Integrin β1 (Phospho Thr788) Rabbit pAb

CatalogNo: YP0143 Orthogonal Validated

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IHC,IF,ELISA

MW
- 135kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000
IHC 1:100-1:300
ELISA 1:20000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Integrin beta1 around the phosphorylation site of Thr788. AA range:749-798

Specificity Phospho-Integrin β1 (T788) Polyclonal Antibody detects endogenous levels of Integrin β1 protein only when phosphorylated at T788.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):AVtTV

Target Information

Gene name ITGB1

Protein Name Integrin beta-1

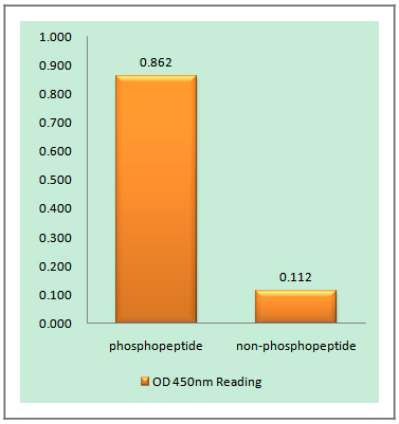
Organism	Gene ID	UniProt ID
Human	3688;	P05556;
Mouse	16412;	P09055;
Rat	24511;	P49134;

Cellular Localization Cell membrane ; Single-pass type I membrane protein . Cell projection , invadopodium membrane ; Single-pass type I membrane protein . Cell projection , ruffle membrane ; Single-pass type I membrane protein . Recycling endosome . Melanosome . Cleavage furrow . Cell projection , lamellipodium . Cell projection , ruffle . Cell junction , focal adhesion . Cell surface . Isoform 2 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. Colocalizes with ITGB1BP1 and metastatic suppressor protein NME2 at the edge or peripheral ruffles and lamellipodia during the early stages of cell spreading on fibronectin or collagen. Translocates from peripheral focal adhesions sites to fibrillar adhesions in a ITGB1BP1-dependent manner. Enriched preferentially at invadopodia , cell membrane protrusions that correspond to sites of cell invasion , in a collagen-dependent manner. Localized at plasma and ruffle membranes in a collagen-independent manner. .; [Isoform 5]: Cell membrane , sarcolemma . Cell junction . In cardiac muscle , isoform 5 is found in costameres and intercalated disks. .

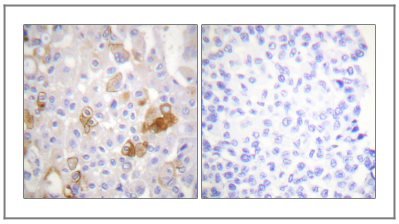
Tissue specificity [Isoform 1]: Widely expressed , other isoforms are generally coexpressed with a more restricted distribution. ; [Isoform 2]: Expressed in skin , liver , skeletal muscle , cardiac muscle , placenta , umbilical vein endothelial cells , neuroblastoma cells , lymphoma cells , hepatoma 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 proline-hydroxylated 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 alpha-V/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 lamimin. 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 ,PTM: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 afew 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 , umbelical 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) . ,

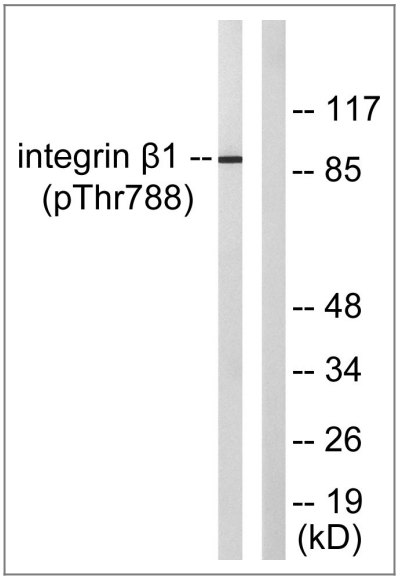
Validation Data



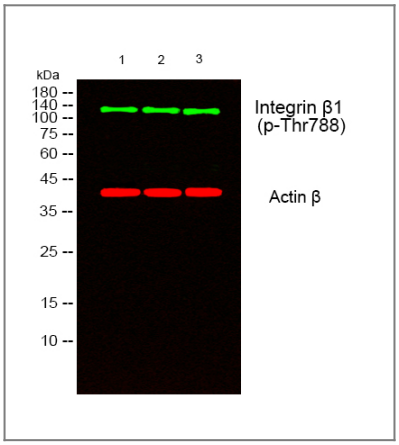
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Integrin beta1 (Phospho-Thr788) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using Integrin beta1 (Phospho-Thr788) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with UV 15', using Integrin beta1 (Phospho-Thr788) Antibody. The lane on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 1) Hela , 2)3T3, 3) Jurkat cells, (Green) primary antibody was diluted at 1:1000, 4℃ over night, secondary antibody (cat:RS23920)was diluted at 1:10000, 37° 1hour. (Red) Actin β Monoclonal Antibody (5B7) (cat:YM3028) antibody was diluted at 1:5000 as loading control, 4℃ over night,secondary antibody (cat:RS23710)was diluted at 1:10000, 37° 1hour.

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Please scan the QR code to access additional product information:
Integrin β1 (Phospho Thr788) Rabbit pAb

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