

PSGL-1 (PL1/3E2-25-5): sc-80537

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 deca-meric 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. 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

- Moore, K., et al. 1992. Identification of a specific glycoprotein ligand for P-Selectin (CD62) on myeloid cells. *J. Biol. Chem.* 118: 445-456.
- Sako, D., et al. 1993. Expression cloning of a functional glycoprotein ligand for P-Selectin. *Cell* 75: 1179-1186.
- Veldman, G., et al. 1995. Genomic organization and chromosomal localization of the gene encoding human P-Selectin glycoprotein ligand. *J. Biol. Chem.* 7: 16470-16475.
- 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.
- 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.
- 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 (human) mapping to 12q24.11.

SOURCE

PSGL-1 (PL1/3E2-25-5) is a mouse monoclonal antibody raised against an epitope mapping near the P-Selectin binding site of PSGL-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

PSGL-1 (PL1/3E2-25-5) 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 10⁶ 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.

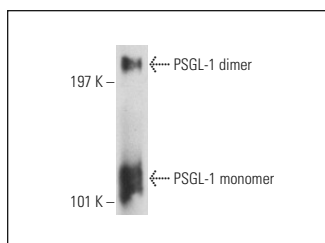
Positive Controls: CCRF-CEM cell lysate: sc-2225, NCI-H929 whole cell lysate: sc-364786 or AML-193 whole cell lysate: sc-364182.

RECOMMENDED SUPPORT REAGENTS

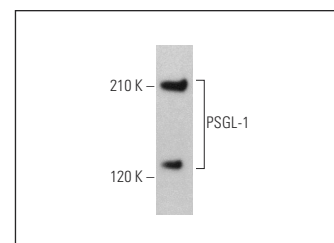
To ensure optimal results, the following support reagents are recommended:

- Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



PSGL-1 (PL1/3E2-25-5): sc-80537. Western blot analysis of PSGL-1 expression in AML-193 whole cell lysate.



PSGL-1 (PL1/3E2-25-5): sc-80537. Western blot analysis of PSGL-1 expression in NCI-H929 whole cell lysate.

PROTOCOLS

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



See **PSGL-1 (KPL1): sc-13535** for PSGL-1 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.