

**Mouse Anti-CD61/Integrin Beta 3 [Y2/51]: MC0137, MC0137RTU7**

**Intended Use:** For Research Use Only

**Description:** CD61 (GPIIIa) or human integrin beta chain beta 3 protein (ITGB3), is a glycoprotein found on megakaryocytes, platelets and their precursors. CD61 antigen plays a role in platelet aggregation and also as a receptor for fibrinogen, fibronectin, von Willebrand factor and vitronectin. Integrins are integral cell-surface proteins composed of an alpha chain and a beta chain. A given chain may combine with multiple partners resulting in different integrins. Integrin beta 3 is found along with the alpha IIb chain in platelets. Integrins are known to participate in cell adhesion as well as cell-surface mediated signaling. The integrin beta 3 chain of the vitronectin receptor and GPIIb/IIIa complex is a 90-110 kDa glycoprotein polypeptide which is expressed on platelets, megakaryocytes, macrophages, osteoclasts, and synovial lining cells. Integrin alpha-IIb/beta-3 recognizes the sequence H-H-L-G-G-G-A-K-Q-A-G-D-V in fibrinogen gamma chain. Following activation, integrin alpha-IIb/beta-3 brings about platelet/platelet interaction through binding of soluble fibrinogen. This step leads to rapid platelet aggregation which physically plugs ruptured endothelial surface. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions. This antibody is useful in evaluating the number of megakaryocytes, size, nuclear lobation, and the presence of obviously abnormal forms and micromegakaryocytes in myelodysplastic syndrome, acute myeloid leukemia with multilineage dysplasia, acute megakaryoblastic leukemia, and myeloproliferative neoplasms.

**Specifications:**

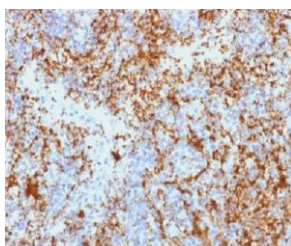
Clone: Y2/51  
 Source: Mouse  
 Isotype: IgG1k  
 Reactivity: Human  
 Immunogen: Phytohemagglutinin (PHA)-stimulated peripheral blood cells  
 Localization: Membrane, cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., IF  
 Package:

Description	Catalog No.	Size
CD61/Integrin Beta 3 Concentrated	MC0137	1 ml
CD61/Integrin Beta 3 Prediluted	MC0137RTU7	7 ml

**IHC Procedure\*:**

Positive Control Tissue: Tonsil, bone marrow  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris-EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human bone spleen stained with anti-CD61 using DAB

**References**

1. Hematopoiesis/erythropoiesis in myocardial infarcts. B I Goldman, J Wurzel. Modern Pathology. 06-01, 2001.
2. Megakaryocytes in myelodysplasia: an immunohistochemical study on bone marrow trephines. S B Fox, J Lorenzen, Histopathology. 07-01, 1990.

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