

## 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

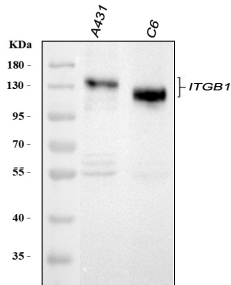
Product Name	Anti-Integrin beta 1/ITGB1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-Integrin beta 1/ITGB1 Antibody Picoband® catalog # PB9086. Tested in IHC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that 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 Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *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

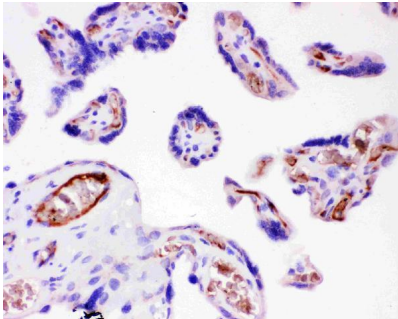
Immunogen	E.coli-derived human ITGB1 recombinant protein (Position: N527-D728). Human ITGB1 shares 91% and 88% amino acid (aa) sequences identity with mouse and rat ITGB1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	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

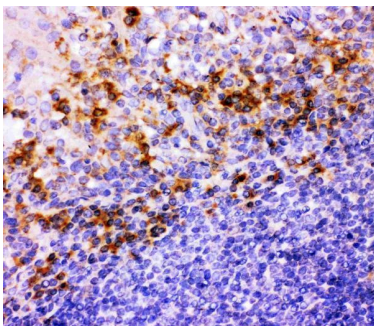
## Anti-Integrin beta 1/ITGB1 Antibody Picoband® (PB9086) Images



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.



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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



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 Streptavidin-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](http://bosterbio.com/anti-itgb1-picoband-trade-antibody-pb9086-boster.html) to see all 10 publications.

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