

ITGB3 Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8672b

Specification

ITGB3 Antibody (C-term) - Product Information

Application	WB, IHC-P, FC,E
Primary Accession	P05106
Other Accession	O54890 , Q8R2H2
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	87058
Antigen Region	734-760

ITGB3 Antibody (C-term) - Additional Information

Gene ID 3690

Other Names

Integrin beta-3, Platelet membrane glycoprotein IIIa, GPIIIa, CD61, ITGB3, GP3A

Target/Specificity

This ITGB3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 734-760 amino acids from the C-terminal region of human ITGB3.

Dilution

WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

ITGB3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ITGB3 Antibody (C-term) - Protein Information

Name ITGB3 ([HGNC:6156](#))

Synonyms GP3A

Function 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 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

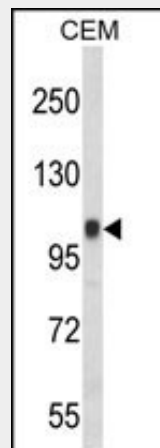
Isoform beta-3A and isoform beta-3C are widely expressed. Isoform beta-3A is specifically expressed in osteoblast cells; isoform beta-3C is specifically expressed in prostate and testis

ITGB3 Antibody (C-term) - Protocols

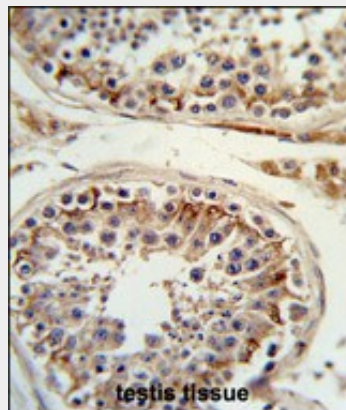
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

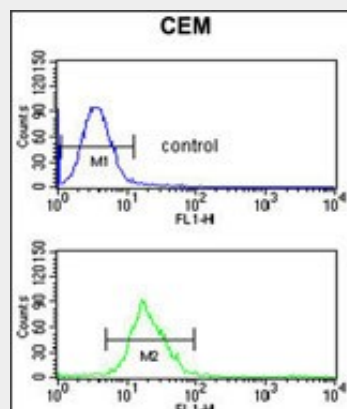
ITGB3 Antibody (C-term) - Images



Western blot analysis of ITGB3 Antibody (C-term) (Cat. #AP8672b) in CEM cell line lysates (35ug/lane). ITGB3 (arrow) was detected using the purified Pab.(2ug/ml)



Formalin-fixed and paraffin-embedded human testis tissue reacted with ITGB3 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



ITGB3 Antibody (C-term) (Cat. #AP8672b) flow cytometric analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ITGB3 Antibody (C-term) - Background

ITGB3 is the integrin beta chain beta 3. Integrins are integral cell-surface proteins composed of an

alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins. Integrin beta 3 is found along with the alpha IIb chain in platelets. Integrins are known to participate in cell adhesion as well as cell-surface mediated signalling.

ITGB3 Antibody (C-term) - References

Wang,R., et.al., J. Clin. Invest. 90 (5), 2038-2043 (1992)

ITGB3 Antibody (C-term) - Citations

- [Calpain7 impairs embryo implantation by downregulating \$\beta\$ 3-integrin expression via degradation of HOXA10.](#)