

# CD42a (D-6): sc-390273

## BACKGROUND

CD42a is a single-chain membrane glycoprotein that forms a noncovalent complex with CD42b. CD42b, also known as glycoprotein Ib  $\alpha$  (GPIb  $\alpha$ ) is a membrane glycoprotein that is composed of  $\alpha$  and  $\beta$  chains. The CD42b  $\beta$  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  $\alpha$  and  $\beta$  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. 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  $\beta$  (GPIb  $\beta$ ) and localization of the GPIb  $\beta$  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  $\beta$ . *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  $\beta$  is the critical subunit linking GP Ib  $\alpha$  and GP IX in the Gp Ib-IX complex. Analysis of partial complexes. *J. Biol. Chem.* 269: 23716-23721.
- Kunishima, S., Miura, H., Fukutani, H., Yoshida, H., Osumi, K., Kobayashi, S., Ohno, R. and Naoe, T. 1994. Bernard-Soulier syndrome Kagoshima: Ser 444 $\rightarrow$ stop mutation of glycoprotein (GP) Ib  $\alpha$  resulting in circulating truncated GPIb  $\alpha$  and surface expression of GPIb  $\beta$  and GPIX. *Blood* 84: 3356-3362.

## CHROMOSOMAL LOCATION

Genetic locus: GP9 (human) mapping to 3q21.3.

## SOURCE

CD42a (D-6) is a mouse monoclonal antibody raised against amino acids 85-137 mapping within an internal region of CD42a of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

CD42a (D-6) is recommended for detection of CD42a of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 CD42a siRNA (h): sc-42787, CD42a shRNA Plasmid (h): sc-42787-SH and CD42a shRNA (h) Lentiviral Particles: sc-42787-V.

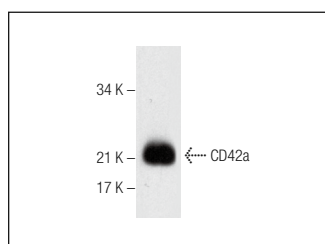
Molecular Weight of CD42a: 24 kDa.

Positive Controls: human platelet extract: sc-363773.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



CD42a (D-6): sc-390273. Western blot analysis of CD42a expression in human platelet extract.

## 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](http://www.scbt.com) for detailed protocols and support products.