Technical Data Sheet

BV421 Rat Anti-Mouse CD162

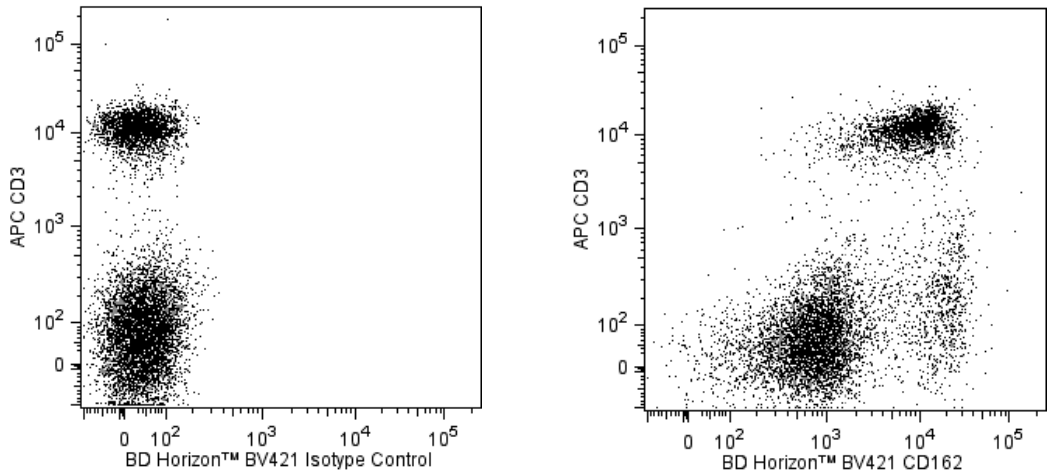
Product Information

Material Number:	**562807**
Alternate Name:	Selplg; PSGL-1; Psgl1; Selp1; Selpl; P-selectin glycoprotein ligand 1
Size:	50 µg
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 BSA and ≤0.09% sodium azide.

Description

The 2PH1 monoclonal antibody specifically binds to the N-terminus of CD162 (P-selectin glycoprotein ligand-1, PSGL-1), encoded by the *Selplg* 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. The 2PH1 antibody is reported to block binding of mouse leukocytes to CD62P, but the 4RA10 antibody (Cat. No. 557787) has significantly greater blocking activity.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Multicolor flow cytometric analysis of CD162 expression on BALB/c mouse splenocytes. *Splenic leucocytes were stained simultaneously with APC Hamster Anti-Mouse CD3 antibody (Cat. No. 553066/561826) and with either BD Horizon™ BV421 Rat IgG1, κ Isotype Control (Cat. No. 562868; Left Panel) or BD Horizon™ BV421 Rat Anti-Mouse CD162 (Cat. No. 562807; Right Panel). Two-color flow cytometric dot plots show the correlated expression patterns of CD162 (or Ig isotype control staining) versus CD3 for gated events with the forward and side light-scatter characteristics of viable spleen cells. Flow cytometry was performed using a BD LSRFortessa™ Cell Analyzer System.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

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Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
562868	BV421 Rat IgG1, κ Isotype Control	50 µg	R3-34
554656	Stain Buffer (FBS)	500 ml	(none)
553066	APC Hamster Anti-Mouse CD3e	0.1 mg	145-2C11
561826	APC Hamster Anti-Mouse CD3e	25 µg	145-2C11

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

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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)

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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)

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