



Integrin β 1 (phospho Thr789) Polyclonal Antibody

Catalog No	YP-Ab-16901
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	ITGB1
Protein Name	Integrin beta-1
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
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	$\geq 90\%$
Storage Stability	-20°C/1 year
Synonyms	ITGB1; FNRB; MDF2; MSK12; Integrin beta-1; Fibronectin receptor subunit beta; VLA-4 subunit beta; CD antigen CD29
Observed Band	90kD
Cell Pathway	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
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, ce

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, cytactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytactin

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],

matters needing attention

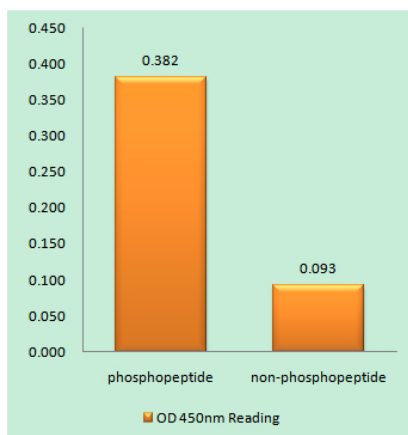
Avoid repeated freezing and thawing!

Usage suggestions

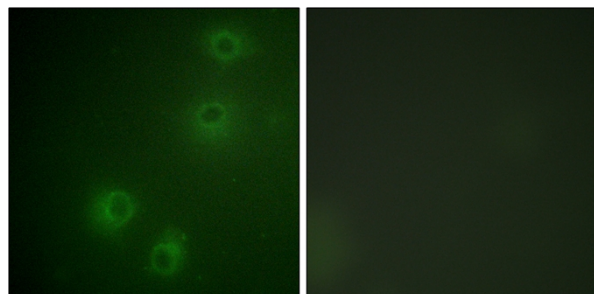
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



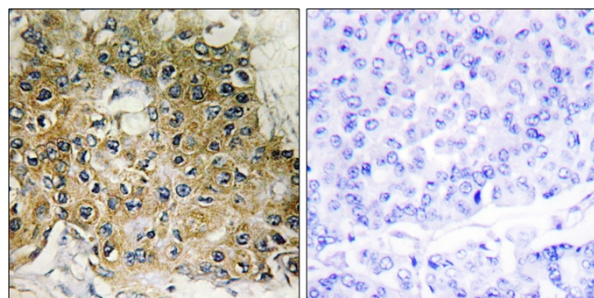
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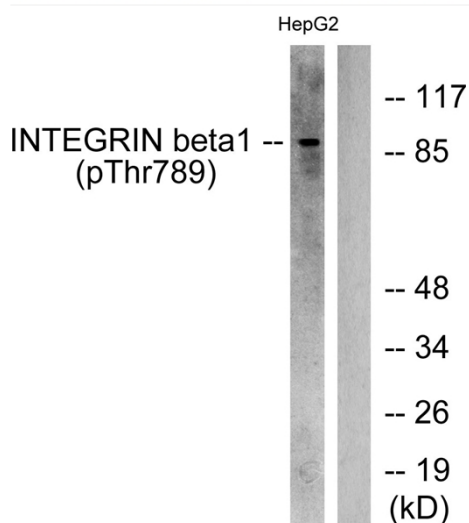
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using Integrin beta1 (Phospho-Thr789) Antibody



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



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.