

CD42b (HIP1): sc-51549

BACKGROUND

CD42a is a single-chain membrane glycoprotein that forms a non-covalent complex with CD42b. CD42b, also known as glycoprotein Ib α (GPIb α), 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., Chung, D.W., Fujikawa, K., Hagen, F.S., Davie, E.W. and Roth, G.J. 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.
- Knapp, W., Dorken, B., Gilks, W.R., Rieber, E.P., Schmidt, R.E., Stein, H. and von dem Borne, A.E.G., eds. 1989. *Leucocyte Typing IV*. New York: Oxford University Press.
- Roth, G.J. 1992. Platelets and blood vessels: the adhesion event. *Immunol. Today* 13: 100-105.
- Hickey, M.J. and Roth, G.J. 1993. Characterization of the gene encoding human platelet glycoprotein IX. *J. Biol. Chem.* 268: 3438-3443.
- Kelly, M.D., Essex, D.W., Shapiro, S.S., Meloni, F.J., Druck, T., Huebner, K. and Konkle, B.A. 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., Edelhoff, S., Disteche, C.M. and Roth, G.J. 1994. Structural characterization and chromosomal location of the gene encoding human platelet glycoprotein Ib β . *J. Biol. Chem.* 269: 17424-17427.
- Lopez, J.A., Weisman, S., Sanan, D.A., Sih, T., Chambers, M. and Li, C.Q. 1994. Glycoprotein (GP) Ib β is the critical subunit linking GPIb α and GPIX in the GPIb-IX complex. Analysis of partial complexes. *J. Biol. Chem.* 269: 23716-23721.

CHROMOSOMAL LOCATION

Genetic locus: GP1BA (human) mapping to 17p13.2.

SOURCE

CD42b (HIP1) is a mouse monoclonal antibody raised against human peripheral blood mononuclear cells of a patient suffering with CLL.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin conjugate for flow cytometry, sc-51549 PE, 100 tests.

RESEARCH USE

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

APPLICATIONS

CD42b (HIP1) is recommended for detection of CD42b α chain of human origin by Western Blotting (starting dilution 1:200, 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 flow cytometry (1 μ g per 1×10^6 cells).

Suitable for use as control antibody for CD42b siRNA (h): sc-42789, CD42b shRNA Plasmid (h): sc-42789-SH and CD42b shRNA (h) Lentiviral Particles: sc-42789-V.

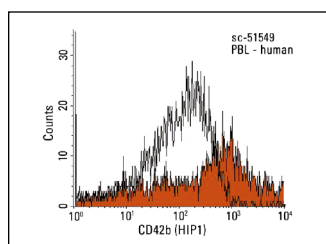
Molecular Weight of CD42b: 143 kDa.

Positive Controls: Human platelet extract: sc-363773.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD42b (HIP1): sc-51549. Indirect FCM analysis of human peripheral blood leukocytes stained with CD42b (HIP1), followed by PE-conjugated goat anti-mouse IgG₁: sc-3764. Black line histogram represents the isotype control, normal mouse IgG₁: sc-3877.

SELECT PRODUCT CITATIONS

- Bagatin, M. 1985. Reconstruction of oral mucosa defects using the island flap with a submucous pedicle. *Acta Stomatol. Croat.* 19: 297-299.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.