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CD41a / Integrin alpha2b (Platelet Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone ITGA2B/1036]
Catalog # AH11603

Product Information

Application	IF, FC
Primary Accession	P08514
Other Accession	3674, 411312
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	ITGA2B/1036
Calculated MW	113377

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, GP2B, ITGAB
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD41a / Integrin alpha2b (Platelet Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ITGA2B
Synonyms	GP2B, ITGAB
Function	Integrin alpha-IIb/beta-3 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-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).

Cellular Location	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

Reacts with a calcium-dependent complex of CD41/CD61, a dimer of 90kDa and 140kDa present on the membrane of normal platelets and megakaryocytes. CD41/CD61 is also known as platelet glycoprotein GPIIb/GPIIIa or integrin IIa/3. This complex is the receptor of fibrinogen, fibronectin and von Willebrand factor, and mediates platelet adhesion and aggregation.

References

McMichael AJ et al. (eds) Leukocyte Typing III, Oxford University Press, Oxford, 1987. | Schlossman S. et al. (eds) Leukocyte Typing V, Oxford University Press, Oxford, 1995. | Smith JW et al. Interaction of integrins □vβ3 and glycoprotein IIb-IIIa with fibrinogen. Differential peptide recognition accounts for distinct binding sites. J Biol Chem 1990, 265(21):12267-12271. | Du XP et al. Ligands activate integrin □IIb/β3 (platelet GPIIb-IIIa). Cell 1991, 65(3):409-416. | Law DA et al. Outside-in integrin signal transduction. □IIb/β3-(GP IIb/IIIa) tyrosine phosphorylation induced by platelet aggregation. J Biol Chem 1996, 271(18):10811-10815. | Moroi M and Jung SM. Integrin-mediated platelet adhesion. Front Biosci 1998, 3:D719-728