

CD31 Polyclonal Antibody
Catalog # AP68935**Specification**

CD31 Polyclonal Antibody - Product Information

Application	WB, IHC-P, IF
Primary Accession	P16284
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal

CD31 Polyclonal Antibody - Additional Information**Gene ID** 5175**Other Names**

PECAM1; Platelet endothelial cell adhesion molecule; PECAM-1; EndoCAM; GPIIA'; PECA1; CD antigen CD31

Dilution

WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

IHC-P~~N/A

IF~~1:50~200

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

CD31 Polyclonal Antibody - Protein Information**Name** PECAM1**Function**

Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions (PubMed:<[a href="http://www.uniprot.org/citations/17580308" target="_blank">17580308](http://www.uniprot.org/citations/17580308), PubMed:<[a href="http://www.uniprot.org/citations/19342684" target="_blank">19342684](http://www.uniprot.org/citations/19342684)). 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="http://www.uniprot.org/citations/19342684" target="_blank">19342684](http://www.uniprot.org/citations/19342684)).

Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (PubMed:<[a href="http://www.uniprot.org/citations/27958302" target="_blank">27958302](http://www.uniprot.org/citations/27958302)).

Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (PubMed:<[a href="http://www.uniprot.org/citations/17580308" target="_blank">17580308](http://www.uniprot.org/citations/17580308)).

Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable

leukocytes by transmitting a detachment signal (PubMed:12110892). 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:12110892). 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).

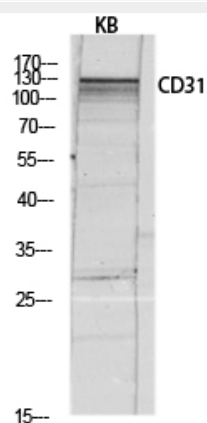
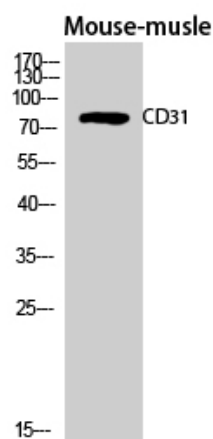
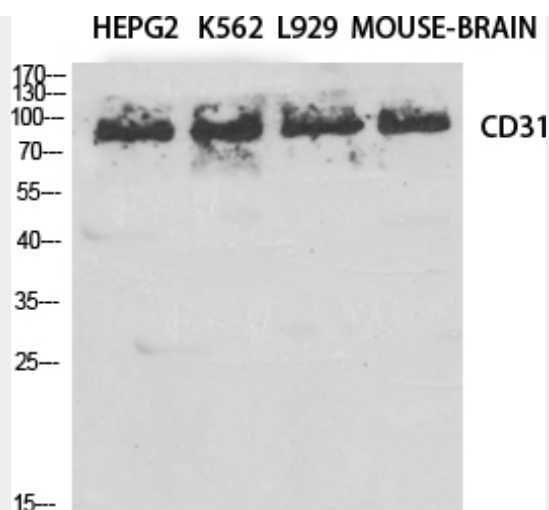
CD31 Polyclonal Antibody - Protocols

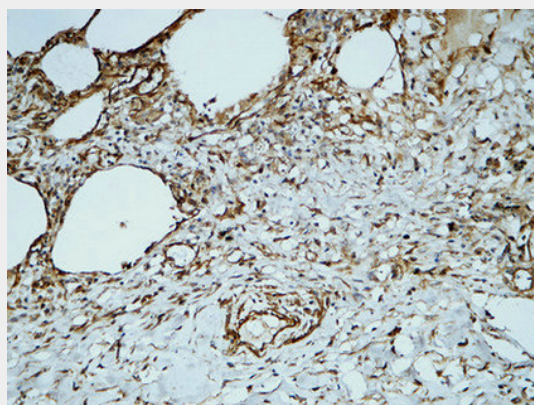
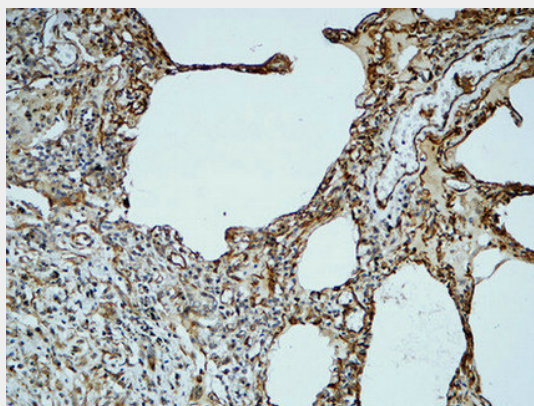
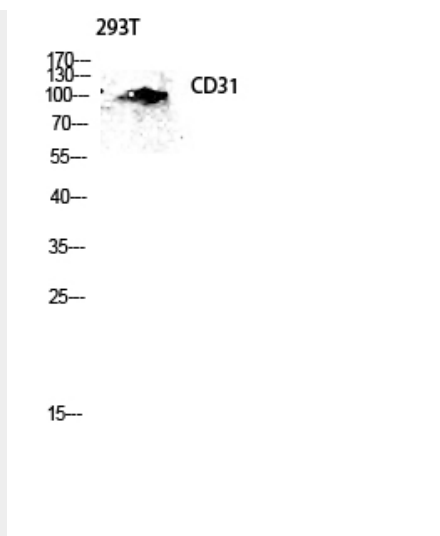
Provided below are standard protocols that you may find useful for product applications.

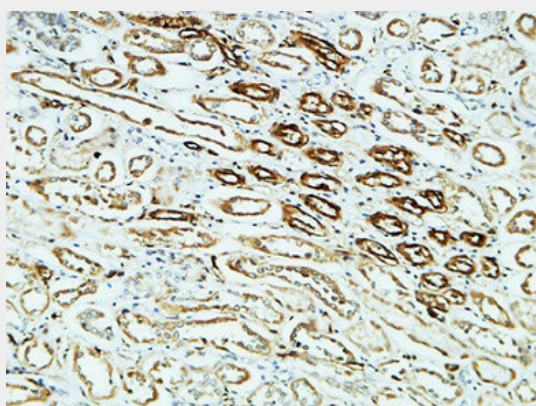
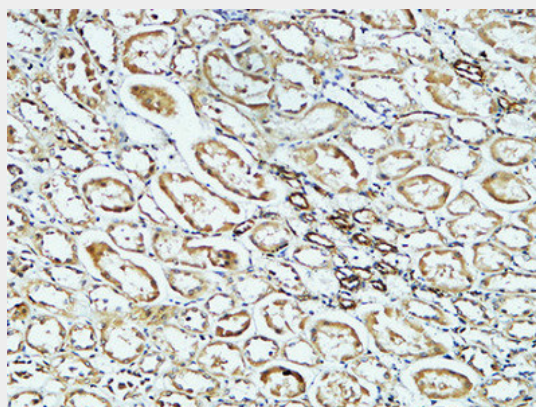
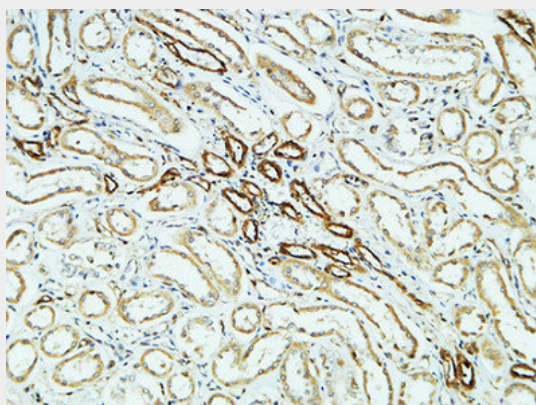
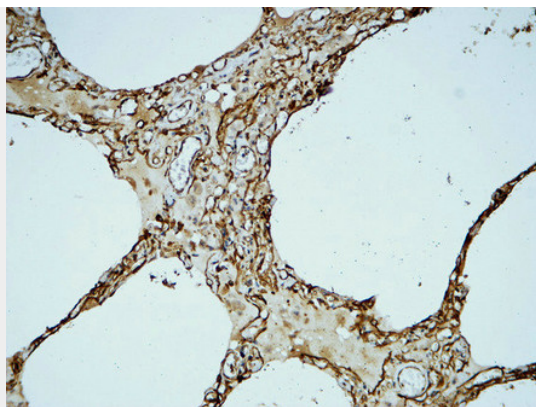
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD31 Polyclonal Antibody - Images









CD31 Polyclonal Antibody - Background

Cell adhesion molecule which is required for leukocyte transendothelial migration (TEM) under most inflammatory conditions (PubMed:19342684, PubMed:17580308). 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:19342684). Trans-homophilic interaction may play a role in endothelial cell-cell adhesion via cell junctions (PubMed:27958302). Heterophilic interaction with CD177 plays a role in transendothelial migration of neutrophils (PubMed:17580308). Homophilic ligation of PECAM1 prevents macrophage-mediated phagocytosis of neighboring viable leukocytes by transmitting a detachment signal (PubMed:12110892). 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:12110892). 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).