



Rabbit Anti-Integrin beta 1 antibody

SL0486R

Product Name:	Integrin beta 1
Chinese Name:	整合素β1/Integrin β1抗体
Alias:	Integrin beta 1; Integrin beta-1; beta 1 subunit; CD 29; CD-29; CD29; CD29 antigen; Fibrinogen Receptor beta subunit; Fibronectin receptor subunit beta; Fibronectin receptor, beta subunit; FNRB; GPIIA; integrin beta 1 (fibronectin receptor beta polypeptide antigen CD29 includes MDF2 MSK12); Integrin VLA 4 subunit beta; ITGB; ITGB1; MDF2; MSK12; Very Late Activation Protein beta Polypeptide; VLAB; VLABeta; Glycoprotein IIa; GP IIa; Integrin VLA 4 subunit beta; integrin VLA-4 beta subunit; integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12); ITB1_HUMAN; ITGB 1; ITGB1; OTTHUMP00000019420; Very Late Activation Protein beta Polypeptide; very late activation protein, beta polypeptide; VLA BETA; VLA-4 subunit beta; VLA-BETA; VLAB; VLABeta.
文献引用  :	<p>Specific References(6) SL0486R has been referenced in 6 publications.</p> <p>[IF=2.24]Chen, Xiaodong, et al. "The effect of porcine ADM to improve the burn wound healing." Int J Clin Exp Pathol 6.11 (2013): 2280-2291.WB;Rat. PubMed:24228089</p> <p>[IF=3.58]Lei, Mingxing, et al. "Modulating hair follicle size with Wnt10b/DKK1 during hair regeneration." Experimental Dermatology (2014).IHC-P;Mouse. PubMed:24750467</p> <p>[IF=1.89]Deng, Wei, et al. "Bone marrow mesenchymal stromal cells with CD47 high expression via the signal transducer and activators of transcription signaling pathway preventing myocardial fibrosis." International Journal of Clinical and Experimental Pathology 8.9 (2015): 10555-10564.other;Rat. PubMed:26617765</p>

	<p>[IF=2.09]Qin, Jie, et al. "Concentrated growth factor promotes Schwann cell migration partly through the integrin β1-mediated activation of the focal adhesion kinase pathway." International Journal of Molecular Medicine.WB;Rat.</p> <p>PubMed:26986804</p> <p>[IF=3.27]Oralova, V., et al. "Osteogenic Potential of the Transcription Factor c-MYB." Calcified Tissue International: 1-12.WB;Mouse.</p> <p>PubMed:28012106</p> <p>[IF=3.55]Fu, Min, et al. "Inositol Hexaphosphate and Inositol Inhibit Colorectal Cancer Metastasis to the Liver in BALB/c Mice." Nutrients 8.5 (2016): 286.IHC-P;Mouse.</p> <p>PubMed:27187454</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1 μ g/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	88kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Integrin beta 1:25-100/798<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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 lamimin. 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 beta-1B interferes with isoform beta-1A resulting in a dominant negative effect on cell adhesion and migration (in vitro). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

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. 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 beta-1B interferes with isoform beta-1A resulting in a dominant negative effect on cell adhesion and migration (in vitro). In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

Subunit:

Heterodimer of an alpha and a beta subunit. Beta-1 associates with either alpha-1, alpha-2, alpha-3, alpha-4, alpha-5, alpha-6, alpha-7, alpha-8, alpha-9, alpha-10, alpha-11 or alpha-V. Binds LGALS3BP and ITGB1BP3, when associated with alpha-7, but not with alpha-5. Interacts with FLNA, FLNB and RANBP9. Isoform Beta-1D interacts with ACE2. Isoform Beta-1A interacts with the C-terminal region of FLNC. Interacts with KRT1 in the presence of GNB2L1 and SRC. Interacts with HIV-1 Tat. Binds to human echoviruses 1 and 8 capsid proteins and acts as a receptor for these viruses. Interacts with RAB21. Interacts (via the cytoplasmic region) with RAB25 (via the hypervariable C-terminal region). Interacts with FGR and HCK (By similarity). Interacts with MYO10.

Subcellular Location:

Cell membrane; Single-pass type I membrane protein. Melanosome. Cleavage furrow. Note=Isoform beta-1B 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 basal side of the furrow. In late telophase, concentrated to the extending protrusions formed at the opposite ends of the spreading daughter cells, in vesicles at the base of the lamellipodia formed by the separating daughter cells.

Tissue Specificity:

Isoform beta-1A is widely expressed, other isoforms are generally coexpressed with a more restricted distribution. Isoform beta-1B is expressed in skin, liver, skeletal muscle, cardiac muscle, placenta, umbilical vein endothelial cells, neuroblastoma cells, lymphoma cells, hepatoma cells and astrocytoma cells. Isoform beta-1C and isoform beta-1C-2 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 beta-C-2, rather than isoform beta-1C, is selectively expressed in peripheral T-cells. Isoform beta-1C 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 beta-1D is expressed specifically in striated muscle (skeletal and cardiac muscle).

Post-translational modifications:

The cysteine residues are involved in intrachain disulfide bonds.

Similarity:

Belongs to the integrin beta chain family.
Contains 1 VWFA domain.

SWISS:
P05556

Gene ID:
3688

Database links:

[Entrez Gene: 3688](#) Human

[Entrez Gene: 16412](#) Mouse

[Entrez Gene: 24511](#) Rat

[Omim: 135630](#) Human

[SwissProt: P05556](#) Human

[SwissProt: P09055](#) Mouse

[SwissProt: P49134](#) Rat

[Unigene: 643813](#) Human

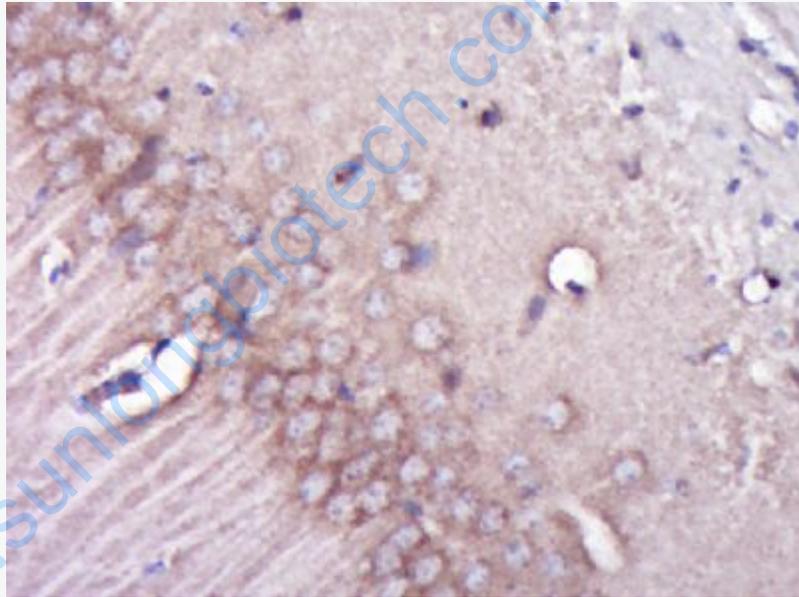
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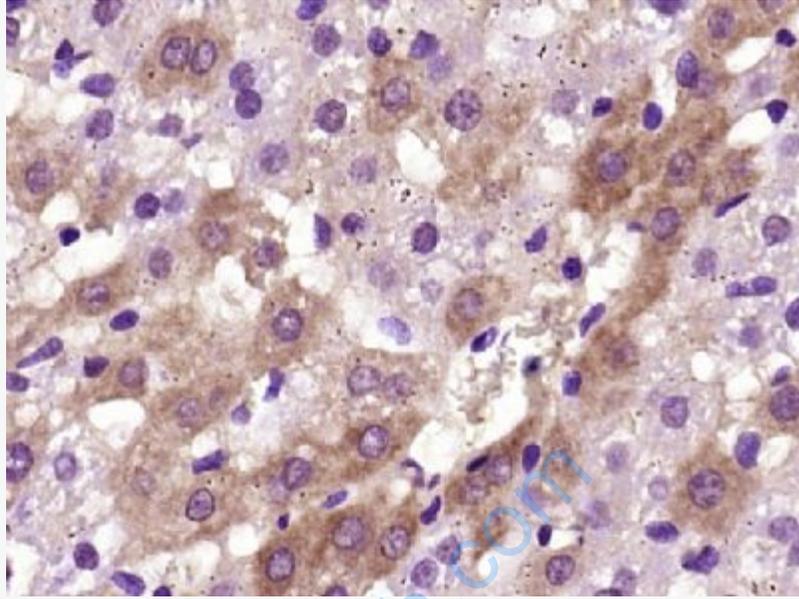
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

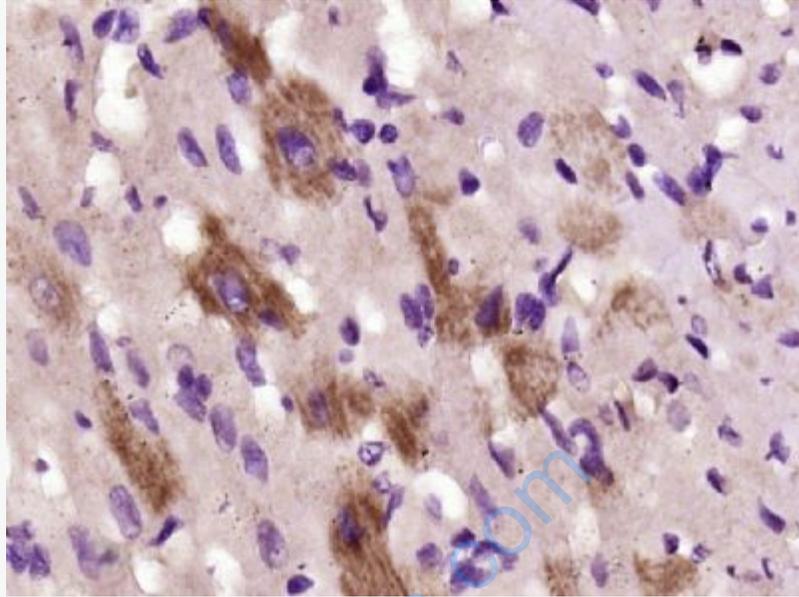
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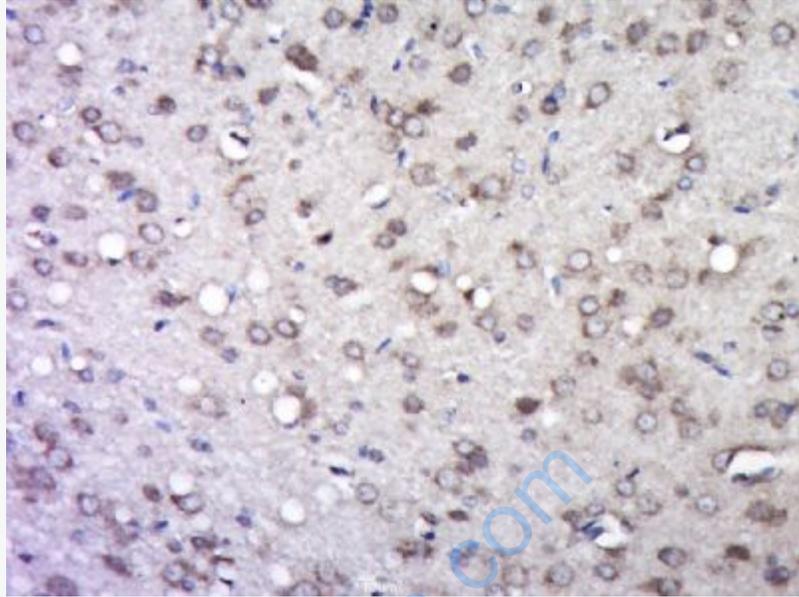
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Integrin beta 1) Polyclonal Antibody, Unconjugated (SL0486R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



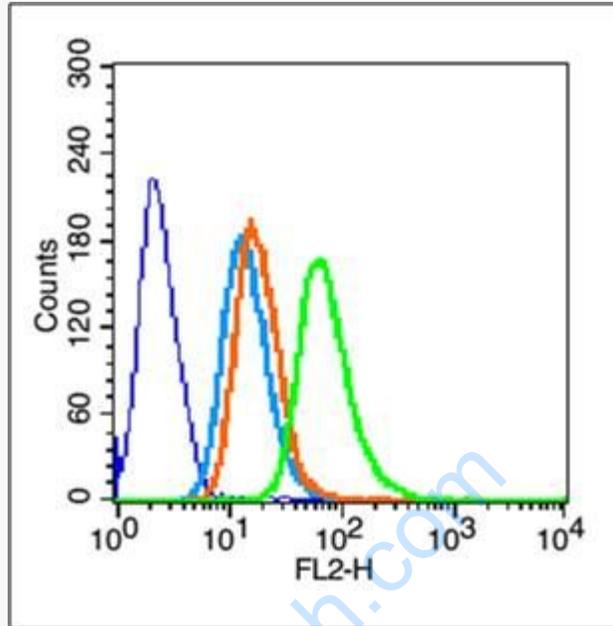
Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Integrin beta 1) Polyclonal Antibody, Unconjugated (SL0486R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Integrin beta 1) Polyclonal Antibody, Unconjugated (SL0486R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Integrin beta 1) Polyclonal Antibody, Unconjugated (SL0486R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Blank control (blue line): HeLa (blue).

Primary Antibody (green line): Rabbit Anti-Integrin beta 1 antibody (SL0486R)

Dilution: $1\mu\text{g} / 10^6$ cells;

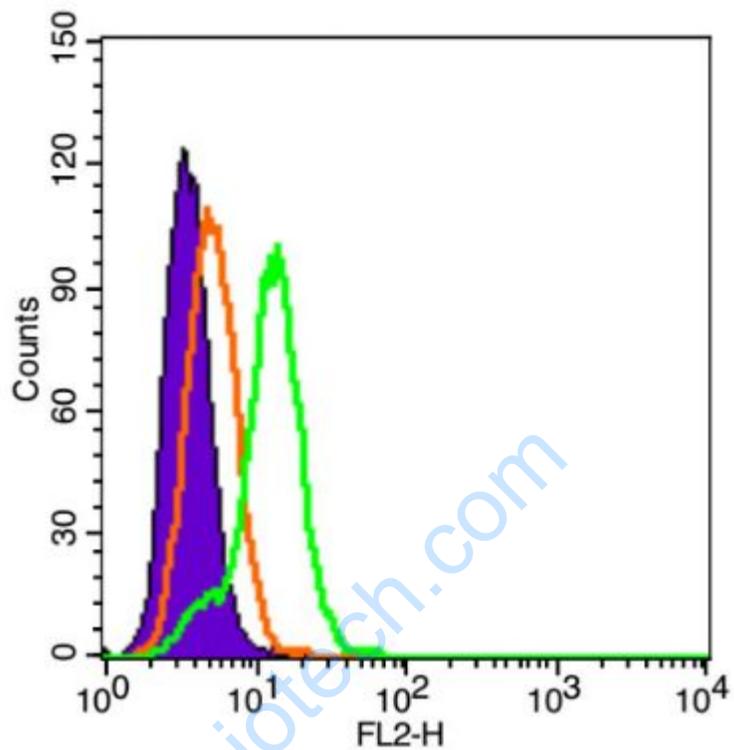
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 70% methanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C . Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Blank control (Black line):HUVEC(Black).

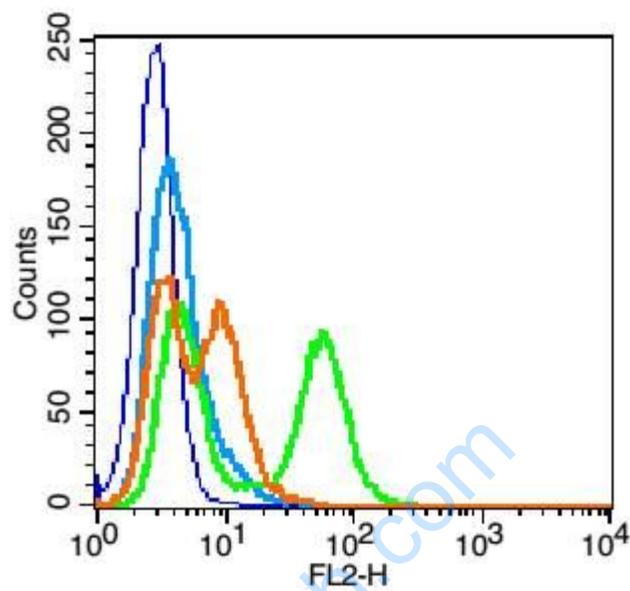
Primary Antibody (green line): Rabbit Anti-Integrin beta 1 antibody (SL0486R)

Dilution: $3\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG-PE.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. Acquisition of 20,000 events was performed.



Blank control: HUVEC cells(blue).

Primary Antibody:Rabbit Anti-CD29 antibody(SL0486R), Dilution: 1 μ g in 100 μ L
1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X
PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) .Primary antibody (SL0486R) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.

