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ITGA4 / VLA-4 / CD49d Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS12991

Specification

ITGA4 / VLA-4 / CD49d Antibody (Internal) - Product Information

Application	**IF, WB, IHC**
Primary Accession	P13612
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**115kDa KDa**

ITGA4 / VLA-4 / CD49d Antibody (Internal) - 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

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
ITGA4 / VLA-4 / CD49d Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

ITGA4 / VLA-4 / CD49d Antibody (Internal) - 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 vasocontraction (PubMed:35802072).

Cellular Location
Membrane; Single-pass type I membrane protein

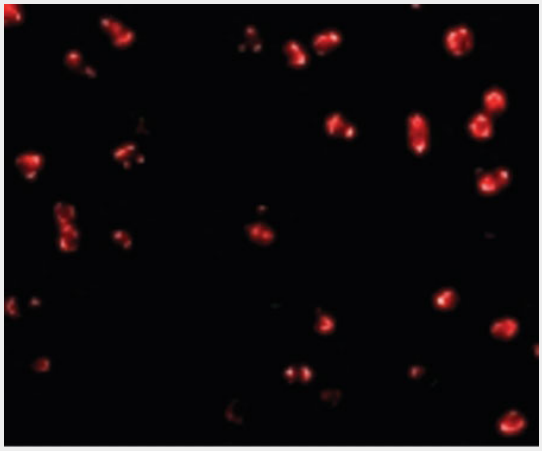
Tissue Location
Expressed in vascular smooth muscle cells (at protein level).

ITGA4 / VLA-4 / CD49d Antibody (Internal) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ITGA4 / VLA-4 / CD49d Antibody (Internal) - Images



Immunofluorescence of Integrin alpha 4 in Jurkat cells with Integrin alpha 4 antibody at 2 ug/ml.

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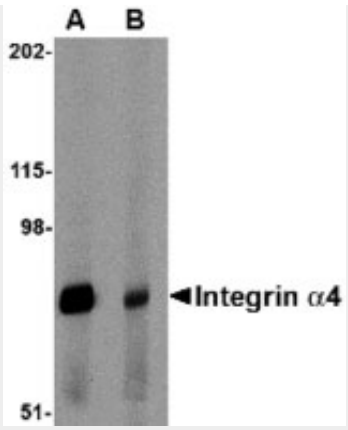
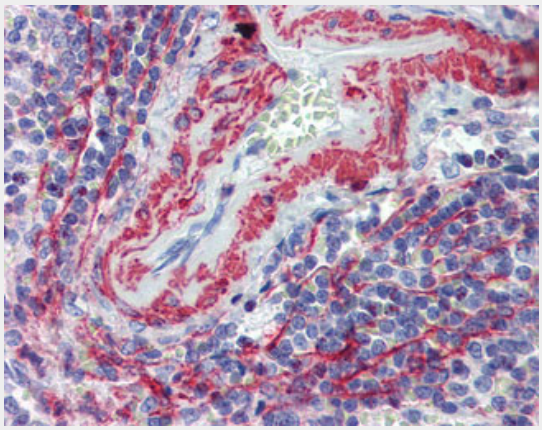


Western blot of Integrin alpha 4 in rat spleen tissue lysate with Integrin alpha 4 antibody at 1...



Anti-ITGA4 / Integrin Alpha 4 antibody IHC of human spleen.

ITGA4 / VLA-4 / CD49d Antibody (Internal) - Background

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 / VLA-4 / CD49d Antibody (Internal) - References

Takada Y.,et al.EMBO J. 8:1361-1368(1989).
Rubio M.,et al.Eur. J. Immunol. 22:1099-1102(1992).
Szabo M.C.,et al.Mol. Immunol. 32:1453-1454(1995).
Hillier L.W.,et al.Nature 434:724-731(2005).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.