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antibody and ELISA experts

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Anti-CD34 Antibody

Catalog Number: PA1334

About CD34

CD34 is a monomeric cell surface antigen with a molecular mass of approximately 110 KD.CD34 is expressed in humans in hematopoietic stem cells, vascular endothelium, and blasts from 30% of patients with acute myeloid and lymphocytic leukemia. The human CD34 gene spans 26 kb and has 8 exons, a structure quite similar to that of the murine gene. By Southern blot analysis of DNA from a panel of human x mouse somatic cell hybrids using a CD34 cDNA probe demonstrate that the gene for CD34 is located on human chromosome 1 in the 1q12----qter region. CD34 plays an important role in the formation of progenitor cells during both embryonic and adult hematopoiesis.

Overview

Product Name	Anti-CD34 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-CD34 Antibody catalog # PA1334. Tested in Flow Cytometry, IHC, IHC-F, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IHC, IHC-F, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.01mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P28906

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD34, identical to the related mouse and rat sequences.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti- Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat, By Heat Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Mouse, Rat, Human Flow Cytometry, 1-3ug/1x10^6 cells, Human

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Anti-CD34 Antibody (PA1334) Images

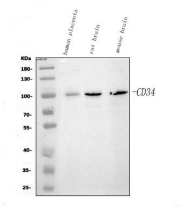

Figure 1. Western blot analysis of CD34 using anti-CD34 antibody (PA1334).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human placenta tissue lysates,
Lane 2: rat brain tissue lysates,
Lane 3: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CD34 antigen affinity purified polyclonal antibody (Catalog # PA1334) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CD34 at approximately 105 kDa. The expected band size for CD34 is at 41 kDa.

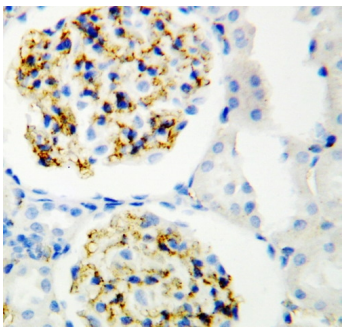

Figure 2. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in a paraffin-embedded section of Rat Kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

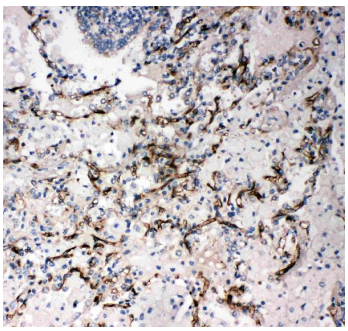

Figure 3. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in a paraffin-embedded section of Human Lung Cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Figure 4. IHC analysis of CD34 using anti-CD34 antibody

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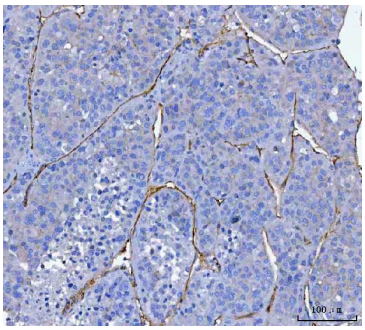

(PA1334).
CD34 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

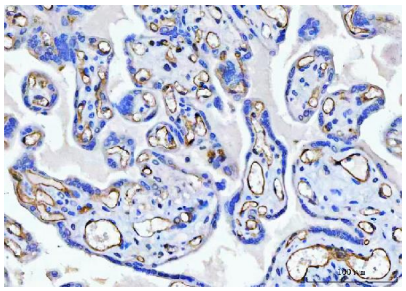

Figure 5. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

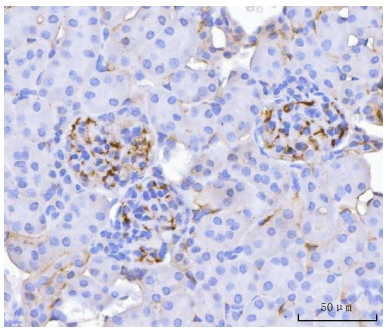

Figure 6. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in a paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

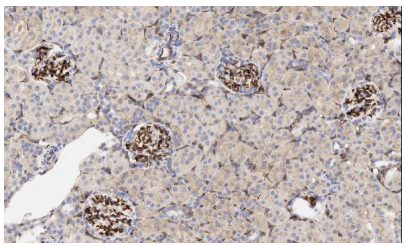

Figure 7. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 8. IHC analysis of CD34 using anti-CD34 antibody (PA1334).

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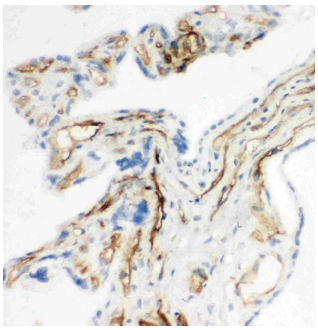

CD34 was detected in a frozen section of Rat Placenta tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

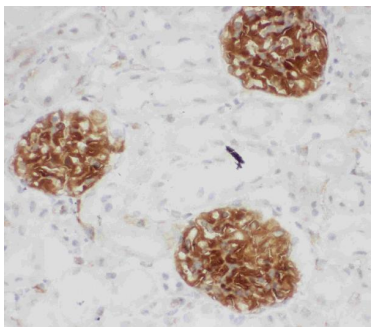

Figure 9. IHC analysis of CD34 using anti-CD34 antibody (PA1334).
CD34 was detected in a frozen section of Rat Kidney tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-CD34 Antibody (PA1334) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

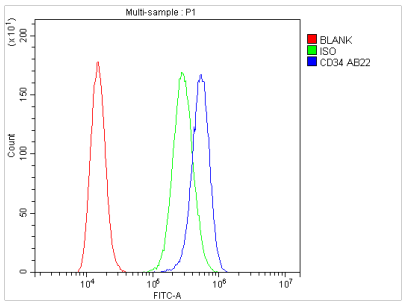

Figure 10. Flow Cytometry analysis of A431 cells using anti-CD34 antibody (PA1334).
Overlay histogram showing A431 cells stained with PA1334 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD34 Antibody (PA1334,1ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

92 Publications Citing This Product

1. PubMed ID: 10.1111/bph.13981, The role of 5HT2B receptors in mitral valvulopathy: bone marrow mobilization of endothelial progenitors

2. PubMed ID: -, Dahai Dong,Yu Yao,Jinlei Song,Lijiang Sun,Guiming Zhang,"Cancer-Associated Fibroblasts Regulate Bladder Cancer Invasion and Metabolic Phenotypes through Autophagy",Disease Markers,vol.2021,Article ID 6645220,8 pages,2021.https://doi.org/10.1155/2021/6645220

3. PubMed ID: 33770315, Ma C,Liu G,Liu W,Xu W,Li H,Piao S,Sui Y,Feng W.CXCL1 stimulates decidual angiogenesis via the VEGF-A pathway during the first trimester of pregnancy.Mol Cell Biochem.2021 Mar 26.doi:10.1007/s11010-021-04137-x.Epub ahead of print.PMID:33770315.

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