# Technical Data Sheet Purified Mouse Anti-Human CD61

Material Number:	611140		
Alternate Name:	Integrin β3 chain		
Size:	50 µg		
Concentration:	250 µg/ml		
Clone:	1/Integrin Beta 3 Chain		
Immunogen:	Human Integrin β3 aa. 592-712		
Isotype:	Mouse IgG1		
Reactivity:	QC Testing: Human		
Target MW:	104 kDa		
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and $\leq 0.09\%$ sodium azide.		

### Description

Integrins are heterodimeric transmembrane receptors that mediate cell-cell or cell-matrix adhesion. They contain noncovalently associated  $\alpha$  and  $\beta$  subunits that consist of a large extracellular region (the ligand-binding domain), a short transmembrane region, and a cytoplasmic domain of varying length. In mammals, at least 17  $\alpha$  subunits and 8  $\beta$  subunits have been identified and these proteins can heterodimerize to form at least 22 different receptors. Although there is a high degree of redunancy, each integrin has a specific biological function. For example, the  $\beta$ 3 subunit associates with  $\alpha$ IIb in platelets where this glycoprotein complex acts as a fibrinogen receptor and mediates platelet aggregation. In endothelial cells (EC),  $\beta$ 3 complexes with the  $\alpha$ v subunit to form the vitronectin receptor. This receptor mediates endothelial cell adhesion to vitronectin, fibrinogen, von Willebrand factor, thrombospondin, laminin, and fibronectin. In confluent EC cultures, the  $\alpha\nu\beta$ 3 integrin localizes to focal adhesions at the cell body and cell-cell borders. Thus, continued study of individual integrin subunits will provide insights to mechanisms of cell adhesion and signaling.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



### Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20° C.

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## **Application Notes**

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

### **Suggested Companion Products**

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

#### **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.
- 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

#### References

Albelda SM, Daise M, Levine EM, Buck CA. Identification and characterization of cell-substratum adhesion receptors on cultured human endothelial cells. J Clin Invest. 1989; 83(6):1192-2002. (Biology)

Chen YP, Djaffar I, Pidard D, et al. Ser-752-->Pro mutation in the cytoplasmic domain of integrin beta 3 subunit and defective activation of platelet integrin alpha IIb beta 3 (glycoprotein IIb-IIIa) in a variant of Glanzmann thrombasthenia. *Proc Natl Acad Sci U S A*. 1992; 89(21):10169-10173.(Biology)

Greenwood JA, Theibert AB, Prestwich GD, Murphy-Ullrich JE. Restructuring of focal adhesion plaques by PI 3-kinase. Regulation by PtdIns (3,4,5)-p(3) binding to alpha-actinin. J Cell Biol. 2000; 150(3):627-642. (Biology: Immunoprecipitation)

Tang S, Gao Y, Ware JA. Enhancement of endothelial cell migration and in vitro tube formation by TAP20, a novel beta 5 integrin-modulating, PKC theta-dependent protein. J Cell Biol. 1999; 147(5):1073-1084. (Biology: Western blot)

Yip KP, Marsh DJ. An Arg-Gly-Asp peptide stimulates constriction in rat afferent arteriole. Am J Physiol. 1997; 273(5):F768-F776. (Biology: Immunohistochemistry)