

GPVI (H-5): sc-390410

BACKGROUND

CD32 (also designated Fc γ RII) is a low affinity receptor for the Fc fragment of aggregated IgG. CD32 is responsible for the clearance of immunocomplexes by macrophages and also plays an important role in the regulation of antibody production by B cells. A member of the immunoglobulin superfamily, glycoprotein VI (GPVI), is a collagen receptor that plays a critical role in collagen-induced platelet aggregation. Patients who are deficient in GPVI suffer from bleeding disorders, and GPVI may be involved with cardiovascular and cerebral vascular diseases. GPVI also binds the collagen related peptide (CRP) and convulxin (Cvx), a GPVI-specific ligand from snake venom. GPVI mediates its signal through CD32, which in response to Cvx, leads to tyrosine phosphorylation and activation of Syk and PLC γ 2. The gene encoding human GPVI maps to chromosome 19q13.42 and produces three isoforms, full length GPVI-1 and two additional isoforms, GPVI-2 and GPVI-3.

REFERENCES

1. Barclay, A.N., et al. 1993. The Leukocyte Antigen Facts Book. London. Academic Press, 170-172.
2. Sondermann, P., et al. 1999. Characterization and crystallization of soluble human Fc γ receptor II (CD32) isoforms produced in insect cells. *Biochemistry* 38: 8469-8477.
3. Jandrot-Perrus, M., et al. 2000. Cloning, characterization, and functional studies of human and mouse glycoprotein VI: a platelet-specific collagen receptor from the immunoglobulin superfamily. *Blood* 96: 1798-1807.
4. Asazuma, N., et al. 2000. Interaction of linker for activation of T cells with multiple adapter proteins in platelets activated by the glycoprotein VI-selective ligand, convulxin. *J. Biol. Chem.* 275: 33427-33434.

CHROMOSOMAL LOCATION

Genetic locus: GP6 (human) mapping to 19q13.42; Gp6 (mouse) mapping to 7 A1.

SOURCE

GPVI (H-5) is a mouse monoclonal antibody raised against amino acids 201-339 of GPVI of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GPVI (H-5) is available conjugated to agarose (sc-390410 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390410 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390410 PE), fluorescein (sc-390410 FITC), Alexa Fluor[®] 488 (sc-390410 AF488), Alexa Fluor[®] 546 (sc-390410 AF546), Alexa Fluor[®] 594 (sc-390410 AF594) or Alexa Fluor[®] 647 (sc-390410 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390410 AF680) or Alexa Fluor[®] 790 (sc-390410 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GPVI (H-5) is recommended for detection of GPVI-1, GPVI-2 and GPVI-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GPVI siRNA (h): sc-43813, GPVI siRNA (m): sc-145746, GPVI shRNA Plasmid (h): sc-43813-SH, GPVI shRNA Plasmid (m): sc-145746-SH, GPVI shRNA (h) Lentiviral Particles: sc-43813-V and GPVI shRNA (m) Lentiviral Particles: sc-145746-V.

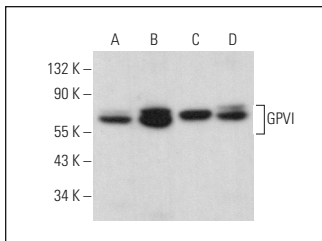
Molecular Weight of GPVI: 70 kDa.

Positive Controls: BYDP whole cell lysate: sc-364368, RAW 264.7 whole cell lysate: sc-2211 or WEHI-231 whole cell lysate: sc-2213.

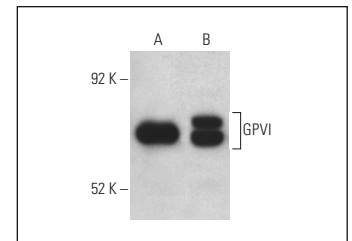
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



GPVI (H-5): sc-390410. Western blot analysis of GPVI expression in BYDP (A), WEHI-231 (B), MTE1D (C) and RAW 264.7 (D) whole cell lysates.



GPVI (H-5) HRP: sc-390410 HRP. Direct western blot analysis of GPVI expression in MTE1D (A) and BYDP (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Nording, H., et al. 2022. Activated platelets upregulate β 2 Integrin Mac-1 (CD11b/CD18) on dendritic cells, which mediates heterotypic cell-cell interaction. *J. Immunol.* 208: 1729-1741.

STORAGE

Store at 4[°] C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.