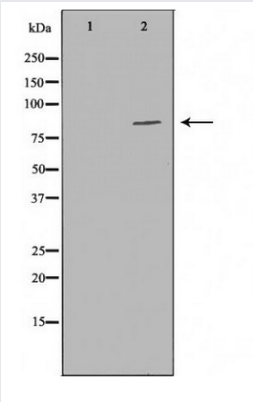
CD31 Antibody

PRODUCT OVERVIEW

Product Name	CD31, Antibody
Full Product Name	CD31 Antibody
Product Gene Name	anti-CD31 antibody
Product Synonym Names	PECAM1; CD31; FLJ58394; PECAM-1
Species Reactivity	Human
Form/Format	In phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Immunogen affinity purified
Specificity	CD31 Antibody detects endogenous levels of total CD31
Preparation and Storage	Store at-20 degree C for 1 year
Molecular Weight	83kDa
OMIM	173445
3D Structure	ModBase 3D Structure for P16284
Immunogen	A synthetic peptide of human CD31
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CD31 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-CD31 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200
Related Product Information for anti-CD31 antibody	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 (1). CD31 is phosphorylated on Tyr686 at the cytoplasmic carboxy-terminal tail upon various stimuli (e.g. mechanical stress or oxidative stress), presumably by Src family members (2). The tyrosine phosphorylation mediates associations with a number of SH2 domain containing binding partners such as PI3-kinase, SHIP, PLC gamma and SHP-2. Thus, CD31 serves as a scaffold for various signaling molecules (3).
Other Notes	Small volumes of anti-CD31 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD31 purchase	MBS8516298 is an antibody targeting CD31. Also known as CD31 Antibody. Reactive in Human.



Western Blot (WB) of anti-CD31 antibody
Western blot analysis of extracts of Jurkatcell line, using CD31 antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD31. It may not necessarily be applicable to this product.

NCBI GI #	313760624
NCBI GeneID	5175
NCBI Accession #	NP_000433.4
UniProt Primary Accession #	P16284
UniProt Secondary Accession #	Q6LDA9; Q8TBH1; Q96RF5; Q96RF6; Q9NP65; Q9NPB7; Q9NPG9; A0A075B738; A8K3S7; D3DU31
UniProt Related Accession #	P16284
GenBank Nucleotide #	NM_000442.4
NCBI Official Full Name	platelet endothelial cell adhesion molecule
NCBI Official Synonym Full Names	platelet and endothelial cell adhesion molecule 1
NCBI Official Symbol	PECAM1
NCBI Official Synonym Symbols	CD31; PECA1; GPIIA'; PECAM-1; endoCAM; CD31/EndoCAM
UniProt Protein Name	Platelet endothelial cell adhesion molecule
UniProt Synonym Protein Names	EndoCAM; GPIIA'; PECA1; CD_antigen: CD31
Protein Family	Platelet endothelial cell adhesion molecule
UniProt Gene Name	PECAM1
UniProt Synonym Gene Names	PECAM-1
NCBI Protein Information	platelet endothelial cell adhesion molecule
NCBI Summary for CD31	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]

UniProt Comments for CD31	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 ().
Research Articles on CD31	**1.** In primary hip OA, angiogenesis may be induced by a combined mechanism: hypoxia-related VEGF-dependent vasculogenesis and endothelial differentiation of the activated pluripotent cells, which are released from the hyperplastic synovial cells layer. An endothelial mesenchymal transition is assumed to be involved in the fibrotic process.
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