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ITGAL Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13692c

Product Information

Application	WB, E
Primary Accession	P20701
Other Accession	NP_002200.2
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33604
Calculated MW	128770
Antigen Region	722-751

Additional Information

Gene ID	3683
Other Names	Integrin alpha-L, CD11 antigen-like family member A, Leukocyte adhesion glycoprotein LFA-1 alpha chain, LFA-1A, Leukocyte function-associated molecule 1 alpha chain, CD11a, ITGAL, CD11A
Target/Specificity	This ITGAL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 722-751 amino acids from the Central region of human ITGAL.
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	ITGAL Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ITGAL (HGNC:6148)
Function	Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4 (PubMed:10846180, PubMed:12526797, PubMed:1676048, PubMed:3086451).

	Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed:11812992, PubMed:15528364). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed:29100055). Involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. Contributes to natural killer cell cytotoxicity (PubMed:15356110). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed:11812992). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed:38195629). Required for generation of common lymphoid progenitor cells in bone marrow, indicating a role in lymphopoiesis (By similarity). Integrin ITGAL/ITGB2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages (PubMed:23775590). Integrins ITGAL:ITGB2 functions as a receptor of the neuron-specific adhesion molecule ICAM5 ensuring neuron cell-leukocyte adhesion (PubMed:10741396). Integrin ITGAL/ITGB2 that functions as a signaling receptor of ICAM2, ensuring leukocyte cell-cell adhesion on resting cells (PubMed:1676048).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Membrane raft. Note=Upon antigen recognition by the TCR, is recruited to lipid rafts (PubMed:15684041).
Tissue Location	Leukocytes.

Background

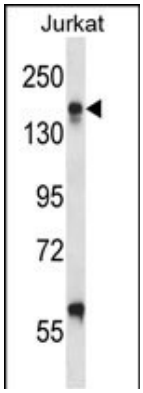
ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes. LFA-1 plays a central role in leukocyte intercellular adhesion through interactions with its ligands, ICAMs 1-3 (intercellular adhesion molecules 1 through 3), and also functions in lymphocyte costimulatory signaling. Two transcript variants encoding different isoforms have been found for this gene.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Kuwano, Y., et al. Blood 116(4):617-624(2010)
Ghannam, S., et al. J. Immunol. 185(1):302-312(2010)
Quist, S.R., et al. Acta Derm. Venereol. 90(4):429-430(2010)
Lipkin, S.M., et al. Cancer Prev Res (Phila) 3(5):597-603(2010)

Images

ITGAL Antibody (Center) (Cat. #AP13692c) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the ITGAL antibody detected the ITGAL protein (arrow).



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