

CD41/ITGA2B Rabbit pAb

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Catalog # AP52334

Product Information

Primary Accession	P08514
Reactivity	Human
Predicted	Rat, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	113377
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Integrin alpha 2b heavy chain
Epitope Specificity	351-450/1033
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane.
DISEASE	Defects in ITGA2B 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. It is an autosomal recessive disorder 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/beta-3 complexes at their surface and lack fibrinogen and clot retraction capability. In type II, the platelets express the glycoprotein IIb/beta-3 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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the integrin alpha chain family of proteins. The encoded preproprotein is proteolytically processed to generate light and heavy chains that associate through disulfide linkages to form a subunit of the alpha-IIb/beta-3 integrin cell adhesion receptor. This receptor plays a crucial role in the blood coagulation system, by mediating platelet aggregation. Mutations in this gene are associated with platelet-type bleeding disorders, which are characterized by a failure of platelet aggregation, including Glanzmann thrombasthenia. [provided by RefSeq, Jan 2016]

Additional Information

Gene ID 3674

Other Names	Integrin alpha-IIb, GPalpha IIb, GPIIb, Platelet membrane glycoprotein IIb, CD41, Integrin alpha-IIb heavy chain, Integrin alpha-IIb light chain, form 1, Integrin alpha-IIb light chain, form 2, ITGA2B (HGNC:6138), GP2B, ITGAB
Dilution	Flow-Cyt=1 µg /test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ITGA2B (HGNC:6138)
Synonyms	GP2B, ITGAB
Function	Integrin alpha-IIb/beta-3 (ITGA2B:ITGB3) is a receptor for fibronectin, fibrinogen, plasminogen, prothrombin, thrombospondin and vitronectin. It recognizes the sequence R-G-D in a wide array of ligands. It recognizes the sequence H-H-L-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). This step leads to rapid platelet aggregation which physically plugs ruptured endothelial cell surface (By similarity). Integrin ITGA2B:ITGB3 is also the receptor of erythrocyte-specific ICAM4 ligand involved in heterotypic cell-cell adhesion between erythrocytes and activated platelets (PubMed: 12477717).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Isoform 1 and isoform 2 are expressed in platelets and megakaryocytes, but not in reticulocytes. Not detected in Jurkat, nor in U937 cell lines (PubMed:2351656). Isoform 3 is expressed in prostate adenocarcinoma, as well as in several erythroleukemia, prostate adenocarcinoma and melanoma cell lines, including PC-3, DU- 145, HEL, WM983A, WM983B and WM35. Not detected in platelets, nor in normal prostate (at protein level) (PubMed:9809974)

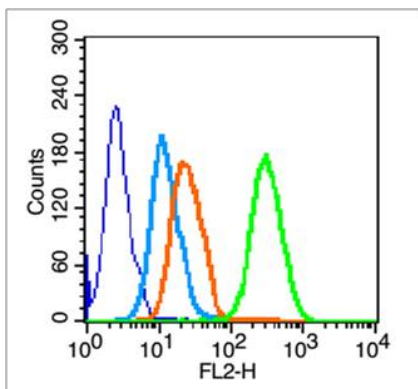
Background

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References

Thornton M.A.,et al.Blood 94:3947-3950(1999).
Carninci P.,et al.Science 309:1559-1563(2005).
Church D.M.,et al.PLoS Biol. 7:E1000112-E1000112(2009).
Chen Y.Q.,et al.J. Biol. Chem. 267:17314-17320(1992).
Rout U.K.,et al.Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.

Images



Blank control (blue line): HL60 cells (fixed with 70% methanol (Overnight at 4°C)).
 Primary Antibody (green line): Rabbit Anti-Integrin alpha 2b antibody (AP52334), Dilution: 1 µg /10⁶ cells;
 Isotype Control Antibody (orange line): Rabbit IgG .
 Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: 1 µg /test.

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