

Technical Data Sheet

PE Hamster Anti-Mouse CD61

Product Information

Material Number:	553347
Alternate Name:	Integrin β 3 chain
Size:	0.2 mg
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 $\leq 0.09\%$ sodium azide.

Description

The 2C9.G2 antibody reacts with the integrin β 3 chain (CD61), which associates with the integrin α v chain (CD51) to form the vitronectin receptor and with the α Ib 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 α v β 3 integrin or vitronectin receptor to CD31 (PECAM-1). In addition, interaction of the α v β 3 integrin with its ligands regulates the L-type Ca²⁺ 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 α v β 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.

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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
553972	PE Hamster IgG1 κ Isotype Control	0.1 mg	A19-3
554656	Stain Buffer (FBS)	500 ml	(none)

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. 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.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

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- Moulder K, Roberts K, Shevach EM, Coligan JE. The mouse vitronectin receptor is a T cell activation antigen. *J Exp Med*. 1991; 173(2):343-347. (Biology)
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Wu X, Mogford JE, Platts SH, Davis GE, Meininger GA, Davis MJ. Modulation of calcium current in arteriolar smooth muscle by alpha5 beta1 integrin ligands. *J Cell Biol.* 1998; 143(1):241-252. (Biology)
Yasuda M, Hasunuma Y, Adachi H, et al. Expression and function of fibronectin binding integrins on rat mast cells. *Int Immunol.* 1995; 7(2):251-258. (Clone-specific: Blocking)

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