

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

Application	WB, FC, E
Primary Accession	P13612
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.

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

WB~~1/500 - 1/2000

FC~~1/200 - 1/400

E~~1/10000

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:23125415). 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:18635536, PubMed:25398877). 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:35802072).

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](#)

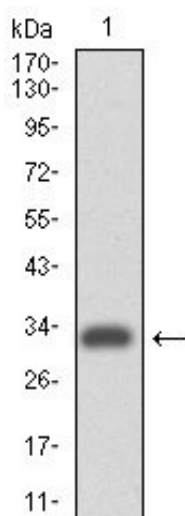
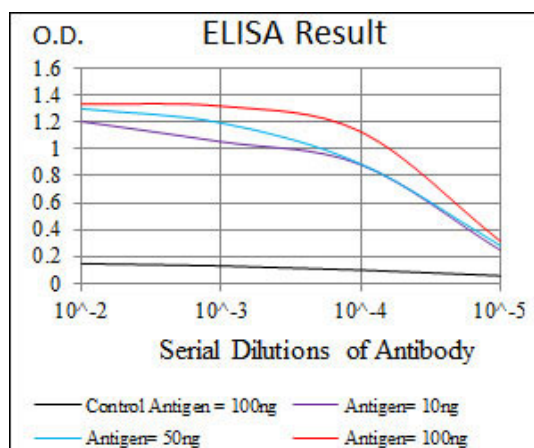


Figure 1: Western blot analysis using ITGA4 mAb against human ITGA4 (AA: 926-978) recombinant protein. (Expected MW is 31.7 kDa)

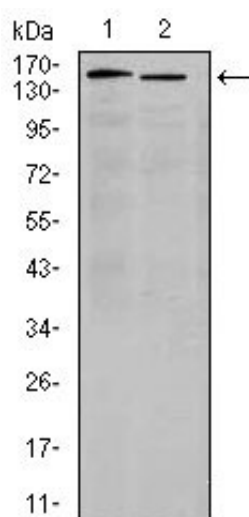


Figure 2: Western blot analysis using ITGA4 mouse mAb against K562(1) and Jurkat (2) cell lysate.

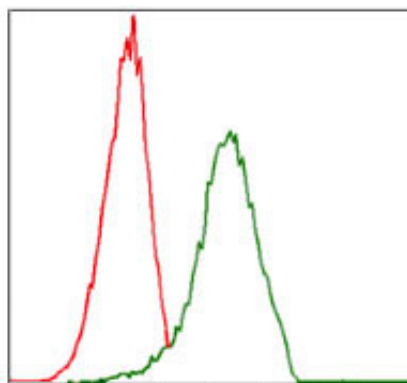


Figure 3: Flow cytometric analysis of Jurkat cells using ITGA4 mouse mAb (green) and negative control (red).

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.