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LILRB1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17048c

Product Information

Application	WB, E
Primary Accession	Q8NHL6
Other Accession	NP_001075106.1, NP_001075107.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36844
Calculated MW	70819
Antigen Region	345-374

Additional Information

Gene ID	10859
Other Names	Leukocyte immunoglobulin-like receptor subfamily B member 1, LIR-1, Leukocyte immunoglobulin-like receptor 1, CD85 antigen-like family member J, Immunoglobulin-like transcript 2, ILT-2, Monocyte/macrophage immunoglobulin-like receptor 7, MIR-7, CD85j, LILRB1, ILT2, LIR1, MIR7
Target/Specificity	This LILRB1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 345-374 amino acids from the Central region of human LILRB1.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LILRB1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LILRB1 {ECO:0000303|PubMed:20600445, ECO:0000312|HGNC:HGNC:6605}
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).

Cellular Location

Cell membrane; Single-pass type I membrane protein

Tissue Location

Expressed in B cells, monocytes and various dendritic cell (DC) subsets including myeloid, plasmacytoid and tolerogenic DCs (at protein level) (PubMed:20448110, PubMed:24453251, PubMed:9285411, PubMed:9842885). Expressed in decidual macrophages (at protein level) (PubMed:19304799). Expressed in decidual NK cells (at protein level) (PubMed:29262349).

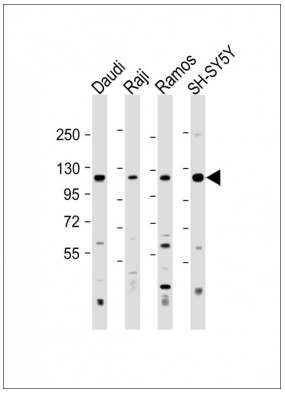
Background

This gene is a member of the leukocyte immunoglobulin-like receptor (LIR) family, which is found in a gene cluster at chromosomal region 19q13.4. The encoded protein belongs to the subfamily B class of LIR receptors which contain two or four extracellular immunoglobulin domains, a transmembrane domain, and two to four cytoplasmic immunoreceptor tyrosine-based inhibitory motifs (ITIMs). The receptor is expressed on immune cells where it binds to MHC class I molecules on antigen-presenting cells and transduces a negative signal that inhibits stimulation of an immune response. It is thought to control inflammatory responses and cytotoxicity to help focus the immune response and limit autoreactivity. Multiple transcript variants encoding different isoforms have been found for this gene.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Davidson, C.L., et al. Hum. Immunol. 71(10):942-949(2010)
Huang, J., et al. J. Virol. 84(18):9463-9471(2010)
Godal, R., et al. Biol. Blood Marrow Transplant. 16(5):612-621(2010)
Lamar, D.L., et al. Blood 115(16):3278-3286(2010)

Images



All lanes : Anti-LILRB1 Antibody (Center) at 1:500-1:2000 dilution Lane 1: Daudi whole cell lysate Lane 2: Raji whole cell lysate Lane 3: Ramos whole cell lysate Lane 4: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 71 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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