Associations with proteins like KLRD1 (CD94) in certain hematological malignancies suggest a role for KLRF1 in disease pathogenesis where NK cell dysfunction is present underlining its significance in developing therapeutic interventions.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

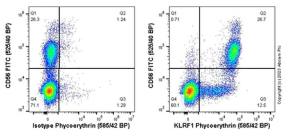
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

1 product image



Flow Cytometry - PE Anti-KLRF1 antibody [EPR23633-150] (ab315145)

KLRF1 Flow Cytometry staining of Human peripheral blood mononuclear cells (PBMCs) using rabbit Anti-KLRF1 antibody

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) with ab315145 (right) or Rabbit IgG (monoclonal) Phycoerythrin Isotype Control (ab209478) (left). PBMCs were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10 % normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody ab315145 or Rabbit IgG (monoclonal) Phycoerythrin Isotype Control (ab209478) (1x 10^6in 100 µl at 0.2 µg/ml (1/2500)) for 30min on ice. The cells were simultaneously stained with CD56.

Acquisition of >30000 events were collected using a 50 mW Yellow/Green laser (561nm) and 585/42 bandpass filter. Events were gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.