abcam

Product datasheet

Anti-LILRB1 antibody [EPR22861-6] ab238145

Recombinant RabMAb

2 References 6 Images

Overview

Product name	Anti-LILRB1 antibody [EPR22861-6]
Description	Rabbit monoclonal [EPR22861-6] to LILRB1
Host species	Rabbit
Tested applications	**Suitable for:** WB, Flow Cyt, IP, ICC/IF **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: IM-9 whole cell lysate. ICC/IF: Human PBMC cells. Flow Cyt: Human PBMC and HEK-293T cells. IP: IM-9 cell lysate.
General notes	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22861-6

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab238145 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 71 kDa.
Flow Cyt		1/500.
IP		1/30.
ICC/IF		1/50.

Application notes Is unsuitable for IHC-P.

Target

Function Receptor for class I MHC antigens. Recognizes a broad spectrum of HLA-A, HLA-B, HLA-C and HLA-G alleles. 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 the signal triggered by FCER1A and inhibits serotonin release. Inhibits FCGR1A-mediated phosphorylation of cellular proteins and mobilization of intracellular calcium ions.

Tissue specificity Expressed predominantly on B-cells and monocytes, and at lower levels on dendritic cells. Detected on a low percentage of T-cells and natural killer (NK) cells.

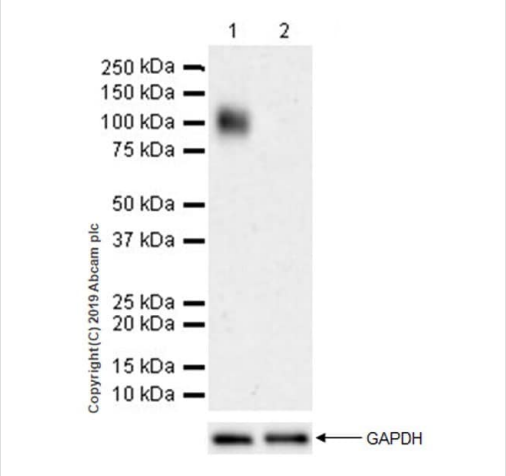
Sequence similarities Contains 4 Ig-like C2-type (immunoglobulin-like) domains.

Domain Contains 4 copies of a cytoplasmic motif that is referred to as the immunoreceptor tyrosine-based inhibitor motif (ITIM). This motif is involved in modulation of cellular responses. The phosphorylated ITIM motif can bind the SH2 domain of several SH2-containing phosphatases.

Post-translational modifications Phosphorylated on tyrosine residues. Dephosphorylated by PTPN6.

Cellular localization Membrane.

Images



Western blot - Anti-LILRB1 antibody [EPR22861-6] (ab238145)

All lanes : Anti-LILRB1 antibody [EPR22861-6] (ab238145) at 1/1000 dilution

Lane 1 : IM-9 (human multiple myeloma b lymphoblast) whole cell lysate
Lane 2 : K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

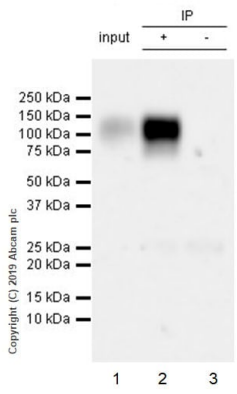
Predicted band size: 71 kDa
Observed band size: 90-110 kDa

Exposure time: 3 minutes

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID: 22844324).

Negative control: K-562 (PMID: 22844324).



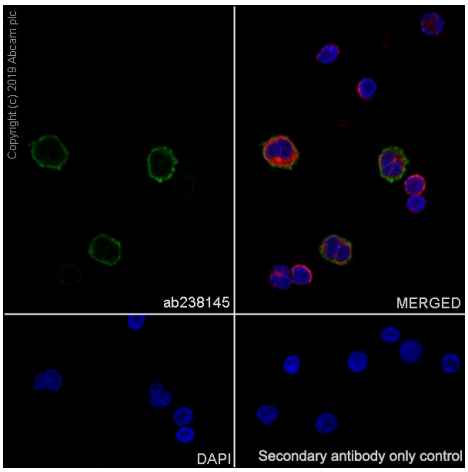
Immunoprecipitation - Anti-LILRB1 antibody [EPR22861-6] (ab238145)

LILRB1 was immunoprecipitated from 0.35 mg IM-9 (Human multiple myeloma B Lymphoblast) whole cell lysate with ab238145 at 1/30 dilution (2 µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab238145 at a 1/1000 dilution (0.48 µg/ml). VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used as the secondary antibody at 1/5000 dilution.

Lane 1: IM-9 (Human multiple myeloma B Lymphoblast) whole cell lysate 10µg
Lane 2: ab238145 IP in IM-9 whole cell lysate
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab238145 in IM-9 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

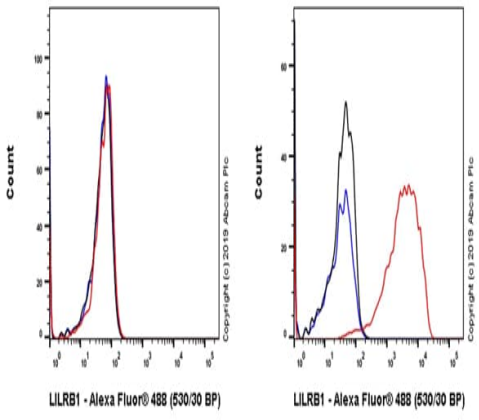
Exposure time: 30 seconds.



Immunocytochemistry/ Immunofluorescence - Anti-LILRB1 antibody [EPR22861-6] (ab238145)

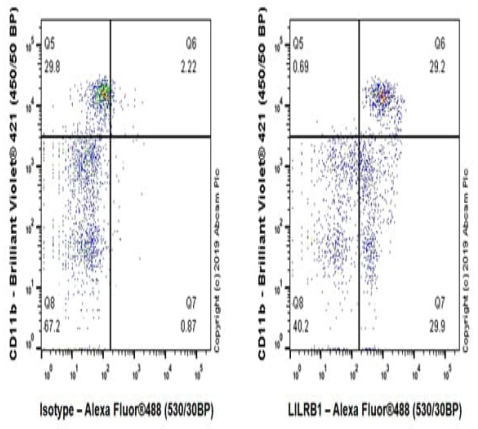
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized human PBMC (human primary peripheral blood mononuclear cell) cells labeling LILRB1 with ab238145 at 1/50 dilution, followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in subsets of human PBMC is observed. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.



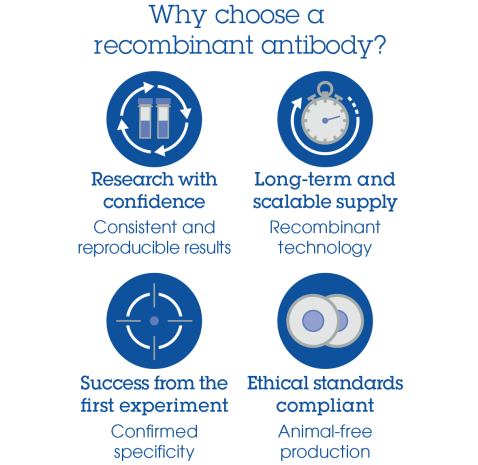
Flow Cytometry - Anti-LILRB1 antibody [EPR22861-6] (ab238145)

Flow cytometric analysis of 2% paraformaldehyde fixed 0.1% Tween-20 permeabilized HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with myc-tagged LILRB2 expression vector (Left) / HEK-293T transfected with myc-tagged LILRB1 expression vector (Right) cells labeling LILRB1 with ab238145 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody. Cells were surface stained with rabbit IgG (black) or ab238145 (red). Then fixed with 2% PFA followed by intracellularly stained with anti-myc tag conjugated to Alexa Fluor® 647. Gated on myc+ population.



Flow Cytometry - Anti-LILRB1 antibody [EPR22861-6] (ab238145)

Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) cells labeling LILRB1 with ab238145 at 1/500 dilution (0.1µg)/ Right compared with a Rabbit monoclonal IgG (**ab172730**) / Left isotype control. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150097**) at 1/5000 dilution was used as the secondary antibody. Cells were stained with anti-CD11b conjugated to BV421. Then stained with rabbit IgG (Left) or ab238145 (Right). Gated on viable cells.



Anti-LILRB1 antibody [EPR22861-6] (ab238145)

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