

## Basic Information

<b>Product Name</b>	Anti-Integrin Beta 4/ITGB4 Antibody	
<b>Gene Name</b>	ITGB4	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Polyclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, IF, FCM, ELISA	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human Integrin beta 4/ITGB4 recombinant protein (Position: R29-K431).	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	210 kDa	
<b>Dilution Ratios</b>	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunofluorescence (IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

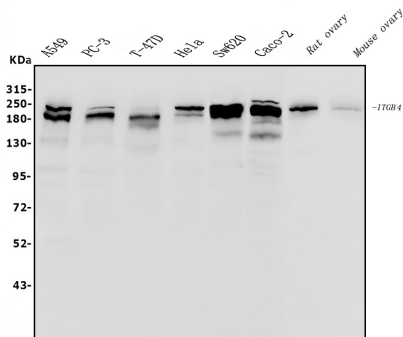
12 months from date of receipt, -20°C as supplied.

## 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 (A01015-2). The sample well of each lane was loaded with 30 ug 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,

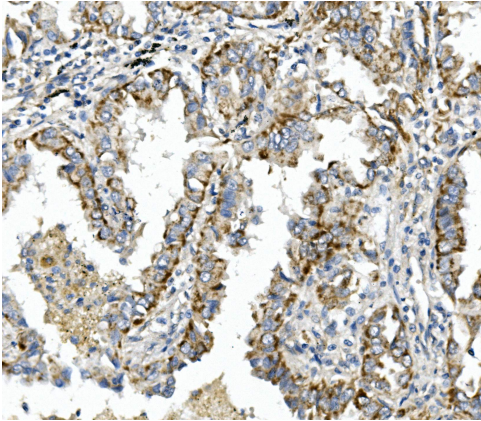
Lane 5: human SW620 whole cell lysates,

Lane 6: human CACO-2 whole cell lysates,

Lane 7: Rat ovary tissue lysates,

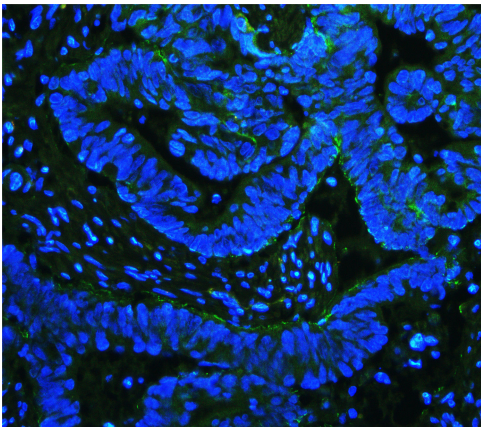
Lane 8: Mouse ovary tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Integrin Beta 4/ITGB4 antigen affinity purified polyclonal antibody (A01015-2) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). 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.

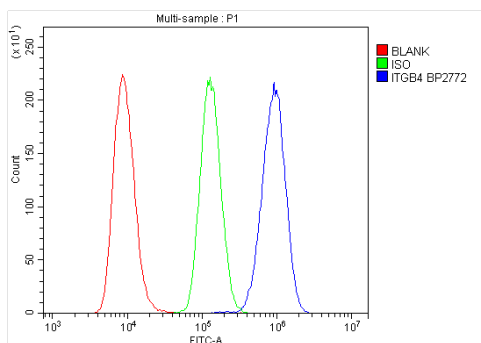


IHC analysis of Integrin Beta 4/ITGB4 using anti-Integrin Beta 4/ITGB4 antibody (A01015-2).

Integrin Beta 4/ITGB4 was detected in a paraffin-embedded section of human lung 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 (A01015-2) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis using anti-ITGB4 antibody (A01015-2) . detected in paraffin-embedded section of human intestinal cancer tissue. The tissue section were stained using the Fluoro488 conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog® #® BA1127) and counterstained with DAPI (blue).



Flow Cytometry analysis of Raji cells using anti-Integrin Beta 4/ITGB4 antibody (A01015-2).

Overlay histogram showing Raji cells stained with A01015-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Integrin Beta 4/ITGB4 Antibody (A01015-2) 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.

Product datasheet

## Anti-Integrin Beta 4/ITGB4 Antibody

Catalog Number: **A01015-2**

**BOSTER**<sup>®</sup>

antibody and ELISA experts

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Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,  
East Lake High-Tech Development Zone, Wuhan.

**Web:** [www.boster.com](http://www.boster.com) **Phone:** 027-67845390/1/2 **Email:** [boster@boster.com](mailto:boster@boster.com)