# CD42c siRNA (m): sc-42791



The Power to Question

#### **BACKGROUND**

CD42a is a single-chain membrane glycoprotein that forms a noncovalent complex with CD42b. CD42b, also known as glycoprotein lb  $\alpha$  (GPlb  $\alpha$ ) 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 megakary-ocytes. CD42a and CD42b are also present on platelets and mega-karyocytes, 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**

- 1. 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 lb 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.
- 3. Hickey, M.J. and Roth, G.J. 1993. Characterization of the gene encoding human platelet glycoprotein IX. J. Biol. Chem. 268: 3438-3443.
- 4. 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 lb  $\beta$  (GPIb  $\beta$ ) and localization of the GPIb  $\beta$  gene to chromosome 22. J. Clin. Invest. 93: 2417-2424.
- 5. Yagi, M., Edelhoff, S., Disteche, C.M. and Roth, G.J. 1994. Structural characterization and chromosomal location of the gene encoding human platelet glycoprotein lb  $\beta$ . J. Biol. Chem. 269: 17424-17427.
- 6. Lopez, J.A., Weisman, S., Sanan, D.A., Sih, T., Chambers, M. and Li, C.Q. 1994. Glycoprotein (GP) lb  $\beta$  is the critical subunit linking GP lb  $\alpha$  and GP IX in the Gp lb-IX complex. Analysis of partial complexes. J. Biol. Chem. 269: 23716-23721.
- 7. Kunishima, S., Miura, H., Fukutani, H., Yoshida, H., Osumi, K., Kobayashi, S., Ohno, R. and Naoe, T. 1994. Bernard-Soulier syndrome Kagoshima: Ser 444—stop mutation of glycoprotein (GP) lb  $\alpha$  resulting in circulating truncated GPIb  $\alpha$  and surface expression of GPIb  $\beta$  and GPIX. Blood 84: 3356-3362.

## **CHROMOSOMAL LOCATION**

Genetic locus: Gp1bb (mouse) mapping to 16 A3.

#### **PRODUCT**

CD42c siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu M$  solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CD42c shRNA Plasmid (m): sc-42791-SH and CD42c shRNA (m) Lentiviral Particles: sc-42791-V as alternate gene silencing products.

For independent verification of CD42c (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-42791A, sc-42791B and sc-42791C.

#### STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## **APPLICATIONS**

CD42c siRNA (m) is recommended for the inhibition of CD42c expression in mouse cells.

#### **SUPPORT REAGENTS**

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10  $\mu$ M in 66  $\mu$ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

## **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor CD42c gene expression knockdown using RT-PCR Primer: CD42c (m)-PR: sc-42791-PR (20  $\mu$ l, 526 bp). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## **RESEARCH USE**

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

## **PROTOCOLS**

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com