

Mouse anti-B3 Integrin/CD61, clone BV4 (Monoclonal)

Clone no. BV4

MONOSAN

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Product name	Mouse anti-B3 Integrin/CD61, clone BV4 (Monoclonal)
Host	Mouse
Applications	IHC-fr,FUNC,ELISA,IP,IHC-P,WB
Species reactivity	human, bovine
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	BV4
Size	1 ml
Concentration	100 ug/ ml
Format	-
Storage buffer	PBS with 0.1% BSA and 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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**Additional info**

The monoclonal antibody BV4 recognizes human beta3 integrin subunit present in Platelet glycoprotein GPIIb-IIIa (integrin alphaIIb/beta3, CD41/CD61) and in the vitronectin receptor (integrin alphaV/beta3, CD51/CD61). Integrins are a family of heterodimeric membrane glycoproteins expressed on diverse cell types which function as the major receptors for extracellular matrix and as cell-cell adhesion molecules. As adhesion molecules they play an important role in numerous biological processes such as platelet aggregation, inflammation, immune function, wound healing, tumour metastasis and tissue migration during embryogenesis. In addition integrins are involved in signaling pathways, transmitting signals both into and out from cells. All integrins consist of two non-covalently associated subunits, alpha and beta. At least 12 different alpha subunits and 8 beta subunits have been identified. The beta subunits all contain 56 conserved cysteines (except beta4 which has 48) which are arranged in four repeating units. The beta3 subunit is a 93kDa protein that contains a large loop in the N-terminus stabilized by intrachain disulphide bonding with the first cysteine-rich repeat.

Platelet glycoprotein GPIIb-IIIa is expressed on platelets and megakaryoblasts. It is constitutively expressed and becomes activated on triggered platelets. Platelet glycoprotein GPIIb-IIIa binds to fibrinogen, fibronectin, vWF, vitronectin and thrombospondin. Next to this it is also a receptor for several soluble adhesive proteins. Vitronectin receptor is expressed on endothelial cells, some B cells, monocytes/macrophages, platelets and tumour cells. Vitronectin receptor binds next to vitronectin to fibrinogen, vWF, thrombospondin, fibronectin, osteopontin and collagen. Defects in human beta3 integrin are a cause of Glanzmann thrombasthenia, which is an autosomal recessive disorder characterized by mucocutaneous bleeding and the inability of this integrin to recognize macromolecular or synthetic peptide ligands.

**References**

1. Soldi; R et al. EMBO J 1999; 18:882
2. Kimmins, S et al: 2004, 2:19
3. Neto; D et al. J Cutan Pathol 2007; 34: 851
4. Tang N et al. BMC Cancer 2010; 10: 552
5. -

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