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# Integrin α4 Polyclonal Antibody

Catalog # AP73431

## Product Information

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

## Additional Information

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| **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

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|---|---|
| **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).

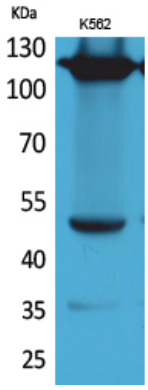
**Cellular Location** Membrane; Single-pass type I membrane protein

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

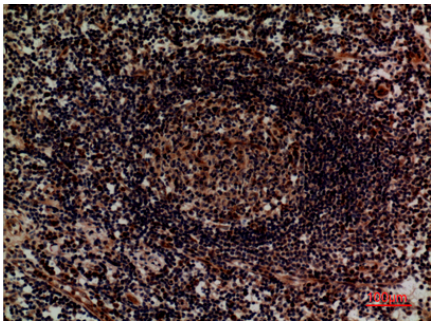
## Background

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).

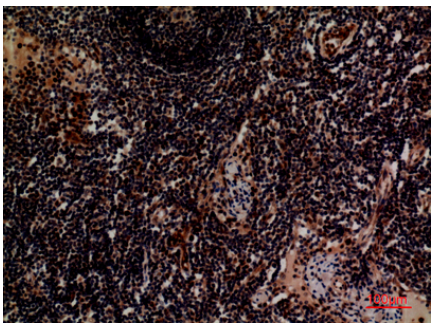
## Images



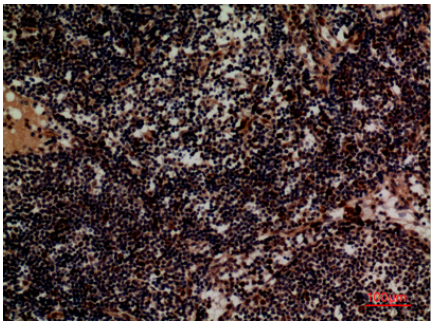

Western Blot analysis of K562 cells using Integrin α4 Polyclonal Antibody. Antibody was diluted at 1:1000. Secondary antibody was diluted at 1:20000



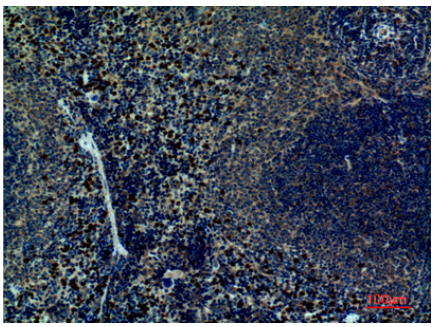
Immunohistochemical analysis of paraffin-embedded human-lymph, antibody was diluted at 1:100



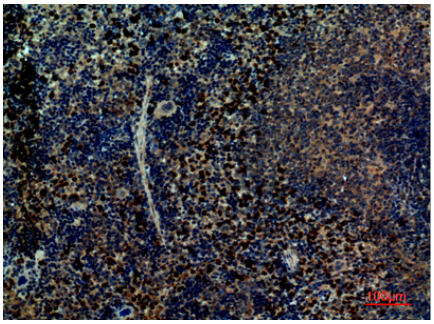
Immunohistochemical analysis of paraffin-embedded human-lymph, antibody was diluted at 1:100



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