



**ReliaTech**

Receptor Ligand Technologies GmbH

# Endothelial Cell Markers

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**Based on recent research, we have assembled a list of commonly used endothelial cell markers and their localization. For each marker, we include recommended antibodies and the applications in which they have been tested, making it easier and faster to select the right reagents for your experimental needs.**

## **CD31**

CD31 (PECAM-1) is a transmembrane glycoprotein highly expressed on endothelial cells and widely used as a marker for blood vessels and angiogenesis. CD31 is localized in Endothelial cells, B cells, platelets, macrophages, monocytes, NK cells and T cells. Also known as Platelet Endothelial Cell Adhesion Molecule-1 (PECAM-1), CD31 plays a key role in cell adhesion, leukocyte transmigration, and vascular integrity. Due to its strong and consistent expression in vascular endothelium, CD31 is commonly used in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to identify endothelial cells, assess microvessel density, and study vascular biology in normal and diseased tissues.

We recommend:

[Mouse anti-human CD31/PECAM-1 monoclonal antibody \(#158-2B3\) \(101-M92\)](#)

[Rat anti-mouse CD31/PECAM-1 monoclonal antibody \(#1D12\) \(103-M104\)](#)

[Rat anti-mouse CD31/PECAM-1, Antagonistic monoclonal antibody \(#2A14\) \(mP1001r-m\)](#)

[Rabbit anti-human CD31/PECAM-1 polyclonal antibody \(102-PA07\)](#)

## **CD34**

CD34 is a transmembrane glycoprotein expressed on endothelial cells, hematopoietic stem and progenitor cells, and certain fibroblast populations. It is widely used as a marker for vascular endothelium and is particularly valuable for the detection of small blood vessels and the assessment of angiogenesis. CD34 is involved in cell adhesion, migration, and the regulation of stem cell trafficking. Owing to its robust expression pattern, CD34 is commonly employed in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to identify endothelial cells, quantify microvessel density, and investigate vascular and stem cell biology in both normal and pathological tissues.

We recommend:

[Mouse anti-human CD34 monoclonal antibody \(#34C02\) \(101-M94\)](#)

[Rabbit anti-human CD34 polyclonal antibody \(102-PA139\)](#)

## CD45

CD45, also known as Leukocyte Common Antigen (LCA), is a transmembrane protein tyrosine phosphatase expressed on the surface of nearly all nucleated hematopoietic cells (except mature erythrocytes). It serves as a pan-leukocyte marker and plays a critical role in regulating immune cell activation, signaling, and differentiation. Due to its broad expression across lymphoid and myeloid cell populations, CD45 is widely used in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to identify leukocytes, characterize immune cell infiltration, and study immune responses in both healthy and diseased tissues.

We recommend:

[Rat anti-human CD45 monoclonal antibody \(#5C16\) \(103-M160\)](#)

## ICAM-1 (CD54)

CD54, also known as Intercellular Adhesion Molecule-1 (ICAM-1), is a cell surface glycoprotein expressed on endothelial cells, immune cells, and various epithelial cell types. It plays a crucial role in leukocyte adhesion, transmigration, and immune cell trafficking during inflammatory responses. CD54 expression is upregulated by pro-inflammatory cytokines, making it an important marker of endothelial activation and inflammation. As a result, CD54 is widely used in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to study vascular inflammation, immune cell interactions, and inflammatory processes in both physiological and pathological conditions.

We recommend:

[Mouse anti-human ICAM-1 \(CD54\) monoclonal antibody \(#7D22\) \(101-M97\)](#)

[Rat anti-mouse ICAM-1 \(CD54\) monoclonal antibody \(#MAB0802\) \(103-M97\)](#)

## LYVE-1

LYVE-1 (Lymphatic Vessel Endothelial Hyaluronan Receptor 1) is a type I transmembrane glycoprotein predominantly expressed on lymphatic endothelial cells. It functions as a receptor for hyaluronan and is involved in lymphatic fluid homeostasis, immune cell trafficking, and tissue remodeling. Due to its selective expression in lymphatic vessels, LYVE-1 is widely used as a marker for the identification and visualization of the lymphatic vasculature. It is commonly employed in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to study lymphangiogenesis, lymphatic vessel development, and the role of the lymphatic system in inflammation, cancer, and other disease processes.

We recommend:

[Mouse anti-human LYVE-1 monoclonal antibody \(#7F13\) \(101-M130\)](#)

[Mouse anti-human LYVE-1 monoclonal antibody \(#7F26\) \(101-M804\)](#)

[Rat anti-mouse LYVE-1 monoclonal antibody \(#4D17\) \(103-M130\)](#)

[Rabbit anti-human LYVE-1 polyclonal antibody \(102-PA50\)](#)

[Rabbit anti-mouse LYVE-1 polyclonal antibody \(103-PA50\)](#)

## Podoplanin

Podoplanin (PDPN), also known as gp38 or T1 $\alpha$ , is a mucin-type transmembrane glycoprotein expressed on lymphatic endothelial cells, podocytes, fibroblastic reticular cells, and several other specialized cell types. It plays important roles in lymphatic vessel development, cell migration, tissue remodeling, and platelet aggregation through its interaction with CLEC-2. Due to its strong expression in lymphatic endothelium and absence from most blood vascular endothelial cells, Podoplanin is widely used as a marker for the identification of lymphatic vessels. It is commonly analyzed by immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to study lymphangiogenesis, tumor progression, inflammation, and the development and function of the lymphatic system.

We recommend:

[Mouse anti-human Podoplanin monoclonal antibody \(#18H5\) \(101-M40\)](#)

[Mouse anti-human Podoplanin monoclonal antibody \(#4D5aE5E6\) \(101-M41\)](#)

[Hamster anti-mouse Podoplanin monoclonal antibody \(#RTD4E10\) \(103-M40\)](#)

[Mouse anti-rat Podoplanin monoclonal antibody \(#LF3\(B7\)D5B3\) \(104-M40\)](#)

[Rabbit anti-human Podoplanin polyclonal antibody \(102-PA40\)](#)

[Rabbit anti-mouse Podoplanin polyclonal antibody \(103-PA40\)](#)

## Prox-1

Prox-1 (Prospero Homeobox Protein 1) is a homeobox transcription factor that serves as a master regulator of lymphatic endothelial cell differentiation and development. It is essential for the specification and maintenance of lymphatic endothelial cell identity and plays a key role in lymphangiogenesis, organ development, and tissue homeostasis. Due to its highly specific nuclear expression in lymphatic endothelial cells, Prox-1 is widely used as a marker for the identification and characterization of the lymphatic vasculature. It is commonly analyzed by immunohistochemistry (IHC), immunofluorescence (IF), Western blotting, and gene expression assays to study lymphatic vessel development, lymphatic function, cancer metastasis, and inflammatory diseases.

We recommend:

[Rabbit anti-human Prox-1 polyclonal antibody \(102-PA32\)](#)

## TIE-2 (TEK)

Tie-2 (Tyrosine Kinase with Immunoglobulin-like and EGF-like Domains 2), also known as TEK, is an endothelial cell-specific receptor tyrosine kinase that plays a central role in vascular development, angiogenesis, and blood vessel stability. Activated primarily by angiopoietins, Tie-2 regulates endothelial cell survival, migration, and vascular remodeling. Due to its prominent expression in endothelial cells and its involvement in vascular signaling pathways, Tie-2 is widely used as a marker for vascular biology research. It is commonly analyzed by immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to investigate angiogenesis, endothelial cell function, and vascular-related diseases, including cancer and inflammatory disorders.

We recommend:

[Mouse anti-human TIE-2 monoclonal antibody \(#tek2\) \(101-M50\)](#)

[Mouse anti-human TIE-2 monoclonal antibody \(#tek9\) \(101-M52\)](#)

[Mouse anti-human TIE-2 monoclonal antibody \(#tek16\) \(101-M54\)](#)

[Mouse anti-human TIE-2 monoclonal antibody \(#21G7\) \(101-M55\)](#)

[Mouse anti-human TIE-2 monoclonal antibody \(#21G24\) \(101-M837\)](#)

[Rabbit anti-human TIE-2 polyclonal antibody \(102-PA111\)](#)

[Rabbit anti-mouse TIE-2 polyclonal antibody \(103-PA111\)](#)

## VCAM-1 (CD106)

VCAM-1 (Vascular Cell Adhesion Molecule-1, CD106) is a transmembrane glycoprotein expressed primarily on activated endothelial cells and certain immune and stromal cell populations. It plays a key role in mediating leukocyte adhesion and transendothelial migration during inflammation and immune responses. VCAM-1 expression is induced by pro-inflammatory cytokines, making it a widely recognized marker of endothelial activation and vascular inflammation. As a result, VCAM-1 is commonly used in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to study immune cell recruitment, endothelial dysfunction, angiogenesis, and inflammatory processes in cardiovascular disease, cancer, and other pathological conditions.

We recommend:

[Mouse anti-human VCAM-1 monoclonal antibody \(#6C12\) \(101-M98\)](#)

[Mouse anti-human VCAM-1 monoclonal antibody \(#6C77\) \(101-M854\)](#)

[Rat anti-mouse VCAM-1 monoclonal antibody \(#MAB0804\) \(103-M98\)](#)

## VE cadherin (CD144)

VE-cadherin (Vascular Endothelial Cadherin, CD144) is an endothelial cell-specific adhesion molecule located at adherens junctions between neighboring endothelial cells. It plays a critical role in maintaining vascular integrity, regulating endothelial barrier function, and controlling vascular permeability. VE-cadherin is essential for blood vessel development, angiogenesis, and endothelial cell survival, making it one of the most widely used markers for vascular endothelium. It is commonly analyzed by immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to identify endothelial cells, assess vessel architecture, and investigate vascular function in both physiological and pathological conditions.

We recommend:

[Mouse anti-human VE cadherin monoclonal antibody \(101-M99\)](#)

## VEGFR2 (KDR in humans, Flk-1 in mice)

VEGFR2 (Vascular Endothelial Growth Factor Receptor 2), also known as KDR in humans and Flk-1 in mice, is a receptor tyrosine kinase predominantly expressed on endothelial cells. As the principal signaling receptor for VEGF-A, VEGFR2 plays a central role in angiogenesis, vascular development, endothelial cell proliferation, migration, and survival. Due to its critical involvement in blood vessel formation and vascular remodeling, VEGFR2 is widely used as a marker of endothelial cells and angiogenic activity. It is commonly analyzed by immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to study angiogenesis, vascular function, tumor biology, and cardiovascular diseases.

We recommend:

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#EIC\) \(101-M20\)](#)

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#EWC\) \(101-M22\)](#)

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#3\(4H3\)\) \(101-M32\)](#)

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#4\(2016\)\) \(101-M34\)](#)

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#2F66\) \(101-M35\)](#)

[Mouse anti-human VEGFR2/KDR monoclonal antibody \(#2F46\) \(101-M35A\)](#)

[Mouse anti-human VEGFR2/KDR, Agonistic monoclonal antibody \(#8A01\) \(mV1001.3m-h\)](#)

[Mouse anti-human VEGFR2/KDR, Antagonistic monoclonal antibody \(#6B11\) \(mV1001.1m-h\)](#)

[Rabbit anti-mouse VEGFR2/Flk-1 monoclonal antibody \(#3C8\) \(103-M32\)](#)

[Rat anti-mouse VEGFR2/Flk-1, Agonistic monoclonal antibody \(#3D09\) \(mV1001r-m\)](#)

[Rat anti-mouse VEGFR2/Flk-1, Antagonistic monoclonal antibody \(#MAB0701\) \(mV1001.1r-m\)](#)

[Rabbit anti-human VEGFR2/KDR polyclonal antibody \(102-PA18\)](#)

[Rabbit anti-human VEGFR2/KDR \(Peptide\), soluble polyclonal antibody \(102-PA19\)](#)

## Von Willebrand Factor (vWF)

von Willebrand Factor (vWF) is a large multimeric glycoprotein synthesized primarily by endothelial cells and megakaryocytes. It plays an essential role in hemostasis by mediating platelet adhesion to sites of vascular injury and stabilizing coagulation factor VIII in circulation. Due to its abundant expression in endothelial cells and storage in Weibel-Palade bodies, vWF is widely used as a marker for vascular endothelium and blood vessels. It is commonly employed in immunohistochemistry (IHC), immunofluorescence (IF), flow cytometry, and Western blotting to identify endothelial cells, assess vascular integrity, and investigate angiogenesis, coagulation disorders, and cardiovascular diseases.

We recommend:

[Mouse anti-human vWF-A2 monoclonal antibody \(#5F22\) \(101-M702\)](#)

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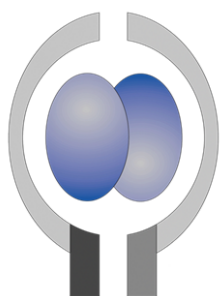
You can place an order on our website:

**www.reliatech.de.**

The screenshot shows the ReliaTech website homepage. At the top is a navigation bar with the ReliaTech logo (Receptor Ligand Technologies GmbH) and menu items: Products, Contract Work, Ressources/Support, Company, Contact, and Products on Sale. A search icon, a user profile icon, and a shopping cart icon are on the right. Below the navigation is a hero banner with a blue background and the text 'ReliaTech - reliably yours' and 'We are ISO9001:2015 certified.' Below the banner is a section titled 'Popular Products' containing six product cards. Each card lists a product name, its category, SKU, and price, with a 'View Details' button and an 'In stock' indicator.

Product Name	Category	SKU	Price	Status
human VEGF165 protein	Cytokines & Growth Factors, Popular products	human-vegf165-protein	As low as €85.00	In stock
anti-human Prox-1 polyclonal antibody	Polyclonal Antibodies, Popular products	anti-human-prox-1-polyclonal-antibody	As low as €190.00	In stock
anti-human Podoplanin monoclonal antibody	Monoclonal Antibodies, Popular products	anti-human-podoplanin-mono-clonal-antibody	As low as €190.00	In stock
anti-human Lyve-1 polyclonal antibody	Polyclonal Antibodies, Popular products	anti-human-lyve-1-polyclonal-antibody	As low as €190.00	In stock
human HGF protein	Cytokines & Growth Factors, Popular products	human-hgf-protein	As low as €112.00	In stock
human FGF-4 protein	Cytokines & Growth Factors, Popular products	human-fgf-4-protein	As low as €85.00	In stock

6 Item(s)



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