

## Technical Data Sheet

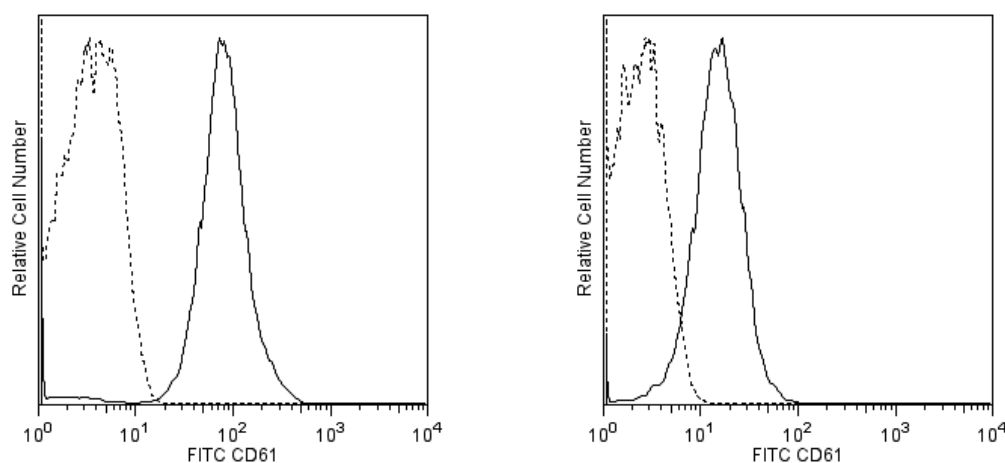
## FITC Hamster Anti-Mouse CD61

## Product Information

<b>Material Number:</b>	553346
<b>Alternate Name:</b>	Itgb3; Integrin beta-3; INGRB3; Platelet glycoprotein IIIa; GP3A; GPIIIa
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	2C9.G2 (also known as HMβ3-1)
<b>Immunogen:</b>	Mouse T-cell Hybridoma 2B4 Vitronectin Receptor
<b>Isotype:</b>	Armenian Hamster IgG1, κ
<b>Reactivity:</b>	QC Testing: Mouse Tested in Development: Rat
<b>Storage Buffer:</b>	Aqueous buffered solution containing ≤0.09% sodium azide.

## Description

The 2C9.G2 monoclonal antibody specifically binds to the integrin β3 chain (CD61), which associates with the integrin αv chain (CD51) to form the vitronectin receptor, as well as 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 αvβ3 integrin or vitronectin receptor to CD31 (PECAM-1). In addition, interaction of the αvβ3 integrin with its ligands regulates the L-type Ca<sup>2+</sup> 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 αvβ3. 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.



**Flow cytometric analysis of CD61 expression on mouse (left panel) and rat (right panel) platelets.** Platelets were stained with either FITC Hamster Anti-Mouse CD61 (Cat. No. 561911/553346; solid line histograms) or FITC Hamster IgG1 κ Isotype Control (Cat. No. 553971; dashed line histograms). Fluorescence histograms depicting CD61 (or Ig isotype control) expression were derived from gated events with the forward and side light-scatter characteristics of viable platelets.

## 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 FITC under optimum conditions, and unreacted FITC was removed.

## Application Notes

## Application

Flow cytometry	Routinely Tested
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## BD Biosciences

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553346 Rev. 16



## Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
553971	FITC Hamster IgG1 $\kappa$ Isotype Control	0.25 mg	A19-3
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
561911	FITC Hamster Anti-Mouse CD61	0.1 mg	2C9.G2

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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://wwwbdbiosciences.com/documents/hamster\\_chart\\_11x17.pdf](http://wwwbdbiosciences.com/documents/hamster_chart_11x17.pdf).
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [wwwbdbiosciences.com/colors](http://wwwbdbiosciences.com/colors).
6. Please refer to [wwwbdbiosciences.com/pharmingen/protocols](http://wwwbdbiosciences.com/pharmingen/protocols) for technical protocols.

## References

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