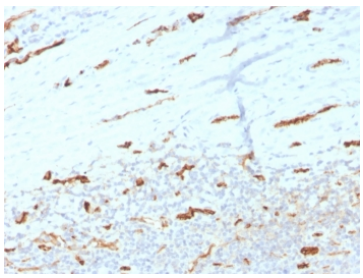
PECAM1 Antibody PECAM1/3534 / CD31 Monoclonal Antibody [clone PECAM1/3534] (V8845)

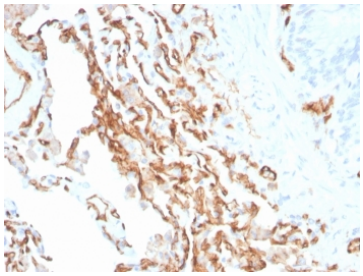
Catalog No.	Formulation	Size
V8845-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8845-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8845SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

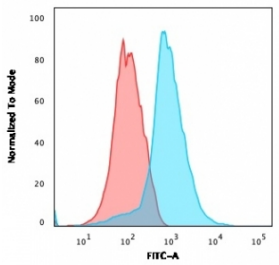
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	PECAM1/3534
Purity	Protein A/G affinity
UniProt	P16284
Localization	Cell surface and cytoplasm of endothelial cells
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This PECAM1 Antibody PECAM1/3534 / CD31 Monoclonal Antibody is available for research use only.



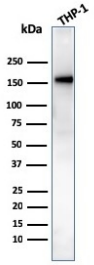
PECAM1 Antibody PECAM1/3534 in Human Tonsil Vasculature by IHC. Immunohistochemistry of FFPE human tonsil sections using PECAM1 Antibody clone PECAM1/3534. Distinct brown immunoreactivity highlights numerous endothelial-lined vascular structures distributed through the tissue, while surrounding lymphoid regions show substantially less staining. The pattern provides clear visualization of the characteristic vascular distribution of CD31. HIER was performed by boiling sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allowing them to cool before testing. The selective endothelial staining supports tissue detection with this CD31 Monoclonal Antibody.



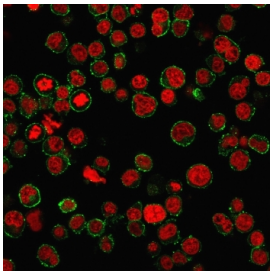
PECAM1 Antibody PECAM1/3534 in Human Colon Vasculature by IHC. Immunohistochemistry of FFPE human colon sections using PECAM1 Antibody clone PECAM1/3534. Strong brown staining delineates an extensive network of endothelial-lined vascular structures, producing pronounced contrast with adjacent tissue. The distribution is consistent with localization of the vascular adhesion molecule CD31/PECAM-1. HIER was performed by boiling sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min and allowing them to cool before testing. This result provides additional tissue-based validation of the CD31 Monoclonal Antibody.



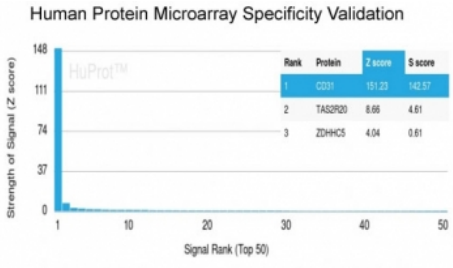
PECAM1 Antibody PECAM1/3534 in Jurkat Cells by FACS. Flow cytometry analysis of human Jurkat cells using PECAM1 Antibody clone PECAM1/3534. Antibody staining is shown in blue and the isotype control in red. The CD31-stained population displays a pronounced rightward fluorescence shift relative to the control, with clear separation between the distributions. The result demonstrates detection of cell-associated PECAM-1 and provides flow cytometry validation complementary to the tissue staining, western blot, immunofluorescence and protein microarray data available for this CD31 Monoclonal Antibody.



PECAM1 Antibody PECAM1/3534 in THP-1 Cells by WB. Western blot analysis of human THP-1 cell lysate using PECAM1 Antibody clone PECAM1/3534. A strong, discrete immunoreactive band is visible in the approximately 100-130 kDa region. CD31 is extensively glycosylated and has an expected apparent molecular weight of approximately 83-130 kDa depending on glycosylation state, placing the observed signal within the expected range for endogenous PECAM-1. The clean band provides biochemical validation of this CD31 Monoclonal Antibody and complements its cell- and tissue-based validation data.



PECAM1 Antibody PECAM1/3534 in Jurkat Cells by IF. Immunofluorescence analysis of human Jurkat cells using PECAM1 Antibody clone PECAM1/3534. Green CD31 immunoreactivity prominently outlines the cellular periphery, consistent with localization of PECAM-1 at the plasma membrane. RedDot nuclear staining is shown in red and provides clear contrast with the green antibody signal. The well-defined peripheral staining across numerous cells demonstrates cellular localization of PECAM-1 and provides fluorescence-based validation of this CD31 Monoclonal Antibody.



PECAM1 Antibody PECAM1/3534 Protein Microarray Validation. Protein microarray analysis of PECAM1 Antibody clone PECAM1/3534 using a HuProt array containing more than 19,000 full-length human proteins. PECAM1 produces the dominant array signal, visibly separated from the next-highest protein signals. The Z-score represents target signal strength in standard deviations above the mean array signal, while the S-score measures separation between the target Z-score and the next-highest signal. The strong preferential recognition of PECAM1 supports designation of this antibody as Protein Microarray Validated and provides orthogonal specificity evidence for the CD31 Monoclonal Antibody.

Description

PECAM1 Antibody PECAM1/3534 / CD31 Monoclonal Antibody recognizes platelet endothelial cell adhesion molecule 1, a transmembrane glycoprotein encoded by the PECAM1 gene. Also known as CD31, PECAM-1 belongs to the immunoglobulin superfamily of cell adhesion molecules. It is strongly associated with vascular endothelial cells and is also expressed by platelets and several leukocyte populations, making the protein an important target in vascular, hematopoietic and immunological research.

PECAM-1 contains six extracellular immunoglobulin-like domains, a transmembrane region and a cytoplasmic domain containing regulatory tyrosine residues. Homophilic interactions between PECAM-1 molecules contribute to adhesion between neighboring endothelial cells, particularly at intercellular junctions. Its intracellular domain also participates in phosphorylation-dependent signaling, allowing CD31 to influence cellular responses to adhesive, mechanical and inflammatory stimuli.

A major function of PECAM1 is the regulation of endothelial integrity and leukocyte movement through the vascular wall. During inflammation, circulating leukocytes cross endothelial junctions through a coordinated series of adhesive and migratory events. CD31 participates in this transendothelial migration and contributes to communication between vascular endothelial cells and immune cells. A CD31 Monoclonal Antibody can therefore support studies examining vascular inflammation, endothelial barrier biology and immune cell trafficking.

CD31 is also an established marker of vascular endothelial cells and is frequently investigated in angiogenesis research. Analysis of PECAM-1 expression can help characterize vascular density, endothelial differentiation and changes in blood vessel organization. These properties have made PECAM1 relevant to studies of tumor vascularization, tissue remodeling and vascular development. Expression on platelets and selected hematopoietic cells further broadens the biological significance of this adhesion molecule.

NSJ Bioreagents offers clone PECAM1/3534 for research into endothelial cells, vascular organization and PECAM-1 biology. The PECAM1 Antibody designation emphasizes the official gene symbol, while CD31 Monoclonal Antibody incorporates the widely recognized cluster of differentiation name and antibody format.

A PECAM1 Antibody provides a reagent for investigating endothelial biology, angiogenesis and vascular organization, while a CD31 Monoclonal 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

Optimal dilution of the PECAM1 Antibody PECAM1/3534 / CD31 Monoclonal Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 625-738 was used as the immunogen for the PECAM1 Antibody PECAM1/3534.

Storage

Aliquot the PPECAM1 Antibody PECAM1/3534 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD31 antibody, PECAM-1 antibody, Platelet Endothelial Cell Adhesion Molecule antibody, EndoCAM antibody, GPIIA' antibody

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