

Rabbit ITGA4 Polyclonal Antibody | anti-ITGA4 antibody

ITGA4 Antibody

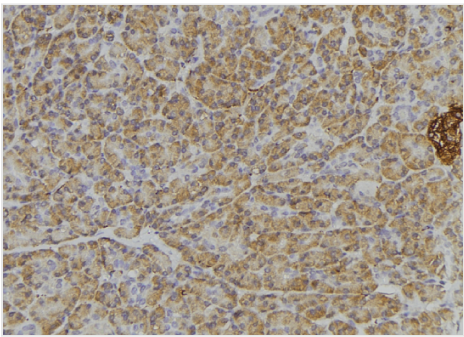
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325918	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

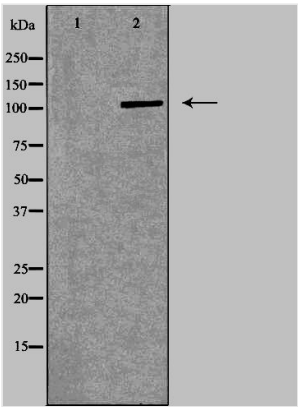
ITGA4; Polyclonal Antibody; ITGA4 Antibody; 269C wild type; Antigen CD49D; alpha 4 subunit of VLA 4 receptor; CD49 antigen like family member D; CD49 antigen-like family member D; CD49d; IA4; Integrin alpha 4; Integrin alpha 4 subunit; Integrin alpha IV; Integrin alpha-4; Integrin alpha-IV; Integrin; alpha 4 (antigen CD49D; alpha 4 subunit of VLA 4 receptor); ITA4_HUMAN; MGC90518; OTTHUMP00000205320; Very late activation protein 4 receptor; alpha 4 subunit; VLA 4 subunit alpha; VLA-4 subunit alpha; VLA4; anti-ITGA4 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ITGA4 antibody detects endogenous levels of total ITGA4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1032
Applicable Applications for anti-ITGA4 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ITGA4
Subcellular Location	Membrane.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA325918 at 1/100 staining Human pancreas tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Jurkat lysate using ITGA4 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ITGA4 antibody

Description: Integrins are alpha/beta heterodimeric cell surface receptors that play a pivotal role in cell adhesion and migration, as well as in growth and survival (1, 2). The integrin family contains at least 18 alpha and 8 beta subunits that form 24 known integrins with distinct tissue distribution and overlapping ligand specificities (3). Integrins not only transmit signals to cells in response to the extracellular environment (outside-in signaling), but also sense intracellular cues to alter their interaction with the extracellular environment (inside-out signaling) (1, 2). A pair of important alpha4 integrins, alpha4beta1 and alpha4beta7, interact with VCAM-1, fibronectin, and MAdCAM-1 at cell adhesions (3). Gene knockout and antibody blocking research reveal that alpha4 integrins play important roles in embryonic liver and heart development and in fetal lymphocyte homing (4-6). Phosphorylation at Ser988 within the cytoplasmic tail of integrin alpha4 blocks binding to paxillin and promotes leading edge migration (7, 8). On SDS-PAGE, integrin alpha4 can migrate at several different apparent molecular sizes, a 150 kDa mature protein and a 140 kDa precursor protein (a 180 kDa protein also exists under mild non-reducing conditions) (9). Integrin alpha4 has a cleavage site at Arg558, which results in a small portion of the protein as either an 80 kDa N-terminal or 70 kDa C-terminal fragment (10).

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).

Subunit Structure: Heterodimer of an alpha and a beta subunit. The alpha subunit can sometimes be cleaved into two non-covalently associated fragments. Alpha-4 associates with either beta-1 or beta-7. Alpha-4 interacts with PXN, LPXN, and TGFB1I1/HIC5. Interacts with CSPG4 through CSPG4 chondroitin sulfate glycosaminoglycan. Interacts with JAML; integrin alpha-4/beta-1 may regulate leukocyte to endothelial cells adhesion by controlling JAML homodimerization. ITGA4:ITGB1 is found in a ternary complex with CX3CR1 and CX3CL1 (PubMed:23125415).

Post-translational Modifications: Phosphorylation on Ser-1027 inhibits PXN binding.

Similarity: The SG1 motif is involved in binding to chondroitin sulfate glycosaminoglycan and cell adhesion. Belongs to the integrin alpha chain family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	67191027
NCBI GeneID	3676
NCBI Accession #	NP_000876.3
NCBI GenBank Nucleotide #	NM_000885.5

UniProt Accession #	P13612 ; Q7Z4L6 ; D3DPG4
Molecular Weight	Observed: 115 kDa Predicted: 115 kDa
NCBI Official Full Name	integrin alpha-4 isoform 1 preproprotein
NCBI Official Synonym Full Names	integrin subunit alpha 4
NCBI Official Symbol	ITGA4
NCBI Official Synonym Symbols	IA4; CD49D
NCBI Protein Information	integrin alpha-4
UniProt Protein Name	Integrin alpha-4
UniProt Gene Name	ITGA4
UniProt Synonym Gene Names	CD49D

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/itga4-antibody-immunohistochemistry-western-blot-elisa/325918>