

Integrin β 1 (phospho Thr789) Polyclonal Antibody

Catalog No :	YP0879
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	Integrin β 1
Fields :	>>Rap1 signaling pathway;>>Phagosome;>>PI3K-Akt signaling pathway;>>Axon guidance;>>Focal adhesion;>>ECM-receptor interaction;>>Cell adhesion molecules;>>Tight junction;>>Platelet activation;>>Leukocyte transendothelial migration;>>Regulation of actin cytoskeleton;>>Bacterial invasion of epithelial cells;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Pertussis;>>Yersinia infection;>>Leishmaniasis;>>Toxoplasmosis;>>Human papillomavirus infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>Small cell lung cancer;>>Hypertrophic cardiomyopathy;>>Arrhythmogenic right ventricular cardiomyopathy;>>Dilated cardiomyopathy
Gene Name :	ITGB1
Protein Name :	Integrin beta-1
Human Gene Id :	3688
Human Swiss Prot No :	P05556
Mouse Gene Id :	16412
Mouse Swiss Prot No :	P09055
Rat Gene Id :	24511
Rat Swiss Prot No :	P49134
Immunogen :	The antiserum was produced against synthesized peptide derived from human Integrin beta1 around the phosphorylation site of Thr789. AA range:749-798
Specificity :	Phospho-Integrin β 1 (T789) Polyclonal Antibody detects endogenous levels of

Integrin β 1 protein only when phosphorylated at T789.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source : Polyclonal, Rabbit,IgG

Dilution : WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

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

Observed Band : 90kD

Cell Pathway : Axon guidance;Focal adhesion;ECM-receptor interaction;Cell adhesion molecules (CAMs);Leukocyte transendothelial migration;Regulates Actin and Cytoskeleton;Pathogenic Escherichia coli infection;Pathway

Background : Integrins are heterodimeric proteins made up of alpha and beta subunits. At least 18 alpha and 8 beta subunits have been described in mammals. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This gene encodes a beta subunit. Multiple alternatively spliced transcript variants which encode different protein isoforms have been found for this gene. [provided by RefSeq, Jul 2008],

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 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

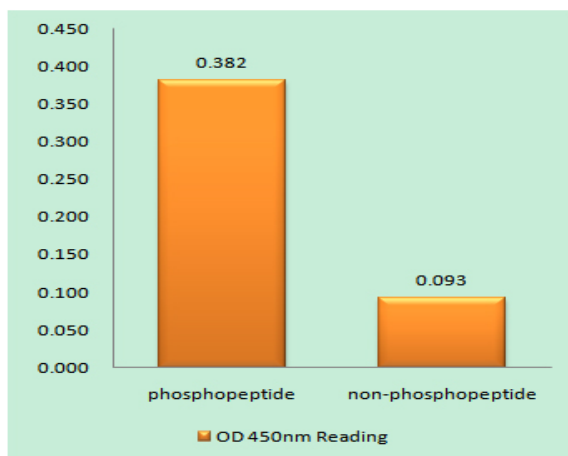
Subcellular Location : Cell membrane ; Single-pass type I membrane protein . Cell projection, invadopodium membrane ; Single-pass type I membrane protein . Cell projection,

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 basa

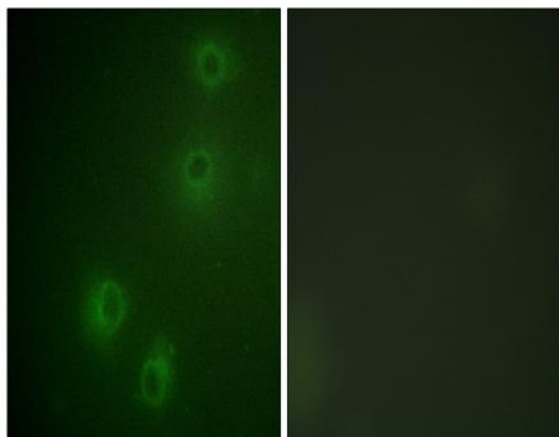
Expression :

[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, ce

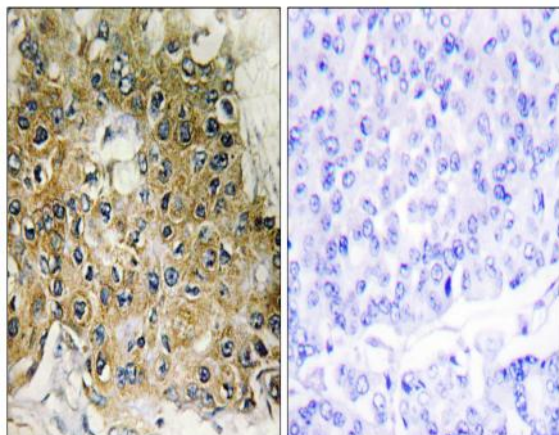
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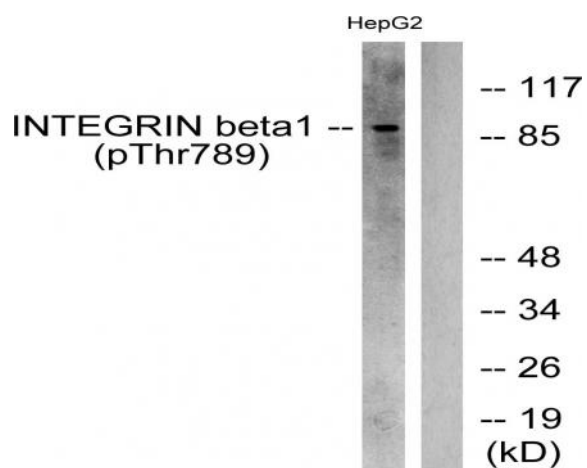
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Integrin beta1 (Phospho-Thr789) Antibody



Immunofluorescence analysis of COS7 cells, using Integrin beta1 (Phospho-Thr789) Antibody. The picture on the right is blocked with the phosphopeptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using Integrin beta1 (Phospho-Thr789) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HepG2 cells treated with Ca^{2+} 40uM 30', using Integrin beta1 (Phospho-Thr789) Antibody. The lane on the right is blocked with the phospho peptide.