

Product datasheet

Anti-CD34 antibody [QBEND-10] ab8536

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Overview

Product name	Anti-CD34 antibody [QBEND-10]
Description	Mouse monoclonal [QBEND-10] to CD34
Specificity	This antibody recognizes the CD34 antigen, some cross reactions with vascular associated adventitia and some basement membranes. Ultrastructure studies, using an indirect immunogold technique on ultra thin sections of human umbilical artery, have revealed that this antigen is associated to a degree with the basoluminal surfaces of endothelium and shows a slight reaction with an intracytoplasmic vesicular compartment. Predominant staining is on the endothelial cell membrane. QBEND-10 immunoprecipitates a glycoprotein with a relative MW 110kD expressed on haematopoietic cells and on the established myeloid leukaemic cell line KG1A.
Tested applications	Suitable for: Flow Cyt, IHC-Fr, IP, IHC-P, WB
Species reactivity	Reacts with: Human, Cynomolgus monkey, Rhesus monkey Does not react with: Rat, Sheep, Cow, Dog
Immunogen	Other Immunogen Type corresponding to CD34. Human endothelial vesicles
Epitope	This antibody's target epitope is distinct from those of other anti-CD34 reactive mabs as demonstrated by its lack of sensitivity to neuraminidase treatment, and fluorescence staining profiles during flow cytometry analysis of target cell populations.
Positive control	tonsil, bone marrow

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.1% Sodium azide Constituent: 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	QBEND-10
Myeloma	unknown
Isotype	IgG1
Light chain type	unknown

Applications

Our Abpromise guarantee covers the use of **ab8536** in the following tested applications.

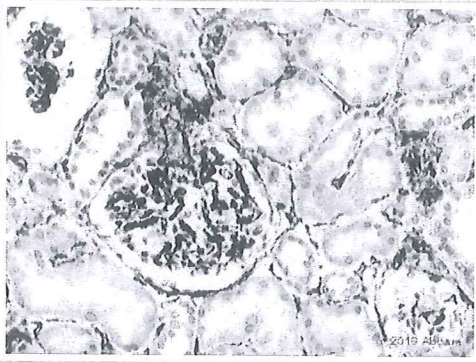
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/50. Mmethanol fixed cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-Fr		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
IHC-P	★★★★★	1/50 - 1/100. Do not perform antigen retrieval.
WB		Use at an assay dependent concentration. Predicted molecular weight: 40 kDa.

Target

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.
Tissue specificity	Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues.
Sequence similarities	Belongs to the CD34 family.
Developmental stage	On early hematopoietic progenitor cells.
Post-translational modifications	Highly glycosylated. Phosphorylated on serine residues by PKC.
Cellular localization	Membrane.

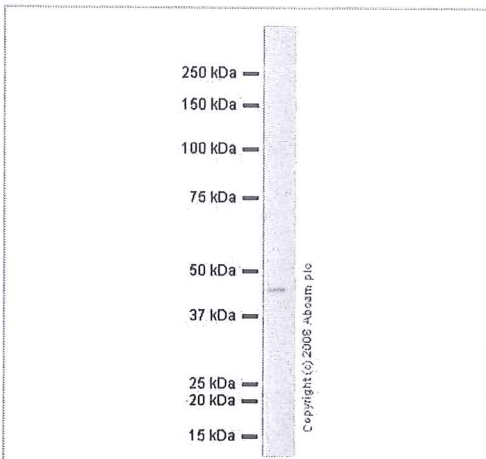
Anti-CD34 antibody [QBEND-10] images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)

This image is courtesy of an Abreview by Carl Hobbs.

ab8536 staining CD34 in human kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 2% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/2000 in blocking buffer) for 16 hours at 21°C. A Biotin-conjugated goat anti-mouse IgG polyclonal (1/300) was used as the secondary antibody.



Western blot - Anti-CD34 antibody [QBEND-10] (ab8536)

Anti-CD34 antibody [QBEND-10] (ab8536) at 5 µg/ml + Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate at 10 µg

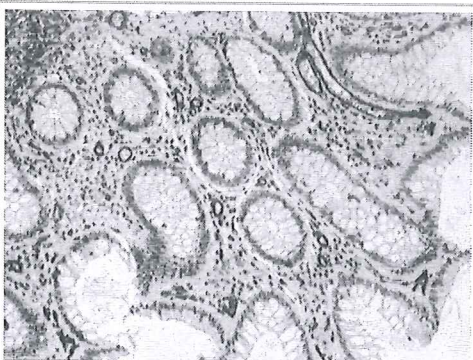
Secondary

Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Predicted band size : 40 kDa

Observed band size : 40 kDa

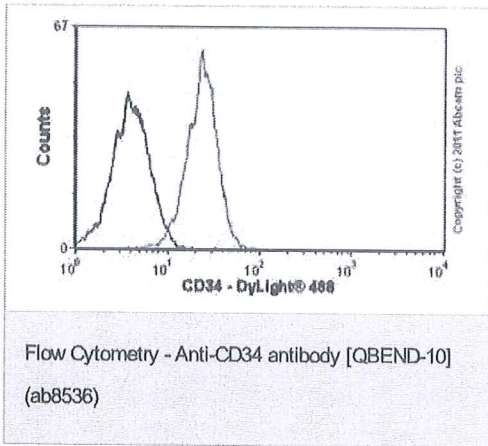
Additional bands at : 100 kDa (possible glycosylated form).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)

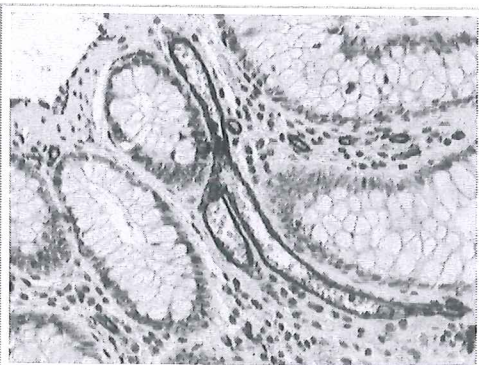
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human colon tissue sections labelling CD34 with ab8536 at 1µg/ml (1:1000). Blood vessels show positive staining.

Detection system polymeric HRP. HIER with Pressure cooker pH6.



Overlay histogram showing Jurkat cells stained with ab8536 (red line). The cells were fixed with methanol (5 min) and incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab8536, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a significantly decreased signal in Jurkat cells fixed with 4% paraformaldehyde (10 min) used under the same conditions.

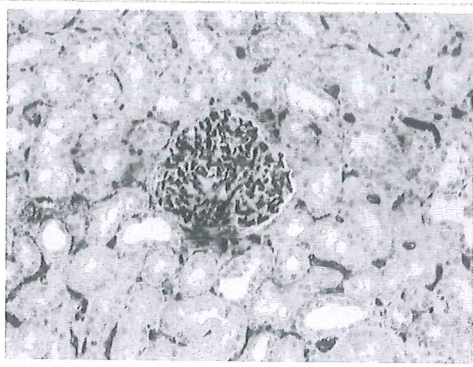
Please note that Abcam do not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)

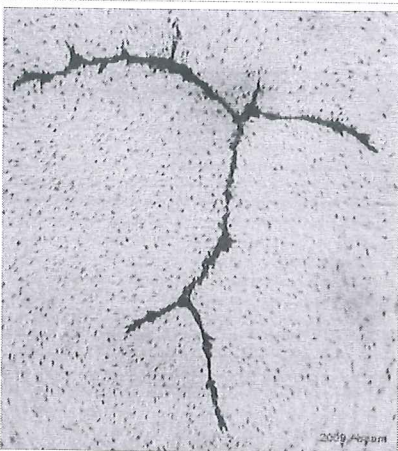
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labelling CD34 with ab8536 at 1µg/ml (1:1000). Blood vessels show positive staining.

Detection system polymeric HRP. HIER with Pressure cooker pH6.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue sections labeling CD34 with ab8536 at 1ug/ml. Detection system polymeric HRP.

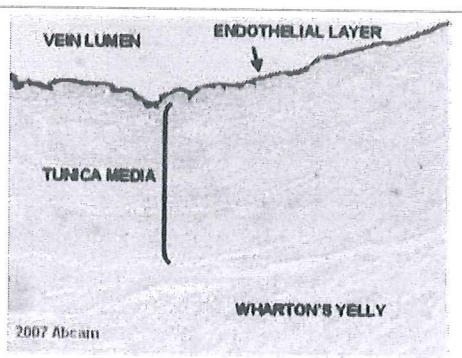
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human umbilical cord labeling CD34 with ab8536 at 1/1000 dilution. Tissue was fixed in formaldehyde and permeabilized with PBS. Heat mediated antigen retrieval was performed using a citrate pH 6 buffer. Tissue was blocked with 5% serum for 1 hour at room temperature. A biotinylated polyclonal goat anti-mouse secondary antibody was used at 1/100 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)

This image is courtesy of an abreview submitted by Manoj Kumar Valluru.



ab8536 at 1/500 staining human umbilical cord tissue sections by IHC-P. The tissue was paraformaldehyde fixed and blocked with horse serum before incubation with the antibody for 16 hours. A biotinylated goat anti-mouse IgG was used as the secondary.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [QBEND-10] (ab8536)

This image is courtesy of an Abreview submitted by Dr Jose Javier Martin De Llano

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