

# CD42b (MM2/174): sc-80728

## 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., et al. 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.
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- 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., et al. 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., et al. 1994. Structural characterization and chromosomal location of the gene encoding human platelet glycoprotein Ib  $\beta$ . *J. Biol. Chem.* 269: 17424-17427.
- Lopez, J.A., et al. 1994. Glycoprotein (GP)Ib  $\beta$  is the critical subunit linking GPIb  $\alpha$  and GPIX in the GpIb-IX complex. Analysis of partial complexes. *J. Biol. Chem.* 269: 23716-23721.
- Kunishima, S., et al. 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: GP1BA (human) mapping to 17p13.2.

## SOURCE

CD42b (MM2/174) is a mouse monoclonal antibody raised against plasma membrane of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% BSA and 1% gelatin.

## STORAGE

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

## APPLICATIONS

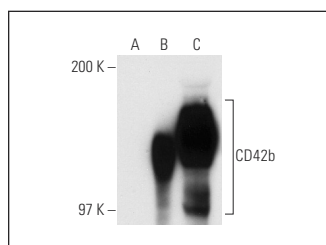
CD42b (MM2/174) is recommended for detection of CD42b of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> 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.

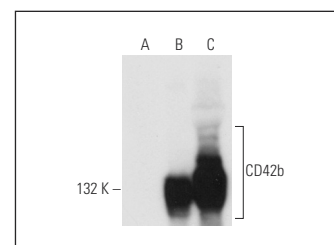
Molecular Weight of CD42b: 143 kDa.

Positive Controls: CD42b (h): 293T Lysate: sc-114145 or human platelet extract: sc-363773.

## DATA



CD42b (MM2/174): sc-80728. Western blot analysis of CD42b expression in non-transfected: sc-117752 (A) and human CD42b transfected: sc-114145 (B) 293T whole cell lysates and human platelet extract (C).



CD42b (MM2/174): sc-80728. Western blot analysis of CD42b expression in non-transfected: sc-117752 (A), human CD42b transfected: sc-174990 (B) 293T whole cell lysates and human platelet extract (C).

## SELECT PRODUCT CITATIONS

- Kitano, T., et al. 2021. An older thrombus delays reperfusion after mechanical thrombectomy for ischemic stroke. *Thromb. Haemost.* E-published.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.