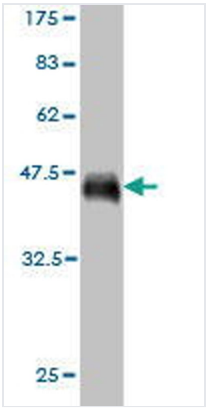
CD34 Antibody – Mouse Monoclonal

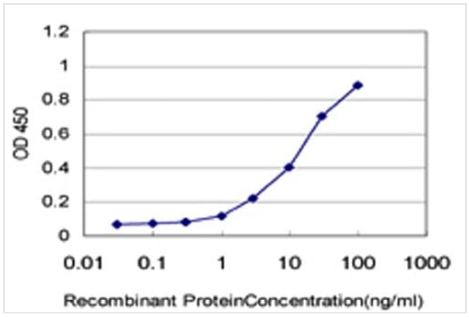
PRODUCT OVERVIEW

Product Name	CD34, Monoclonal Antibody
Full Product Name	CD34 (Hematopoietic Progenitor Cell Antigen CD34, CD34 Molecule) (HRP)
Product Gene Name	anti-CD34 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	5F3
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with horseradish peroxidase (HRP).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human CD34.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and stor degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be r assay buffer. Note: Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates. For maximum recovery of product, ce original vial after thawing and prior to removing the cap.
Molecular Weight	28.6kDa (268aa) 40-57KDa (SDS-PAGE under reducing conditions.)
OMIM	142230
3D Structure	ModBase 3D Structure for P28906
Immunogen	Partial recombinant corresponding to aa32-141 from human CD34 (NP_001764) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	SLDNNGTATPELPTQGTFSNVSTNVSYQETTTPSTLGSTSLHPVSQHGNEATTNITETTVKFTSTSVITSVYGNTNSSVQSQTSVISTVFTTPANVSTPETT
Conjugate	HRP
Product Categories/Family for anti-CD34 antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-CD34 antibody	ELISA (EIA), Western Blot (WB)
Application Notes for anti-CD34 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-CD34 antibody	CD34 is thought to function as an adhesion molecule for early hematopoietic progenitors mediating the attachment of stem cells to extracellular matrix mucosialin. It is selectively expressed on majority of hematopoietic stem/progenitor cells, bone marrow stromal cells, capillary endothelial cells, and em fibroblasts. CD34+ hematopoietic progenitors may be mobilized to the peripheral blood by treatment with recombinant canine granulocyte colony-stimu and stem-cell factor. Furthermore, CD34 is expressed on some canine leukemias.
Other Notes	Small volumes of anti-CD34 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessa centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional may apply.
Searchable Terms for CD34 purchase	MBS6151663 is an antibody targeting CD34. Also known as CD34 (Hematopoietic Progenitor Cell Antigen CD34, CD34 Molecule) (HRP). Reactive in H Host: Mouse.



Western Blot (WB) of anti-CD34 antibody
Western Blot detection against Immunogen (37.84kD).



Testing Data of anti-CD34 antibody
Detection limit for recombinant GST tagged CD34 is ~0.3ng/ml as a capture antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD34. It may not necessarily be applicable to this product.

NCBI GI #	4502661
NCBI GeneID	947
NCBI Accession #	NP_001764
UniProt Primary Accession #	P28906
UniProt Secondary Accession #	Q15970; Q15971; Q5JTA3; Q5JTA4; Q9UJB1; A8K664
UniProt Related Accession #	P28906
GenBank Nucleotide #	NM_001773
NCBI Official Full Name	hematopoietic progenitor cell antigen CD34 isoform b
NCBI Official Synonym Full Names	CD34 molecule
NCBI Official Symbol	CD34
UniProt Protein Name	Hematopoietic progenitor cell antigen CD34
Protein Family	Hematopoietic progenitor cell antigen
UniProt Gene Name	CD34
UniProt Entry Name	CD34_HUMAN
NCBI Protein Information	hematopoietic progenitor cell antigen CD34

NCBI Summary for CD34	The protein encoded by this gene may play a role in the attachment of stem cells to the bone marrow extracellular matrix or to stromal cells. This single-pass membrane protein is highly glycosylated and phosphorylated by protein kinase C. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2011]
UniProt Comments for CD34	CD34: Possible adhesion molecule with a role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. Could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. Presents carbohydrate ligands to selectins. Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues. Belongs to the CD34 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Cell surface Chromosomal Location of Human Ortholog: 1q32 Cellular Component: intercellular bridge; lysosome; integral to plasma membrane; perinuclear region of cytoplasm; cytoplasm; apical plasma membrane; basal plasma membrane; plasma membrane; external side of plasma membrane Molecular Function: sulfate binding; carbohydrate binding; transcription factor binding Biological Process: positive regulation of odontogenesis; regulation of immune response; negative regulation of nitric oxide biosynthetic process; glomerular filtration; cell motility involved in cell locomotion; negative regulation of blood coagulation; negative regulation of tumor necrosis factor production; signal transduction; positive regulation of interleukin-10 production; cell proliferation; cell-cell adhesion; positive regulation of angiogenesis; endothelial cell proliferation; regulation of blood pressure; tissue homeostasis; hemopoiesis; leukocyte migration
Research Articles on CD34	**1.** CD34(+) and CD34(-) cells are different phenotypes of similar cells, and CD34 (1) can be regulated in endothelial colony-forming cells ECFC; (2) is positively involved in capillary-like sprout formation; (3) is associated but not causally related to tip-cell gene expression; and (4) can affect endothelial barrier function.
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