

Anti-Integrin beta 5/ITGB5 Antibody Picoband®

Catalog Number: A04201-1

About ITGB5

This gene encodes a beta subunit of integrin, which can combine with different alpha chains to form a variety of integrin heterodimers. Integrins are integral cell-surface receptors that participate in cell adhesion as well as cell-surface mediated signaling. The alpha beta5 integrin is involved in adhesion to vitronectin.

Overview

Product Name	Anti-Integrin beta 5/ITGB5 Antibody Picoband®
Reactive Species	Human, Mouse
Description	Boster Bio Anti-Integrin beta 5/ITGB5 Antibody Picoband® catalog # A04201-1. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse. 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	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
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	P18084

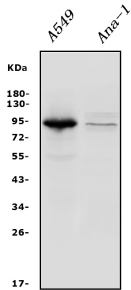
Technical Details

Immunogen	E.coli-derived human Integrin beta 5/ITGB5 recombinant protein (Position: S32-D689).
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) and ICC.
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.

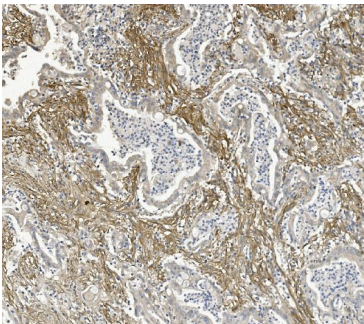
Suggested Dilutions

Western blot, 0.25-0.5ug/ml, Human, Mouse
Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human
Immunocytochemistry/Immunofluorescence, 4ug/ml, Human
Flow Cytometry (Fixed), 1-3ug/1x10⁶ cells, Human
ELISA, 0.1-0.5ug/ml, -

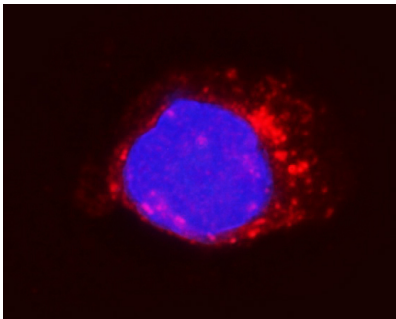
Anti-Integrin beta 5/ITGB5 Antibody Picoband® (A04201-1) Images



Western blot analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (A04201-1). 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 50ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates, Lane 2: mouse Ana-1 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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 5/ITGB5 antigen affinity purified polyclonal antibody (Catalog # A04201-1) 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 1:10000 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 Integrin beta 5/ITGB5 at approximately 90KD. The expected band size for Integrin beta 5/ITGB5 is at 90KD.

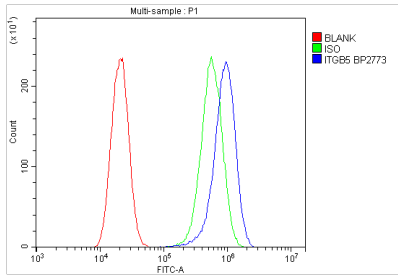


IHC analysis of ITGB5 using anti-ITGB5 antibody (A04201-1). ITGB5 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ITGB5 Antibody (A04201-1) 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.

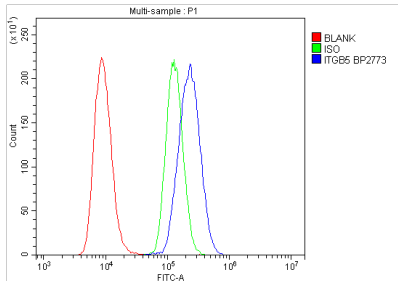


IF analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (A04201-1). Integrin beta 5/ITGB5 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4ug/mL rabbit anti-Integrin beta 5/ITGB5 Antibody (A04201-1) overnight at 4°C. DyLight®550 Conjugated Goat Anti-Rabbit IgG (BA1135) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

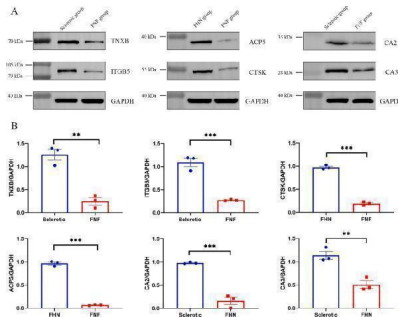
Flow Cytometry analysis of A549 cells using anti-Integrin beta 5/ITGB5 antibody (A04201-1). Overlay histogram showing A549 cells stained with A04201-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4%



paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Integrin beta 5/ITGB5 Antibody (A04201-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Flow Cytometry analysis of Raji cells using anti-Integrin beta 5/ITGB5 antibody (A04201-1). Overlay histogram showing Raji cells stained with A04201-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Integrin beta 5/ITGB5 Antibody (A04201-1, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot validation of proteomic data. (A) Elevated levels of ITGB5, TNXB , CA II, CA III were observed in the peri-implant sclerosis samples, while elevated levels of ACP5 and CTSC were observed in femoral head necrosis samples. (B) The ratio of TIGAR/GAPDH intensities in Western blot. GAPDH was used as a loading control, quantified and normalized to GAPDH using ImageJ. All experiments were performed in triplicate, * indicates significant expression level change compared to the control group, *P<0.05, **P<0.01. ***P<0.001. Index in PubMed under a CC BY license. PMID: 38851808

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Anti-Integrin beta 5/ITGB5 Antibody

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