

Basic Information

Product Name	Anti-Integrin Beta 4/ITGB4 Antibody (Clone#7G10D2)	
Gene Name	ITGB4	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human	
Tested Application	WB, ICC/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/ITGB4 recombinant protein (Position: R29-K431).	
Concentration	500 ug/ml	
Purification	protein G/A purified	
Observed MW	210 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200

Storage

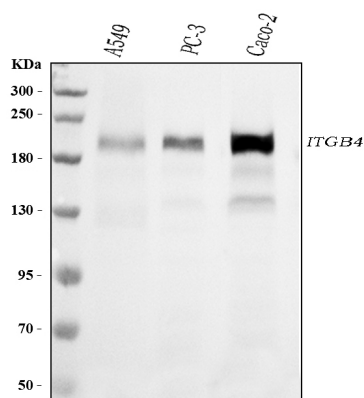
12 months from date of receipt, -20°C as supplied.

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 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



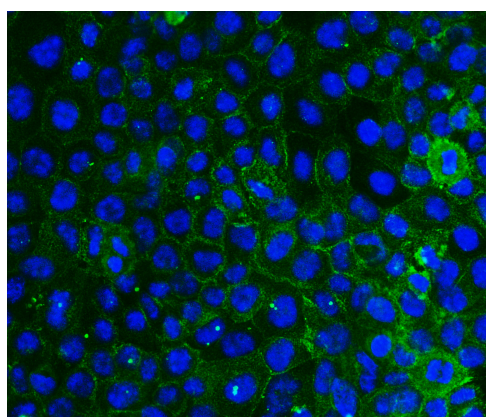
Western blot analysis of Integrin Beta 4/ITGB4 using anti-Integrin Beta 4/ITGB4 antibody (M01015-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: A549 whole cell lysates,

Lane 2: PC-3 whole cell lysates,

Lane 3: Caco-2 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-Integrin Beta 4/ITGB4 antigen affinity purified monoclonal antibody (M01015-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Integrin Beta 4/ITGB4 at approximately 210 kDa. The expected band size for Integrin Beta 4/ITGB4 is at 202 kDa.

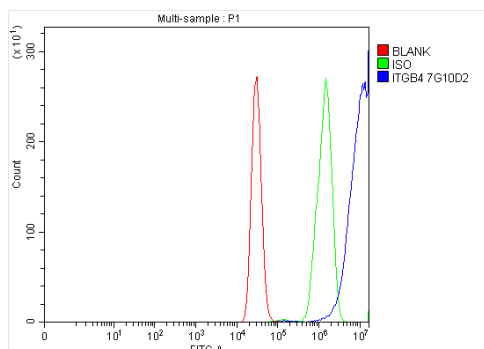


ICC/IF analysis of Integrin Beta 4/ITGB4 using anti-Integrin Beta 4/ITGB4 antibody (M01015-2).

Integrin Beta 4/ITGB4 was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-Integrin Beta 4/ITGB4 Antibody (M01015-2) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

Anti-Integrin Beta 4/ITGB4 Antibody (Clone#7G10D2)

Catalog Number: **M01015-2**



Flow Cytometry analysis of MCF-7 cells using anti-Integrin Beta 4/ITGB4 antibody (M01015-2).

Overlay histogram showing MCF-7 cells stained with M01015-2 (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 mouse anti-Integrin Beta 4/ITGB4 Antibody (M01015-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse 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.