abcam

ab313948

APC Anti-LILRB1 antibody [EPR22861-6]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	APC
Excitation/Emission	Ex: 650nm, Em: 660nm
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	EPR22861-6
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/2500

Notes	-

ICC/IF

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information LILRB1

Function	Receptor for class I MHC antigens. Recognizes a broad spectrum of HLA-A, HLA-B, HLA-C, HLA-G and HLA-F alleles (PubMed:16455647, PubMed:28636952). Receptor for H301/UL18, a human cytomegalovirus class I MHC homolog. Ligand binding results in inhibitory signals and down-regulation of the immune response. Engagement of LILRB1 present on natural killer cells or T-cells by class I MHC molecules protects the target cells from lysis. Interaction with HLA-B or HLA-E leads to inhibition of FCER1A signaling and serotonin release. Inhibits FCGR1A-mediated phosphorylation of cellular proteins and mobilization of intracellular calcium ions (PubMed:11907092, PubMed:9285411, PubMed:9842885). Recognizes HLA-G in complex with B2M/beta-2 microglobulin and a nonamer self-peptide (PubMed:16455647). Upon interaction with peptide-bound HLA-G-B2M complex, triggers secretion of growth-promoting factors by decidual NK cells (PubMed:19304799, PubMed:29262349). Reprograms B cells toward an immune suppressive phenotype (PubMed:24453251).

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	LILRB1 also known as leukocyte immunoglobulin-like receptor subfamily B member 1 or CD85j is a protein expressed mainly on myeloid cells including monocytes and dendritic cells as well as some subsets of lymphocytes. This transmembrane protein is approximately 110-120 kDa in mass and is recognized for its role in immune regulation. LILRB1 interacts with MHC class I molecules on target cells mediating inhibitory signals that prevent immune overactivation. These interactions allow LILRB1 to help maintain self-tolerance and regulate adaptive immune responses.
Biological function summary	LILRB1 functions as an inhibitory receptor that dampens immune system activation by recruiting SHP-1 and SHP-2 phosphatases. As part of a complex with other immune checkpoint molecules LILRB1 modulates the balance between activating and inhibitory signals in immune cells. Its inhibitory signaling prevents excessive inflammation by reducing cytokine production and limiting T cell proliferation.
Pathways	This protein plays a role in immune signaling pathways specifically through interactions with proteins involved in the regulation of immune responses such as KIRs (Killer-cell Immunoglobulin-like Receptors). It participates in pathways that control the inhibitory signals controlling immune activity like the NK cell cytotoxicity pathway and the Fc gamma R-mediated phagocytosis pathway. Through these mechanisms LILRB1 maintains immune equilibrium and preserves tissue integrity during immune responses.
Associated diseases and disorders	The dysregulation of LILRB1 activity links to autoimmune conditions and infectious disease outcomes. Aberrant expression or function can impact diseases such as rheumatoid arthritis and HIV influencing the progression and severity of these conditions. In rheumatoid arthritis altered LILRB1 signaling may exacerbate inflammation while in the context of HIV it could affect immune cell exhaustion. Furthermore LILRB1 interactions with proteins like ILT2 highlight its potential involvement in modulating immune responses during these diseases.

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

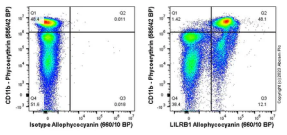
We do not recommend this combination. It is not covered by our product promise.

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 - APC Anti-LILRB1 antibody [EPR22861-6] (ab313948)

LILRB1 Flow Cytometry staining of Human PBMC using rabbit Anti-LILRB1 antibody

Flow cytometry staining of human peripheral blood mononuclear cells (PBMCs) with ab313948 (right) or APC Rabbit IgG, monoclonal [EPR25A] - Isotype Control (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 ab313948 or APC Rabbit IgG, monoclonal [EPR25A] - Isotype Control (1x 10^6 in 100 µl at 0.2 µg/ml (1/2500)) for 30 min on ice. The cells were simultaneously stained with CD11b.

Acquisition of >30000 events were collected using a 40 mW Red laser (638nm) and 660/10 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'.