abcam

Product datasheet

Anti-CD34 antibody [MEC 14.7] ab8158

34 Abreviews 204 References 6 Images

Overview

Product name	Anti-CD34 antibody [MEC 14.7]
Description	Rat monoclonal [MEC 14.7] to CD34
Host species	Rat
Specificity	Recognizes mouse CD34.
Tested applications	**Suitable for:** IHC-P, WB
Species reactivity	**Reacts with:** Mouse
Immunogen	Tissue, cells or virus corresponding to Mouse CD34. Specifically, the murine endothelioma cell line tEnd.
Positive control	IHC-P: Mouse lung and brain tissue. WB: Mouse lung membrane tissue lysate.
General notes	This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact **orders@abcam.com**. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

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 long term.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 6.97% L-Arginine
Purity	Immunogen affinity purified
Clonality	Monoclonal
Clone number	MEC 14.7

Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8158 in the following tested applications.

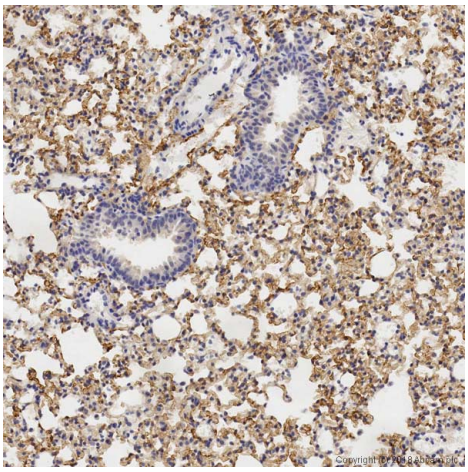
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★☆ (22)	Use a concentration of 0.5 - 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Staining with this method can be difficult, it has been reported to us that milder fixation methods for paraffin sections like using zinc solution work well (unfortunately we have no further detailed instructions of this fixation method).
WB	★★★☆☆ (1)	Use a concentration of 5 µg/ml. Detects a band of approximately 80 kDa (predicted molecular weight: 41 kDa).

Target

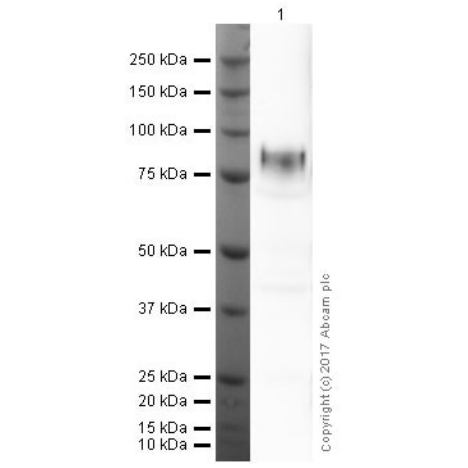
Function	Possible adhesion molecule with a role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. Could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed 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.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [MEC 14.7] (ab8158)

IHC image of CD34 staining in a formalin fixed paraffin embedded mouse lung tissue section, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab8158, 1 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Western blot - Anti-CD34 antibody [MEC 14.7] (ab8158)

Anti-CD34 antibody [MEC 14.7] (ab8158) at 1 µg/ml + Mouse Lung Membrane Tissue Lysate (**ab171830**) at 50 µg

Secondary

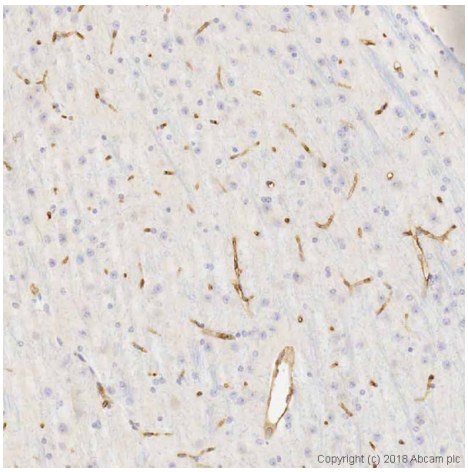
Goat Anti-Rat IgG H&L (HRP) (**ab97057**) at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 41 kDa
Observed band size: 80 kDa

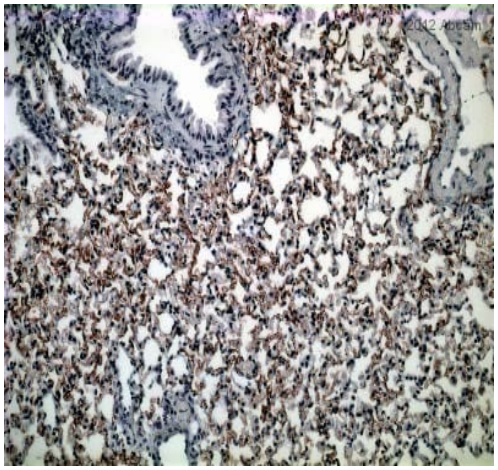
Exposure time: 2 minutes

The main band is as expected at 80 kDa since the target is heavily glycosylated and phosphorylated.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [MEC 14.7] (ab8158)

IHC image of CD34 staining in a formalin fixed paraffin embedded mouse brain tissue section, performed on a Leica Bond™ system using the standard protocol B. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab8158, 10 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

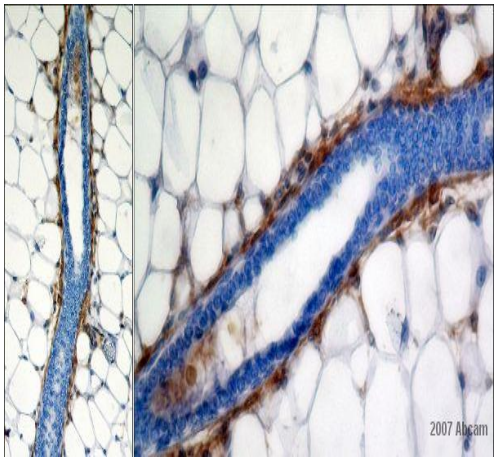


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [MEC 14.7] (ab8158)

This image is courtesy of an anonymous Abreview

Immunohistochemical analysis of murine lung tissue, staining CD34 with ab8158.

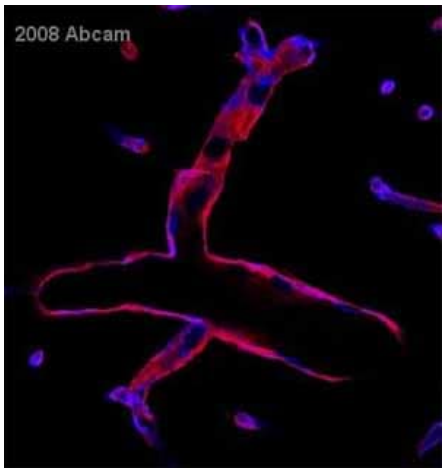
Tissue was fixed with paraformaldehyde and blocked with 5% serum for 1 hour at room temperature; antigen retrieval was by heat mediation in citrate buffer (pH 6). Samples were incubated with primary antibody (1/100 in diluent) for 16 hours at 4°C. An undiluted HRP-conjugated horse anti-rat polyclonal IgG was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [MEC 14.7] (ab8158)

This image is courtesy of an anonymous Abreview.

ab8158 staining CD34 in mouse mammary gland tissue sections by Immunohistochemistry (IHC-P - paraffin-embedded sections). Tissue was fixed with methacarnoy and blocked with 4% BSA for 60 minutes; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/100) for 16 hours. A undiluted HRP-conjugated goat anti-rat IgG polyclonal was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [MEC 14.7] (ab8158)

This image is courtesy of an anonymous Abreview

ab8158 staining mouse brain tissue sections by IHC-P. Tissue sections were paraformaldehyde fixed and blocked with 0.5% Perkin-Elmer TNB Blocking Buffer for 30 minutes at 25°C. The primary antibody was diluted 1/100 and incubated for 18 hours at 4°C. An biotin conjugated goat anti-rat was used as the secondary

Photomicrograph demonstrates CD34 in red and collagen type IV (**ab19808**) in blue in normal, adult brain vessels. Tissue was perfusion-fixed and cut into 15µm slide-mounted cryostat sections (i.e., lightly fixed, but not paraffin embedded).

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