

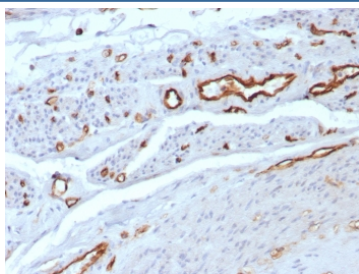
PECAM-1 Antibody / CD31 [clone C31/8592R] (V4542)

Catalog No.	Formulation	Size
V4542-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4542-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4542SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

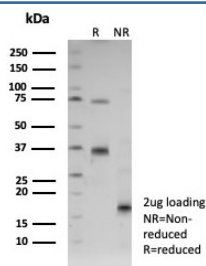
Recombinant **RABBIT MONOCLONAL**

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Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	C31/8592R
Purity	Protein A/G affinity
UniProt	P16284
Localization	Cell Surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This PECAM-1 antibody is available for research use only.



IHC staining of FFPE human uterus tissue with CD31 antibody (clone C31/8592R).
 HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free CD31 antibody (clone C31/8592R) as confirmation of integrity and purity.

Description

PECAM-1 antibody, also referred to as CD31 antibody, recognizes Platelet endothelial cell adhesion molecule 1, an endothelial cell surface receptor belonging to the immunoglobulin superfamily. Encoded by the PECAM1 gene, CD31 is predominantly localized to the plasma membrane of endothelial cells, especially at intercellular junctions, and is also detected on platelets and various leukocyte populations.

PECAM-1 functions as a mediator of cell adhesion and intracellular signaling within the vascular system. It plays a pivotal role in leukocyte diapedesis, allowing immune cells to traverse endothelial barriers during inflammatory responses. CD31 antibody is extensively utilized to visualize blood vessels in tissue sections and to quantify microvessel density in cancer and angiogenesis studies. Its distinct membranous staining pattern provides clear delineation of vascular structures.

The extracellular portion of PECAM-1 contains immunoglobulin-like domains that enable homophilic interactions between adjacent endothelial cells. The cytoplasmic domain includes signaling motifs that recruit phosphatases and adaptor proteins, influencing pathways that regulate endothelial survival and migration. Through these mechanisms, PECAM-1 contributes to vascular stability and coordinated inflammatory signaling.

Aberrant expression or altered localization of PECAM-1 is observed in vascular inflammatory conditions and in tumors exhibiting enhanced angiogenesis. As a widely accepted endothelial marker, PECAM-1 antibody supports investigations into vascular remodeling, endothelial activation, and immune cell trafficking.

Application Notes

Optimal dilution of the PECAM-1 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 538-738) from the human protein was used as the immunogen for the PECAM-1 antibody.

Storage

Aliquot the PECAM-1 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.