



## PSGL-1 (1.BB.239): sc-71942

### BACKGROUND

P-Selectin glycoprotein ligand (PSGL-1), also designated CD162, exists as a disulfide-linked homodimer consisting of two subunits. 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 in 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. PSGL-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

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- Levesque, J.P., Zannettino, A.N., Pudney, M., Niutta, S., Haylock, D., Snapp, K., Kansas, G., Berndt, M. and Simmons, P. 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 (human) mapping to 12q24.

### SOURCE

PSGL-1 (1.BB.239) is a mouse monoclonal antibody raised against PSGL-1 isolated from human neutrophils.

### STORAGE

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

### RESEARCH USE

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

### PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

PSGL-1 (1.BB.239) is recommended for detection of PSGL-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for PSGL-1 siRNA (h): sc-36323, PSGL-1 shRNA Plasmid (h): sc-36323-SH and PSGL-1 shRNA (h) Lentiviral Particles: sc-36323-V.

Molecular Weight of PSGL-1 monomer: 120 kDa.

Molecular Weight of PSGL-1 homodimer: 240 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, AML-193 whole cell lysate or human PBL whole cell lysate.

### 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

### PROTOCOLS

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