

Technical Data Sheet

BV421 Hamster Anti-Mouse CD61

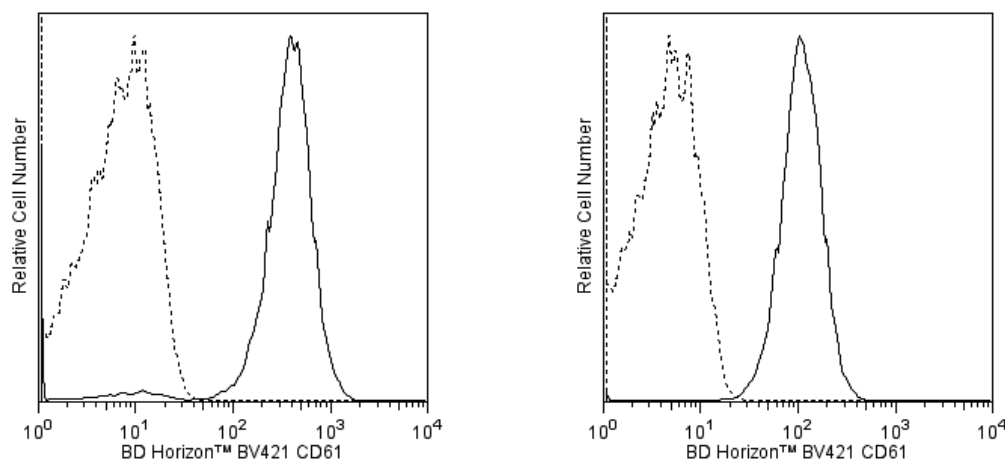
Product Information

Material Number:	562917
Alternate Name:	Integrin $\beta 3$ chain
Size:	50 μ g
Concentration:	0.2 mg/ml
Clone:	2C9.G2
Immunogen:	Mouse T-cell Hybridoma 2B4 Vitronectin Receptor
Isotype:	Armenian Hamster IgG1, κ
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

Description

The 2C9.G2 antibody reacts with the integrin $\beta 3$ chain (CD61), which associates with the integrin αv chain (CD51) to form the vitronectin receptor and with the αIIb chain (CD41) to form the $gpIIb/IIIa$ complex. Both receptors mediate adhesion to fibronectin, fibrinogen, vitronectin, thrombospondin, and von Willebrand factor. Leukocyte-endothelial adhesion is also mediated by the binding of $\alpha v\beta 3$ integrin or vitronectin receptor to CD31 (PECAM-1). In addition, interaction of the $\alpha v\beta 3$ integrin with its ligands regulates the L-type Ca^{2+} channel in vascular smooth muscle cells, possibly mediating vasodilatory responses to injury. Soluble and insoluble 2C9.G2 mAb mimics the effect of the natural ligands in smooth muscle cells from rat cremaster arterioles. Furthermore, osteopontin, also named Eta-1, is a cytokine that binds to $\alpha v\beta 3$. CD61 is expressed on platelets, activated T lymphocytes, polymorphonuclear granulocytes, and blastocysts. Cross-reactivity of mAb 2C9.G2 to rat mast cells and platelets has been observed by flow cytometric analysis. mAb 2C9.G2 has been demonstrated to block binding of rat and mouse cells to fibronectin.

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.



Flow cytometric analysis of CD61 expression on mouse and rat platelets. BALB/c mouse (Left Panel) and Lewis rat (Right Panel) platelets were stained with either BD Horizon™ BV421 Hamster IgG1, κ Isotype Control (Cat. No. 562601; dashed line histogram) or BD Horizon™ BV421 Hamster Anti-Mouse CD61 antibody (Cat. No. 562917; solid line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of platelets. Flow cytometry was performed using a BD™ LSR II Flow Cytometer 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
554656	Stain Buffer (FBS)	500 ml	(none)
562601	Brilliant Violet™ 421 Hamster IgG1, κ Isotype Control	50 µg	A19-3

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.
9. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.

References

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