

# ITGA4 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1695a

## Product Information

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<b>Application</b>	WB, FC, E
<b>Primary Accession</b>	<a href="#">P13612</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	5C4
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	114900
<b>Description</b>	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.
<b>Immunogen</b>	Purified recombinant fragment of human ITGA4 expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	3676
<b>Other Names</b>	Integrin alpha-4, CD49 antigen-like family member D, Integrin alpha-IV, VLA-4 subunit alpha, CD49d, ITGA4, CD49D
<b>Dilution</b>	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
<b>Storage</b>	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.
<b>Precautions</b>	ITGA4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	ITGA4
<b>Synonyms</b>	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 vasocontraction (PubMed:[35802072](#)).

## Cellular Location

Membrane; Single-pass type I membrane protein

## Tissue Location

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

## References

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

## Images

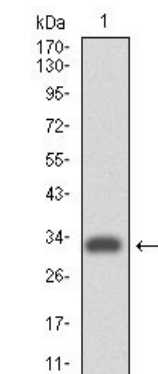


Figure 1: Western blot analysis using ITGA4 mAb against human ITGA4 (AA: 926-978) recombinant protein. (Expected MW is 31.7 kDa)

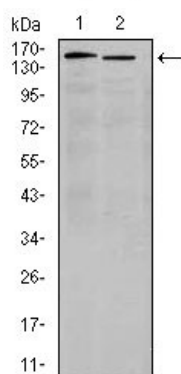
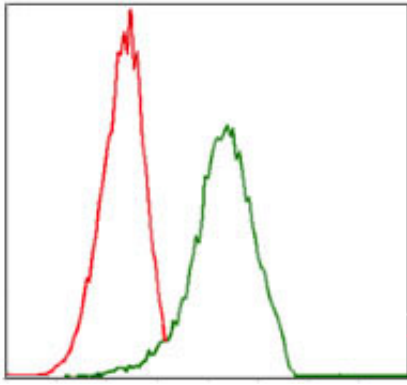


Figure 2: Western blot analysis using ITGA4 mouse mAb against K562(1) and Jurkat (2) cell lysate.

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



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