

Anti-CD34 Antibody Picoband™

Catalog Number: PB9053

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 Picoband™
Reactive Species	Human, Rat
Description	Boster Bio Anti-CD34 Antibody Picoband™ catalog # PB9053. Tested in ELISA, IF, IHC, WB applications. This antibody reacts with Human, Rat.
Application	ELISA, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	E.coli-derived human CD34 recombinant protein (Position: T151-L385). Human CD34 shares 79% amino acid (aa) sequence identity with mouse CD34.
Predicted Reactive Species	Bovine, Horse
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).
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.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Human</p> <p>Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human</p> <p>Immunofluorescence, 5ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

Anti-CD34 Antibody Picoband™ (PB9053) Images

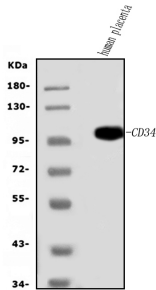


Figure 1. Western blot analysis of CD34 using anti-CD34 antibody (PB9053).

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 30ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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 # PB9053) 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 105KD. The expected band size for CD34 is at 105KD.

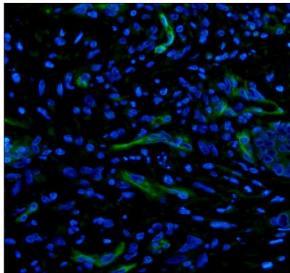


Figure 10. IF analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5ug/mL rabbit anti-CD34 Antibody (PB9053) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

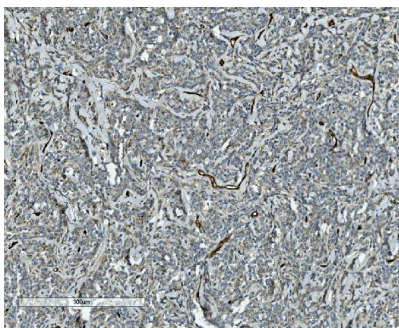
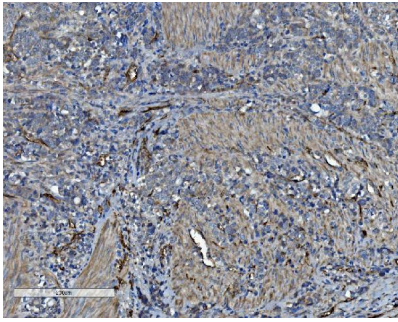


Figure 2. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human lymphoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 3. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human



gastric cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

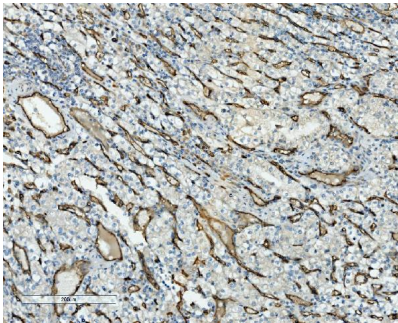


Figure 4. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

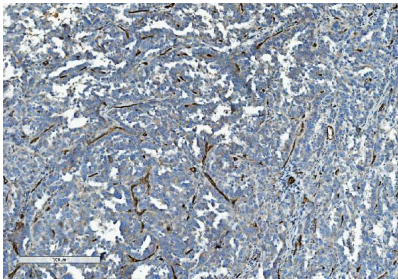


Figure 5. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human ovarian cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

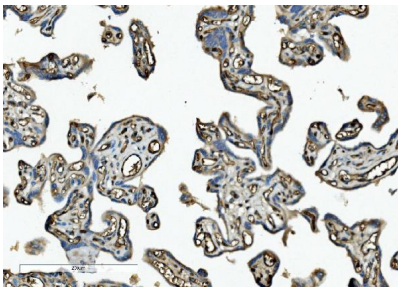
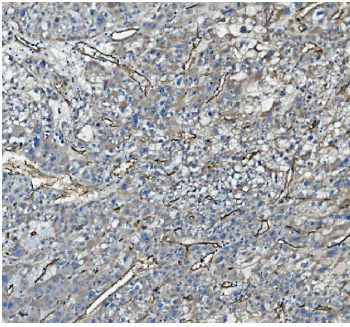


Figure 6. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 7. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution).



The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

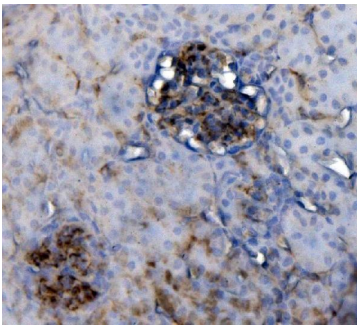


Figure 8. IHC analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD34 Antibody (PB9053) 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

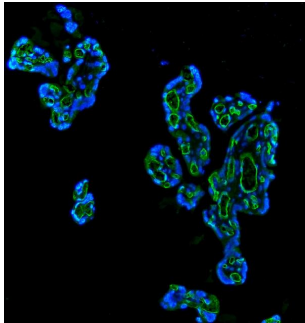


Figure 9. IF analysis of CD34 using anti-CD34 antibody (PB9053).

CD34 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5ug/mL rabbit anti-CD34 Antibody (PB9053) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

88 Publications Citing This Product

1. PubMed ID: 10.1097/SAP.0000000000002541, The Effects of Inactive Platelet-rich Plasma at Different Injection Time on Prefabricated Flap Viability in Rabbits
2. PubMed ID: 10.1016/j.biomaterials.2021.121260, An improved osseointegration of metal implants by pitavastatin loaded multilayer films with osteogenic and angiogenic properties
3. 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>

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