

**ITGA4 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1695a****Specification****ITGA4 Antibody - Product Information**

Application	E, WB, FC
Primary Accession	<a href="#">P13612</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	115kDa KDa

**Description**

The product of this gene belongs to the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes an alpha 4 chain. Unlike other integrin alpha chains, alpha 4 neither contains an I-domain, nor undergoes disulfide-linked cleavage. Alpha 4 chain associates with either beta 1 chain or beta 7 chain.

**Immunogen**

Purified recombinant fragment of human ITGA4 expressed in E. Coli. <br />

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**ITGA4 Antibody - Additional Information**

**Gene ID** 3676

**Other Names**

Integrin alpha-4, CD49 antigen-like family member D, Integrin alpha-IV, VLA-4 subunit alpha, CD49d, ITGA4, CD49D

**Dilution**

E~~1/10000  
WB~~1/500 - 1/2000  
FC~~1/200 - 1/400

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

ITGA4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ITGA4 Antibody - Protein Information**

**Name** ITGA4

**Synonyms** CD49D

**Function**

Integrins alpha-4/beta-1 (VLA-4) and alpha-4/beta-7 are receptors for fibronectin. They recognize one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for VCAM1. Integrin alpha-4/beta-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-4/beta-7 is also a receptor for MADCAM1. It recognizes the sequence L-D-T in MADCAM1. On activated endothelial cells integrin VLA-4 triggers homotypic aggregation for most VLA-4-positive leukocyte cell lines. It may also participate in cytolytic T-cell interactions with target cells. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:<a href="http://www.uniprot.org/citations/23125415" target="\_blank">23125415</a>). ITGA4:ITGB1 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:<a href="http://www.uniprot.org/citations/18635536" target="\_blank">18635536</a>, PubMed:<a href="http://www.uniprot.org/citations/25398877" target="\_blank">25398877</a>). Integrin ITGA4:ITGB1 represses PRKCA-mediated L-type voltage-gated channel Ca(2+) influx and ROCK-mediated calcium sensitivity in vascular smooth muscle cells via its interaction with SVEP1, thereby inhibiting vasoconstriction (PubMed:<a href="http://www.uniprot.org/citations/35802072" target="\_blank">35802072</a>).

**Cellular Location**

Membrane; Single-pass type I membrane protein

**Tissue Location**

Expressed in vascular smooth muscle cells (at protein level).

**ITGA4 Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

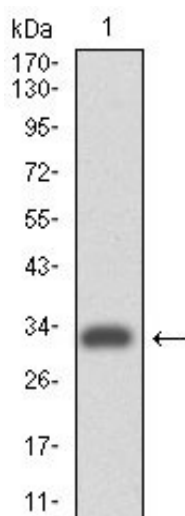
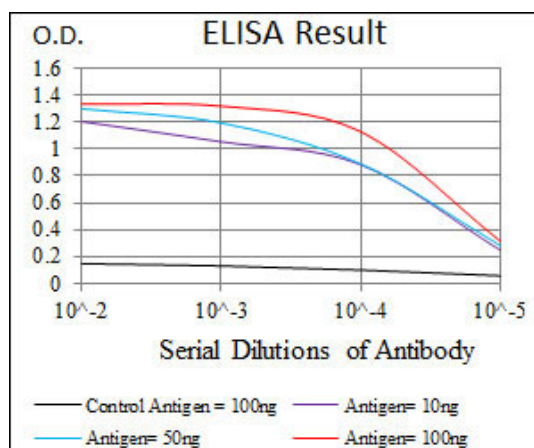


Figure 1: Western blot analysis using ITGA4 mAb against human ITGA4 (AA: 926-978) recombinant protein. (Expected MW is 31.7 kDa)

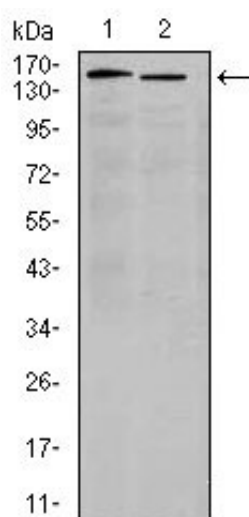


Figure 2: Western blot analysis using ITGA4 mouse mAb against K562(1) and Jurkat (2) cell lysate.

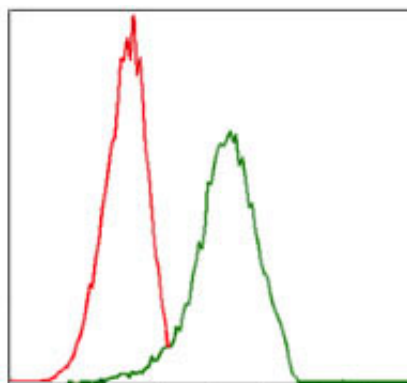


Figure 3: Flow cytometric analysis of Jurkat cells using ITGA4 mouse mAb (green) and negative control (red).

#### ITGA4 Antibody - References

Clin Immunol. 2009 Jun;131(3):472-80. Am J Med Genet B Neuropsychiatr Genet. 2009 Dec 5;150B(8):1147-51.