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Datasheet for ABIN6262614
anti-ITGB1 antibody (C-Term)

2 Images

1 Publication

Overview

Quantity:	100 µL
Target:	ITGB1
Binding Specificity:	C-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ITGB1 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human Integrin beta 1, corresponding to a region within C-terminal amino acids.
Isotype:	IgG
Specificity:	Integrin beta 1 Antibody detects endogenous levels of total Integrin beta 1.
Predicted Reactivity:	Pig,Bovine,Sheep,Rabbit,Dog,Chicken
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	ITGB1
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Target Details

Alternative Name: ITGB1 ([ITGB1 Products](#))

Background: Description: 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. 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 2 interferes with isoform 1 resulting in a dominant negative effect on cell adhesion and migration (in vitro). When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process and the formation of mineralized bone nodules. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and RACK1, serves as a platform for SRC activation or inactivation. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis. Integrin alpha-3/beta-1 provides a docking site for FAP (seprase) at invadopodia plasma membranes in a collagen-dependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling (PubMed:23125415, PubMed:24789099). ITGA4:ITGB1 and ITGA5:ITGB1 bind to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:18635536, PubMed:25398877). ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1 (PubMed:12807887, PubMed:17158881). ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling (PubMed:29030430).

Gene: ITGB1

Molecular Weight: 160 kDa

Gene ID: 3688

Target Details

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: WB 1:500-1:2000, IF/ICC 1:100-1:500, IHC 1:50-1:200, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 1 mg/mL

Buffer: Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: -20 °C

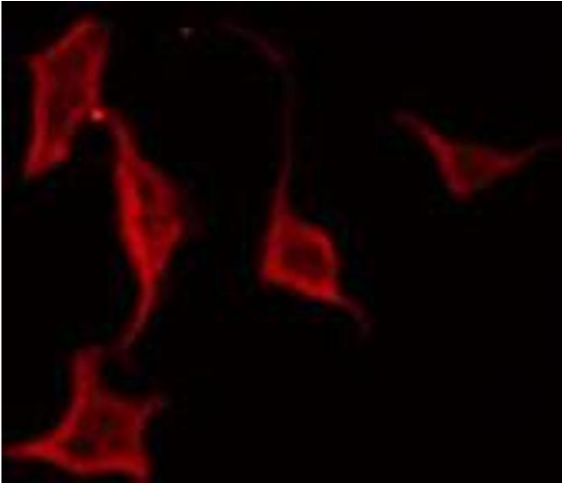
Storage Comment: Store at -20 °C. Stable for 12 months from date of receipt.

Expiry Date: 12 months

Publications

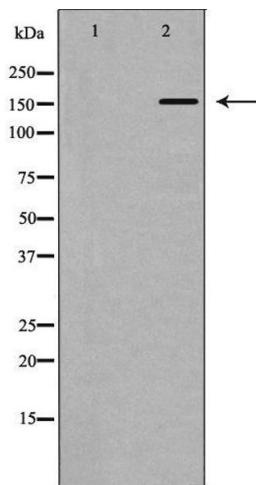
Product cited in: Chen, Zhou, Liu, Huang, Liu, Kang, Chen, Guo, Zhu, Sun: "Combination of gemcitabine and erlotinib inhibits recurrent pancreatic cancer growth in mice via the JAK-STAT pathway." in: **Oncology reports**, Vol. 39, Issue 3, pp. 1081-1089, (2018) ([PubMed](#)).

Bai, Wang, Han, Xie, Ji, Yin, Chen, Wang, Jiang, Qi, Jiang: "BCL2L10 inhibits growth and metastasis of hepatocellular carcinoma both in vitro and in vivo." in: **Molecular carcinogenesis**, Vol. 56, Issue 3, pp. 1137-1149, (2017) ([PubMed](#)).



Immunofluorescence (fixed cells)

Image 1. ABIN6268926 staining HeLa by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



Western Blotting

Image 2. Western blot analysis of Integrin β 1 expression in Jurkat cells. The lane on the left is treated with the antigen-specific peptide.