BOSTER
antibody and ELISA experts

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Anti-Integrin beta 1/ITGB1 Antibody Picoband®

Catalog Number: PB9086

About ITGB1

Integrin beta-1, also known as CD29, is a protein that in humans is encoded by the ITGB1 gene. CD29 is an integrin unit associated with very late antigen receptors. It is known to conjoin with alpha-3 subunit to create alpha3beta1 complex that reacts to such molecules as netrin-1 and reelin. This gene contains a beta subunit that appears to be analogous to band-3 of integrin. It is mapped to 10p11.22. It is found that FER mediates crosstalk between CDH2 and CD29. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. The protein encoded by this gene is a beta subunit.

Overview

Product Name	Anti-Integrin beta 1/ITGB1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-Integrin beta 1/ITGB1 Antibody Picoband® catalog # PB9086. Tested in IHC, WB applications. This antibody reacts with Human, 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 Na2HPO4, and 0.05 mg NaN3. *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	P05556

Technical Details

Immunogen	E.coli-derived human ITGB1 recombinant protein (Position: N527-D728). Human ITGB1 shares 91% and 88% amino acid (aa) sequences identity with mouse and rat ITGB1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

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	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, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human

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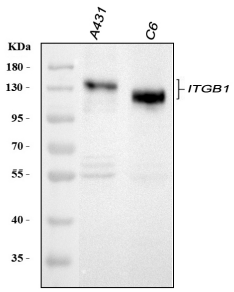
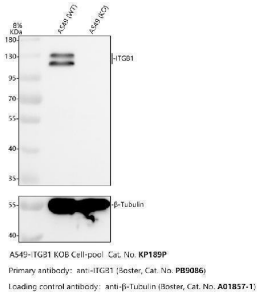
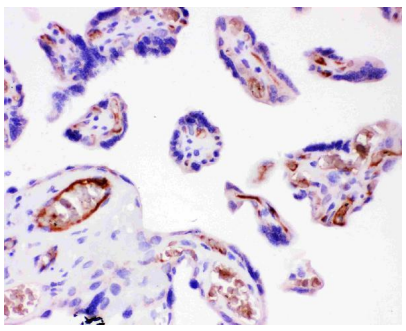
Anti-Integrin beta 1/ITGB1 Antibody Picoband® (PB9086) Images



Western blot analysis of ITGB1 using anti-ITGB1 antibody (PB9086). 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 A431 whole cell lysates, Lane 2: rat C6 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-ITGB1 antigen affinity purified polyclonal antibody (Catalog # PB9086) 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 ITGB1 at approximately 120-130 kDa. The expected band size for ITGB1 is at 88 kDa.



Western blot analysis of Integrin Beta 1/ITGB1 using anti-Integrin Beta 1/ITGB1 antibody (PB9086). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A549- WT whole cell lysates, Lane 2: human A549-ITGB1 KO 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-Integrin Beta 1/ITGB1 antigen affinity purified polyclonal antibody (PB9086) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Integrin Beta 1/ITGB1 at approximately 100-140 kDa. The expected band size for Integrin Beta 1/ITGB1 is at 88 kDa.



IHC analysis of ITGB1 using anti-ITGB1 antibody (PB9086). ITGB1 was detected in a paraffin-embedded section of human placenta 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-ITGB1 Antibody (PB9086) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

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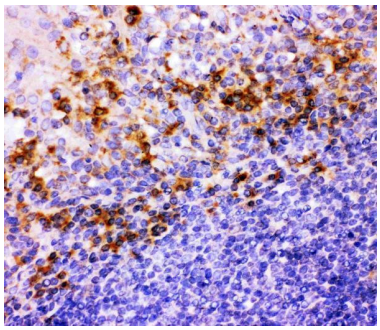

IHC analysis of ITGB1 using anti-ITGB1 antibody (PB9086). ITGB1 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-ITGB1 Antibody (PB9086) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

10 Publications Citing This Product

1. PubMed ID: 10.3892/ijmm.2016.2519, Abnormalities in the basement membrane structure promote basal keratinocytes in the epidermis of hypertrophic scars to adopt a proliferative phenotype

2. PubMed ID: 10.3892/mmr.2015.4449, Suppression of A549 cell proliferation and metastasis by calycosin via inhibition of the PKC□alpha/ERK1/2 pathway: An in vitro investigation

3. PubMed ID: 10.3892/ol.2016.4234, Inhibition of the peritoneal metastasis of human gastric cancer cells by dextran sulphate in vivo and in vitro

Visit bosterbio.com/anti-itgb1-picoband-trade-antibody-pb9086-boster.html to see all 10 publications.

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