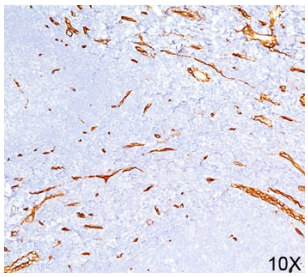
CD34 Antibody for IHC / Extracellular Domain Endothelial Marker Antibody [clone QBEnd/10] (V2067)

Catalog No.	Formulation	Size
V2067-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2067-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2067SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2067IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

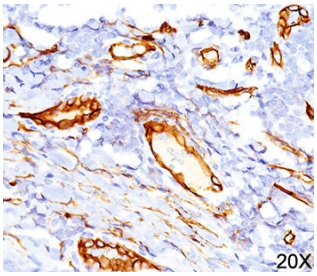
Citations (9)

Bulk quote request

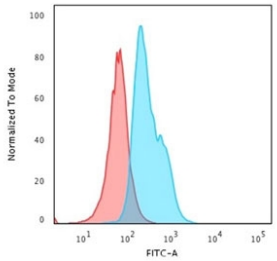
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, lambda
Clone Name	QBEnd/10
Purity	Protein G purified antibody
Buffer	1X PBS, pH 7.4
Gene ID	947
Localization	Cell surface
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD34 Antibody for IHC / Extracellular Domain Endothelial Marker Antibody is available for research use only.



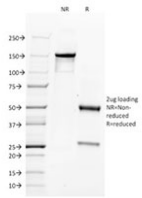
CD34 Antibody Tonsil IHC QBEnd/10. Immunohistochemistry analysis of CD34 expression in FFPE human tonsil (10X) using an Extracellular Domain Endothelial Marker Antibody, clone QBEnd/10, demonstrates strong membranous HRP-DAB brown staining in vascular endothelial cells outlining small vessels and capillary networks within lymphoid tissue, while surrounding lymphocytes remain largely negative. The staining pattern highlights well-defined endothelial-lined structures and supports clear visualization of vascular architecture in tonsil.



IHC testing of human tonsil (20X) stained with CD34 antibody (QBEnd/10).



CD34 Antibody QBEnd/10 FACS. Flow cytometry analysis of CD34 expression in human Jurkat cells using clone QBEnd/10 shows a clear right-shifted population (blue) compared to isotype control (red), indicating specific surface detection of CD34-positive cells. The distinct population separation supports accurate gating and highlights the antibodyâ€™s utility for identifying CD34-expressing cell populations in flow cytometry.



SDS-PAGE analysis of purified, BSA-free CD34 Antibody QBEnd/10 as confirmation of integrity and purity.

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 functions in cell adhesion and migration within vascular and stem cell niches and serves as a defining marker of endothelial identity. CD34 Antibody for IHC is widely used to visualize endothelial cells in formalin-fixed, paraffin-embedded tissues, where it produces a characteristic membranous staining pattern outlining vascular structures and microvascular networks.

CD34 antibody, also known as endothelial marker antibody or hematopoietic stem cell marker antibody, demonstrates strong and consistent labeling of vascular endothelial cells across a broad range of tissues. In immunohistochemistry, CD34 highlights capillaries, branching microvessels, and larger vascular channels with distinct membranous HRP-DAB brown staining, enabling clear identification of endothelial-lined luminal structures and supporting evaluation of vascular organization within tissue sections.

This CD34 Antibody for IHC is uniquely positioned as an extracellular domain-targeting antibody, where epitope location directly influences staining performance and interpretability. Clone QBEnd/10 recognizes an extracellular region of CD34 exposed on the luminal surface of endothelial cells, resulting in strong, continuous membranous staining that sharply delineates vessel boundaries. This extracellular targeting supports clear visualization of vascular contours and enhances

contrast between endothelial cells and surrounding stromal or tumor compartments.

Clone QBEnd/10 is a well-established mouse monoclonal antibody with extensive peer-reviewed publication support, and its widespread use has contributed to consistent characterization of CD34 staining patterns across tissue types. The reproducibility of this clone in immunohistochemistry has made it a commonly referenced standard for endothelial detection, particularly in studies evaluating vascular structure and angiogenic features.

Extracellular epitope recognition provides practical advantages in FFPE tissue staining, as the luminal domain of CD34 remains accessible under typical fixation and antigen retrieval conditions. This contributes to uniform staining intensity and reduces variability associated with epitope masking, supporting reliable detection across different tissue preparations. The resulting staining pattern is continuous and well-defined, allowing accurate interpretation of vessel morphology and microvascular distribution.

In tumor tissues, CD34 immunohistochemistry using QBEnd/10 highlights tumor-associated vasculature and irregular microvascular proliferation, enabling detailed visualization of angiogenic remodeling within the tumor microenvironment. The clear membranous signal produced by this clone facilitates identification of endothelial-lined channels and supports assessment of vascular density and distribution without ambiguity from surrounding tumor cells.

While CD34 expression may also be detected in certain progenitor and stromal cell populations depending on tissue context, its most consistent and diagnostically useful localization remains within vascular endothelial cells. The distinct staining profile produced by QBEnd/10 supports confident identification of these cells even in complex or densely cellular tissues.

Overall, CD34 Antibody for IHC using clone QBEnd/10 provides robust and reproducible detection of endothelial cells through extracellular domain recognition. Its well-characterized staining pattern, consistent performance across FFPE tissues, and extensive use in the literature make it a reliable tool for visualization of vascular architecture and analysis of angiogenesis in immunohistochemistry applications.

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

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the CD34 Antibody for IHC / Extracellular Domain Endothelial Marker Antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10mM Citrate Buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.
3. The QBEnd/10 monoclonal antibody is a class II CD34 antibody that binds to the extracellular portion of the protein.

Immunogen

A detergent solubilized vesicular suspension prepared from human term placenta was used as the immunogen for this CD34 antibody.

Storage

Store the CD34 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD34 QBEnd10 antibody, CD34 endothelial marker antibody, vascular endothelial marker antibody, CD34 immunohistochemistry antibody, CD34 extracellular domain antibody

References (1)

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