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GPVI Antibody

Catalog # ASC10752

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9HCN6
Other Accession	NP_057447, 143770755
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	36866
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	GPVI antibody can be used for detection of GPVI by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	51206
Other Names	Platelet glycoprotein VI, GPVI, Glycoprotein 6, GP6
Target/Specificity	GP6; At least three GPVI isoforms are known to exist; this antibody will detect the two longest isoforms. Because of its extensive glycosylation, GPVI often migrates at a higher than expected molecular weight in SDS-PAGE.
Reconstitution & Storage	GPVI antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	GPVI Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GP6 (HGNC:14388)
Function	Collagen receptor involved in collagen-induced platelet adhesion and activation. Plays a key role in platelet procoagulant activity and subsequent thrombin and fibrin formation. This procoagulant function may contribute to arterial and venous thrombus formation. The signaling pathway involves the FcR gamma-chain, the Src kinases (likely FYN or LYN) and SYK, the adapter protein LAT and leads to the activation of PLCG2.
Cellular Location	[Isoform 1]: Cell membrane; Single-pass membrane protein

Tissue Location	Megakaryocytes and platelets.

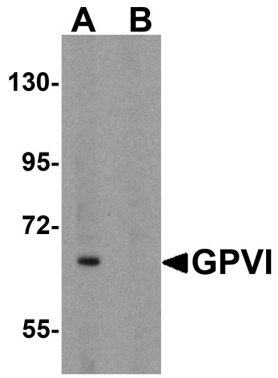
Background

GPVI Antibody: Glycoprotein VI (GP6) is a 58kD platelet membrane glycoprotein that plays a crucial role in the collagen-induced activation and aggregation of platelets. It is uniquely expressed by cells of the megakaryocytic/platelet lineage, and is a member of the immunoglobulin gene superfamily, closely related to Fc receptor gamma chain (FcRgamma) and natural killer receptors. Glycoprotein VI plays a key role in platelet procoagulant activity and subsequent thrombin and fibrin formation. This procoagulant function may contribute to arterial and venous thrombus formation. The signaling pathway involves the FcRgamma, the Src kinases (likely Fyn/Lyn), the adapter protein LAT and leads to the activation of phospholipase C gamma2. GPVI deficiency can result in bleeding disorders. Further study should reveal the extent of GPVI involvement in thrombotic disease and allow the development of alternative anti-thrombotic compounds.

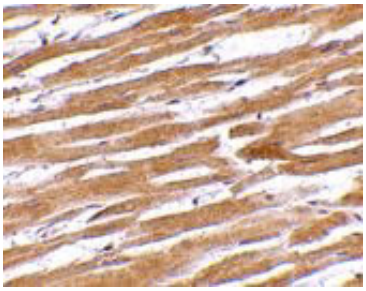
References

Jarvis GE, Atkinson BT, Snell DC, et al. Distinct roles of GPVI and integrin alpha(2) beta(1) in platelet shape change and aggregation induced by different collagens. Br. J. Pharmacol. 2002; 137:107-17.
Inoue O, Suzuki-Inoue K, Dean WL, et al. Integrin alpha2beta1 mediates outside-in regulation of platelet spreading on collagen through activation of Src kinases and PLCgamma2. J. Cell Biol. 2003;160:769-80.
Clemetson JM, Polgar J, Magnenat E, et al. The platelet collagen receptor glycoprotein VI is a member of the immunoglobulin superfamily closely related to FcαR and the natural killer receptors. J Biol. Chem. 1999; 274:29019-24.
Jandrot-Perrus M, Busfield S, Lagrue AH, et al. Cloning, characterization, and functional studies of human and mouse glycoprotein VI: a platelet-specific collagen receptor from the immunoglobulin superfamily. Blood 2000; 96:1798-807.

Images

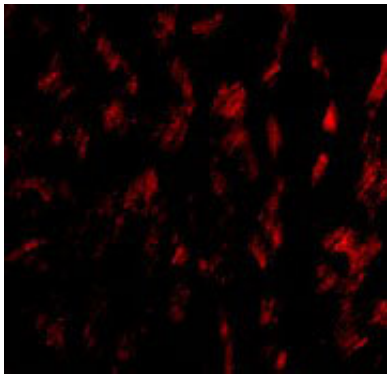


Western blot analysis of GPVI in K562 cell lysate with GPVI antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of GPVI in human heart tissue with GPVI antibody at 10 µg/mL.

Immunofluorescence of GPVI in Human Heart tissue with GPVI antibody at 20 µg/mL.



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