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Anti-CD34 Picoband Antibody
Catalog # ABO11773

Specification

Anti-CD34 Picoband Antibody - Product Information

Application	**WB, IHC, FC**
Primary Accession	P28906
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Hematopoietic progenitor cell antigen CD34(CD34) detection. Tested with WB, IHC-P, IHC-F, ICC, FCM in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CD34 Picoband Antibody - Additional Information

Gene ID 947

Other Names
Hematopoietic progenitor cell antigen CD34, CD34, CD34

Calculated MW
40716 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, By Heat
Immunohistochemistry(Frozen Section), 0.5-1 µg/ml

Immunocytochemistry, 0.5-1 µg/ml

Western blot, 0.1-0.5 µg/ml
Flow Cytometry, 1-3Î¼g/1x10⁶cells

Subcellular Localization
Membrane; Single-pass type I membrane protein.

Tissue Specificity
Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues.

Protein Name
Hematopoietic progenitor cell antigen CD34

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human CD34 recombinant protein (Position: T151-L385). Human CD34 shares 79%

amino acid (aa) sequence identity with mouse CD34.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Sequence Similarities
Belongs to the CD34 family.

Anti-CD34 Picoband Antibody - Protein Information

Name CD34

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.

Cellular Location
Membrane; Single-pass type I membrane protein.

Tissue Location
Selectively expressed on hematopoietic progenitor cells and the small vessel endothelium of a variety of tissues

Anti-CD34 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-CD34 Picoband Antibody - Images

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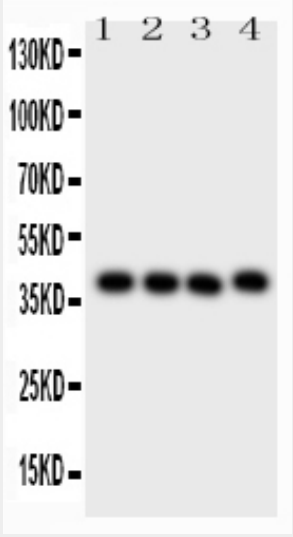

Figure 1. Western blot analysis of CD34 using anti-CD34 antibody (ABO11773). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: MCF-7 Whole Cell LysateLane 2: MM231 Whole Cell LysateLane 3: SMMC Whole Cell LysateLane 4: HepG2 Whole Cell LysateAfter 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 # ABO11773) at 0.5 Î¼g/mL overnight at 4Â°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 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for CD34 at approximately 41KD. The expected band size for CD34 is at 41KD.

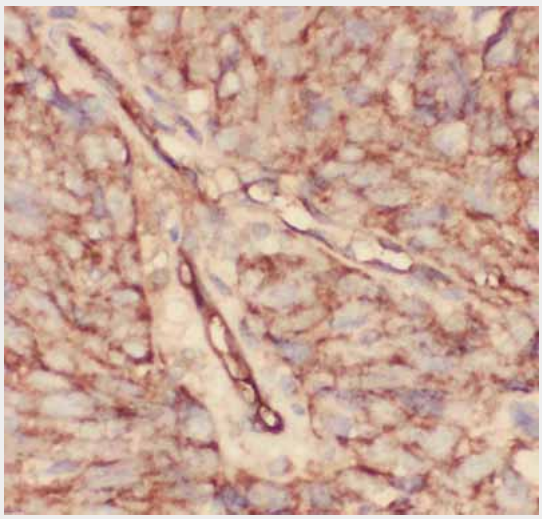

Figure 2. IHC analysis of CD34 using anti-CD34 antibody (ABO11773).CD34 was detected in paraffin-embedded section of Human Lung Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1Î¼g/ml rabbit anti-CD34 Antibody (ABO11773) overnight at 4Â°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37Â°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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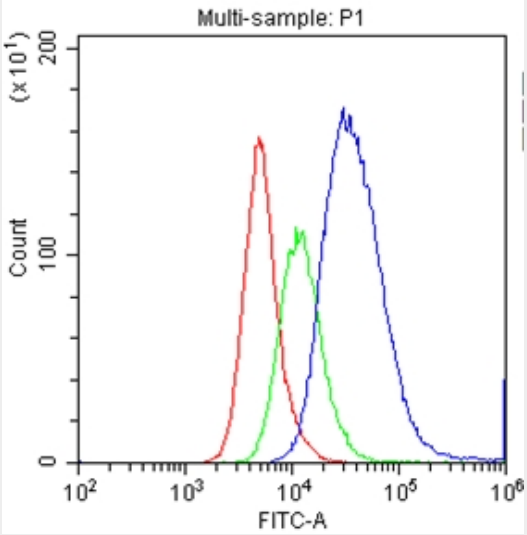

Figure 3. Flow Cytometry analysis of Raji cells using anti-CD34 antibody (ABO11773).Overlay histogram showing Raji cells stained with ABO11773 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD34 Antibody (ABO11773,1Î¼g/1x106 cells) for 30 min at 20Â°C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10Î¼g/1x106 cells) was used as secondary antibody for 30 minutes at 20Â°C. Isotype control antibody (Green line) was rabbit IgG (1Î¼g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-CD34 Picoband Antibody - Background

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.