

Datasheet for ABIN7127584

Recombinant anti-ITGB1 antibody



[Go to Product page](#)

4 Images

Overview

Quantity:	100 µL
Target:	ITGB1
Reactivity:	Human
Host:	Rabbit
Antibody Type:	Recombinant Antibody
Clonality:	Monoclonal
Conjugate:	This ITGB1 antibody is un-conjugated
Application:	Western Blotting (WB), Flow Cytometry (FACS), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	A synthesized peptide derived from human ITGB1
Clone:	32A10
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	Affinity-chromatography

Target Details

Target:	ITGB1
Alternative Name:	ITGB1 (ITGB1 Products)

Target Details

Background: Background: 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).

Aliases: Integrin beta-1, Fibronectin receptor subunit beta, Glycoprotein IIa, GPIIa, VLA-4 subunit beta, CD29, ITGB1, FNRB, MDF2, MSK12

UniProt: [P05556](#)

Pathways: [Cell-Cell Junction Organization, Regulation of G-Protein Coupled Receptor Protein Signaling,](#)

Target Details

CXCR4-mediated Signaling Events, Signaling of Hepatocyte Growth Factor Receptor, Integrin Complex, SARS-CoV-2 Protein Interactome

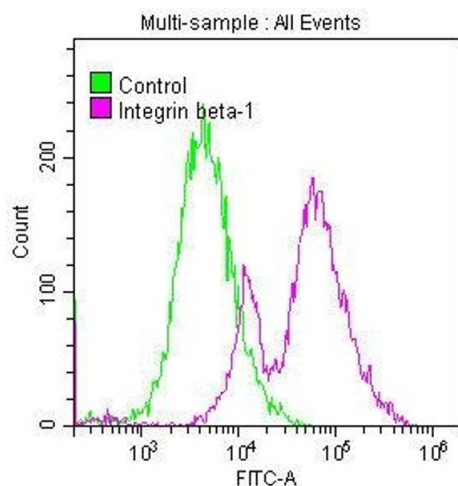
Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200,
Restrictions:	For Research Use only

Handling

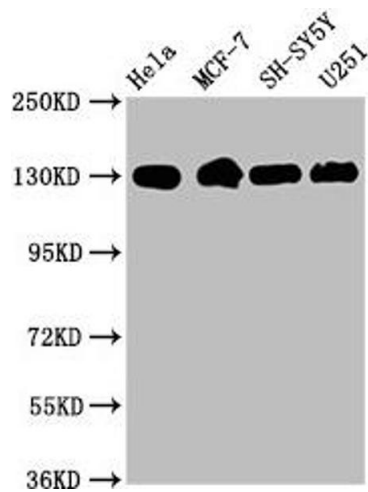
Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



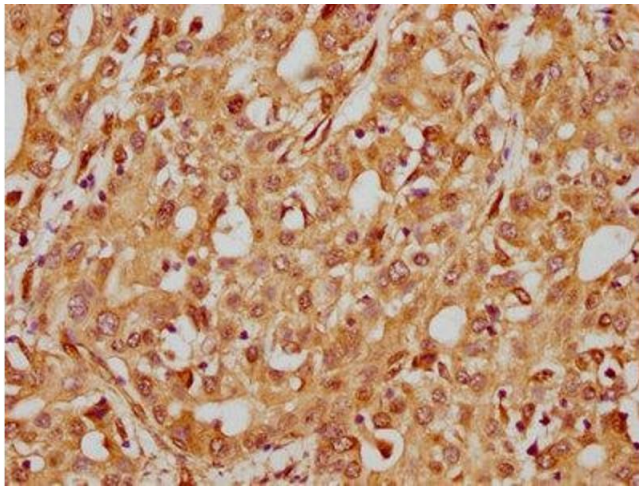
Flow Cytometry

Image 1. Overlay histogram showing MCF-7 cells stained with ABIN7127584 (red line) at 1:50. The cells were fixed with 70 % Ethylalcohol (18h) and then permeabilized with 0.3 % Triton X-100 for 2 min. The cells were then incubated in 1x PBS /10 % normal goat serum to block non-specific protein-protein interactions followed by primary antibody for 1 h at 4 °C. The secondary antibody used was FITC goat anti-rabbit IgG (H+L) at 1/200 dilution for 1 h at 4 °C. Control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.



Western Blotting

Image 2. Western Blot Positive WB detected in: HeLa whole cell lysate, MCF-7 whole cell lysate, SH-SY5Y whole cell lysate, U251 whole cell lysate All lanes: Integrin beta-1/CD29 antibody at 1.9 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 89, 88, 92 KDa Observed band size: 130 KDa



Immunohistochemistry

Image 3. IHC image of ABIN7127584 diluted at 1:185 and staining in paraffin-embedded human liver cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN7127584.