



## Integrin $\beta$ 1 (ANT0012R) Rabbit mAb

CatalogNo: ANT8338 **Recombinant** 

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA  
Quantity : 100 ug/vial

### Host Species

- Rabbit

### MW

- 88kD (Calculated)
- 115-125kD (Observed)

### Reactivity

- Human,Mouse,Rat,

### Isotype

- IgG,Kappa

### Applications

- WB,IHC,IF,IP,ELISA

## Recommended Dilution Ratios

IHC 1:2000-1:10000 WB 1:2000-1:10000 IF 1:200-1:1000 ELISA 1:5000-1:20000 IP 1:50-1:200

## Storage

**Storage\*** -15°C to -25°C/1 year(Do not lower than -25°C)

## Basic Information

**Clonality** Monoclonal

**Clone Number** ANT0012R

## Immunogen Information **Specificity**

Endogenous

## Target Information

**Gene name** ITGB1

**Protein Name** Integrin beta-1

Organism	Gene ID	UniProt ID
Human	<a href="#">3688</a> ;	<a href="#">P05556</a> ;
Mouse	<a href="#">16412</a> ;	<a href="#">P09055</a> ;
Rat	<a href="#">24511</a> ;	<a href="#">P49134</a> ;

**Cellular  
Localization**

Membrane

**Tissue specificity** [Isoform 1]: Widely expressed, other isoforms are generally coexpressed with a more restricted distribution. ; [Isoform 2]: Expressed in skin, liver, skeletal muscle, cardiac muscle, placenta, umbilical vein endothelial cells, neuroblastoma cells, lymphoma cells, hepatoma cells and astrocytoma cells. ; [Isoform 3]: Together with isoform 4, is expressed in muscle, kidney, liver, placenta, cervical epithelium, umbilical vein endothelial cells, fibroblast cells, embryonal kidney cells, platelets and several blood cell lines. Expressed in non-proliferating and differentiated prostate gland epithelial cells and in platelets, on the surface of erythroleukemia cells and in various hematopoietic cell lines. ; [Isoform 4]: Together with isoform 3, is expressed in muscle, kidney, liver, placenta, cervical epithelium, umbilical vein endothelial cells, fibroblast cells, embryonal kidney cells, platelets and several blood cell lines. Rather than isoform 3, is selectively expressed in peripheral T-cells. ; [Isoform 5]: Expressed specifically in striated muscle (skeletal and cardiac muscle).

## Function

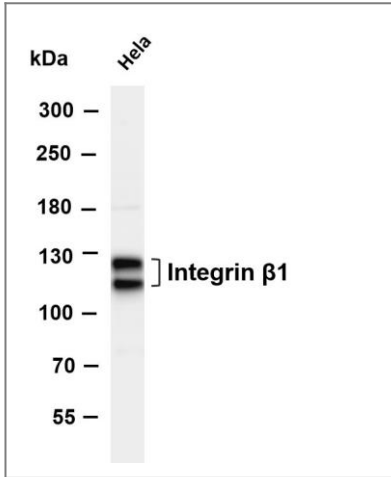
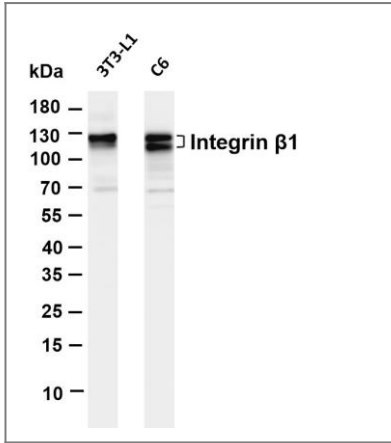
Function: Integrins alpha-1/beta-1, alpha-2/beta-1, alpha-10/beta-1 and alpha-11/beta-1 are receptors for collagen. Integrins alpha-1/beta-1 and alpha-2/beta-2 recognize the prolinehydroxylated sequence G-F-P-G-E-R in collagen. Integrins alpha-2/beta-1, alpha-3/beta-1, alpha-4/beta-1, alpha-5/beta-1, alpha-8/beta-1, alpha-10/beta-1, alpha-11/beta-1 and alphaV/beta-1 are receptors for fibronectin. Alpha-4/beta-1 recognizes one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. Integrin alpha-5/beta-1 is a receptor for fibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for laminin. Integrin alpha-4/beta-1 is a receptor for VCAM1. It recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-3/beta-1 is a receptor for epiligrin, thrombospondin and CSPG4. Alpha-3/beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration. Integrin alpha-V/beta-1 is a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. Isoform beta-1B interferes with isoform beta-1A resulting in a dominant negative effect on cell adhesion and migration (in vitro). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions. When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and GNB2L1/RACK1, serves as a platform for SRC activation or inactivation. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis.,online information:CD29 entry,ANTM:The cysteine residues are involved in intrachain disulfide bonds.,similarity:Belongs to the integrin beta chain family.,similarity:Contains 1 VWFA domain.,subcellular location:Isoform beta-1B does not localize to focal adhesions. Highly enriched in stage I melanosomes. Located on plasma membrane of neuroblastoma NMB7 cells. In a lung cancer cell line, in prometaphase and metaphase, localizes diffusely at the membrane and in a few intracellular vesicles. In early telophase, detected mainly on the matrix-facing side of the cells. By mid-telophase, concentrated to the ingressing cleavage furrow, mainly to the basal side of the furrow. In late telophase, concentrated to the extending protrusions formed at the opposite ends of the spreading daughter cells, in vesicles at the base of the lamellipodia formed by the separating daughter cells.,subunit:Heterodimer of an alpha and a beta subunit. Beta-1 associates with either alpha-1, alpha-2, alpha-3, alpha-4, alpha-5, alpha-6, alpha-7, alpha-8, alpha-9, alpha-10, alpha-11 or alpha-V. Binds LGALS3BP and ITGB1BP3, when associated with alpha-7, but not with alpha-5. Interacts with FLNA, FLNB and RANBP9. Isoform Beta-1D interacts with ACE2. Isoform Beta-1A interacts with the C-terminal region of FLNC. Interacts with KRT1 in the presence of GNB2L1 and SRC. Interacts with HIV-1 Tat. Binds to human echoviruses 1 and 8 capsid proteins and acts as a receptor for these viruses. Interacts with RAB21.,tissue specificity:Isoform beta-1A is widely expressed, other isoforms are generally coexpressed with a more restricted distribution. Isoform beta-1B is expressed in skin, liver, skeletal muscle, cardiac muscle, placenta, umbilical vein endothelial cells, neuroblastoma cells, lymphoma cells, hepatoma cells and astrocytoma cells. Isoform beta-1C and isoform beta-1C-2 are expressed in muscle, kidney, liver, placenta, cervical epithelium, umbilical vein endothelial cells, fibroblast cells, embryonal kidney cells, platelets and several blood cell lines. Isoform beta-C-2, rather than isoform beta-1C, is selectively expressed in peripheral T-cells. Isoform beta-1C is expressed in non-proliferating and differentiated prostate gland epithelial cells and in platelets, on the surface of erythroleukemia cells and in various hematopoietic cell lines. Isoform beta-1D is expressed specifically in striated muscle (skeletal and cardiac muscle),.

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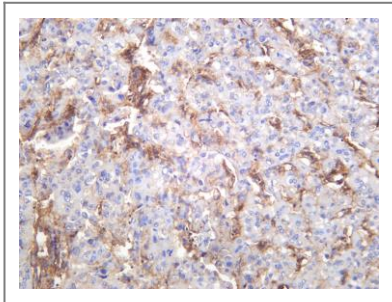
## Validation

### Data

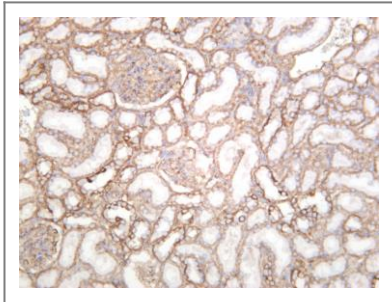
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-Integrin  $\beta$ 1 (ANT0012R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: 3T3-L1 Lane 2: C6 Predicted band size: 88kDa Observed band size: 115-125kDa



Various whole cell lysates were separated by 4-8% SDS-PAGE, and the membrane was blotted with anti-Integrin  $\beta$ 1 (ANT0012R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Predicted band size: 88kDa Observed band size: 115-125kDa



Human hepatocellular carcinoma was stained with anti-Integrin  $\beta$ 1 (ANT0012R) rabbit antibody



Rat kidney was stained with anti-Integrin  $\beta$ 1 (ANT0012R) rabbit antibody