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Integrin α4 Polyclonal Antibody

Catalog # AP73431

Product Information

Application	WB, IHC-P, IF, ICC, E
Primary Accession	P13612
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	114900

Additional Information

Gene ID	3676
Other Names	ITGA4; CD49D; Integrin alpha-4; CD49 antigen-like family member D; Integrin alpha-IV; VLA-4 subunit alpha; CD49d
Dilution	WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications. IHC-P~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications. IF~~1:50~200 ICC~~N/A E~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

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).

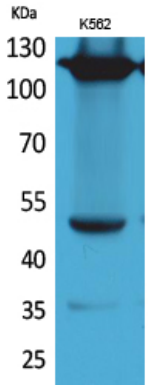
Cellular Location Membrane; Single-pass type I membrane protein

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

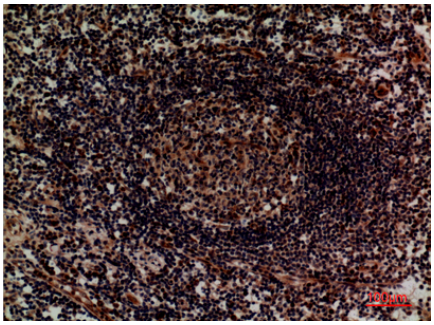
Background

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: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).

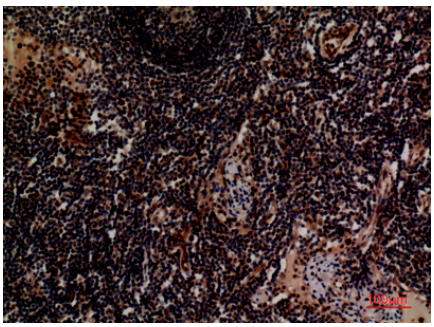
Images



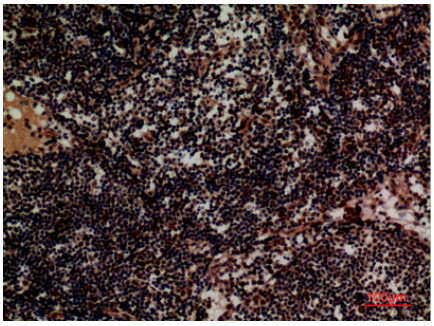
Western Blot analysis of K562 cells using Integrin α4 Polyclonal Antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



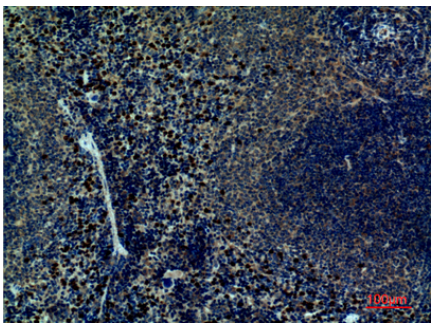
Immunohistochemical analysis of paraffin-embedded human-lymph, antibody was diluted at 1:100



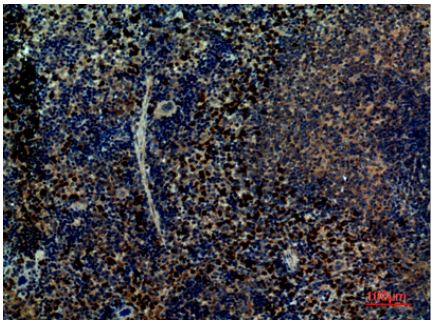
Immunohistochemical analysis of paraffin-embedded human-lymph, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-lymph, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded mouse-spleen, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded mouse-spleen, antibody was diluted at 1:100

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