Product datasheet

Anti-Integrin Beta 4/ITGB4 Antibody

Catalog Number: *PB9007*

BOSTER
antibody and ELISA experts
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Basic Information

Product Name	Anti-Integrin Beta 4/ITGB4 Antibody
Gene Name	ITGB4
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, IHC, IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human Integrin beta 4 recombinant protein (Position: N28-A266). Human Integrin beta 4 shares 88% and 86% amino acid (aa) sequence identity with mouse and rat Integrin beta 4, respectively.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	210 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 29 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

ITGB4(Integrin, beta-4), also known as CD104 (Cluster of Differentiation 104), is a human gene. The gene encodes the integrin beta 4 subunits, a receptor for the laminins. This subunit tends to associate with alpha 6 subunits and is likely to play a pivotal role in the biology of invasive carcinoma. The ITGB4 gene is mapped on 17q25.1. Using expression profiling, Yang et al. found that ITGB4 was upregulated 6-fold by ZKSCAN3 in transfected human colon cancer cells compared with parental cells. They confirmed that ZKSCAN3 bound the promoter of ITGB4 in vitro and in vivo. ITGB4

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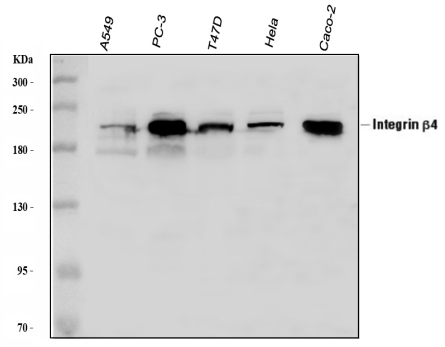
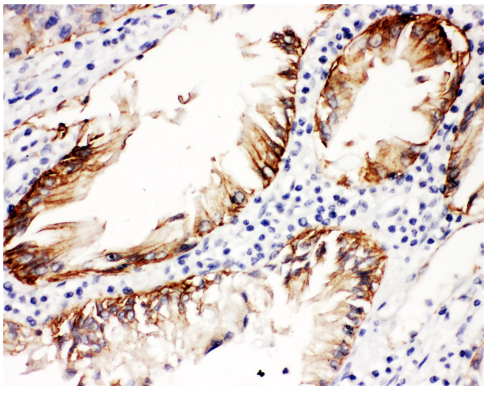
knockdown by short hairpin RNA countered ZKSCAN3-augmented anchorage-independent colony formation in the colon cancer cell lines. The integrin beta-4 subunit is characterized by an unusually long cytoplasmic domain that harbors 4 fibronectin type III (FNIII) repeats, residing in 2 pairs separated by a connecting segment. Vidal et al. found compound heterozygosity for mutations in the ITGB4 gene in an infant with junctional epidermolysis bullosa associated with pyloric atresia.

Selected Validation Data



Western blot analysis of anti- ITGB4 antibody (PB9007). The sample well of each lane was loaded with 30ug of sample under reducing conditions.
Lane 1: human A549 whole cell lysates,
Lane 2: human PC-3 whole cell lysates,
Lane 3: human T-47D whole cell lysates,
Lane 4: human Hela whole cell lysates,
Lane 5: human Caco-2 whole cell lysates.
Use rabbit anti- ITGB4 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog#EK1002). A specific band was detected for ITGB4 at approximately 210KD. The expected band size for ITGB4 is at 202KD.



IHC analysis of Integrin Beta 4/ITGB4 using anti-Integrin Beta 4/ITGB4 antibody (PB9007).
Integrin Beta 4/ITGB4 was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Integrin Beta 4/ITGB4 Antibody (PB9007) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.

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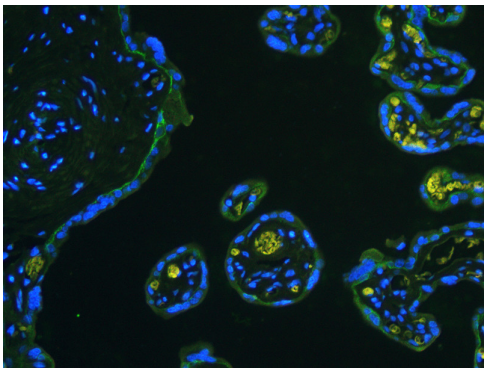
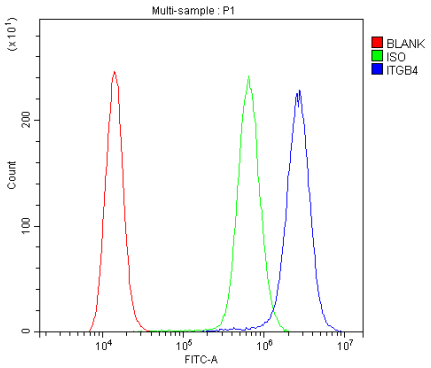


IF analysis of ITGB4 using anti-ITGB4 antibody (PB9007)
ITGB4 was detected in paraffin-embedded section of human placenta tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/mL rabbit anti- ITGB4 Antibody (PB9007) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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 A431 cells using anti-Integrin Beta 4/ITGB4 antibody (PB9007).
Overlay histogram showing A431 cells stained with PB9007 (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 4/ITGB4 Antibody (PB9007) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution 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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