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# Phospho-Integrin Beta-3-Y785 Antibody
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AE1017d**

## Specification

### Phospho-Integrin Beta-3-Y785 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P05106 |
| Reactivity | **Human, Mouse** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Concentration | **1mg/ml** |
| Isotype | **Rabbit IgG** |
| Calculated MW | **87058** |

### Phospho-Integrin Beta-3-Y785 Antibody - Additional Information

**Gene ID** 3690

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

**Target/Specificity**
The antibody was affinity-purified from rabbit antiserum using epitope-specific phosphopeptide column, and the antibody against non-phosphopeptide was removed using non-phosphopeptide column corresponding to the phosphorylation site.

**Dilution**
WB~~1:500~1:1000

**Format**
affinity Purified IgG, in PBS, 0.02% sodium azide and 50% glycerol.

**Storage**
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
Phospho-Integrin Beta-3-Y785 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Phospho-Integrin Beta-3-Y785 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. 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). ITGAV:ITGB3 binds to fractalkine (CX3CL1) and acts as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:<a href="http://www.uniprot.org/citations/23125415" target="_blank">23125415</a>, PubMed:<a href="http://www.uniprot.org/citations/24789099" target="_blank">24789099</a>). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:<a href="http://www.uniprot.org/citations/20682778" target="_blank">20682778</a>). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:<a href="http://www.uniprot.org/citations/18441324" target="_blank">18441324</a>). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:<a href="http://www.uniprot.org/citations/28302677" target="_blank">28302677</a>). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:<a href="http://www.uniprot.org/citations/19578119" target="_blank">19578119</a>). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:<a href="http://www.uniprot.org/citations/28873464" target="_blank">28873464</a>). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:<a href="http://www.uniprot.org/citations/29030430" target="_blank">29030430</a>). 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:<a href="http://www.uniprot.org/citations/18635536" target="_blank">18635536</a>, PubMed:<a href="http://www.uniprot.org/citations/25398877" target="_blank">25398877</a>). ITGAV:ITGB3 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:<a href="http://www.uniprot.org/citations/12807887" target="_blank">12807887</a>). 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>).

### 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

## Phospho-Integrin Beta-3-Y785 Antibody - Protocols

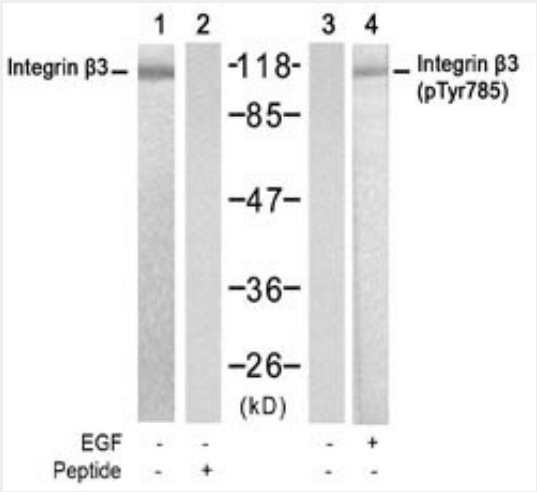
Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**Phospho-Integrin Beta-3-Y785 Antibody - Images**




Western blot analysis of extract from HUVEC cells untreated or treated with EGF (200ng/ml, 15min), using Integrin Beta-3 Antibody (Y785) (#AE1017b, Lane 1and 2) and Phospho-Integrin Beta-3-Y785 Antibody (#AE1017d, Lane 3 and 4).

**Phospho-Integrin Beta-3-Y785 Antibody - Background**

The ITGB3 protein product 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.

**Phospho-Integrin Beta-3-Y785 Antibody - References**

Platelet glycoprotein IIIa (platelet antigen 1/platelet antigen 2) polymorphism and 1-year outcome in patients with stable coronary artery disease. Addad F, et al. Blood Coagul Fibrinolysis, 2010 Aug 25. PMID 20739877.
Platelet gene polymorphisms and risk of bleeding in patients undergoing elective coronary angiography: A genetic substudy of the PRAGUE-8 trial. Motovska Z, et al. Atherosclerosis, 2010 Jul 16. PMID 20691446.
A genetic association study of maternal and fetal candidate genes that predispose to preterm prelabor rupture of membranes (PROM). Romero R, et al. Am J Obstet Gynecol, 2010 Jul 29. PMID 20673868.
The allele frequencies of HPA 1-16 determined by PCR-SSP in Chinese Cantonese donors. Nie YM, et al. Transfus Med, 2010 Jul 28. PMID 20667040.
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