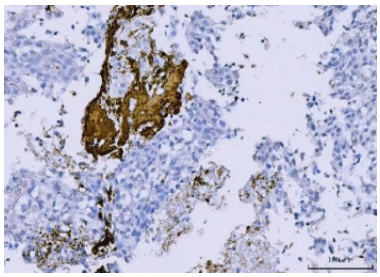
CD61 Antibody / ITGB3 Polyclonal Antibody (RQ7183)

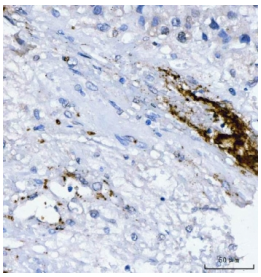
Catalog No.	Formulation	Size
RQ7183	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

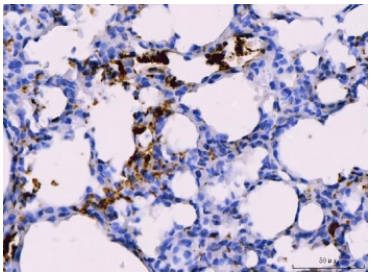
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P05106
Localization	Cell surface, cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This CD61 Antibody / ITGB3 Polyclonal Antibody is available for research use only.



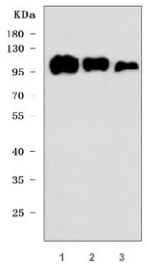
CD61 Antibody in Human Lung Cancer IHC. Immunohistochemistry staining of FFPE human lung cancer tissue with CD61 Antibody. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The image shows strong, localized brown staining within a discrete cluster of cells, with substantially weaker staining throughout the surrounding tissue. This distinct positive population demonstrates detection of integrin beta 3 using the ITGB3 Polyclonal Antibody.



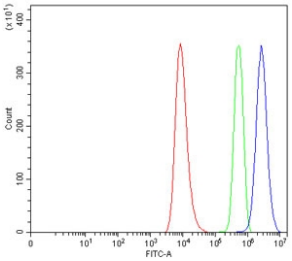
CD61 Antibody in Human Liver Cancer IHC. Immunohistochemistry staining of FFPE human liver cancer tissue with CD61 Antibody. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. The image shows prominent brown staining concentrated along an elongated cellular structure, while much of the surrounding tumor tissue remains comparatively weakly stained. The localized staining pattern demonstrates detection of integrin beta 3 with the ITGB3 Polyclonal Antibody.



CD61 Antibody in Rat Lung IHC. Immunohistochemistry staining of FFPE rat lung tissue with CD61 Antibody. HIER was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling before testing. Brown staining is visible along cells bordering multiple alveolar spaces, producing a distinct membranous and cellular pattern against the blue hematoxylin counterstain. The image demonstrates recognition of rat integrin beta 3 by the ITGB3 Polyclonal Antibody.



CD61 Antibody Western Blot of U-87 MG, HEL and Rat Spleen. Western blot testing of human U-87 MG cells (lane 1), human HEL cells (lane 2), and rat spleen tissue (lane 3) with CD61 Antibody. A strong predominant band is detected at approximately 95 kDa in all three samples, consistent with the expected 87-110 kDa migration range of glycosylated ITGB3. Relatively little additional signal is visible, providing clean detection across human and rat samples with the ITGB3 Polyclonal Antibody.



CD61 Antibody in Human HEL Erythroleukemia Cells FACS. Flow cytometry testing of human HEL erythroleukemia cells with CD61 Antibody at 1 ug/million cells following blocking with goat serum. The histogram shows cells alone in red, isotype control in green, and CD61 antibody staining in blue. The strong rightward shift of the blue population relative to both controls demonstrates robust detection of cell-surface integrin beta 3 in HEL cells using the ITGB3 Polyclonal Antibody

Description

CD61 Antibody recognizes integrin beta 3, a transmembrane adhesion receptor subunit encoded by the ITGB3 gene and also known as GPIIIa or glycoprotein IIIa. ITGB3 belongs to the integrin beta chain family and associates with specific alpha integrin subunits to form heterodimeric cell-surface receptors. Its major partners include integrin alpha IIb, which forms alpha IIb beta 3, and integrin alpha V, which forms alpha V beta 3.

Integrin beta 3 is a type I transmembrane glycoprotein with a large extracellular region, a single transmembrane segment, and a short cytoplasmic tail. In platelets and megakaryocytes, association of CD61 with integrin alpha IIb/CD41 produces the alpha IIb beta 3 complex, historically known as glycoprotein IIb/IIIa. Following platelet activation, this receptor undergoes conformational changes that increase ligand-binding affinity and permit interactions with fibrinogen, von Willebrand factor, fibronectin, and other adhesive proteins.

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

Integrin beta 3 signaling is bidirectional. Intracellular signals can alter the activation state and ligand affinity of beta 3-containing integrins through inside-out signaling, while ligand engagement initiates outside-in signaling that influences cytoskeletal organization and cellular responses. These mechanisms are particularly important during platelet adhesion, spreading, aggregation, and thrombus formation.

Alterations in ITGB3 function have important biological consequences. Defects affecting alpha IIb beta 3 can impair platelet aggregation and are associated with Glanzmann thrombasthenia, while changes in beta 3 integrin signaling and expression are investigated in cardiovascular disease, angiogenesis, bone remodeling, and cancer biology.

A CD61 Antibody can be used to investigate expression of the beta 3 integrin subunit, while an ITGB3 Polyclonal Antibody provides a reagent for studying beta 3 integrin biology and associated adhesion mechanisms.

For additional antibodies targeting this integrin family, see our CD Antibodies page.

Application Notes

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

Immunogen

Recombinant human protein (amino acids N29-Q523) was used as the immunogen for the CD61 antibody.

Storage

After reconstitution, the CD61 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

ITGB3 antibody, Integrin Beta 3 antibody, GPIIIa antibody, GP3A antibody, Platelet Glycoprotein IIIa antibody, Vitronectin Receptor Beta Chain antibody

Copyright © NSJ Bioreagents. All rights reserved.