Technical Data Sheet

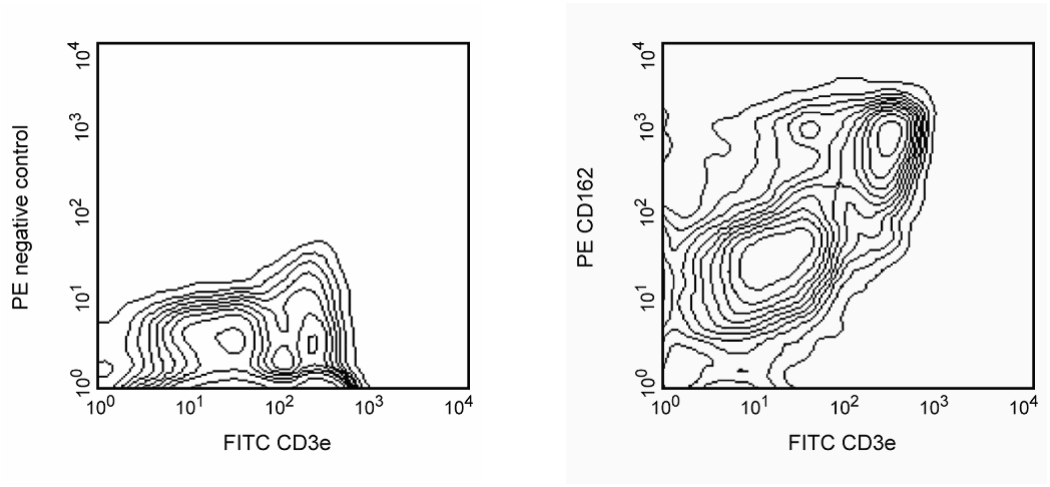
PE Rat Anti-Mouse CD162

Product Information

Material Number:	**555306**
Alternate Name:	PSGL-1
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	2PH1
Immunogen:	Ovalbumin-conjugated peptide covering amino acids 42 to 60 of mouse PSGL-1
Isotype:	Rat (LEW) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 2PH1 antibody reacts with the N-terminus of CD162 (P-selectin glycoprotein ligand-1, PSGL-1), encoded by the *Selpl* gene. PSGL-1 is expressed on the cell surface as a homodimer of approximately 230 kDa. In the mouse, *Selpl* mRNA is detected in most tissues, with high levels found in hematopoietic cells, brain, and adipose tissue. Flow cytometric analyses have revealed CD162 expression on bone marrow-derived mast and dendritic cells, splenic leukocytes, platelets, peripheral blood neutrophils, and neutrophil and T-cell lines. PSGL-1 is a ligand for P-selectin (CD62P) and is involved in leukocyte rolling, the migration of leukocytes into inflamed tissues, and responses to vascular injury. It is a sialomucin that must be specifically sialylated, fucosylated, and sulfated to bind P-selectin. There is also evidence that other ligands for PSGL-1 and CD62P may exist. 2PH1 mAb is reported to block binding of mouse leukocytes to CD62P, but 4RA10 mAb (Cat. No. 557787) has significantly greater blocking activity.



Preferential expression of CD162 on splenic T lymphocytes. *BALB/c splenocytes were simultaneously stained with PE-conjugated 2PH1 antibody (right panel) and FITCconjugated anti-mouse CD3e mAb 145-2C11 (Cat. No. 553061/553062). Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

BD Biosciences

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553061	FITC Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
557787	Purified NA/LE Rat Anti-Mouse CD162	0.5 mg	4RA10
553925	PE Rat IgG1, κ Isotype Control	0.1 mg	R3-34

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Borges E, Eytner R, Moll T, et al. The P-selectin glycoprotein ligand-1 is important for recruitment of neutrophils into inflamed mouse peritoneum. *Blood.* 1997; 90(5):1934-1942.(Immunogen)

Borges E, Tietz W, Steegmaier M, et al. P-selectin glycoprotein ligand-1 (PSGL-1) on T helper 1 but not on T helper 2 cells binds to P-selectin and supports migration into inflamed skin. *J Exp Med.* 1997; 185(3):573-578.(Biology)

Frenette PS, Denis CV, Weiss L, et al. P-Selectin glycoprotein ligand 1 (PSGL-1) is expressed on platelets and can mediate platelet-endothelial interactions in vivo. *J Exp Med.* 2000; 191(8):1413-1422.(Biology)

Hirata T, Furie BC, Furie B. P-, E-, and L-selectin mediate migration of activated CD8+ T lymphocytes into inflamed skin. *J Immunol.* 2002; 169(8):4307-4313.(Biology)

Hirata T, Merrill-Skoloff G, Aab M, Yang J, Furie BC, Furie B. P-Selectin glycoprotein ligand 1 (PSGL-1) is a physiological ligand for E-selectin in mediating T helper 1 lymphocyte migration. *J Exp Med.* 2000; 192(11):1669-1675.(Biology)

Li F, Wilkins PP, Crawley S, Weinstein J, Cummings RD, McEver RP. Post-translational modifications of recombinant P-selectin glycoprotein ligand-1 required for binding to P- and E-selectin. *J Biol Chem.* 1996; 271(6):3255-3264.(Biology)

Pendl GG, Robert C, Steinert M, et al. Immature mouse dendritic cells enter inflamed tissue, a process that requires E- and P-selectin, but not P-selectin glycoprotein ligand 1. *Blood.* 2002; 99(3):946-956.(Biology)

Phillips JW, Barringhaus KG, Sanders JM, et al. Single injection of P-selectin or P-selectin glycoprotein ligand-1 monoclonal antibody blocks neointima formation after arterial injury in apolipoprotein E-deficient mice. *Circulation.* 2003; 107(17):2244-2249.(Biology)

Sperandio M, Smith ML, Forlow SB, et al. P-selectin glycoprotein ligand-1 mediates L-selectin-dependent leukocyte rolling in venules. *J Exp Med.* 2003; 197(10):1355-1363.(Biology)

Steegmaier M, Blanks JE, Borges E, Vestweber D. P-selectin glycoprotein ligand-1 mediates rolling of mouse bone marrow-derived mast cells on P-selectin but not efficiently on E-selectin. *Eur J Immunol.* 1997; 27(6):1339-1345.(Biology)

Xia L, Sperandio M, Yago T, et al. P-selectin glycoprotein ligand-1-deficient mice have impaired leukocyte tethering to E-selectin under flow. *J Clin Invest.* 2002; 109(7):939-950.(Biology)

Yang J, Galipeau J, Kozak CA, Furie BC, Furie B. Mouse P-selectin glycoprotein ligand-1: molecular cloning, chromosomal localization, and expression of a functional P-selectin receptor. *Blood.* 1996; 87(10):4176-4186.(Biology)