

KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2340**Specification****KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P05106
Reactivity	Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 87 kDa , observed, 100 kDa
Gene Name	ITGB3
Aliases	Integrin Subunit Beta 3; GPIIIa; CD61; GP3A; Integrin, Beta 3 (Platelet Glycoprotein IIIa, Antigen CD61); Platelet Membrane Glycoprotein IIIa; Integrin Beta-3; Antigen CD61; Integrin Beta Chain, Beta 3; Platelet Glycoprotein IIIa; Integrin Beta 3; CD61 Antigen; BDPLT16; BDPLT24; BDPLT2; GT2; GT
Immunogen	A synthesized peptide derived from human Integrin beta 3

KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody - Additional Information

Gene ID	3690
Other Names	
Integrin beta-3, Platelet membrane glycoprotein IIIa, GPIIIa, CD61, ITGB3 (HGNC:6156), GP3A	

KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody - 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:<a

[9111081](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23125415)), PubMed:[24789099](http://www.uniprot.org/citations/24789099)). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:[20682778](http://www.uniprot.org/citations/20682778)). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:[18441324](http://www.uniprot.org/citations/18441324)). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:[28302677](http://www.uniprot.org/citations/28302677)). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:[19578119](http://www.uniprot.org/citations/19578119)). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:[28873464](http://www.uniprot.org/citations/28873464)). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:[29030430](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/18635536)), PubMed:[25398877](http://www.uniprot.org/citations/25398877)). ITGAV:ITGB3 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:[12807887](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/31331973)). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:[10640428](http://www.uniprot.org/citations/10640428)). Integrin ITGA2B:ITGB3 is also the receptor of the erythrocyte-specific ICAM4 ligand involved in heterotypic cell-cell adhesion between erythrocytes and activated platelets (PubMed:[12477717](http://www.uniprot.org/citations/12477717)).

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

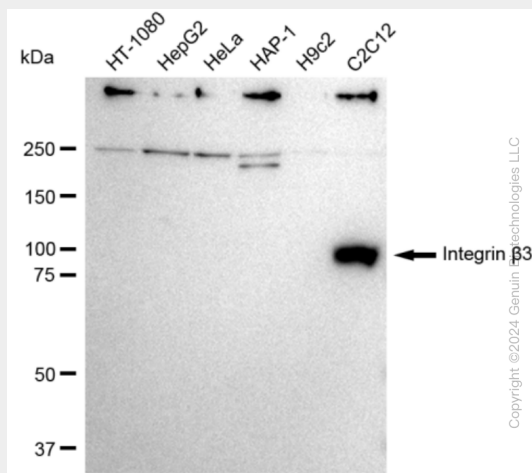
KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody - Protocols

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

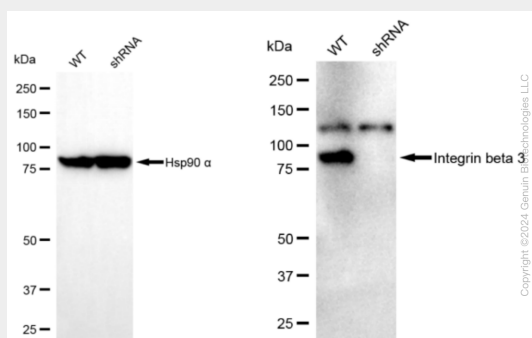
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)

- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

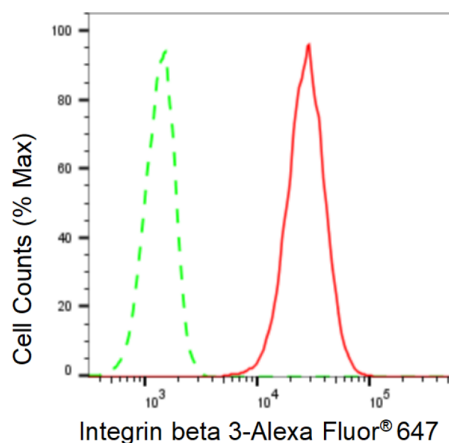
KD-Validated Anti-Integrin beta 3 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Integrin $\beta 3$ antibody (Cat#AGI2340). Total cell lysates (30 μ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Integrin $\beta 3$ antibody (Cat#AGI2340, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

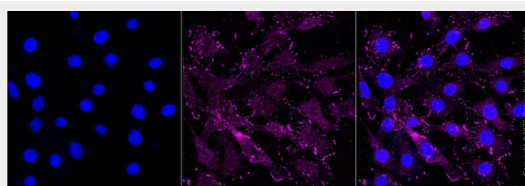


Western blotting analysis using anti-integrin beta 3 antibody (Cat#AGI2340). Integrin beta 3 expression in wild-type (WT) and integrin beta 3 (ITGB3) shRNA knockdown (KD) C2C12 cells with 20 μ g of total cell lysates. β -Tubulin serves as a loading control. The blot was incubated with anti-integrin beta 3 antibody (Cat#AGI2340, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



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Flow cytometric analysis of Integrin beta 3 expression in C2C12 cells using Integrin beta 3 antibody (Cat#AGI2340, 1:2,000). Green, isotype control; red, Integrin beta 3.



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Immunocytochemical staining of C2C12 cells with anti-Integrin beta 3 antibody (Cat#AGI2340, 1:1,000). Nuclei were stained blue with DAPI; Integrin beta 3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μ m.