

**Anti-Integrin Beta 3 Antibody**  
**Catalog # ABO10941****Specification**

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**Anti-Integrin Beta 3 Antibody - Product Information**

Application	WB, IHC-P
Primary Accession	<a href="#">P05106</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Integrin beta-3(ITGB3) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Integrin Beta 3 Antibody - Additional Information**

**Gene ID** 3690

**Other Names**

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

**Calculated MW**

87058 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**Subcellular Localization**

Cell membrane ; Single- pass type I membrane protein . Cell projection, lamellipodium membrane . Cell junction, focal adhesion .

**Tissue Specificity**

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.

**Protein Name**

Integrin beta-3

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human Integrin beta 3(752-770aa EFAKFEEERARAKWDTANN), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the integrin beta chain family.

**Anti-Integrin Beta 3 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: [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:<a href="http://www.uniprot.org/citations/31331973" target="\_blank">31331973</a>). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:<a href="http://www.uniprot.org/citations/10640428" target="\_blank">10640428</a>).

### 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

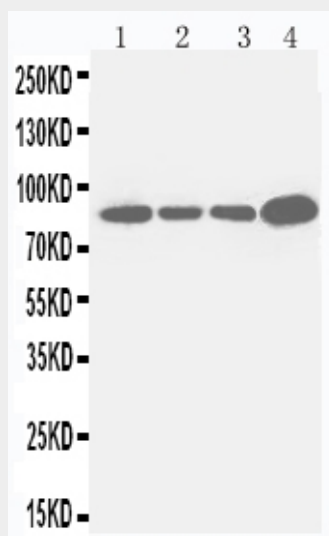
Isoform beta-3A and isoform beta-3C are widely expressed. Isoform beta-3A is specifically expressed in osteoblast cells; isoform beta-3C is specifically expressed in prostate and testis

## Anti-Integrin Beta 3 Antibody - Protocols

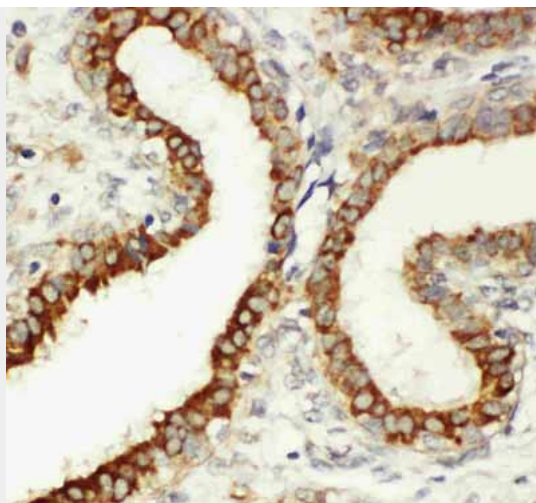
Provided below are standard protocols that you may find useful for product applications.

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

## Anti-Integrin Beta 3 Antibody - Images



Anti-Integrin beta 3 antibody, ABO10941, Western blotting  
Lane 1: JURKAT Cell Lysate  
Lane 2: RAJI Cell Lysate  
Lane 3: CEM Cell Lysate  
Lane 4: COLO320 Cell Lysate



Anti-Integrin beta 3 antibody, ABO10941, IHC(P)IHC(P): Human Mammary Cancer Tissue

### **Anti-Integrin Beta 3 Antibody - Background**

ITGB3(INTEGRIN, BETA-3), also called GP3A, GPIIIa, CD61, is a protein that in humans is encoded by the ITGB3 gene. GP3A is a cluster of differentiation found on thrombocytes. The ITGB3 complex belongs to the integrin class of cell adhesion molecule receptors that share a common heterodimeric structure with alpha and beta subunits. The GP3A gene is mapped to 17q21.32. And the GP3A gene has 14 exons. The 3-prime exon is larger than 1,700 nucleotides and contains the 3-prime untranslated region. The ITGB3 complex mediates platelet aggregation by acting as a receptor for fibrinogen. Although the ITGB3 is expressed on the cell surface at normal levels and is capable of function following extracellular stimulation, it could not be activated via the inside-out" signaling pathways."