

# CD31 Antibody

Rabbit mAb

Catalog # AP90441

## Product Information

<b>Application</b>	WB, IHC, FC
<b>Primary Accession</b>	<a href="#">P16284</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	CD31; CD31 antigen; EndoCAM; PEC1; PECA1; PECAM; PECAM1;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	82522

## Additional Information

<b>Dilution</b>	WB 1:500~1:2000 IHC 1:50~1:200 FC 1:50
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human CD31
<b>Description</b>	CD31 (Platelet Endothelial Cell Adhesion Molecule-1: PECAM-1), a member of the Ig superfamily of cell adhesion molecules, is expressed by circulating platelets, monocytes, neutrophils, some T cells and endothelial cells, and modulates cell adhesion, endothelial cell migration and angiogenesis.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	PECAM1
<b>Function</b>	Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions (PubMed: <a href="#">17580308</a> , PubMed: <a href="#">19342684</a> ). 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 (PubMed: <a href="#">19342684</a> ). Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (PubMed: <a href="#">27958302</a> ). Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (PubMed: <a href="#">17580308</a> ). Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal (PubMed: <a href="#">12110892</a> ). Promotes macrophage-mediated phagocytosis of apoptotic leukocytes by tethering them to the phagocytic cells; PECAM1-mediated detachment signal appears to be disabled in apoptotic leukocytes (PubMed: <a href="#">12110892</a> ). Modulates bradykinin receptor BDKRB2

activation (PubMed:[18672896](#)). Regulates bradykinin- and hyperosmotic shock-induced ERK1/2 activation in endothelial cells (PubMed:[18672896](#)). Induces susceptibility to atherosclerosis (By similarity).

### Cellular Location

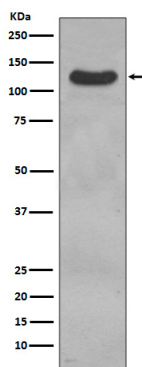
Cell membrane; Single-pass type I membrane protein. Note=Cell surface expression on neutrophils is down-regulated upon fMLP or CXCL8/IL8-mediated stimulation. [Isoform Delta15]: Cell junction. Note=Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells

### Tissue Location

Expressed on platelets and leukocytes and is primarily concentrated at the borders between endothelial cells (PubMed:18388311, PubMed:21464369). Expressed in human umbilical vein endothelial cells (HUVECs) (at protein level) (PubMed:17580308, PubMed:19342684). Expressed on neutrophils (at protein level) (PubMed:17580308). Isoform Long predominates in all tissues examined (PubMed:12433657). Isoform Delta12 is detected only in trachea (PubMed:12433657). Isoform Delta14-15 is only detected in lung (PubMed:12433657). Isoform Delta14 is detected in all tissues examined with the strongest expression in heart (PubMed:12433657). 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 U-937 histiocytic lymphoma cell lines (at protein level) (PubMed:12433657, PubMed:18388311).

## Images

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Western blot analysis of CD31 expression in THP1 cell lysate.

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Immunohistochemical analysis of paraffin-embedded human tonsil, using CD31 Antibody.

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