

PSGL-1 (PL2): sc-18856

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. 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.

CHROMOSOMAL LOCATION

Genetic locus: SELPLG (human) mapping to 12q24.11; Selplg (mouse) mapping to 5 F.

SOURCE

PSGL-1 (PL2) is a mouse monoclonal antibody raised against PSGL-1 isolated from human neutrophils.

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.

PSGL-1 (PL2) is available conjugated to agarose (sc-18856 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-18856 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-18856 PE), fluorescein (sc-18856 FITC), Alexa Fluor[®] 488 (sc-18856 AF488), Alexa Fluor[®] 546 (sc-18856 AF546), Alexa Fluor[®] 594 (sc-18856 AF594) or Alexa Fluor[®] 647 (sc-18856 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-18856 AF680) or Alexa Fluor[®] 790 (sc-18856 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PSGL-1 (PL2) is recommended for detection of PSGL-1 of mouse, rat and 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 siRNA (m): sc-42833, PSGL-1 shRNA Plasmid (h): sc-36323-SH, PSGL-1 shRNA Plasmid (m): sc-42833-SH, PSGL-1 shRNA (h) Lentiviral Particles: sc-36323-V and PSGL-1 shRNA (m) Lentiviral Particles: sc-42833-V.

Molecular Weight of PSGL-1 monomer: 120 kDa.

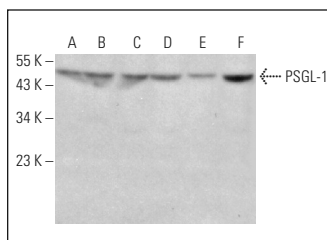
Molecular Weight of PSGL-1 homodimer: 240 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, WEHI-231 whole cell lysate: sc-2213 or CCRF-CEM cell lysate: sc-2225.

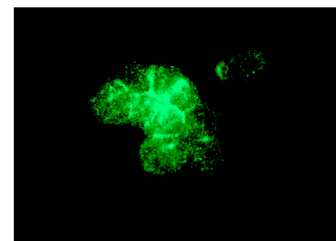
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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, UltraCruz[®] Blocking Reagent: sc-516214 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 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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PSGL-1 (PL2): sc-18856. Western blot analysis of PSGL-1 expression in CCRF-CEM (A), RAW 264.7 (B), WEHI-231 (C), WR19L (D), MTE1D (E) and Daudi (F) whole cell lysates.



PSGL-1 (PL2): sc-18856. Immunofluorescence staining of methanol-fixed CCRF-CEM cells showing membrane staining.

SELECT PRODUCT CITATIONS

- Wada, T., et al. 2005. Dexamethasone prevents podocyte apoptosis induced by puromycin aminonucleoside: role of p53 and Bcl-2-related family proteins. *J. Am. Soc. Nephrol.* 16: 2615-2625.
- Wang, X.G., et al. 2006. Engagement of PSGL-1 enhances β₂-integrin-involved adhesion of neutrophils to recombinant ICAM-1. *Acta Pharmacol. Sin.* 27: 617-622.
- van Genderen, H., et al. 2006. Rolling and adhesion of apoptotic monocytes is impaired by loss of functional cell surface-expressed P-selectin glycoprotein ligand-1. *J. Thromb. Haemost.* 4: 1611-1617.

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.

PROTOCOLS

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

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