10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus)

Rabbit Polyclonal Antibody
Catalog # ALS11099

Specification

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus) - Product Information

Application	**IHC-P**
Primary Accession	P13612
Reactivity	**Human, Mouse, Rabbit, Hamster, Monkey, Pig, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**115kDa KDa**
Dilution	**IHC-P~~N/A**

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus) - 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

Target/Specificity
Human ITGA4 / Integrin Alpha 4. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

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

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus) - 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).

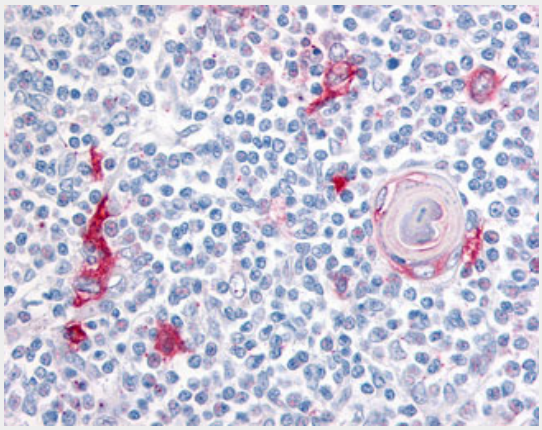
Volume
50 µl

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus) - 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 (C-Terminus) - Images



Anti-ITGA4 / Integrin Alpha 4 antibody ALS11099 IHC of human thymus, medulla.

ITGA4 / VLA-4 / CD49d Antibody (C-Terminus) - 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 (C-Terminus) - 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.