

Mouse CD34 Antibody | anti-CD34 antibody

Anti-Hu CD34 Biotin

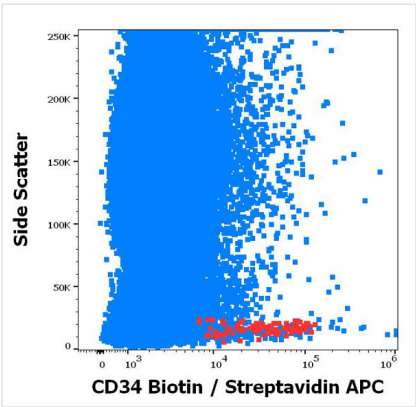
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA129356	Mouse	Non-human primates, Human	Immunohistochemistry, Immunoprecipitation, Flow Cytometry, Functional Assay, Western Blot, Immunohistochemistry

PRODUCT SYNONYMS

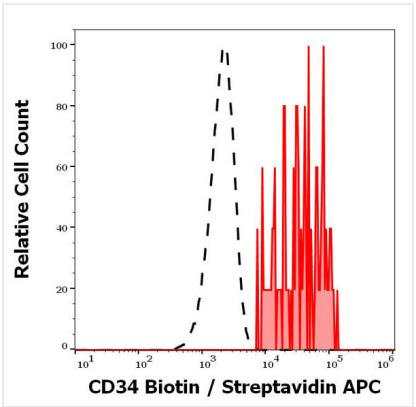
CD34; Anti-Hu CD34 Biotin; CD34 molecule; anti-CD34 antibody

PRODUCT SPECIFICATIONS

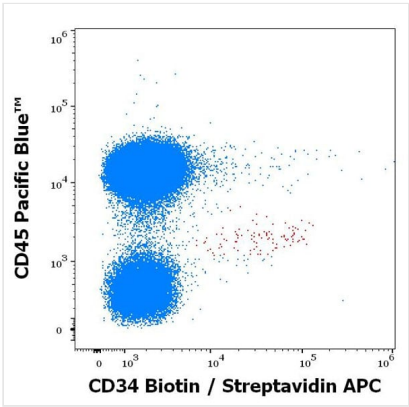
Host	Mouse
Reactivity	Non-human primates, Human
Isotype	Mouse IgG1
Clone Number	QBEnd-10
Specificity	The antibody QBEnd-10 reacts with an extracellular class II epitope on CD34, a 110-115 kDa monomeric transmembrane phosphoglycoprotein expressed on hematopoietic progenitors cells and on the most pluripotential stem cells; it is gradually lost on progenitor cells. This antibody has been also used as an endothelial marker.
Purity/Purification	Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.
Form/Format	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-CD34 antibody	IHC (Immunohistochemistry), IP (Immunoprecipitation), FCM/FACS (Flow Cytometry), WB (Western Blot), IHC (Immunohistochemistry)
Negative Species	Dog, Sheep, Rat, Cow
Immunogen	Human endothelial vesicles
Conjugation	Biotin
Preparation and Storage	Store at 2-8 degree C. Do not freeze.



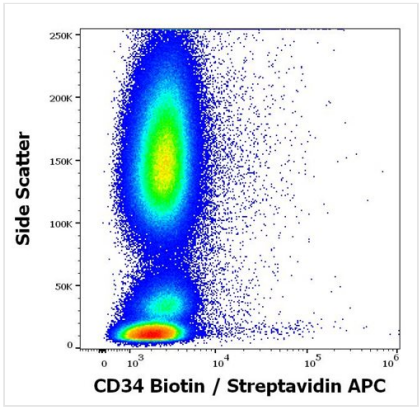
FCM/FACS (Flow Cytometry)
Flow cytometry surface staining pattern of human peripheral whole blood showing CD34 positive stem cells (red) stained using anti-human CD34 (QBEnd-10) Biotin antibody (concentration in sample 1.67ug/ml, Streptavidin APC).



FCM/FACS (Flow Cytometry)
Separation of human CD34 positive CD45dim stem cells (red-filled) from lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD34 (QBEnd-10) Biotin antibody (concentration in sample 1.67ug/ml, Streptavidin APC).



FCM/FACS (Flow Cytometry)
Flow cytometry multicolor surface staining pattern of human peripheral blood SSC-low events showing CD34 positive stem cells (red) stained using anti-human CD45 (2D1) Pacific Blue antibody (4ul reagent/100ul of peripheral whole blood) and anti-human CD34 (QBEnd-10) Biotin antibody (concentration in sample 1.67ug/ml, Streptavidin APC).



FCM/FACS (Flow Cytometry)
Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD34 (QBEnd-10) Biotin antibody (concentration in sample 1.67ug/ml, Streptavidin APC).

ADDITIONAL INFORMATION

Related Product Information for anti-CD34 antibody	CD34 is a highly glycosylated monomeric 111-115 kDa surface protein, which is present on many stem cell populations. It is a well established stem cell marker, though its expression on human hematopoietic stem cells is reversible. CD34 probably serves as a surface receptor that undergoes receptor-mediated endocytosis and regulates adhesion, differentiation and proliferation of hematopoietic stem cells and other progenitors. CD34 expression is likely to represent a specific state of hematopoietic development that may have altered adhering properties with expanding and differentiating capabilities in both in vitro and in vivo conditions.
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References

*Krauter J, Hartl M, Hambach L, Kohlenberg A, Gunsilius E, Ganser A, Heil G: Receptor-mediated endocytosis of CD34 on hematopoietic cells after stimulation with the monoclonal antibody anti-HPCA-1. J Hematother Stem Cell Res. 2001 Dec;10(6):863-71., URL: <http://www.ncbi.nlm.nih.gov/pubmed/11798512> ordina,*Dao MA, Arevalo J, Nolta JA: Reversibility of CD34 expression on human hematopoietic stem cells that retain the capacity for secondary reconstitution. Blood. 2003 Jan 1;101(1):112-8., URL: <http://www.ncbi.nlm.nih.gov/pubmed/12393633> ordina,*Gangenahalli GU, Singh VK, Verma YK, Gupta P, Sharma RK, Chandra R, Gulati S, Luthra PM: Three-dimensional structure prediction of the interaction of CD34 with the SH3 domain of Crk-L. Stem Cells Dev. 2005 Oct;14(5):470-7., URL: <http://www.ncbi.nlm.nih.gov/pubmed/16305332> ordina,*Gangenahalli GU, Singh VK, Verma YK, Gupta P, Sharma RK, Chandra R, Luthra PM: Hematopoietic stem cell antigen CD34: role in adhesion or homing. Stem Cells Dev. 2006 Jun;15(3):305-13., URL: <http://www.ncbi.nlm.nih.gov/pubmed/16846369> ordina,*Schlingemann RO, Rietveld FJ, de Waal RM, Bradley NJ, Skene AI, Davies AJ, Greaves MF, Denekamp J, Ruiter DJ: Leukocyte antigen CD34 is expressed by a subset of cultured endothelial cells and on endothelial abluminal microprocesses in the tumor stroma. Lab Invest. 1990 Jun;62(6):690-6., URL: <https://www.ncbi.nlm.nih.gov/pubmed/1694254> ordina,*Ramani P, Bradley NJ, Fletcher CD: QBEND/10, a new monoclonal antibody to endothelium: assessment of its diagnostic utility in paraffin sections. Histopathology. 1990 Sep;17(3):237-42., URL: <https://www.ncbi.nlm.nih.gov/pubmed/2242851> ordina,*Kuzu I, Bicknell R, Harris AL, Jones M, Gatter KC, Mason DY: Heterogeneity of vascular endothelial cells with relevance to diagnosis of vascular tumours. J Clin Pathol. 1992 Feb;45(2):143-8., URL: <https://www.ncbi.nlm.nih.gov/pubmed/1371777> ordina,*Sutherland DR, Marsh JC, Davidson J, Baker MA, Keating A, Mellors A: Differential sensitivity of CD34 epitopes to cleavage by Pasteurella haemolytica glycoprotease: implications for purification of CD34-positive progenitor cells. Exp Hematol. 1992 Jun;20(5):590-9., URL: <https://www.ncbi.nlm.nih.gov/pubmed/1375160> ordina,*Grimsley PG, Amos TA, Gordon MY, Greaves MF: Rapid positive selection of CD34+ cells using magnetic microspheres coated with monoclonal antibody QBEND/10 linked via a cleavable disulphide bond. Leukemia. 1993 Jun;7(6):898-908., URL: <https://www.ncbi.nlm.nih.gov/pubmed/7684800> ordina,*Poblet E, Jimenez-Acosta F, Rocamora A: QBEND/10 (anti-CD34 antibody) in external root sheath cells and follicular tumors. J Cutan Pathol. 1994 Jun;21(3):224-8., URL: <https://www.ncbi.nlm.nih.gov/pubmed/7525669> ordina,*Traoré Y, Hirn J: Certain anti-CD34 monoclonal antibodies induce homotypic adhesion of leukemic cell lines in a CD18-dependent and a CD18-independent way. Eur J Immunol. 1994 Oct;24(10):2304-11., URL: <https://www.ncbi.nlm.nih.gov/pubmed/7523134> ordina,*Koumarianou A, Economopoulou P, Katsaounis P, Laschos K, Arapantoni-Dadioti P, Martikos G, Rogdakis A, Tzanakis N, Boukovinas I: Gastrointestinal stromal tumors (GIST): A prospective analysis and an update on biomarkers and current treatment concepts. Biomark Cancer 2015 May 21;7(Suppl 1):1-7. , URL: <https://pubmed.ncbi.nlm.nih.gov/26056505/>,*Castrechini NM, Murthi P, Gude NM, Erwich JJ, Gronthos S, Zannettino A, Brennecke SP, Kalionis B: Placenta. Mesenchymal stem cells in human placental chorionic villi reside in a vascular niche. 2010 Mar;31(3):203-12. , URL: <https://pubmed.ncbi.nlm.nih.gov/20060164/>,*Bonelli P, Nicolussi P, Manetti R, Antuofermo E, Dattena M: Monoclonal antigen do not cross-react with ovine umbilical cord blood cells. Ital J Anim Sci 2010, vol.9:e6., URL: <https://www.tandfonline.com/doi/full/10.4081/ijas.2010.e6>,

NCBI AND UNIPROT INFORMATION

NCBI GI #	264769
NCBI GeneID	947
UniProt Accession #	P28906; Q15970; Q15971; Q5JTA3; Q5JTA4; Q9UJB1; A8K664
Molecular Weight	40,716 Da
NCBI Official Full Name	CD34
NCBI Official Synonym Full Names	CD34 molecule
NCBI Official Symbol	CD34
NCBI Protein Information	hematopoietic progenitor cell antigen CD34; CD34 antigen
UniProt Protein Name	Hematopoietic progenitor cell antigen CD34
UniProt Gene Name	CD34
UniProt Entry Name	CD34_HUMAN

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