

# ITGAL Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP13692c

# **Product Information**

Application Primary Accession	WB, E P20701
Other Accession	<u>NP_002200.2</u>
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 ( <u>HGNC:6148</u> )
Synonyms	CD11A

Function	Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed: <u>11812992</u> , PubMed: <u>15528364</u> ). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed: <u>29100055</u> ). 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: <u>15356110</u> ). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed: <u>11812992</u> ). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed: <u>38195629</u> ). 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: <u>23775590</u> ).
Cellular Location	Cell membrane; Single-pass type I membrane protein. 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



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