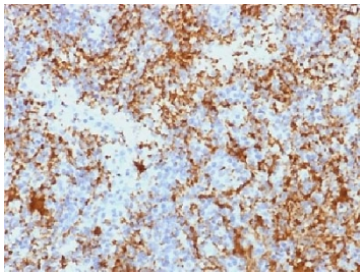
CD61 Antibody Y2/51 / GPIIIa Antibody [clone Y2/51] (V3255)

Catalog No.	Formulation	Size
V3255-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3255-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3255SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

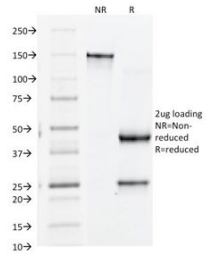
Citations (22)

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	Y2/51
Purity	Protein G affinity
UniProt	P05106
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (Frozen & FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD61 Antibody Y2/51 / GPIIIa Antibody is available for research use only.



CD61 Antibody Y2/51 in Human Spleen IHC. Immunohistochemistry testing of FFPE human spleen tissue with CD61 Antibody clone Y2/51. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min. The staining demonstrates detection of CD61/ITGB3 in human splenic tissue using this established monoclonal reagent. The GPIIIa Antibody terminology reflects the alternative glycoprotein designation for the integrin beta 3 target.



Purified CD61 Antibody Y2/51 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CD61 Antibody clone Y2/51 demonstrates the integrity and purity of the antibody preparation. The electrophoretic profile provides a biochemical quality-control assessment of the purified mouse monoclonal antibody. This analysis supports the physical integrity of the Y2/51 reagent targeting CD61, historically designated GPIIIa, complementing the tissue-based validation shown for this GPIIIa Antibody.

Description

CD61 Antibody Y2/51 recognizes CD61, a cell-surface glycoprotein encoded by the ITGB3 gene and also widely known as integrin beta 3 or GPIIIa. ITGB3 is a member of the integrin beta chain family and forms heterodimeric adhesion receptors through association with specific alpha integrin subunits. Its principal partners include integrin alpha IIb/CD41 and integrin alpha V/CD51, producing receptors with important functions in platelet biology, cell adhesion, and extracellular matrix interactions.

Association of CD61 with CD41 forms integrin alpha IIb beta 3, historically known as the glycoprotein IIb/IIIa complex. This receptor is highly important in platelet function. Following platelet activation, conformational changes increase its affinity for fibrinogen and other adhesive ligands, enabling platelet aggregation and contributing to formation of the hemostatic plug. Additional ligands include von Willebrand factor, fibronectin, vitronectin, and thrombospondin.

CD61 also associates with CD51 to form integrin alpha V beta 3, commonly called the vitronectin receptor. Alpha V beta 3 recognizes extracellular matrix proteins containing RGD motifs and participates in cell adhesion, migration, survival, and signaling. This receptor has been extensively investigated in endothelial biology, angiogenesis, osteoclast function, tissue remodeling, and cancer-associated processes.

Beta 3 integrins transmit signals in both directions across the plasma membrane. Inside-out signaling regulates receptor activation and ligand affinity, while ligand engagement initiates outside-in signaling that influences cytoskeletal organization, spreading, migration, and other cellular responses. In platelets, these coordinated mechanisms are essential for normal adhesion and aggregation.

Defects affecting ITGB3 can disrupt alpha IIb beta 3 function and contribute to Glanzmann thrombasthenia, an inherited bleeding disorder characterized by impaired platelet aggregation. CD61 is also widely studied as a marker of platelets and megakaryocytic differentiation. Clone Y2/51 has an extensive history of use in published research, particularly for identifying CD61/GPIIIa expression in hematopoietic and pathological tissue specimens.

A CD61 Antibody such as clone Y2/51 provides a monoclonal reagent for investigating ITGB3 expression, while the historical GPIIIa Antibody terminology reflects the established role of this protein in the platelet glycoprotein IIb/IIIa complex.

For a broadly validated polyclonal reagent targeting this protein, see our CD61 Antibody / ITGB3 Polyclonal Antibody page.

Application Notes

Titration of the CD61 Antibody Y2/51 / GPIIIa Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Phytohemagglutinin (PHA)-stimulated peripheral blood cells were used as the immunogen for the CD61 Antibody Y2/51.

Storage

Store the CD61 Antibody Y2/51 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

ITGB3 antibody, Integrin Beta 3 antibody, GPIIIa antibody, Glycoprotein IIIa antibody, Platelet Glycoprotein IIIa antibody, Vitronectin Receptor Beta Chain antibody

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