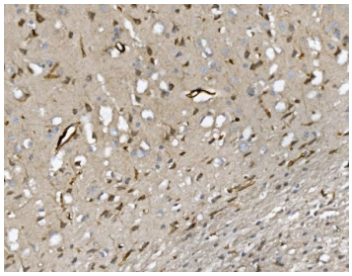
CD34 Antibody for IHC / WB / Rodent Reactive Antibody (RQ6372)

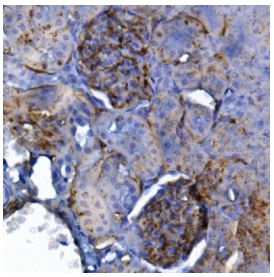
Catalog No.	Formulation	Size
RQ6372	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

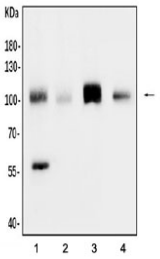
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	B1PLB1
Localization	Cell surface
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This CD34 Antibody for IHC / WB / Rodent Reactive Antibody is available for research use only.



CD34 Antibody Rat Brain IHC. Immunohistochemistry analysis of CD34 expression in FFPE rat brain demonstrates membranous HRP-DAB brown staining in vascular endothelial cells highlighting fine capillary networks and small vessel structures throughout neural tissue, while neuronal and glial cells remain largely negative. The staining pattern supports visualization of cerebral microvasculature and endothelial cell distribution in rat brain. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



CD34 Antibody Rat Kidney IHC. Immunohistochemistry analysis of CD34 expression in FFPE rat kidney demonstrates membranous HRP-DAB brown staining in vascular endothelial cells within glomerular capillary tufts and interstitial vessels, highlighting fine microvascular networks, while renal tubular epithelial cells remain largely negative. The staining pattern supports visualization of renal vascular architecture and endothelial cell localization in rat kidney. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



CD34 Antibody Rodent WB. Western blot analysis of CD34 expression in rodent tissue lysates. Lane 1: rat heart lysate, Lane 2: rat skeletal muscle lysate, Lane 3: rat lung lysate, Lane 4: mouse lung lysate. A band is detected at approximately 90-110 kDa, consistent with the predicted molecular weight of CD34 following extensive glycosylation. A lower band near the expected core molecular weight may represent less glycosylated or partially processed forms of the protein. The higher apparent molecular weight reflects known post-translational modification of CD34 as a heavily glycosylated cell surface protein, with stronger signal in lung tissues aligning with endothelial enrichment.

Description

Cluster of Differentiation 34 (CD34) is a transmembrane sialomucin glycoprotein encoded by the CD34 gene and is widely expressed on vascular endothelial cells as well as hematopoietic stem and progenitor cells. It plays a key role in cell adhesion and migration within vascular and stem cell niches and serves as a defining marker of endothelial identity. CD34 Antibody for IHC / WB enables detection of CD34 at both the tissue and protein level, providing complementary approaches for evaluating endothelial distribution and protein expression across experimental systems.

CD34 antibody, also known as endothelial marker antibody or hematopoietic stem cell marker antibody, produces a characteristic membranous staining pattern in immunohistochemistry, outlining vascular endothelial cells and clearly delineating capillaries, branching microvessels, and larger vascular channels. In FFPE tissues, this staining pattern enables precise visualization of endothelial-lined luminal structures and supports assessment of vascular organization, microvascular density, and tissue-specific vascular architecture.

This CD34 Antibody for IHC / WB is uniquely positioned as a rodent-reactive antibody, enabling consistent detection of CD34 in mouse and rat samples widely used in experimental models. Cross-species compatibility is critical for translational research, allowing direct comparison of CD34 expression between human systems and in vivo rodent models. This supports studies of vascular biology, tumor angiogenesis, and stem cell populations in preclinical settings where rodent tissues are frequently analyzed.

In western blot analysis, CD34 is detected as a heavily glycosylated protein with a predicted core molecular weight of approximately 40 kDa, but an apparent molecular weight typically ranging from approximately 90 kDa to 120 kDa due to extensive O-linked and N-linked glycosylation. Bands may appear broad or diffuse, and in some samples multiple bands may be observed, reflecting heterogeneous glycoforms or partial processing of the protein. A weaker band closer to the predicted core molecular weight may also be present, corresponding to less glycosylated forms. These patterns are consistent with the known biology of CD34 and should be interpreted as characteristic rather than non-specific.

In immunohistochemistry of rodent tissues, CD34 staining highlights vascular endothelial cells within organs such as kidney, spleen, lung, and other vascularized tissues, producing clear membranous labeling that outlines microvascular networks and capillary beds. The consistent endothelial localization supports accurate identification of vascular structures and facilitates comparison of vascular patterns across experimental models.

As a rabbit polyclonal antibody, this CD34 antibody recognizes multiple epitopes on the target protein, contributing to enhanced detection sensitivity in both IHC and WB applications. This multi-epitope recognition supports robust signal generation across different sample types and experimental conditions, and is particularly advantageous in rodent tissues

where epitope accessibility or sequence variation may influence binding of monoclonal antibodies. The result is strong and reliable detection across species and assay formats.

CD34 expression detected by this antibody may originate from both endothelial cells and hematopoietic progenitor populations depending on the tissue source. In rodent spleen and bone marrow, expression reflects hematopoietic compartments, while in other tissues it corresponds primarily to vascular endothelial distribution. Interpretation of staining or banding patterns should therefore consider the biological context of the sample.

Overall, CD34 Antibody for IHC / WB provides robust, cross-species detection of CD34 in mouse and rat samples, supporting both high-resolution visualization of vascular structures and reliable identification of glycosylated protein species in western blot. Its dual-application compatibility and sensitivity make it well suited for studies of vascular biology, stem cell biology, and translational research in rodent models.

This antibody is part of our CD34 antibody collection, supporting research into stem cell biology, endothelial markers, and tumor angiogenesis.

Application Notes

Optimal dilution of the CD34 Antibody for IHC / WB / Rodent Reactive Antibody should be determined by the researcher.

Immunogen

Recombinant rat protein (amino acids S170-L386) was used as the immunogen for the CD34 antibody.

Storage

After reconstitution, the CD34 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

CD34 mouse rat antibody, CD34 rodent reactive antibody, CD34 western blot antibody, CD34 immunohistochemistry antibody, CD34 cross species antibody

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