

PSGL-1 (215): sc-32302

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.

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 (human) mapping to 12q24.11.

SOURCE

PSGL-1 (215) is a mouse monoclonal antibody raised against human PSGL-1.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSGL-1 (215) is available conjugated to either phycoerythrin (sc-32302 PE) or fluorescein (sc-32302 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

STORAGE

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

APPLICATIONS

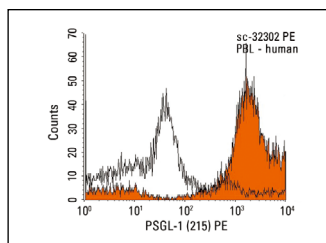
PSGL-1 (215) is recommended for detection of PSGL-1 of human origin by flow cytometry (1 µg per 1 x 10⁶ cells).

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.

DATA



PSGL-1 (215) PE: sc-32302 PE. Extracellular FCM analysis of H.PBL cells. Solid black line histogram represents control mouse IgG.

SELECT PRODUCT CITATIONS

1. Ni, Z., et al. 2006. The monoclonal antibody CHO-131 identifies a subset of cutaneous lymphocyte-associated antigen T cells enriched in P-selectin-binding cells. *J. Immunol.* 177: 4742-4748.
2. Lucchinetti, E., et al. 2009. Helium breathing provides modest antiinflammatory, but no endothelial protection against ischemia-reperfusion injury in humans *in vivo*. *Anesth. Analg.* 109: 101-108.

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.



See **PSGL-1 (KPL1): sc-13535** for PSGL-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.