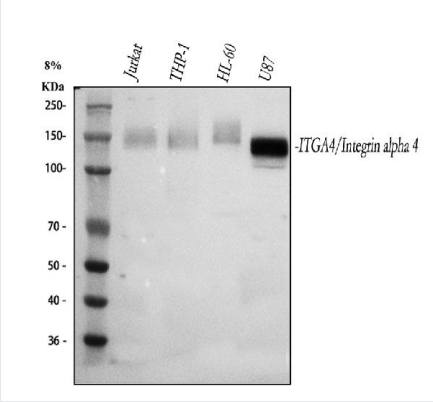
Integrin Alpha 4/ITGA4 (ITGA4) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Integrin Alpha 4/ITGA4, Polyclonal Antibody
Full Product Name	Anti-Integrin Alpha 4/ITGA4 Antibody Picoband
Product Gene Name	anti-ITGA4 antibody
Product Synonym Names	Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Expressed in all tissues.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	1032
OMIM	192975
3D Structure	ModBase 3D Structure for P13612
Immunogen	E coli-derived human Integrin Alpha 4/ITGA4 recombinant protein (Position: N35-V269). Human ITGA4 shares 85.5% amino acid (aa) sequence identity with mouse ITGA4.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Product Categories/Family for anti-ITGA4 antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-ITGA4 antibody	Western Blot (WB), ELISA (EIA)

Application Notes for anti-ITGA4 antibody	WB: 0.25-0.5ug/ml, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-ITGA4 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-ITGA4 antibody	1. Jaspers, M., Zhang, Z., Marynen, P., Vekemans, S., Aly, M. S., Cuppens, H., Hillicker, C., Cassiman, J.-J.Localization of the genes encoding the alpha-2 and alpha-4 subunits of the human VLA-receptors to chromosome 5q23-31 and 2q31-32 respectively. (Abstract)Cytogenet. Cell Genet. 58: 1870 only, 1991.2. Miller, D. H., Khan, O. A., Sheremata, W. A., Blumhardt, L. D., Rice, G. P. A., Libonati, M. A., Willmer-Hulme, A. J., Dalton, C. M., Miszkiel, K. A., O'Connor, P. W.A controlled trial of natalizumab for relapsing multiple sclerosis.New Eng. J. Med. 348: 15-23, 2003.
Other Notes	Small volumes of anti-ITGA4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ITGA4 purchase	MBS1758078 is an antibody targeting ITGA4. Also known as Anti-Integrin Alpha 4/ITGA4 Antibody Picoband. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-ITGA4 antibody

Figure 1. Western blot analysis of Integrin Alpha 4/ITGA4 using anti-Integrin Alpha 4/ITGA4 antibody (MBS1758078).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Jurkat whole cell lysates,Lane 2: human THP-1 whole cell lysates,Lane 3: human HL-60 whole cell lysates,Lane 4: human U87 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Integrin Alpha 4/ITGA4 antigen affinity purified polyclonal antibody (#MBS1758078) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for Integrin Alpha 4/ITGA4 at approximately 140-150 kDa. The expected band size for Integrin Alpha 4/ITGA4 is at 115 kDa.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ITGA4. It may not necessarily be applicable to this product.

NCBI GI #	311033436
NCBI GeneID	3676
NCBI Accession #	P13612.3
UniProt Primary Accession #	P13612
UniProt Secondary Accession #	Q7Z4L6; D3DPG4
UniProt Related Accession #	P13612; AAB25486

NCBI Official Full Name	Integrin alpha-4
NCBI Official Synonym Full Names	integrin, alpha 4 (antigen CD49D, alpha 4 subunit of VLA-4 receptor)
NCBI Official Symbol	ITGA4
NCBI Official Synonym Symbols	IA4; CD49D
UniProt Protein Name	Integrin alpha-4
UniProt Synonym Protein Names	CD49 antigen-like family member D; Integrin alpha-IV; VLA-4 subunit alpha; CD_antigen: CD49d
Protein Family	Integrin
UniProt Gene Name	ITGA4
UniProt Synonym Gene Names	CD49D
UniProt Entry Name	ITA4_HUMAN
NCBI Protein Information	integrin alpha-4; 269C wild type; integrin alpha 4; integrin alpha-IV; VLA-4 subunit alpha; integrin alpha-4 subunit; CD49 antigen-like family member D; antigen CD49D, alpha-4 subunit of VLA-4 receptor; very late activation protein 4 receptor, alpha 4 sub
NCBI Summary for ITGA4	The product of this gene belongs to the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes an alpha 4 chain. Unlike other integrin alpha chains, alpha 4 neither contains an I-domain, nor undergoes disulfide-linked cleavage. Alpha 4 chain associates with either beta 1 chain or beta 7 chain. [provided by RefSeq, Jul 2008]
UniProt Comments for ITGA4	ITGA4: 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. 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. Belongs to the integrin alpha chain family. Protein type: Motility/polarity/chemotaxis; Membrane protein, integral; Cell adhesion; Receptor, misc. Chromosomal Location of Human Ortholog: 2q31.3 Cellular Component: focal adhesion; cell surface; membrane; plasma membrane; intercellular junction; external side of plasma membrane Molecular Function: protein binding; fibronectin binding; metal ion binding; cell adhesion molecule binding Biological Process: integrin-mediated signaling pathway; regulation of immune response; extracellular matrix organization and biogenesis; heart development; cell-matrix adhesion; receptor clustering; heterophilic cell adhesion; heterotypic cell-cell adhesion; leukocyte adhesion; B cell differentiation; blood vessel remodeling; blood coagulation; leukocyte tethering or rolling; leukocyte migration
Research Articles on ITGA4	**1.** lymphocyte trafficking into the CNS under VLA-4 blockade can occur by using the alternative adhesion molecules, PSGL-1 and MCAM, the latter representing an exclusive pathway for TH17 cells to migrate over the blood-brain barrier
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