Integrin β3 (PT0445R) PT™ Rabbit mAb

CatalogNo: YM8284 Recombinant

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,IP,ELISA

MW
- 87kD (Calculated)
100kD (Observed)

Isotype
- IgG,Kappa

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Recommended Dilution Ratios

IHC 1:1000-1:4000
WB 1:500-1:2000
IF 1:200-1:1000
ELISA 1:5000-1:20000
IP 1:50-1:200

Basic Information

Clonality	Monoclonal
Clone Number	PT0445R

Immunogen Information

Immunogen	The specific immunogen used to produce this antibody is proprietary information.
Specificity	Endogenous

Target Information

Gene name ITGB3 GP3A

Protein Name Integrin beta-3 (Platelet membrane glycoprotein IIIa) (GPIIIa) (CD antigen CD61)

Organism	Gene ID	UniProt ID
Human	3690;	P05106;
Mouse	16416;	O54890;

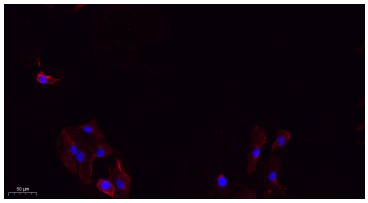
Cellular Localization Membrane

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.

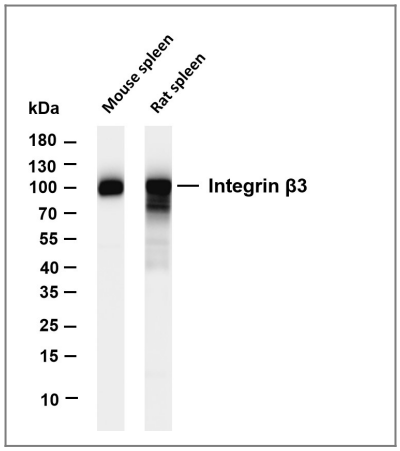
Function

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.,

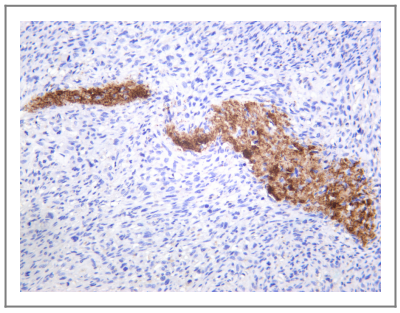
Validation Data



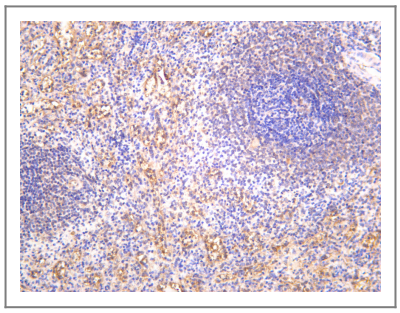
Immunofluorescence analysis of A549. 1,primary Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000 (room temperature, 50min).3, DAPI (blue) 10min.



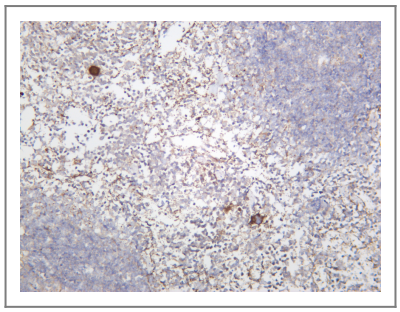
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Integrin β3 antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: Mouse spleen Lane 2: Rat spleen Predicted band size: 87kDa Observed band size: 100kDa



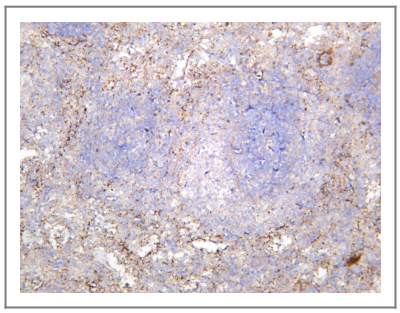
Human osteosarcomas was stained with anti-Integrin β3 rabbit antibody



Human spleen was stained with anti-Integrin β3 rabbit antibody



Mouse spleen was stained with anti-Integrin β3 rabbit antibody



Rat spleen was stained with anti-Integrin β3 rabbit antibody

Contact information

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Please scan the QR code to access additional product information:
Integrin β3 (PT0445R) PT™ Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Antibody | ELISA Kits | Protein | Reagents