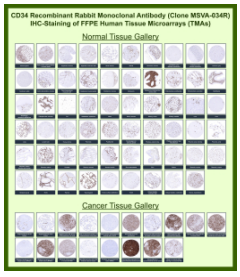
CD34 Antibody for IHC / CD34 Immunohistochemistry Antibody [clone MSVA-034R] (V6148)

Catalog No.	Formulation	Size
V6148-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6148-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-034R
UniProt	P28906
Localization	Membrane
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This CD34 Antibody for IHC / CD34 Immunohistochemistry Antibody is available for research use only.



CD34 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of CD34 molecule / CD34 in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal CD34 antibody clone MSVA-034R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong membranous localization in vascular endothelial cells across a wide range of tissues, clearly outlining capillary networks and blood vessel architecture, while surrounding epithelial and stromal cells remain largely negative. Within tumor tissue microarrays, CD34 highlights tumor-associated vasculature with variable microvessel density, including strong staining in vascular-rich tumors, supporting its use as an endothelial marker for angiogenesis. Evaluation across large TMA panels enables direct comparison of CD34 expression across diverse tissue types under standardized conditions. The observed staining patterns align with reported CD34 expression profiles in the Human Protein Atlas.

Description

Cluster of Differentiation 34 (CD34) is a transmembrane sialomucin encoded by the CD34 gene and is widely expressed on hematopoietic stem and progenitor cells as well as vascular endothelial cells. It plays a central role in cell adhesion, migration, and stem cell niche maintenance, particularly within the bone marrow and vascular microenvironments. CD34 Antibody for IHC is a well-established tool for visualizing endothelial cells in formalin-fixed, paraffin-embedded tissues, where it produces strong membranous staining that clearly delineates vascular structures and supports detailed histological interpretation.

CD34 antibody, also referred to as hematopoietic stem cell marker antibody or vascular endothelial marker antibody, is especially valuable in immunohistochemistry due to its high sensitivity for endothelial lining cells across a broad range of tissues. In normal tissue sections, CD34 highlights capillaries, venules, and larger vessels with crisp luminal staining, allowing clear identification of vascular boundaries and microvascular density. This consistent endothelial pattern makes CD34 one of the most reliable markers for assessing tissue vascularization and distinguishing vascular compartments from surrounding epithelial and stromal elements in IHC studies.

This CD34 Antibody for IHC is uniquely suited for tissue microarray analysis, where reproducibility across dozens of tissue types is essential. In large-scale FFPE tissue panels, CD34 demonstrates uniform and specific endothelial staining across organs including lung, kidney, liver, gastrointestinal tract, endocrine tissues, and reproductive organs. The ability to maintain consistent staining intensity across diverse biological contexts enables direct comparison of vascular patterns between tissues and disease states, making CD34 particularly effective for high-throughput histological screening and biomarker evaluation using tissue microarrays.

In oncology research, CD34 immunohistochemistry is widely used to evaluate tumor angiogenesis by visualizing tumor-associated blood vessels. CD34-positive endothelial cells form intricate vascular networks within tumors, and increased microvessel density is frequently associated with tumor growth, progression, and invasive potential. Tissue microarray staining highlights these differences clearly, with strong endothelial labeling observed in vascular-rich tumors such as angiosarcoma and Kaposi sarcoma, while non-vascular tumor cells remain largely negative. This contrast supports the use of CD34 IHC in assessing tumor microenvironment architecture and vascular remodeling across multiple cancer types.

Clone MSVA-034R is a recombinant rabbit monoclonal antibody that provides strong and consistent endothelial staining in FFPE tissues, with clear membranous and luminal localization and minimal background signal. The staining pattern observed across tissue microarrays shows well-defined vascular structures, including branching capillary networks and sinusoidal vessels, enabling precise visualization of vascular organization within complex tissue environments. Its performance in multi-tissue panels supports reliable interpretation in comparative studies and reinforces its suitability for IHC-based vascular profiling.

Beyond endothelial cells, CD34 expression can also be detected in select progenitor and stromal cell populations depending on tissue context, adding an additional layer of biological insight when interpreted alongside morphology. This broader expression profile enhances the utility of CD34 immunohistochemistry for identifying specialized cellular compartments within tissues while maintaining its primary role as a vascular marker.

Overall, CD34 Antibody for IHC remains a cornerstone reagent for endothelial visualization and angiogenesis assessment in FFPE tissues. Its strong, reproducible staining across tissue microarrays, combined with clear vascular specificity, makes it highly effective for studying vascular biology, tumor microenvironments, and stem cell-associated niches in histological research.

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

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the CD34 Antibody for IHC / CD34 Immunohistochemistry Antibody should be determined by the researcher.

2. This CD34 / CD34 molecule antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to the manufacturer's directions.

Immunogen

Recombinant full-length human CD34 protein was used as the immunogen for the CD34 / CD34 molecule antibody.

Storage

CD34 / CD34 molecule antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

CD34 endothelial marker antibody, hematopoietic stem cell marker antibody, vascular endothelial marker antibody, CD34 IHC antibody, CD34 tissue microarray antibody

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