Datasheet for ABIN3043259

anti-ITGB1 antibody (AA 527-728)

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Overview

Quantity:	100 µg
Target:	ITGB1
Binding Specificity:	AA 527-728
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ITGB1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Purpose:	Anti-Integrin beta 1/ITGB1 Antibody Picoband®
Immunogen:	E.coli-derived human ITGB1 recombinant protein (Position: N527-D728). Human ITGB1 shares 91% and 88% amino acid (aa) sequences identity with mouse and rat ITGB1, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Integrin beta 1/ITGB1 Antibody Picoband® (ABIN3043259). Tested in IHC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	ITGB1
Alternative Name:	ITGB1 (ITGB1 Products)
Background:	Synonyms: Integrin beta-1,Fibronectin receptor subunit beta,Glycoprotein IIa,GPIIA,VLA-4 subunit beta,CD29,ITGB1,FNRB, MDF2, MSK12, Tissue Specificity: Isoform 1 is widely expressed, other isoforms are generally coexpressed with a more restricted distribution. Isoform 2 is expressed in skin, liver, skeletal muscle, cardiac muscle, placenta, umbilical vein endothelial cells, neuroblastoma cells, lymphoma cells, hepatoma cells and astrocytoma cells. Isoform 3 and isoform 4 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 4, rather than isoform 3, is selectively expressed in peripheral T-cells. Isoform 3 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 5 is expressed specifically in striated muscle (skeletal and cardiac muscle). . Background: Integrin beta-1, also known as CD29, is a protein that in humans is encoded by the ITGB1 gene. CD29 is an integrin unit associated with very late antigen receptors. It is known to conjoin with alpha-3 subunit to create alpha3beta1 complex that reacts to such molecules as netrin-1 and reelin. This gene contains a beta subunit that appears to be analogous to band-3 of integrin. It is mapped to 10p11.22. It is found that FER mediates crosstalk between CDH2 and CD29. 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. The protein encoded by this gene is a beta subunit. Sequence Similarities: Belongs to the integrin beta chain family.
Molecular Weight:	120-130 kDa
Gene ID:	3688
UniProt:	P05556
Pathways:	Cell-Cell Junction Organization, Regulation of G-Protein Coupled Receptor Protein Signaling, CXCR4-mediated Signaling Events, Signaling of Hepatocyte Growth Factor Receptor, Integrin Complex, SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Western blot, 0.1-0.5 µg/mL, Human, Rat

Application Details

	Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/mL, Human 1. Goodfellow PJ, Nevanlinna HA, Gorman P, Sheer D, Lam G, Goodfellow PN (July 1989). "Assignment of the gene encoding the beta-subunit of the human fibronectin receptor (beta-FNR) to chromosome 10p11.2". Ann Hum Genet53 (Pt 1): 15-22. 2. Pytela, R., Pierschbacher, M. D., Ginsberg, M. H., Plow, E. F., Ruoslahti, E. Platelet membrane glycoprotein IIb/IIIa: member of a family of arg-gly-asp-specific adhesion receptors. Science 231: 1159-1162, 1986.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C,-20 °C
Storage Comment:	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in:	Tian, Tao, Zhao, Tai, Liu, Liu: "Isolation and morphological characterization of ovine amniotic fluid mesenchymal stem cells." in: **Experimental animals**, Vol. 65, Issue 2, pp. 125-34, (2017) (PubMed). Zhang, Shang, Hao, Zheng, Li, Liang, Cui, Liu: "Effects of human umbilical cord mesenchymal stem cell transplantation combined with minimally invasive hematoma aspiration on

Publications

intracerebral hemorrhage in rats." in: **American journal of translational research**, Vol. 7, Issue 11, pp. 2176-86, (2016) (PubMed).

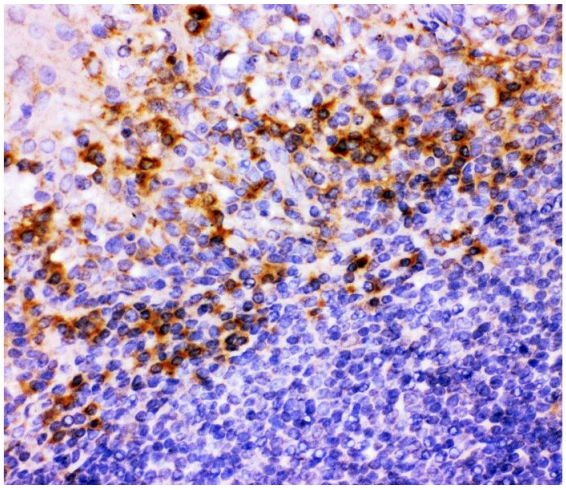
Cheng, Gu, Yuan, Feng, Jia: "Suppression of A549 cell proliferation and metastasis by calycosin via inhibition of the PKC-α/ERK1/2 pathway: An in vitro investigation." in: **Molecular medicine reports**, Vol. 13, Issue 4, pp. 3709-10, (2016) (PubMed).

Yang, Sun, Geng, Ma, Sun, Fu: "Abnormalities in the basement membrane structure promote basal keratinocytes in the epidermis of hypertrophic scars to adopt a proliferative phenotype." in: **International journal of molecular medicine**, Vol. 37, Issue 5, pp. 1263-73, (2016) (PubMed).

Lin, Yang, Wang, Wang, Zhou, Liu, Peng: "Effect of mixed transplantation of autologous and allogeneic microskin grafts on wound healing in a rat model of acute skin defect." in: **PLoS ONE**, Vol. 9, Issue 1, pp. e85672, (2014) (PubMed).

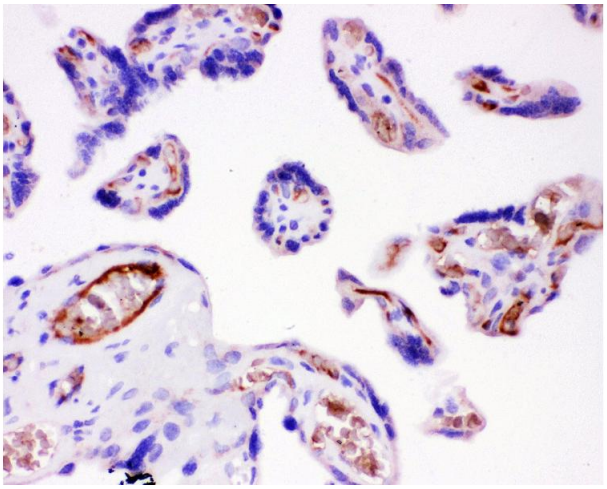
There are more publications referencing this product on: Product page

Images



Immunohistochemistry

Image 1. Anti-ITGB1 Picoband antibody, IHC(P): Human Tonsil Tissue



Immunohistochemistry

Image 2. Anti-ITGB1 Picoband antibody, IHC(P): Human Placenta Tissue

Western Blotting

Image 3. Anti-ITGB1 Picoband antibody, All lanes: Anti-ITGB1 at 0.5ug/ml WB: Hela Whole Cell Lysate at 40ug Predicted bind size: 88KD Observed bind size: 130KD