

Product Name: Integrin β 3 (phospho Tyr785) Rabbit Polyclonal Antibody
Catalog #: APRab04856

Summary

Production Name	Integrin β 3 (phospho Tyr785) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA, WB,
Reactivity	Human, Mouse, Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	ITGB3
Alternative Names	ITGB3; GP3A; Integrin beta-3; Platelet membrane glycoprotein IIIa; GPIIIa; CD antigen CD61
Gene ID	3690.0
SwissProt ID	P05106. The antiserum was produced against synthesized peptide derived from human Integrin beta3 around the phosphorylation site of Tyr785. AA range: 739-788

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	87kD

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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. [provided by RefSeq, Jul 2008],disease:Defects in ITGB3 are a cause of Glanzmann thrombasthenia (GT) [MIM:273800]; also known as thrombasthenia of Glanzmann and Naegeli. GT is the most common inherited disease of platelets. Its inheritance is autosomal recessive. It is characterized by mucocutaneous bleeding of mild-to-moderate severity and the inability of this integrin to recognize macromolecular or synthetic peptide ligands. GT has been classified clinically into types I and II. In type I, platelets show absence of the glycoprotein IIb-IIIa complexes at their surface and lack fibrinogen and clot retraction capability. In type II, the platelets express the GPIIb-IIIa complex at reduced levels (5-20% controls), have detectable amounts of fibrinogen, and have low or moderate clot retraction capability. The platelets of GT variants have normal or near normal (60-100%) expression of dysfunctional receptors.,function:Integrin alpha-V/beta-3 is a receptor for cytotactin, fibronectin, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin, vitronectin and von Willebrand factor. Integrin alpha-IIb/beta-3 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. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.,online information:The Singapore human mutation and polymorphism database,polymorphism:Position 169 is associated with platelet-specific alloantigen HPA-4 (PEN or YUK). HPA-4A/PEN(A)/YUK(A) has Arg-169 and HPA-4B/PEN(B)/YUK(B) has Gln-169. HPA-4B is involved in neonatal alloimmune thrombocytopenia (NAIT or NATP).,polymorphism:Position 433 is associated with platelet-specific alloantigen MO. MO(-) has Pro-433 and MO(+) has Ala-433. MO(+) is involved in NAIT.,polymorphism:Position 515 is associated with platelet-specific alloantigen CA/TU. CA(-)/TU(-) has Arg-515 and CA(+)/TU(+) has Gln-515. CA(+) is involved in NAIT.,polymorphism:Position 59 is associated with platelet-specific alloantigen HPA-1 (ZW or PL(A)). HPA-1A/ZW(A)/PL(A1) has Leu-59 and HPA-1B/ZW(B)/PL(A2) has Pro-59.,polymorphism:Position 662 is associated with platelet-specific alloantigen SR(A). SR(A)(-) has Arg-662 and SR(A)(+) has Cys-662.,PTM:Phosphorylated on tyrosine residues in response to thrombin-induced platelet aggregation. Probably involved in outside-in signaling. A peptide (AA 740-762) is capable of binding GRB2 only when both Tyr-773 and Tyr-785 are phosphorylated. Phosphorylation of Thr-779 inhibits SHC binding.,similarity:Belongs to the integrin beta chain family.,similarity:Contains 1 VWFA domain.,subunit:Heterodimer of an alpha and a beta subunit. Beta-3 associates with either alpha-IIb or alpha-V. Isoform Beta-3C interacts with FLNB. Interacts with HIV-1 Tat.,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.,

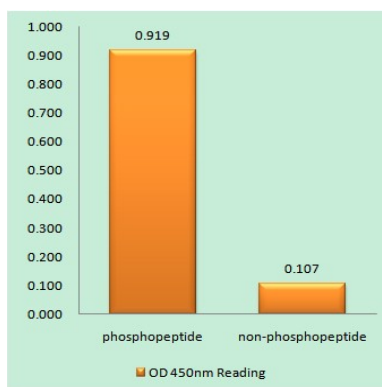
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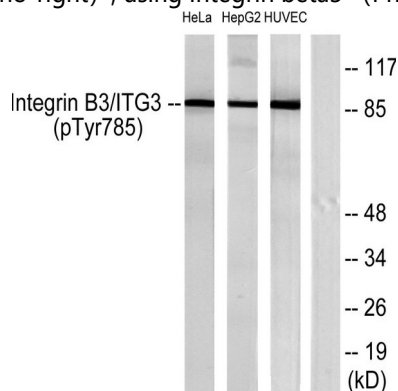
Research Area

Focal adhesion;ECM-receptor interaction;Hematopoietic cell lineage;Regulates Actin and Cytoskeleton;Hypertrophic cardiomyopathy (HCM);Arrhythmogenic right ventricular cardiomyopathy (ARVC);Dilated cardiomyopathy;

Image Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Integrin beta3 (Phospho-Tyr785) Antibody



Western blot analysis of lysates from HeLa cells, HepG2 cells and HUVEC cells, using Integrin beta3 (Phospho-Tyr785) Antibody. The lane on the right is blocked with the phospho peptide.



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Western Blot analysis of various cells using Phospho-Integrin β 3 (Y785) Polyclonal Antibody diluted at 1: 500

Note

For research use only.