

### ITGAL Antibody (Center) Blocking peptide

Synthetic peptide Catalog # BP13692c

### **Specification**

## ITGAL Antibody (Center) Blocking peptide - Product Information

**Primary Accession** 

P20701

# ITGAL Antibody (Center) Blocking peptide - 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

The synthetic peptide sequence used to generate the antibody AP13692c was selected from the Center region of ITGAL. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

#### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### ITGAL Antibody (Center) Blocking peptide - Protein Information

Name ITGAL (HGNC:6148)

Synonyms CD11A

#### **Function**

Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed:<a href="http://www.uniprot.org/citations/11812992" target="\_blank">11812992</a>, PubMed:<a href="http://www.uniprot.org/citations/15528364" target="\_blank">15528364</a>). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed:<a href="http://www.uniprot.org/citations/29100055" target="\_blank">29100055</a>). 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:<a href="http://www.uniprot.org/citations/15356110" target=" blank">15356110</a>). Involved in leukocyte adhesion and transmigration of



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leukocytes including T-cells and neutrophils (PubMed: <a

href="http://www.uniprot.org/citations/11812992" target=" blank">11812992</a>). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed: <a href="http://www.uniprot.org/citations/38195629" target=" blank">38195629</a>). 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:<a href="http://www.uniprot.org/citations/23775590" target=" blank">23775590</a>).

#### **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.

## ITGAL Antibody (Center) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

### Blocking Peptides

ITGAL Antibody (Center) Blocking peptide - Images

# ITGAL Antibody (Center) Blocking peptide - Background

ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chainand a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocytefunction-associated antigen-1 (LFA-1), which is expressed on allleukocytes. LFA-1 plays a central role in leukocyte intercellularadhesion 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.

### ITGAL Antibody (Center) Blocking peptide - 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)