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antibody and ELISA experts

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3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-Integrin beta 3/ITGB3 Antibody

Catalog Number: PA1627

About ITGB3

ITGB3 (INTEGRIN, BETA-3), also called GP3A, GPIIIa, CD61, is a protein that in humans is encoded by the ITGB3 gene. GP3A is a cluster of differentiation found on thrombocytes. The ITGB3 complex belongs to the integrin class of cell adhesion molecule receptors that share a common heterodimeric structure with alpha and beta subunits. The GP3A gene is mapped to 17q21.32. And the GP3A gene has 14 exons. The 3-prime exon is larger than 1,700 nucleotides and contains the 3-prime untranslated region. The ITGB3 complex mediates platelet aggregation by acting as a receptor for fibrinogen. Although the ITGB3 is expressed on the cell surface at normal levels and is capable of function following extracellular stimulation, it could not be activated via the "inside-out" signaling pathways.

Overview

Product Name	Anti-Integrin beta 3/ITGB3 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Integrin beta 3/ITGB3 Antibody catalog # PA1627. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
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	P05106

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Integrin beta 3, identical to the related rat and mouse sequences.
Predicted Reactive Species	Hamster
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

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, By Heat

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Anti-Integrin beta 3/ITGB3 Antibody (PA1627) Images

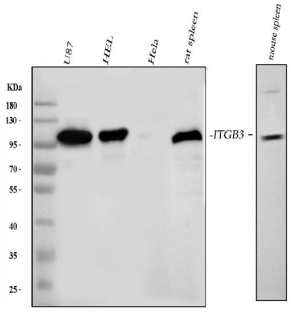

Figure 1. Western blot analysis of ITGB3 using anti-ITGB3 antibody (PA1627).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human U87 whole cell lysates,
Lane 2: human HEL whole cell lysates,
Lane 3: human Hela whole cell lysates,
Lane 4: rat spleen tissue lysates,
Lane 5: mouse spleen tissue 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-ITGB3 antigen affinity purified polyclonal antibody (Catalog # PA1627) 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 ITGB3 at approximately 100 kDa. The expected band size for ITGB3 is at 87 kDa.

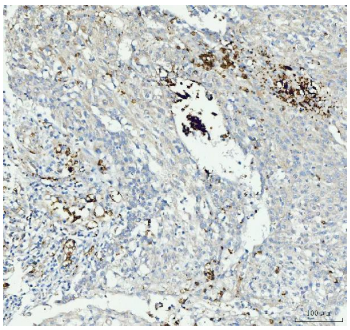

Figure 2. IHC analysis of ITGB3 using anti-ITGB3 antibody (PA1627).
ITGB3 was detected in a paraffin-embedded section of human laryngeal squamous cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ITGB3 Antibody (PA1627) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

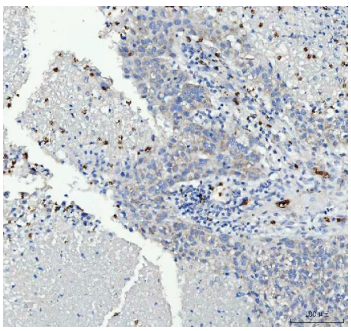

Figure 3. IHC analysis of ITGB3 using anti-ITGB3 antibody (PA1627).
ITGB3 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ITGB3 Antibody (PA1627) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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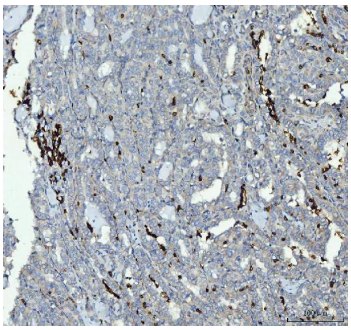

Figure 4. IHC analysis of ITGB3 using anti-ITGB3 antibody (PA1627).
ITGB3 was detected in a paraffin-embedded section of human thyroid cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ITGB3 Antibody (PA1627) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

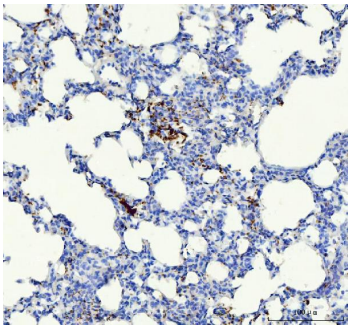

Figure 5. IHC analysis of ITGB3 using anti-ITGB3 antibody (PA1627).
ITGB3 was detected in a paraffin-embedded section of rat lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-ITGB3 Antibody (PA1627) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

4 Publications Citing This Product

1. PubMed ID: 33536035, Zhou L,Li C,Liu X,Zhang T.Effect of Irisin on LIF and integrin alphavbeta3 in rats of implantation failure.Reprod Biol Endocrinol.2021 Feb 3;19(1):18.doi:10.1186/s12958-021-00700-9.PMID:33536035;PMCID:PMC7856750.

2. PubMed ID: 21747684, Study on the Expression and Clinical Significances of Lewis y Antigen and Integrin ?v, ?3 in Epithelial Ovarian Tumors

3. PubMed ID: 18200665, Correlation of integrin %u03B23 mRNA and vascular endothelial growth factor protein expression profiles with the clinicopathological features and prognosis of %u2026

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