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CD34 (Hematopoietic Stem Cell & Endothelial Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM123]
Catalog # AH10875

Product Information

Application	IF, FC, IHC-P
Primary Accession	P28906
Other Accession	947, 374990
Reactivity	Human, Rhesus, Cynomolgus
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	SPM123
Calculated MW	40716

Additional Information

Gene ID	947
Other Names	Hematopoietic progenitor cell antigen CD34, CD34, CD34
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD34 (Hematopoietic Stem Cell & Endothelial Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD34
Function	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. Membrane; Single-pass type I membrane protein.

Cellular Location	
Tissue Location	Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues

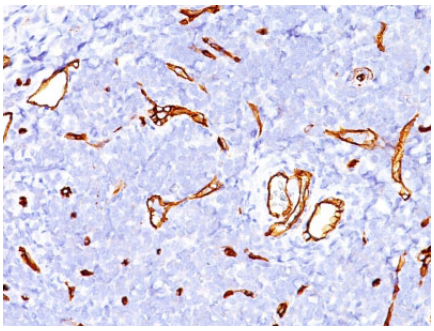
Background

This MAb recognizes a single chain, transmembrane, heavily glycosylated protein of 90-120kDa, which is identified as CD34. On the basis of differential sensitivity to degradation by specific enzymes, epitopes of monoclonal antibodies to CD34 are classified into three main categories, class I, class II and class III. It is a class II antibody whose epitope is resistant to neuraminidase but sensitive to glycoprotease and chymopapain. CD34 expression is a hallmark for identifying pluripotent hematopoietic stem or progenitor cells. Its expression is gradually lost as lineage committed progenitors differentiate. CD34 is a marker of choice for staining blasts in acute myeloid leukemia. In addition, CD34 is expressed by soft tissue tumors, such as solitary fibrous tumor and gastrointestinal stromal tumor. Its expression is also found in vascular endothelium. Additionally, it appears that proliferating endothelial cells express this molecule more than the non-proliferating endothelial cells. Anti-CD34 labels > 85% of angiosarcoma and Kaposiā€™s sarcoma, but with a lower specificity.

References

Ramani P; Bradley NJ; Fletcher CD. QBEND/10, a new monoclonal antibody to endothelium: assessment of its diagnostic utility in paraffin sections. Histopathology, 1990, 17:237-42

Images



Formalin-fixed, paraffin-embedded human Tonsil stained with CD34 Monoclonal Antibody (SPM123)