

## Product datasheet

# Anti-CD34 antibody [EP373Y] ab81289

Recombinant RabMAb

★★★★☆ 28 Abreviews 156 References 16 Images

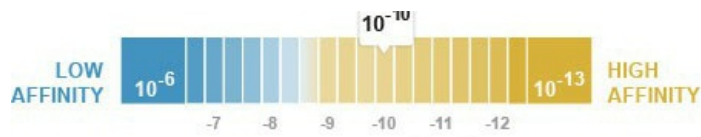
### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-CD34 antibody [EP373Y]   |
| <b>Description</b>         | Rabbit monoclonal [EP373Y] to CD34  |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, IHC-P, ICC/IF, IP, IHC-Fr, Flow Cyt  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Rat, Sheep, Dog, Human, African bush elephant  |
| <b>Immunogen</b>           | Synthetic peptide within Human CD34 aa 350 to the C-terminus (C terminal). The exact sequence is proprietary.<br>Database link: <a href="#">P28906</a>  |
| <b>Positive control</b>    | Western Blot control TF-1. IHC controls Human kidney, HUVEC cells and rat kidney. This antibody gave a positive result in IHC in the following FFPE tissue: Mouse normal brain. IHC-P: Mouse prostate and kidney tissues. IHC-Fr: Mouse lung tissue.  |
| <b>General notes</b>       | <p>Abcam recommended secondaries - Goat Anti-Rabbit HRP (<a href="#">ab205718</a>) and Goat Anti-Rabbit Alexa Fluor® 488 (<a href="#">ab150077</a>).</p> <p>See other <a href="#">anti-rabbit secondary antibodies</a> that can be used with this antibody.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb® patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p> <p>This product is a <a href="#">recombinant rabbit monoclonal antibody</a>.</p> |

### Properties

|  |   |
|--|---|
| <b>Form</b>                                  | Liquid  |
| <b>Storage instructions</b>                  | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| <b>Dissociation constant (K<sub>D</sub>)</b> | K <sub>D</sub> = 1.15 x 10 <sup>-10</sup> M   |





|                       |  |
|-----------------------|--|
| <b>Storage buffer</b> | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 59% PBS, 40% Glycerol, 0.05% BSA |
| <b>Purity</b>         | Protein A purified   |
| <b>Clonality</b>      | Monoclonal   |
| <b>Clone number</b>   | EP373Y   |
| <b>Isotype</b>        | IgG  |

## Applications

Our [Abpromise guarantee](#) covers the use of **ab81289** in the following tested applications.

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

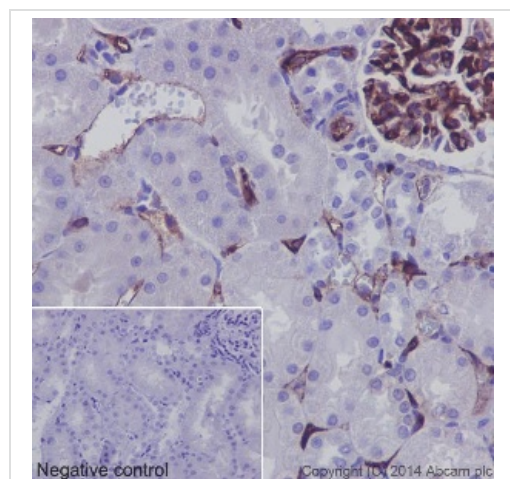
| Application | Abreviews | Notes   |
|-------------|-----------|---|
| WB          | ★★★★☆     | 1/10000. Detects a band of approximately 120 kDa (predicted molecular weight: 41 kDa).<br><b>For unpurified use at 1/10000 - 1/100000.</b><br><b>ab81289 is not suitable for rat and mouse species in WB application.</b> |
| IHC-P       | ★★★★★     | 1/2500 - 1/5000.<br>See <a href="#">IHC antigen retrieval protocols</a> .<br><b>For unpurified use at 1/100 - 1/250.</b>  |
| ICC/IF      | ★☆☆☆☆     | 1/100 - 1/250.  |
| IP          |           | 1/30.   |
| IHC-Fr      | ★★★★★     | 1/100.  |
| Flow Cyt    | ★★★★★     | Use at an assay dependent concentration.  |

## Target

|                              |   |
|------------------------------|---|
| <b>Function</b>              | 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. |
| <b>Tissue specificity</b>    | Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues.   |
| <b>Sequence similarities</b> | Belongs to the CD34 family.   |

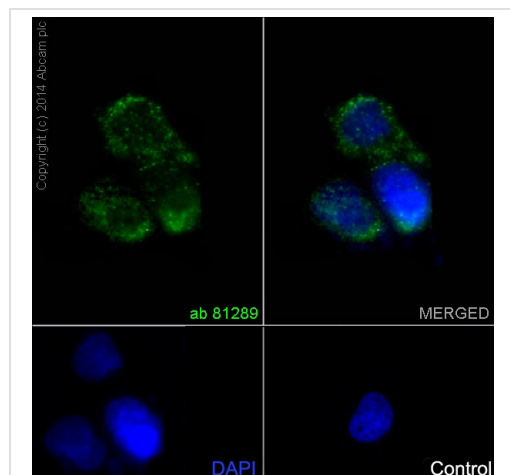
|   |   |
|---|---|
| <b>Developmental stage</b>              | On early hematopoietic progenitor cells.                          |
| <b>Post-translational modifications</b> | Highly glycosylated.<br>Phosphorylated on serine residues by PKC. |
| <b>Cellular localization</b>            | Membrane.   |

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue labelling CD34 with purified ab81289 at 1/2500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Goat Anti-Rabbit IgG H&L (HRP) (ab97051) was used as the secondary antibody at 1/500. Negative control using PBS instead of primary antibody. Counter stained with Hematoxylin.

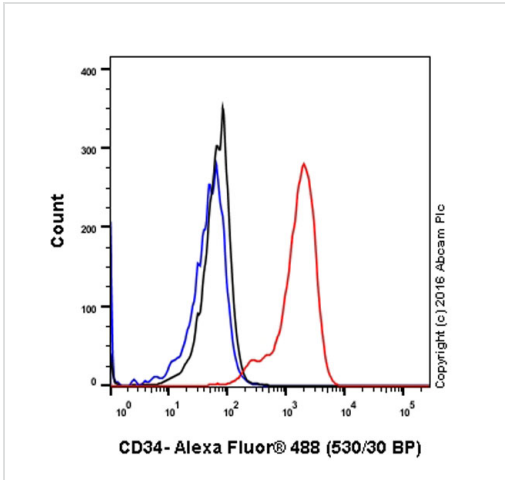
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)



Immunocytochemistry/Immunofluorescence analysis of HUVEC (Human umbilical vein endothelial cell line) cells labelling CD34 with purified ab81289 at 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. An Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (ab150077) (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counter stain.

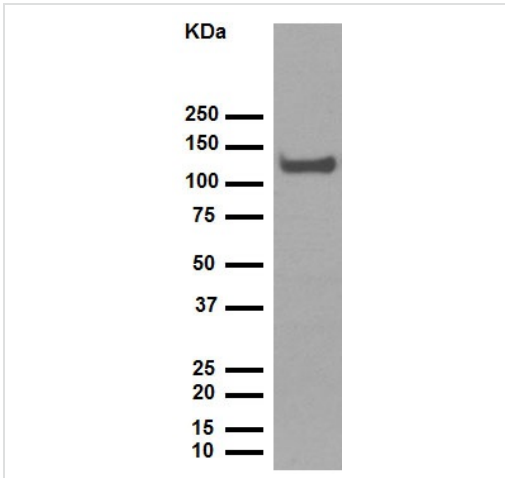
Control: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor<sup>®</sup> 488-conjugated goat anti-mouse IgG (1/500).

Immunocytochemistry/ Immunofluorescence - Anti-CD34 antibody [EP373Y] (ab81289)



Flow Cytometry - Anti-CD34 antibody [EP373Y]  
(ab81289)

Flow Cytometry analysis of TF-1 (human erythroleukemia) cells labeling CD34 with purified ab81289 at 1/50 dilution (10 µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Western blot - Anti-CD34 antibody [EP373Y]  
(ab81289)

purified at 1/10000 dilution + TF-1 (Human bone marrow erythroleukemia cells) at 20 µg

**Secondary**

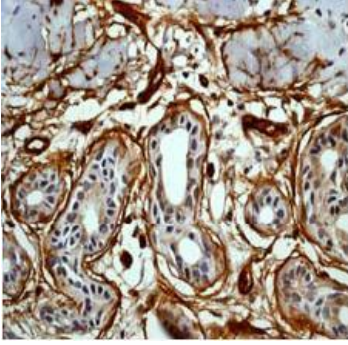
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 41 kDa

**Observed band size:** 120 kDa

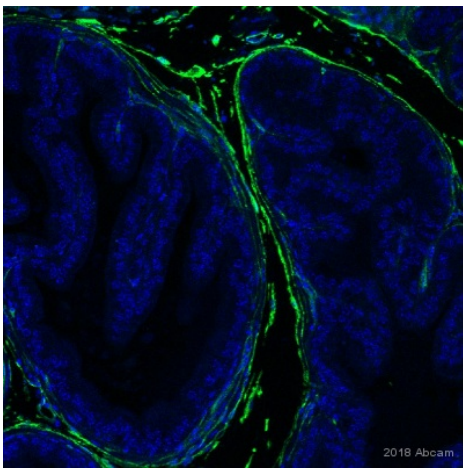
[why is the actual band size different from the predicted?](#)

Blocking and diluting buffer and concentration: 5% NFD/MTBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

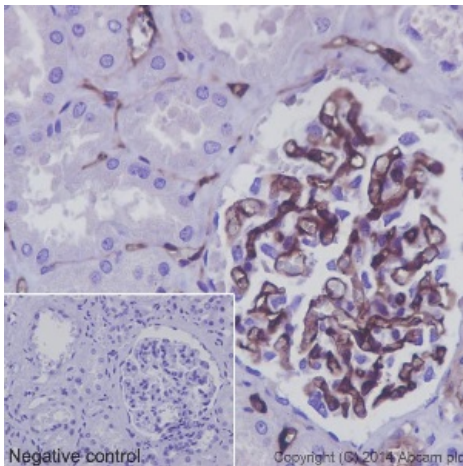
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human angiosarcoma labeling CD34 with unpurified ab81289 at 1/100-1/250.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

This image is courtesy of an anonymous Abreview.

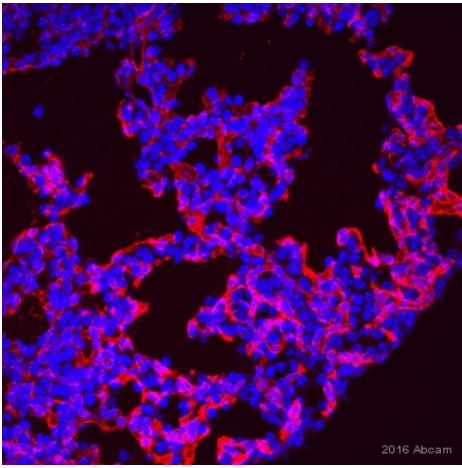
Paraformaldehyde-fixed, paraffin-embedded mouse prostate tissue stained for CD34 using ab81289 at 1/150 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling CD34 with purified ab81289 at 1/2500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. Goat Anti-Rabbit IgG H&L (HRP) (ab97051) was used as the secondary antibody at 1/500. Negative control using PBS instead of primary antibody. Counter stained with Hematoxylin.

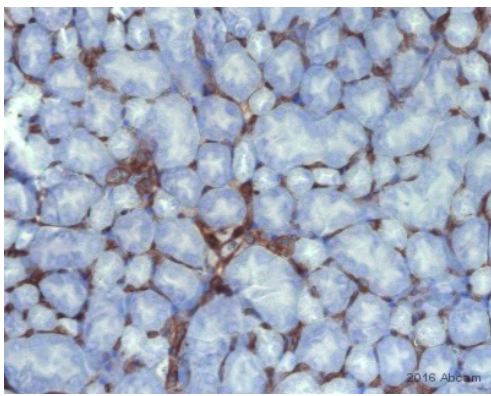




Immunohistochemistry (Frozen sections) - Anti-CD34 antibody [EP373Y] (ab81289)

This image is courtesy of an anonymous Abreview.

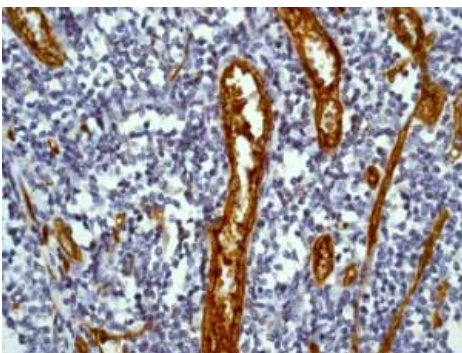
Frozen mouse lung tissue stained for CD34 using ab81289 at 1/400 dilution in immunohistochemical analysis, followed by donkey anti-rabbit Alexa Fluor<sup>®</sup> 546 at 1/2000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

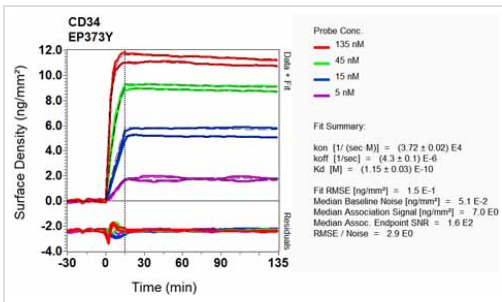
This image is courtesy of an Abreview submitted by Mr. Rudolf Jung.

Paraformaldehyde-fixed, paraffin-embedded mouse kidney tissue stained for CD34 using ab81289 at 1/200 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Normal tonsil vessels tissue labeling CD34 with unpurified ab81289 at 1/100-1/250.

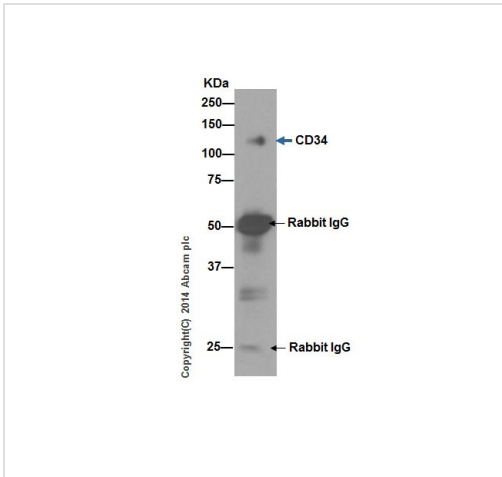


Other - Anti-CD34 antibody [EP373Y] (ab81289)

Equilibrium disassociation constant ( $K_D$ )

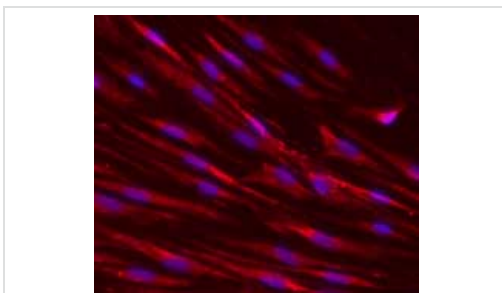
Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)



Immunoprecipitation - Anti-CD34 antibody [EP373Y] (ab81289)

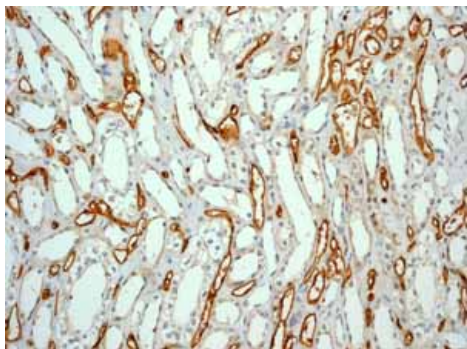
CD34 was immunoprecipitated from TF-1 (Human bone marrow erythroleukemia cells) cells using purified ab81289 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab81289. Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated was used as secondary antibody at 1/1000 dilution. Blocking and dilution buffer and concentration: 5% NFD/MTBST



Immunocytochemistry/ Immunofluorescence - Anti-CD34 antibody [EP373Y] (ab81289)

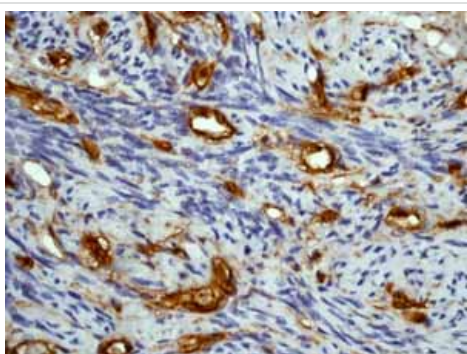
Image from Földes G et al, PLoS One. 2010 May 5;5(5):e10501, Fig 3.

Immunocytochemistry/Immunofluorescence analysis of human embryonic stem cell-derived endothelial cells labeling CD34 with unpurified ab81289 at 1/200. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.2% Triton X-100. An Alexa Fluor<sup>®</sup> 647-conjugated secondary antibody was used at a 1/400 dilution. DAPI (blue) was used as the nuclear counter stain.



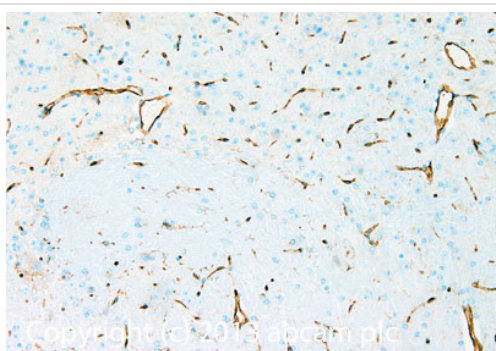
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Normal kidney vessels tissue labeling CD34 with unpurified ab81289 at 1/100-1/250.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Normal uterus vessels tissue labeling CD34 with unpurified ab81289 at 1/100-1/250.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD34 antibody [EP373Y] (ab81289)

IHC image of CD34 staining in Mouse normal brain formalin fixed paraffin embedded 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 unpurified ab81289, 1/250 dilution, for 15 mins at room temperature. A Goat anti-Rabbit biotinylated secondary antibody was used to detect the primary, and visualized using an HRP conjugated ABC system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



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