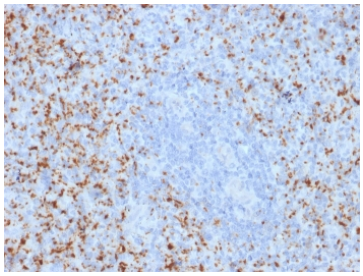
ITGB3 Antibody ITGB3/2145 / CD61 Monoclonal Antibody [clone ITGB3/2145] (V7893)

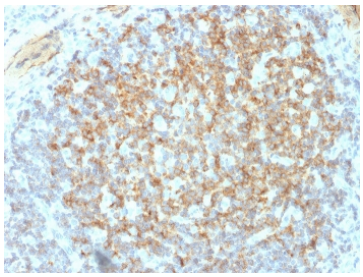
Catalog No.	Formulation	Size
V7893-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7893-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7893SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

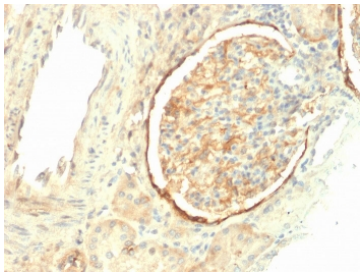
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	ITGB3/2145
Purity	Protein G affinity chromatography
UniProt	P05106
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This ITGB3 Antibody ITGB3/2145 / CD61 Monoclonal Antibody is available for research use only.



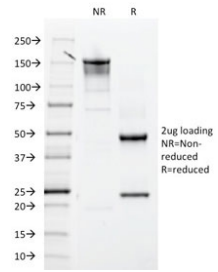
ITGB3 Antibody ITGB3/2145 in Human Spleen IHC. Immunohistochemistry testing of FFPE human spleen tissue with ITGB3 Antibody clone ITGB3/2145. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min. The staining demonstrates detection of integrin beta 3 within discrete cellular populations in splenic tissue. This tissue-based staining supports the use of the CD61 Monoclonal Antibody for detecting human ITGB3.



ITGB3 Antibody ITGB3/2145 in Human Tonsil IHC. Immunohistochemistry testing of FFPE human tonsil tissue with ITGB3 Antibody clone ITGB3/2145. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min. Positive staining is localized to a subset of cells within the lymphoid tissue rather than uniformly distributed throughout the section, demonstrating cellular detection of integrin beta 3 with the CD61 Monoclonal Antibody.



ITGB3 Antibody ITGB3/2145 in Human Kidney IHC. Immunohistochemistry testing of FFPE human kidney tissue with ITGB3 Antibody clone ITGB3/2145. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min. The staining shows localized ITGB3 expression within renal tissue, with positive cellular structures readily distinguishable from surrounding counterstained areas. This result demonstrates tissue detection using the CD61 Monoclonal Antibody.



Purified ITGB3 Antibody ITGB3/2145 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free ITGB3 Antibody clone ITGB3/2145 provides confirmation of antibody integrity and purity. The electrophoretic profile serves as a biochemical quality-control assessment of the purified mouse IgG2b monoclonal preparation rather than a target-validation experiment. This analysis complements the tissue validation data for the CD61 Monoclonal Antibody.

Description

ITGB3 Antibody ITGB3/2145 recognizes integrin beta 3, a transmembrane adhesion receptor subunit encoded by the ITGB3 gene and commonly designated CD61. The protein is also historically known as GPIIIa or platelet glycoprotein IIIa. Integrin beta 3 associates with specific alpha integrin chains to form heterodimeric receptors that mediate interactions between cells and the extracellular environment.

Association of ITGB3 with integrin alpha IIb/CD41 produces alpha IIb beta 3, historically known as the glycoprotein IIb/IIIa complex. This receptor is particularly important in platelet biology. Platelet activation induces conformational changes in alpha IIb beta 3 that increase its ligand-binding affinity, permitting interactions with fibrinogen, von Willebrand factor, fibronectin, and other adhesive proteins. These interactions enable platelet aggregation and contribute to formation and stabilization of the hemostatic plug.

Integrin beta 3 also associates with integrin alpha V/CD51 to form alpha V beta 3, commonly called the vitronectin receptor. This heterodimer recognizes extracellular matrix proteins containing RGD motifs and participates in cellular adhesion, migration, survival, and signaling. Alpha V beta 3 has important roles in endothelial cell biology, angiogenesis, osteoclast-mediated bone remodeling, and tumor-associated processes.

Beta 3 integrins participate in bidirectional signaling across the plasma membrane. Inside-out signaling alters integrin conformation and ligand affinity, whereas ligand engagement triggers outside-in signals that influence cytoskeletal organization, cell spreading, migration, and other cellular responses. The ability of ITGB3-containing receptors to integrate adhesive and signaling functions makes this subunit important in both normal physiology and disease research.

Pathogenic alterations affecting ITGB3 can impair alpha IIb beta 3 function and contribute to Glanzmann thrombasthenia, an inherited bleeding disorder characterized by defective platelet aggregation. ITGB3 expression and signaling are also studied in thrombosis, vascular biology, angiogenesis, bone physiology, and cancer biology.

An ITGB3 Antibody such as clone ITGB3/2145 provides a monoclonal reagent for investigating integrin beta 3 expression, while a CD61 Monoclonal Antibody targets the same beta 3 integrin subunit using its widely established cluster-of-differentiation designation.

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

Application Notes

Optimal dilution of the ITGB3 Antibody ITGB3/2145 / CD61 Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 385-490) was used as the immunogen for this ITGB3 Antibody ITGB3/2145.

Storage

Store the ITGB3 Antibody ITGB3/2145 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD61 antibody, Integrin Beta 3 antibody, GPIIIa antibody, Glycoprotein IIIa antibody, Platelet Glycoprotein IIIa antibody, Vitronectin Receptor Beta Chain antibody

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