

CD61 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP53351

Product Information

Application	WB
Primary Accession	P05106
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	87058

Additional Information

Gene ID	3690
Other Names	Integrin beta-3, Platelet membrane glycoprotein IIIa, GPIIIa, CD61, ITGB3, GP3A
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human CD61. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ITGB3 (HGNC:6156)
Synonyms	GP3A
Function	<p>Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIb/beta-3 and alpha- V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha-IIb/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A- G-D-V in fibrinogen gamma chain (By similarity). Following activation integrin alpha-IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen (PubMed:9111081). This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surface. Fibrinogen binding enhances SELP expression in activated</p>

platelets (By similarity). ITGAV:ITGB3 binds to fractalkine (CX3CL1) and acts as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:[23125415](#), PubMed:[24789099](#)). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:[20682778](#)). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:[18441324](#)). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:[28302677](#)). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:[19578119](#)). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:[28873464](#)). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:[29030430](#)). ITGAV:ITGB3 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](#)). ITGAV:ITGB3 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:[12807887](#)). In brain, plays a role in synaptic transmission and plasticity. Involved in the regulation of the serotonin neurotransmission, is required to localize to specific compartments within the synapse the serotonin receptor SLC6A4 and for an appropriate reuptake of serotonin. Controls excitatory synaptic strength by regulating GRIA2-containing AMPAR endocytosis, which affects AMPAR abundance and composition (By similarity). ITGAV:ITGB3 act as a receptor for CD40LG (PubMed:[31331973](#)). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:[10640428](#)).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cell projection, lamellipodium membrane. Cell junction, focal adhesion. Postsynaptic cell membrane {ECO:0000250|UniProtKB:O54890}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:O54890}. Synapse {ECO:0000250|UniProtKB:O54890}

Tissue Location

Isoform beta-3A and isoform beta-3C are widely expressed. Isoform beta-3A is specifically expressed in osteoblast cells; isoform beta-3C is specifically expressed in prostate and testis

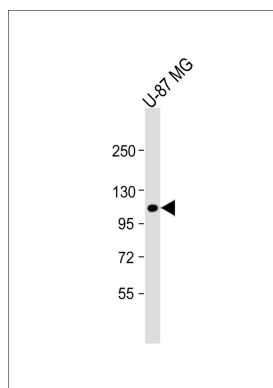
Background

Integrin alpha-V/beta-3 (ITGAV:ITGB3) is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. Integrins alpha-IIb/beta-3 and alpha-V/beta-3 recognize the sequence R-G-D in a wide array of ligands. Integrin alpha- IIb/beta-3 recognizes the sequence H-H-L-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation integrin alpha- IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surface. Fibrinogen binding enhances SELP expression in activated platelets (By similarity). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

References

- Fitzgerald L.A.,et al.J. Biol. Chem. 262:3936-3939(1987).
 Zimrin A.B.,et al.J. Clin. Invest. 81:1470-1475(1988).
 Frachet P.,et al.Mol. Biol. Rep. 14:27-33(1990).
 Kumar C.S.,et al.J. Biol. Chem. 272:16390-16397(1997).
 Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

Images



Anti-CD61 Antibody at 1:1000 dilution + U-87 MG whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 87 kDa
Blocking/Dilution buffer: 5% NFDM/TBST.

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