SANTA CRUZ BIOTECHNOLOGY, INC.

# PSGL-1 siRNA (m): sc-42833

## BACKGROUND

PSGL-1 (P-Selectin glycoprotein ligand, also designated CD162) exists as a disulfide-linked homodimer. PSGL-1 is a type 1 membrane protein that localizes on the tips of microvilli of leukocytes. Its extracellular domain is rich in serines, threonines and prolines, and includes a series of 15 and 16 decameric repeats in HL-60 and U-937 cells and human leukocytes, respectively. Although PSGL-1 appears to be the sole receptor for P-Selectin on human hematopoietic cells, it also interacts with E-Selectin through a unique binding site. In order to bind PSGL-1 to either E-Selectin or P-Selectin, PSGL-1 must be sialylated and fucosylated. PSLG-1 is a mucin-like molecule, much like leukosialin (CD43), CD164 and CD34. These proteins belong to an emerging family of cell adhesion receptors called sialomucins, which transduce negative signals in hematopoietic cells.

## REFERENCES


1. Moore, K., et al. 1992. Identification of a specific glycoprotein ligand for P-Selectin (CD62) on Myeloid cells. J. Biol. Chem. 118: 445-456.
2. Sako, D., et al. 1993. Expression cloning of a functional glycoprotein ligand for P-Selectin. Cell 75: 1179-1186.
3. Veldman, G., et al. 1995. Genomic organization and chromosomal localization of the gene encoding human P-Selectin glycoprotein ligand. J. Biol. Chem. 270: 16470-16475.
4. Patel, K., et al. 1995. Neutrophils use both shared and distinct mechanisms to adhere to selectins under static and flow conditions. J. Clin. Invest. 96: 1887-1896.
5. Li, F., et al. 1996. Visualization of P-Selectin glycoprotein ligand-1 as a highly extended molecule and mapping of protein epitopes for monoclonal antibodies. J. Biol. Chem. 271: 6342-6348.
6. Levesque, J.P., et al. 1999. PSGL-1-mediated adhesion of human hematopoietic progenitors to P-Selectin results in suppression of hematopoiesis. Immunity 11: 369-378.


## CHROMOSOMAL LOCATION

Genetic locus: Selplg (mouse) mapping to 5 F.

## PRODUCT

PSGL-1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PSGL-1 shRNA Plasmid (m): sc-42833-SH and PSGL-1 shRNA (m) Lentiviral Particles: sc-42833-V as alternate gene silencing products.

For independent verification of PSGL-1 (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-42833A, sc-42833B and sc-42833C.

## PROTOCOLS

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

## 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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

## APPLICATIONS

PSGL-1 siRNA (m) is recommended for the inhibition of PSGL-1 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 µM in 66 µl. 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.

## GENE EXPRESSION MONITORING

PSGL-1 (HECA-452): sc-53514 is recommended as a control antibody for monitoring of PSGL-1 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PSGL-1 gene expression knockdown using RT-PCR Primer: PSGL-1 (m)-PR: sc-42833-PR (20 µl). 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.