

Anti-CD41/Integrin alpha 2b/ITGA2B Antibody Picoband®

Catalog Number: PB9647

About ITGA2B

Integrin alpha-IIb is a protein that in humans is encoded by the ITGA2B gene. It is mapped to 17q21.32. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. Alpha chain 2b undergoes post-translational cleavage to yield disulfide-linked light and heavy chains that join with beta 3 to form a fibrinogen receptor expressed in platelets that plays a crucial role in coagulation. Mutations that interfere with this role result in thrombasthenia. In addition to adhesion, integrins are known to participate in cell-surface mediated signalling.

Overview

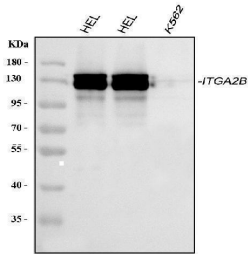
Product Name	Anti-CD41/Integrin alpha 2b/ITGA2B Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CD41/Integrin alpha 2b/ITGA2B Antibody Picoband® catalog # PB9647. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg NaN ₃ . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P08514

Technical Details

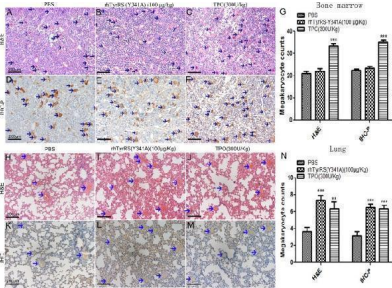
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ITGA2B, different from the related mouse sequence by four amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins

Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat

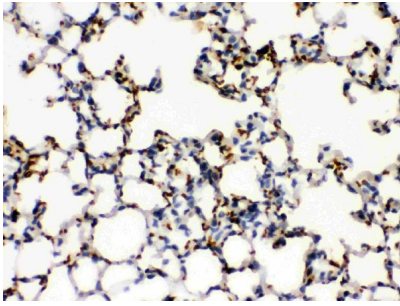
Anti-CD41/Integrin alpha 2b/ITGA2B Antibody Picoband® (PB9647) Images



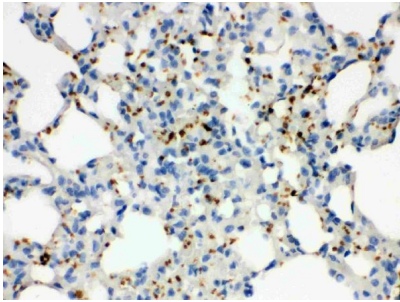
Western blot analysis of ITGA2B using anti-ITGA2B antibody (PB9647). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HEL whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human K562 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ITGA2B antigen affinity purified polyclonal antibody (Catalog # PB9647) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ITGA2B at approximately 120-135 kDa. The expected band size for ITGA2B is at 113 kDa.



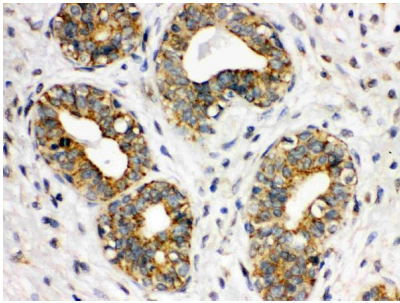
The effects of rhTyrRS(Y341A) on megakaryocytes were studied by immunohistochemistry and (H & E) staining in the bone marrow and lung. (H & E) staining showed there was no increase in the number of bone marrow megakaryocyte cells in the (B) rhTyrRS (Y341A) (100 ug/kg) group (22.0 ± 1.2) or (A) PBS group (21 ± 1.25). However, the number of bone marrow megakaryocyte cells increased significantly in (C) the TPO group (33.5 ± 1.0) (**p<0.001). Immunohistochemistry of bone marrow megakaryocytes (CD41 +) also showed there was no increase in the number of bone marrow megakaryocyte cells in the (E) rhTyrRS (Y341A) (100 ug/kg) (23.3 ± 0.8) or (D) PBS group (22.3 ± 0.67), while the number of bone marrow megakaryocyte cells increased significantly in the (F) TPO group (35.2 ± 0.9) (**p<0.001), mean ± SEM. (G) Statistics on the number of bone marrow megakaryocytes in H&E staining and immunohistochemistry (**p<0.001). Lung (H & E) staining showed there was no increase in the number of lung megakaryocyte cells in the (H) PBS group (3.67 ± 0.49), while the number of lung megakaryocyte cells increased significantly in the (I) rhTyrRS (Y341A) (100 ug/kg) (7.33 ± 0.56) and (J) TPO group (6.33 ± 0.84) (**p<0.001, *p<0.01). Immunohistochemistry of lung megakaryocytes (CD41 +) also showed there was no increase in the number of lung megakaryocyte cells in the (K) PBS group (3.17 ± 0.48), while the number of lung megakaryocyte cells increased significantly in the (L) rhTyrRS (Y341A) (100 ug/kg) (6.5 ± 0.43) and (M) TPO group (6.3 ± 0.42) (**p<0.001), mean ± SEM. (N) Statistics on the megakaryocyte numbers in lungs using H&E staining and immunohistochemistry (**p<0.001, *p<0.01). Index in PubMed under a CC BY license. PMID: 28939876



IHC analysis of ITGA2B using anti-ITGA2B antibody (PB9647). ITGA2B was detected in a paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ITGA2B Antibody (PB9647) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ITGA2B using anti-ITGA2B antibody (PB9647). ITGA2B was detected in a paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ITGA2B Antibody (PB9647) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of ITGA2B using anti-ITGA2B antibody (PB9647). ITGA2B was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ITGA2B Antibody (PB9647) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

3 Publications Citing This Product

1. PubMed ID: 10.1038/s41598-017-12073-4, Thrombopoietic stimulating activity of rhTyrRS (Y341A)
2. PubMed ID: -, Leila Revollo, Glenn Merrill-Skoloff, Karen De Ceunynck, James Dilks, Mattia Bordoli, Christian Peters, Leila Noetzli, Andraia Ionescu, Vicki Rosen, Joseph E. Italiano, Malcolm Whitman, Robert Flaumenhaft; The Secreted Tyrosine Kinase Vlk Is Essential for Normal Platelet Development
3. PubMed ID: 28939876, Thrombopoietic stimulating activity of rhTyrRS (Y341A)

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