

Rabbit anti-Human, Mouse CD31 Polyclonal Antibody | anti-CD31 antibody

CD31 Antibody

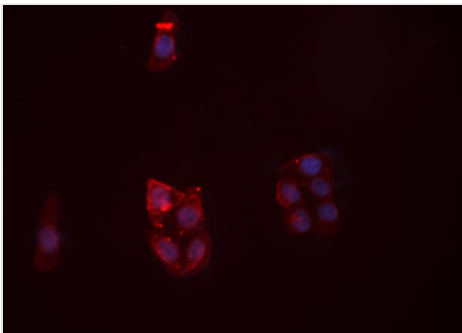
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320747	Rabbit	Human, Mouse	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

CD31; Polyclonal Antibody; CD31 Antibody; Adhesion molecule; CD31 antigen; CD31 EndoCAM; EndoCAM; FLJ34100; FLJ58394; GPIIA; GPIIA'; PECA1; PECA1_HUMAN; Pecam 1; PECAM 1 CD31 EndoCAM; PECAM; PECAM-1; Pecam1; Platelet and endothelial cell adhesion molecule 1; Platelet endothelial cell adhesion molecule; Platelet/endothelial cell adhesion molecule 1; anti-CD31 antibody

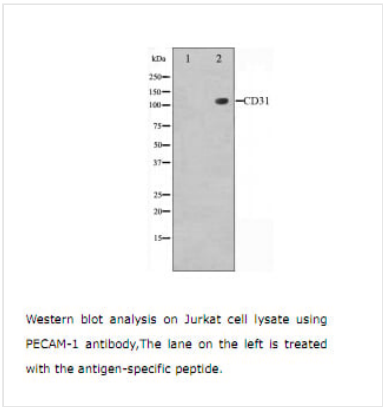
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	PECAM-1 antibody detects endogenous levels of total PECAM-1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	738
Applicable Applications for anti-CD31 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PECAM-1
Subcellular Location	Membrane. Cell junction. Localizes to the lateral border recycling compartment (LBRC) and recycles from the LBRC to the junction in resting endothelial cells and Cell junction. 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 (PubMed:18388311, PubMed:21464369). Expressed in human umbilical vein endothelial cells (HUVECs) (at protein level) (PubMed:19342684, PubMed:17580308). 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).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)

AAA320747 staining HUVEC cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis on Jurkat cell lysate using PECAM-1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-CD31 antibody

Description: PECAM-1 a cell adhesion molecule expressed on platelets and at endothelial cell intercellular junctions. Plays a role in modulation of integrin-mediated cell adhesion, transendothelial migration, angiogenesis, apoptosis, cell migration, negative regulation of immune cell signaling, autoimmunity, macrophage phagocytosis, IgE-mediated anaphylaxis and thrombosis. Undergoes alternative splicing, generating multiple isoforms in vascular beds of various tissues.

Function: 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).

Subunit Structure: Trans-homodimer (via Ig-like C2-type 1 and Ig-like C2-type 2 domains); trans-homodimerization is required for cell-cell interaction (PubMed:26702061, PubMed:27958302). Forms a complex with BDKRB2 and GNAQ (PubMed:18672896). Interacts with BDKRB2 and GNAQ (PubMed:18672896). Interacts with PTPN11; Tyr-713 is critical for PTPN11 recruitment (PubMed:18388311, PubMed:19342684). Interacts with FER (By similarity). Interacts (via Ig-like C2-type domain 6) with CD177; the interaction is Ca2+-dependent; the interaction is direct (PubMed:17580308).

Post-translational Modifications: Phosphorylated on Ser and Tyr residues after cellular activation by src kinases (PubMed:21464369, PubMed:9298995, PubMed:19342684, PubMed:18710921). Upon activation, phosphorylated on Ser-729 which probably initiates the dissociation of the membrane-interaction segment (residues 709-729) from the cell membrane allowing the sequential phosphorylation of Tyr-713 and Tyr-690 (PubMed:21464369). Constitutively phosphorylated on Ser-734 in resting platelets (PubMed:21464369). 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 (PubMed:18710921). Palmitoylation by ZDHHC21 is necessary for cell surface expression in endothelial cells and enrichment in membrane rafts.

Similarity: The Ig-like C2-type domains 2 and 3 contribute to formation of the complex with BDKRB2 and in regulation of its activity.

NCBI AND UNIPROT INFORMATION

NCBI GI #	313760624
NCBI GeneID	5175
NCBI Accession #	NP_000433.4

NCBI GenBank Nucleotide #	NM_000442.4
UniProt Accession #	P16284; Q6LDA9; Q8TBH1; Q96RF5; Q96RF6; Q9NP65; Q9NPB7; Q9NPG9; A0A075B738; A8K3S7; D3DU31
Molecular Weight	Observed: 82 kDa Predicted: 83 kDa
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
NCBI Protein Information	platelet endothelial cell adhesion molecule
UniProt Protein Name	Platelet endothelial cell adhesion molecule
UniProt Gene Name	PECAM1
UniProt Synonym Gene Names	PECAM-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/cd31-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/320747>