

CD42c (F-11): sc-377129

BACKGROUND

CD42a is a single-chain membrane glycoprotein that forms a noncovalent complex with CD42b. CD42b, also known as glycoprotein Ib a (GPIb a) is a membrane glycoprotein that is composed of α and β chains. The CD42b β chain is also designated CD42c, and is expressed on platelets and megakaryocytes. CD42a and CD42b are also present on platelets and megakaryocytes, and the complex is a major component of the platelet surface. The complex acts as a receptor for von Willebrand's factor and as a von Willebrand's factor-dependent adhesion receptor.

REFERENCES

- Lopez, J.A., et al. 1988. The α and β chains of human platelet glycoprotein Ib are both transmembrane proteins containing a leucine-rich amino acid sequence. *Proc. Natl. Acad. Sci. USA* 85: 2135-2139.
- Roth, G.J. 1992. Platelets and blood vessels: the adhesion event. *Immunol. Today* 13: 100-105.
- Hickey, M.J., et al. 1993. Characterization of the gene encoding human platelet glycoprotein IX. *J. Biol. Chem.* 268: 3438-3443.
- Kelly, M.D., et al. 1994. Complementary DNA cloning of the alternatively expressed endothelial cell glycoprotein Ib β (GPIb β) and localization of the GPIb β gene to chromosome 22. *J. Clin. Invest.* 93: 2417-2424.
- Yagi, M., et al. 1994. Structural characterization and chromosomal location of the gene encoding human platelet glycoprotein Ib β . *J. Biol. Chem.* 269: 17424-17427.
- Lopez, J.A., et al. 1994. Glycoprotein (GP) Ib β is the critical subunit linking GP Ib α and GP IX in the Gp Ib-IX complex. Analysis of partial complexes. *J. Biol. Chem.* 269: 23716-23721.

CHROMOSOMAL LOCATION

Genetic locus: GP1BB (human) mapping to 22q11.21.

SOURCE

CD42c (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 171-200 at the C-terminus of CD42c of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD42c (F-11) is available conjugated to agarose (sc-377129 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377129 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377129 PE), fluorescein (sc-377129 FITC), Alexa Fluor[®] 488 (sc-377129 AF488), Alexa Fluor[®] 546 (sc-377129 AF546), Alexa Fluor[®] 594 (sc-377129 AF594) or Alexa Fluor[®] 647 (sc-377129 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-377129 AF680) or Alexa Fluor[®] 790 (sc-377129 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377129 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CD42c (F-11) is recommended for detection of CD42c of 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 CD42c siRNA (h): sc-42790, CD42c shRNA Plasmid (h): sc-42790-SH and CD42c shRNA (h) Lentiviral Particles: sc-42790-V.

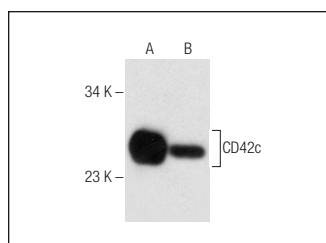
Molecular Weight of CD42c: 29 kDa.

Positive Controls: human platelet extract: sc-363773 or human PBL whole cell lysate.

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



CD42c (F-11): sc-377129. Western blot analysis of CD42c expression in human platelet extract (A) and human PBL whole cell lysate (B).

SELECT PRODUCT CITATIONS

- Suzuki, D., et al. 2020. iPSC-derived platelets depleted of HLA class I are inert to anti-HLA class I and natural killer cell immunity. *Stem Cell Reports* 14: 49-59.

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.

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