

Integrin β 3 (PTR2555) Mouse mAb

CatalogNo: YM4695 **Recombinant** 

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat

Applications

- WB, IF, ELISA

MW

- 87kD (Calculated)
72kD (Observed)

Isotype

- IgG1, Lambda

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

WB 1:500-2000

IF 1:100-500

ELISA 1:1000-5000

Basic Information

Clonality Monoclonal

Clone Number PTR2555

Immunogen Information

Immunogen Synthesized peptide derived from human Integrin β 3 AA range: 700-788

Specificity This antibody detects endogenous levels of Integrin β 3 protein.

Target Information

Gene name ITGB3 GP3A

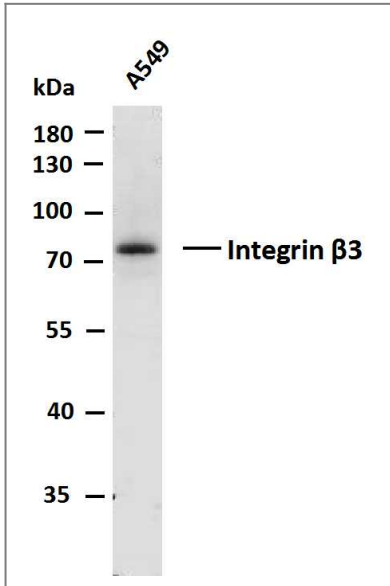
Protein Name Integrin beta-3 (Platelet membrane glycoprotein IIIa) (GPIIIa) (CD antigen CD61)

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

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



Whole cell lysates of A549 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-Integrin β 3 (PTR2555) antibody. The HRP-conjugated Goat anti-Mouse IgG (H + L) antibody was used to detect the antibody. Lane 1: A549

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