

Anti-Integrin alpha 4/ITGA4 Antibody Picoband®

Catalog Number: PB9648

About ITGA4

ITGA4/Integrin alpha4 is an integrin alpha subunit. It makes up half of the alpha4beta1 lymphocyte homing receptor. The product of this gene belongs to the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This gene encodes an alpha 4 chain. Unlike other integrin alpha chains, alpha 4 neither contains an I-domain, nor undergoes disulfide-linked cleavage. Alpha 4 chain associates with either beta 1 chain or beta 7 chain. ITGA4 is also mapped to 2q31-q32 by fluorescence in situ hybridization.

Overview

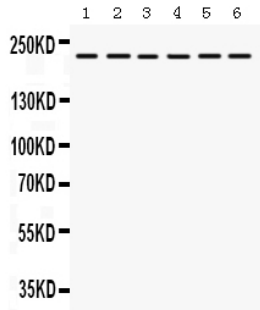
Product Name	Anti-Integrin alpha 4/ITGA4 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-Integrin alpha 4/ITGA4 Antibody Picoband® catalog # PB9648. Tested in Flow Cytometry, IHC, IHC-F, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this 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	Flow Cytometry, IHC, IHC-F, 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	P13612

Technical Details

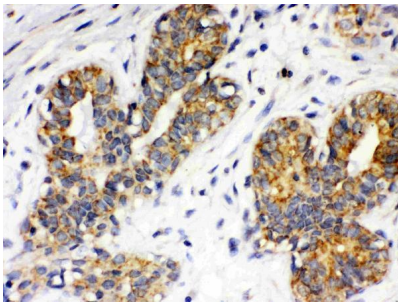
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Integrin alpha 4, different from the related mouse sequence by one amino acid.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).

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 Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

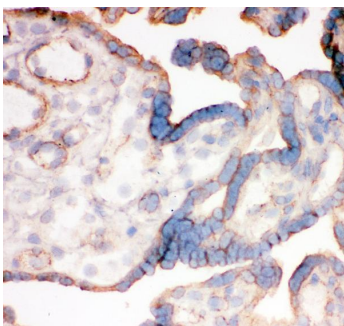
Anti-Integrin alpha 4/ITGA4 Antibody Picoband® (PB9648) Images



Western blot analysis of Integrin alpha 4 using anti-Integrin alpha 4 antibody (PB9648). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: Rat Liver Tissue Lysate at 50ug, Lane 2: Rat Kidney Tissue Lysate at 50ug, Lane 3: JURKAT Whole Cell Lysate at 40ug, Lane 4: 22RV1 Whole Cell Lysate at 40ug, Lane 5: HEPG2 Whole Cell Lysate at 40ug, Lane 6: SMMC Whole Cell Lysate at 40ug. 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 alpha 4 antigen affinity purified polyclonal antibody (Catalog # PB9648) 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 Integrin alpha 4 at approximately 220 kDa. The expected band size for Integrin alpha 4 is at 115 kDa.

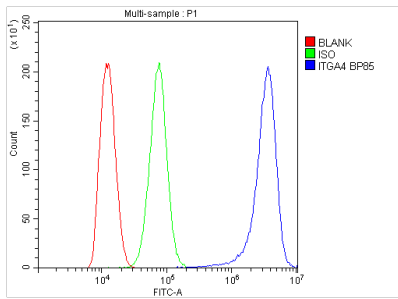


IHC analysis of Integrin alpha 4 using anti-Integrin alpha 4 antibody (PB9648). Integrin alpha 4 was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Integrin alpha 4 Antibody (PB9648) 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 Integrin alpha 4 using anti-Integrin alpha 4 antibody (PB9648). Integrin alpha 4 was detected in frozen section of human placenta tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Integrin alpha 4 Antibody (PB9648) 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.

Flow Cytometry analysis of THP-1 cells using anti-Integrin alpha 4 antibody (PB9648). Overlay histogram showing THP-1 cells stained with PB9648 (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 alpha 4 Antibody (PB9648, 1 μ g/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 μ g/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 μ g/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-Integrin alpha 4/ITGA4 Antibody

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