

Rabbit Anti-CD31 antibody

SL0195R

Product Name CD31

Chinese Name 血小板 endothelial cells 黏附分子 1 抗体

Alias platelet endothelial cell adhesion molecule precursor-1; PECAM-1; PECAM1; Adhesion molecule; CD31 antigen; CD31 EndoCAM; Endocam; FLJ34100; FLJ58394; GPIIA; Pecam 1; PECA1_HUMAN; PECAM 1 CD31 EndoCAM; PECA1; Pecam1; Platelet endothelial cell adhesion molecule; Platelet/endothelial cell adhesion molecule 1; Adhesion molecule; Platelet/endothelial cell adhesion molecule.

Research Area Tumour Cardiovascular Cell biology immunology Signal transduction Stem cells Cell adhesion molecule Cell Surface Molecule glycoprotein Cell type markers vascular endothelial cell t-lymphocyte endothelial cells

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human(predicted:Sheep,Rabbit,Cow,Pig,Dog)
IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 78kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human CD31: 681-738/738 <Cytoplasmic>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Human(predicted:Sheep,Rabbit,Cow,Pig,Dog)1M TBS(pH7.4) with 1% BSA, Human(predicted:Sheep,Rabbit,Cow,Pig,Dog)3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

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

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The protein encoded by this gene is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions. The encoded protein is a member of the immunoglobulin superfamily and is likely involved in leukocyte migration, angiogenesis, and integrin activation. [provided by RefSeq, May 2010]

Function:

Induces susceptibility to atherosclerosis (By similarity). Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions. Tyr-690 plays a critical role in TEM and is required for efficient trafficking of PECAM1 to and from the lateral border recycling compartment (LBRC) and is also essential for the LBRC membrane to be targeted around migrating leukocytes.

Prevents phagocyte ingestion of closely apposed viable cells by transmitting 'detachment' signals, and changes function on apoptosis, promoting tethering of dying cells to phagocytes (the encounter of a viable cell with a phagocyte via the homophilic interaction of PECAM1 on both cell surfaces leads to the viable cell's active repulsion from the phagocyte. During apoptosis, the inside-out signaling of PECAM1 is somehow disabled so that the apoptotic cell does not actively reject the phagocyte anymore. The lack of this repulsion signal together with the interaction of the eat-me signals and their respective receptors causes the attachment of the apoptotic cell to the phagocyte, thus triggering the process of engulfment). Isoform Delta15 is unable to protect against apoptosis. Modulates BDKRB2 activation. Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in human umbilical cord vein cells (HUVEC).

Product Detail

Subunit:

Interacts with PTPN11; Tyr-713 is critical for PTPN11 recruitment. Forms a complex with BDKRB2 and GNAQ. Interacts with BDKRB2 and GNAQ.

Subcellular Location:

Isoform Long: Membrane; Single-pass type I membrane protein. Cell junction.

Note=Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.

Isoform Delta15: Cell junction. Note=Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells.

Tissue Specificity:

Expressed on platelets and leukocytes and is primarily concentrated at the borders between endothelial cells. Isoform Long predominates in all tissues examined. Isoform

Delta12 is detected only in trachea. Isoform Delta14-15 is only detected in lung. Isoform Delta14 is detected in all tissues examined with the strongest expression in heart. Isoform Delta15 is expressed in brain, testis, ovary, cell surface of platelets, human umbilical vein endothelial cells (HUVECs), Jurkat T-cell leukemia, human erythroleukemia (HEL) and U937 histiocytic lymphoma cell lines (at protein level).

Post-translational modifications:

Phosphorylated on Ser and Tyr residues after cellular activation. Phosphorylated on tyrosine residues by FER and FES in response to FCER1 activation (By similarity). In endothelial cells Fyn mediates mechanical-force (stretch or pull) induced tyrosine phosphorylation.

Similarity:

Contains 6 Ig-like C2-type (immunoglobulin-like) domains.

SWISS:

P16284

Gene ID:

5175

Database links:

[Entrez Gene: 5175](#) Human

[Entrez Gene: 18613](#) Mouse

[Omim: 173445](#) Human

[SwissProt: P16284](#) Human

[SwissProt: Q08481](#) Mouse

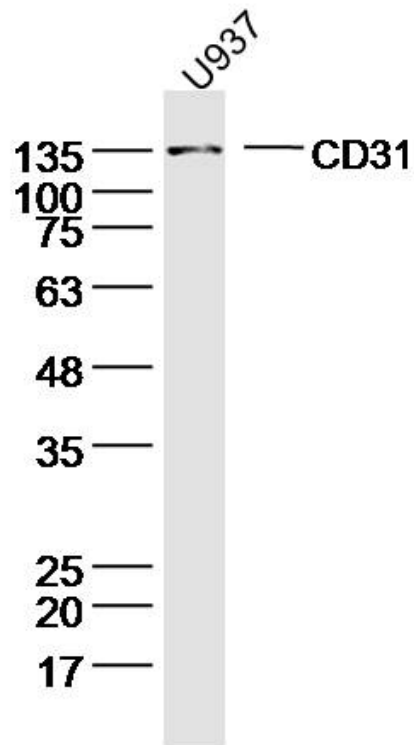
[Unigene: 376675](#) Human

[Unigene: 514412](#) Human

[Unigene: 343951](#) Mouse

血小板 endothelial cells 黏附分子-1 (Platelet/ endothelial cell adhesion molecule, PECAM-1)在血小板、endothelial cells、单核细胞、嗜中性细胞及某些 T 细胞亚群上表达的质膜 glycoprotein, 属于免疫球蛋白超基因家族成员, 在细胞外结构域中有 6 个 C2 亚类免疫球蛋白样保守性同原单位。在炎症应答中起作用。

**Product
Picture**



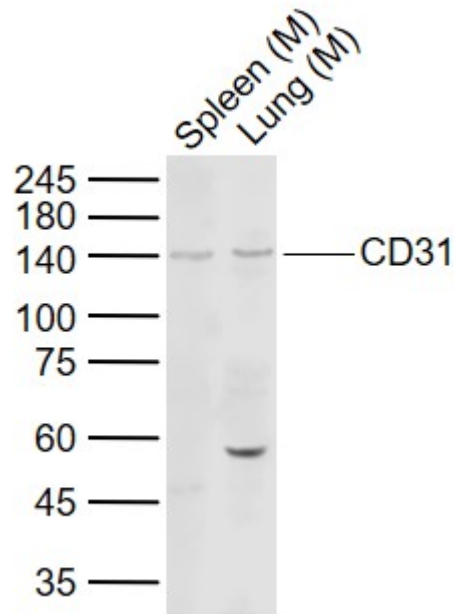
Sample: U937 (human)Cell Lysate at 40 ug

Primary: Anti- CD31 (SL0195R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 78 kD

Observed band size: 135kD



Sample:

Lane 1: Spleen (Mouse) Lysate at 40 ug

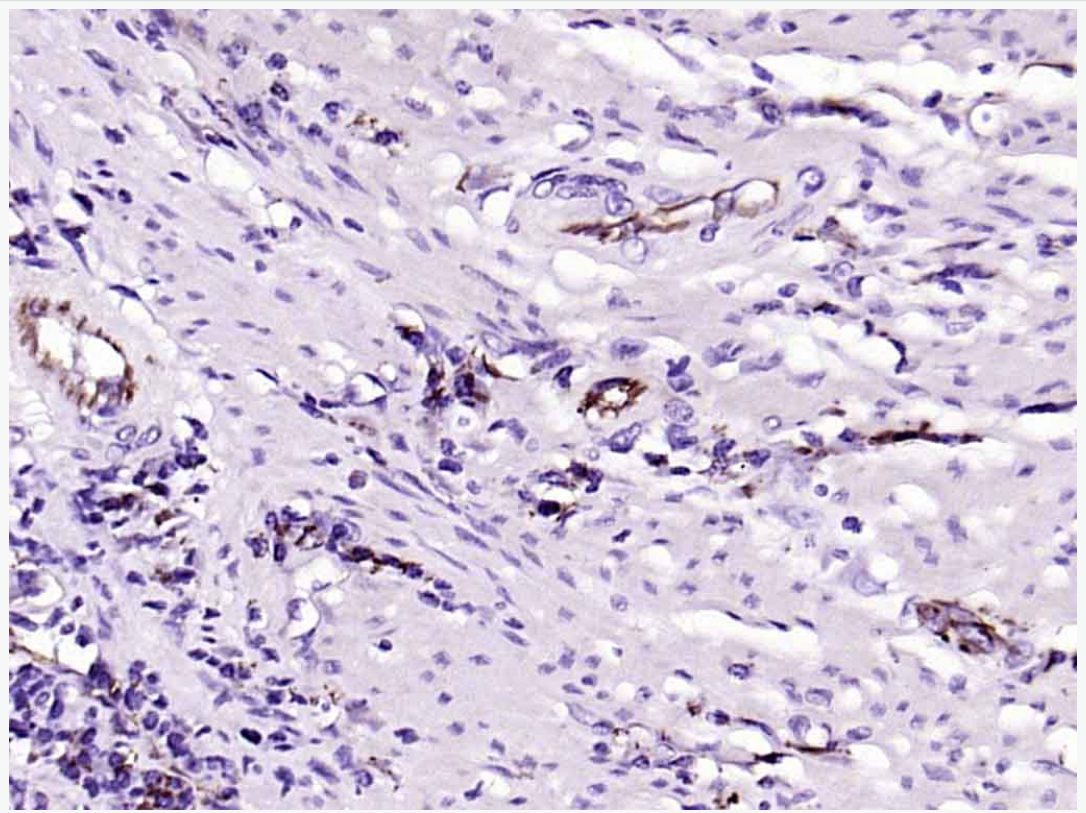
Lane 2: Lung (Mouse) Lysate at 40 ug

Primary: Anti-CD31 (SL0195R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 78 kD

Observed band size: 140 kD

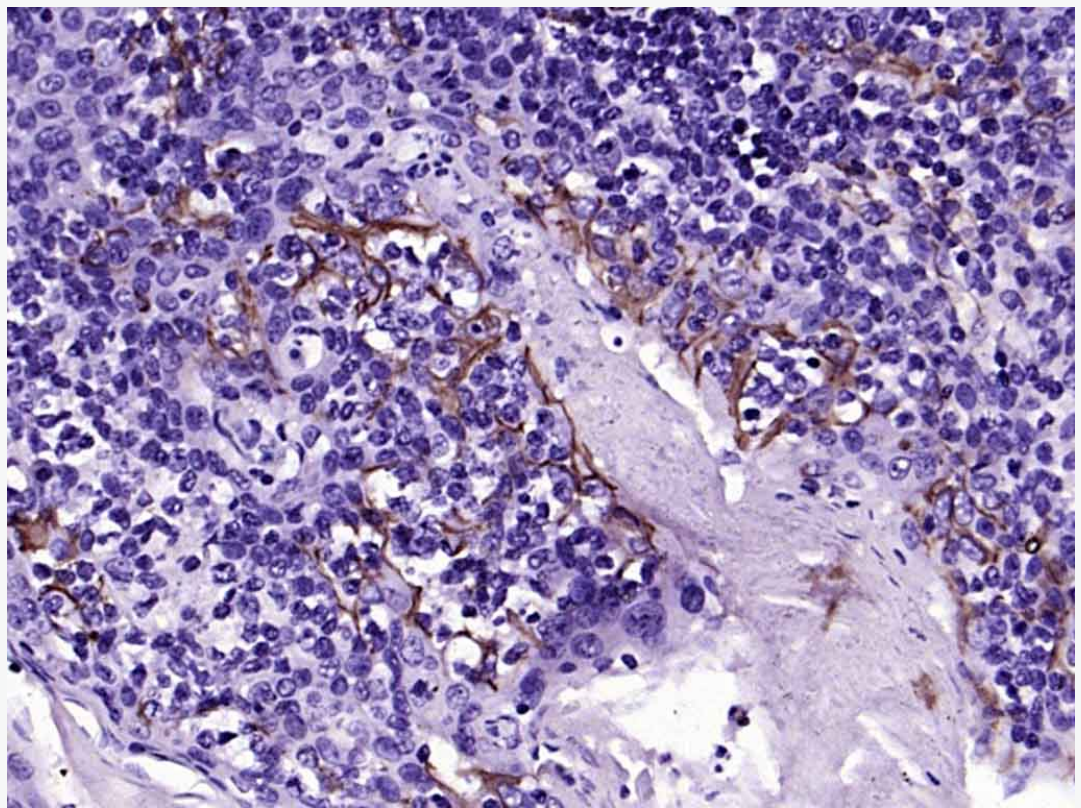


Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CD31) Polyclonal Antibody, Unconjugated (SL0195R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human 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 (CD31) Polyclonal Antibody, Unconjugated (SL0195R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human tonsil); 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 (CD31) Polyclonal Antibody, Unconjugated (SL0195R) at 1:200 overnight at 4°C, followed by operating



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