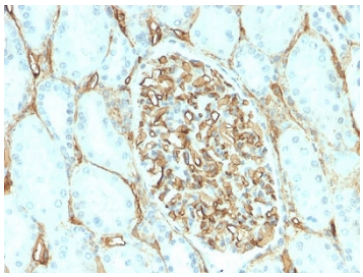
CD34 Antibody for FACS / Hematopoietic Stem Cell Isolation Antibody [clone HPCA1/2598R] (V7384)

Catalog No.	Formulation	Size
V7384-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7384-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7384SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7384IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

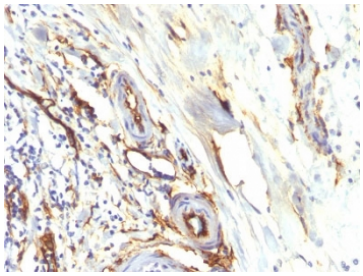
Recombinant RABBIT MONOCLONAL

Bulk quote request

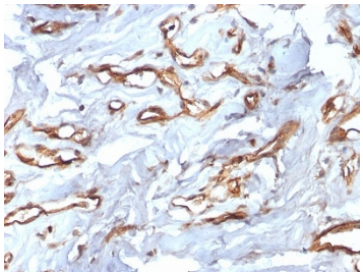
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	HPCA1/2598R
Purity	Protein A affinity chromatography
UniProt	P28906
Localization	Cell surface, cytoplasmic
Applications	Flow cytometry: 0.5-1ug/million cells Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD34 Antibody for FACS / Hematopoietic Stem Cell Isolation Antibody is available for research use only.



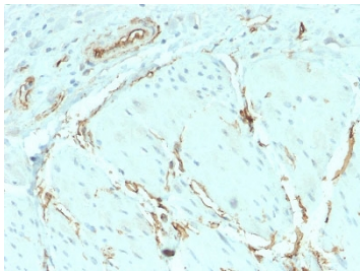
CD34 Antibody Renal Cell Carcinoma IHC. Immunohistochemistry testing of FFPE human renal cell carcinoma with recombinant CD34 antibody (clone HPCA1/2598R). Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



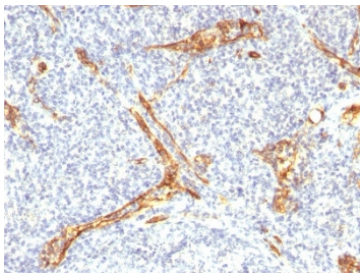
CD34 Antibody Colon Carcinoma IHC. Immunohistochemistry testing of FFPE human colon carcinoma with recombinant CD34 antibody (clone HPCA1/2598R). Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



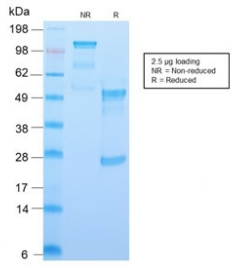
CD34 Antibody Angiosarcoma IHC. Immunohistochemistry testing of FFPE human angiosarcoma with recombinant CD34 antibody (clone HPCA1/2598R). Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



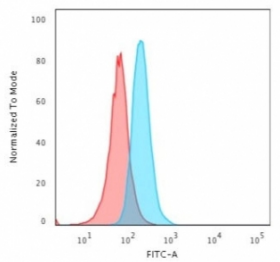
CD34 Antibody Breast Cancer IHC. Immunohistochemistry testing of FFPE human breast carcinoma with recombinant CD34 antibody (clone HPCA1/2598R). Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



CD34 Antibody Tonsil IHC. Immunohistochemistry testing of FFPE human tonsil with recombinant CD34 antibody (clone HPCA1/2598R). Required HIER: boil tissue sections in 10mM Tris with 1mM EDTA, pH 9, for 10-20 min followed by cooling at RT for 20 min.



SDS-PAGE analysis of purified, BSA-free recombinant CD34 antibody (clone HPCA1/2598R) as confirmation of integrity and purity.



CD34 Antibody for FACS. Flow cytometry analysis of CD34 expression in human Jurkat cells using a Hematopoietic Stem Cell Isolation Antibody, clone HPCA1/2598R, demonstrates a clear right-shifted population (blue) compared to isotype control (red), indicating specific surface detection of CD34. The distinct population separation supports precise gating of CD34-positive cells and highlights the antibodyâ€™s suitability for stem cell identification and isolation by flow cytometry.

Description

Cluster of Differentiation 34 (CD34) is a cell surface transmembrane glycoprotein encoded by the CD34 gene and is highly expressed on hematopoietic stem and early progenitor cells, as well as select endothelial lineage populations. It plays a central role in stem cell adhesion, migration, and niche retention within the bone marrow microenvironment. CD34 Antibody for FACS is a foundational reagent for identifying and isolating rare CD34-positive stem cell populations by flow cytometry, where it enables precise gating and enrichment from complex biological samples such as bone marrow, peripheral blood, and cord blood.

CD34 antibody, also known as hematopoietic stem cell marker antibody or progenitor cell isolation antibody, is widely used in flow cytometry to define CD34-positive fractions that represent early, undifferentiated cell populations. In FACS analysis, CD34 expression is restricted to a small subset of cells, producing a well-resolved positive population that can be clearly separated from mature hematopoietic cells. This distinct expression pattern allows high-confidence gating and supports reproducible identification of stem and progenitor compartments across sample types.

This CD34 Antibody for FACS is uniquely positioned for hematopoietic stem cell isolation, where accurate discrimination of CD34-positive cells directly impacts downstream applications such as transplantation models, colony-forming assays, and lineage differentiation studies. Flow cytometry using CD34 enables high-purity sorting of stem cell populations, allowing researchers to isolate viable cells for expansion, functional testing, and regenerative biology studies. The ability to detect low-frequency CD34-positive events with strong signal intensity is critical in these workflows, particularly when working with limited or heterogeneous samples.

Clone HPCA1/2598R is a recombinant rabbit monoclonal antibody designed for robust surface detection of CD34 in flow cytometry. It produces strong fluorescence signal with low background, enabling clean separation between CD34-positive and CD34-negative populations and facilitating accurate gating strategies. Its recognition of extracellular CD34 allows analysis of live or fixed cells without permeabilization, preserving cell integrity during sorting and minimizing disruption of downstream functional assays.

In multiparameter flow cytometry panels, CD34 is commonly used as the primary gate in combination with markers such as CD38, CD45, CD90, and CD133 to refine hematopoietic hierarchies and identify specific stem and progenitor subsets. This hierarchical gating strategy enables detailed resolution of early lineage compartments and supports advanced analysis of stem cell biology under normal and experimental conditions.

While CD34 expression can also be detected in endothelial progenitor cells and select stromal populations, its most prominent application in flow cytometry remains the isolation of hematopoietic stem cells. The ability to reproducibly identify and sort CD34-positive populations makes this antibody a cornerstone reagent in stem cell research and cell-based experimental systems.

Overall, CD34 Antibody for FACS provides strong, specific, and well-resolved detection of CD34-positive stem cells, supporting high-precision gating and efficient isolation workflows. Its performance in flow cytometry makes it highly effective for stem cell enrichment, downstream functional studies, and applications requiring accurate identification of rare progenitor populations.

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 FACS / Hematopoietic Stem Cell Isolation Antibody should be determined by the researcher.

1. 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.

Immunogen

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

Storage

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

Alternate Names

CD34 stem cell isolation antibody, hematopoietic stem cell marker antibody, CD34 flow cytometry antibody, CD34 progenitor cell antibody, CD34 cell sorting antibody

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