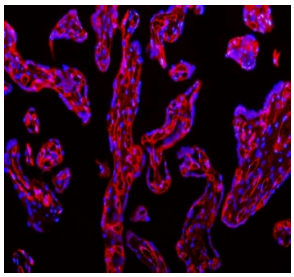
CD31 Polyclonal Antibody / PECAM-1 Rabbit Polyclonal Antibody (R31053)

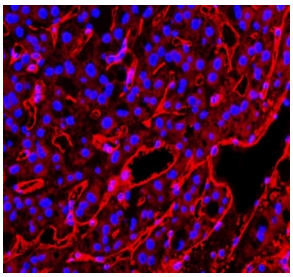
Catalog No.	Formulation	Size
R31053	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

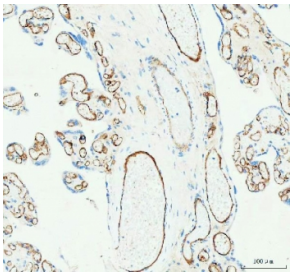
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P16284
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml
Limitations	This CD31 Polyclonal Antibody / PECAM-1 Rabbit Polyclonal Antibody is available for research use only.



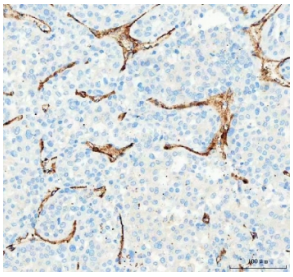
CD31 Polyclonal Antibody in Human Placenta by IF. Immunofluorescence staining of FFPE human placental sections using CD31 Polyclonal Antibody. CD31 immunoreactivity is shown in green with DAPI nuclear counterstaining in blue. The image demonstrates distinct staining associated with vascular structures throughout the placental tissue, consistent with the established endothelial distribution of PECAM-1. HIER was performed by steaming sections in pH 8 EDTA buffer for 20 min. The defined vascular staining demonstrates tissue localization using the PECAM-1 Rabbit Polyclonal Antibody.



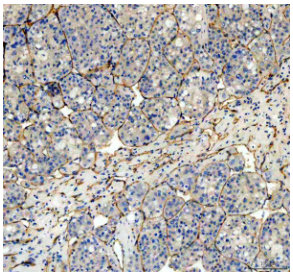
CD31 Polyclonal Antibody in Human Liver Cancer by IF. Immunofluorescence staining of FFPE human liver cancer sections using CD31 Polyclonal Antibody. Red CD31 immunoreactivity highlights vascular structures distributed within the tumor tissue, while DAPI nuclear counterstaining is shown in blue. The staining pattern provides visualization of PECAM-1-positive vasculature within the malignant tissue. HIER was performed by steaming sections in pH 8 EDTA buffer for 20 min, providing fluorescence-based validation of this PECAM-1 Rabbit Polyclonal Antibody.



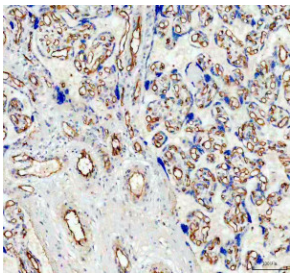
CD31 Polyclonal Antibody in Human Placenta by IHC. Immunohistochemistry of FFPE human placental sections using CD31 Polyclonal Antibody. Brown immunoreactivity distinctly outlines vascular endothelial structures within the placental tissue, producing strong contrast against the hematoxylin-counterstained background. HIER was performed by boiling sections in pH 8 EDTA for 20 min and allowing them to cool before testing. The vascular staining pattern supports detection of PECAM-1 with the PECAM-1 Rabbit Polyclonal Antibody.



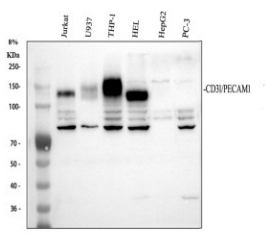
CD31 Polyclonal Antibody in Human Liver Cancer by IHC. Immunohistochemistry of FFPE human liver cancer sections using CD31 Polyclonal Antibody. Brown immunoreactivity highlights vascular structures within the malignant tissue, demonstrating localization of CD31-positive endothelium within the tumor microenvironment. HIER was performed by boiling sections in pH 8 EDTA for 20 min and allowing them to cool before testing. This result complements the corresponding fluorescence staining and supports tissue-based detection with the PECAM-1 Rabbit Polyclonal Antibody.



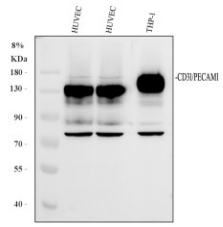
CD31 Polyclonal Antibody in Human Liver Cancer Vasculature by IHC. Immunohistochemistry of FFPE human liver cancer sections using CD31 Polyclonal Antibody at 2 ug/ml. Distinct brown staining is concentrated along vascular endothelial structures within the tumor tissue, providing clear visualization of PECAM-1-positive vessels against the hematoxylin-counterstained background. Heat-mediated antigen retrieval was performed in pH 8 EDTA buffer, and sections were blocked with 10% goat serum before antibody incubation. This additional liver cancer field reinforces endothelial detection with the PECAM-1 Rabbit Polyclonal Antibody.



CD31 Polyclonal Antibody in Human Placental Vasculature by IHC. Immunohistochemistry of FFPE human placental sections using CD31 Polyclonal Antibody at 2 ug/ml. Strong brown immunoreactivity delineates endothelial cells associated with placental vascular structures, while surrounding tissue shows substantially less staining. Heat-mediated antigen retrieval was performed in pH 8 EDTA buffer, followed by blocking with 10% goat serum. The pronounced endothelial pattern provides additional validation of PECAM-1 localization using the PECAM-1 Rabbit Polyclonal Antibody.



CD31 Polyclonal Antibody in Six Human Cell Lines by WB. Western blot analysis using CD31 Polyclonal Antibody with 30 ug of reduced lysate per lane. Lane 1: Jurkat; lane 2: U937; lane 3: THP-1; lane 4: HEL; lane 5: HepG2; lane 6: PC-3. CD31 is a heavily glycosylated membrane protein with an expected apparent molecular weight broadly around 83-130 kDa depending on glycosylation state. The blot demonstrates differential PECAM-1 signal across the six human cell lines and provides biochemical validation for the PECAM-1 Rabbit Polyclonal Antibody.



CD31 Polyclonal Antibody in HUVEC and THP-1 Cells by WB. Western blot analysis using CD31 Polyclonal Antibody with 30 ug of reduced lysate per lane. Lanes 1 and 2 contain human HUVEC lysates, while lane 3 contains human THP-1 cell lysate. CD31/PECAM-1 is extensively glycosylated and commonly migrates within an approximately 83-130 kDa range rather than at a single molecular weight. Detection in endothelial HUVEC samples and THP-1 cells provides complementary western blot validation and supports use of the PECAM-1 Rabbit Polyclonal Antibody for detection of endogenous CD31.

Description

CD31 Polyclonal Antibody / PECAM-1 Rabbit Polyclonal Antibody recognizes platelet endothelial cell adhesion molecule 1, a transmembrane glycoprotein encoded by the PECAM1 gene. CD31 is a member of the immunoglobulin superfamily and is highly associated with vascular endothelial cells. It is also expressed by platelets and several leukocyte populations, making CD31 an important molecule in vascular biology, cell adhesion and immune cell trafficking.

PECAM-1 contains six extracellular immunoglobulin-like domains, a single transmembrane region and a cytoplasmic domain containing regulatory tyrosine residues. Homophilic interactions between CD31 molecules contribute to endothelial cell-cell adhesion, particularly at intercellular junctions. The cytoplasmic region participates in signaling through phosphorylation-dependent interactions with intracellular proteins, allowing PECAM-1 to influence cellular responses to mechanical and inflammatory signals.

CD31 has an important role in maintaining endothelial barrier integrity and regulating leukocyte passage across the vascular endothelium. During inflammation, leukocytes cross endothelial junctions through a coordinated process involving multiple adhesion molecules, with PECAM-1 contributing to transendothelial migration. A PECAM-1 Rabbit Polyclonal Antibody can therefore support research into endothelial biology, vascular inflammation and immune cell trafficking.

CD31 is also widely used as a marker of vascular endothelial cells and is frequently investigated in studies of angiogenesis and tumor vascularization. Assessment of PECAM-1 expression can aid research into blood vessel distribution, endothelial differentiation and changes in vascular architecture associated with normal tissue biology and disease. Its expression on several hematopoietic populations additionally makes PECAM-1 relevant to platelet and leukocyte biology.

NSJ Bioreagents offers this affinity-purified rabbit polyclonal reagent for research into CD31 expression and PECAM-1 biology. The CD31 Polyclonal Antibody terminology emphasizes the widely recognized CD designation and antibody format, while PECAM-1 Rabbit Polyclonal Antibody incorporates the alternative protein name and host species.

A CD31 Polyclonal Antibody provides a reagent for investigating endothelial cells, vascular biology and angiogenesis, while a PECAM-1 Rabbit Polyclonal Antibody supports research into cell adhesion, vascular integrity and leukocyte trafficking.

For a Protein Microarray Validated monoclonal antibody with CD31 as the primary designation, see our CD31 Antibody PECAM1/3527 / PECAM-1 Monoclonal Antibody.

Application Notes

Titration of the CD31 Polyclonal Antibody / PECAM-1 Rabbit Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human CD31 (RKAVPDAVESRYSRTE) was used as the immunogen for

this CD31 Polyclonal Antibody.

Storage

After reconstitution, the CD31 Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

CD31 antibody, CD 31 antibody, CD31 Polyclonal antibody, PECAM-1 antibody, PECAM1 antibody, PECAM-1 Rabbit Polyclonal antibody, Platelet Endothelial Cell Adhesion Molecule antibody, EndoCAM antibody, GPIIA' antibody, PECA1 antibody

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