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antibody and ELISA experts

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Anti-CD31/PECAM1 Antibody

Catalog Number: PA1950-1

About PECAM1

PECAM-1 (Platelet endothelial cell adhesion molecule), also known as cluster of differentiation 31 (CD31) is a protein that in human is encoded by the PECAM1 gene found on chromosome 17. PECAM1 is a member of the immunoglobulin (Ig) superfamily that is expressed on the surface of circulating platelets, monocytes, neutrophils, and particular T-cell subsets. Using a PCR-based analysis of somatic cell hybrids, Gumina et al. (1996) mapped PECAM1 to chromosome 17 in the region 17q23-qter. Several adhesion molecules expressed on platelets and endothelium also localized to 17q. Xie and Muller (1996) mapped the Pecam1 gene to mouse chromosome 6, region F3-G1, by fluorescence in situ hybridization. PECAM-1 is found on the surface of platelets, monocytes, neutrophils, and some types of T-cells, and makes up a large portion of endothelial cell intercellular junctions, and PECAM-1 plays a key role in removing aged neutrophils from the body.

Overview

Product Name	Anti-CD31/PECAM1 Antibody
Reactive Species	Human
Description	Boster Bio Anti-CD31/PECAM1 Antibody catalog # PA1950-1. Tested in Flow Cytometry, IF, IHC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IF, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
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	P16284

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human CD31.
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).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
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 Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat Immunofluorescence, 5 ug/ml, Human Flow Cytometry(Fixed), 1-3 ug/1x10^6 cells, Human

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Anti-CD31/PECAM1 Antibody (PA1950-1) Images

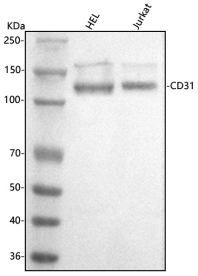

Figure 1. Western blot analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HEL whole cell lysates,
Lane 2: human Jurkat whole cell 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-CD31/PECAM1 antigen affinity purified polyclonal antibody (Catalog # PA1950-1) 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 CD31/PECAM1 at approximately 120 kDa. The expected band size for CD31/PECAM1 is at 83 kDa.

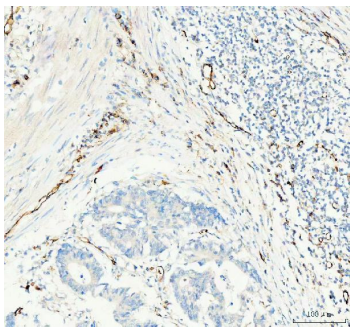

Figure 2. IHC analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD31/PECAM1 Antibody (PA1950-1) 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.

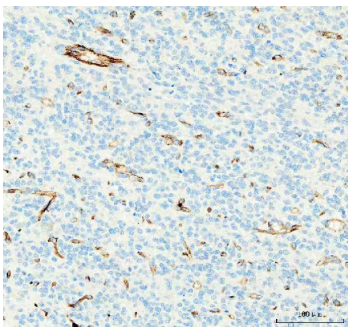

Figure 3. IHC analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human glioblastoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD31/PECAM1 Antibody (PA1950-1) 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 CD31/PECAM1 using anti-

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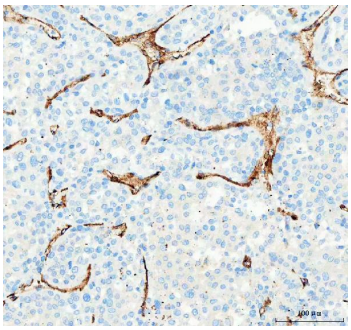

CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD31/PECAM1 Antibody (PA1950-1) 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.

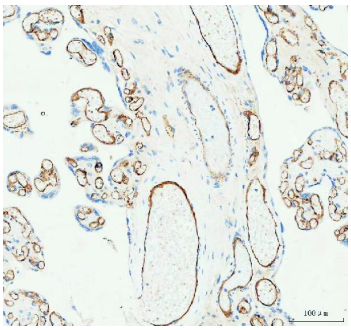

Figure 5. IHC analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD31/PECAM1 Antibody (PA1950-1) 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.

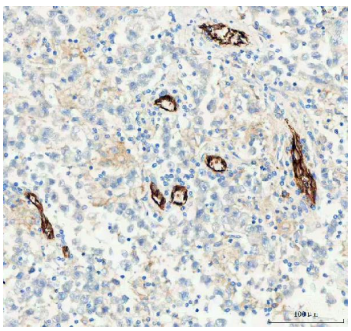

Figure 6. IHC analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human testicular germ cell tumor tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD31/PECAM1 Antibody (PA1950-1) 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.

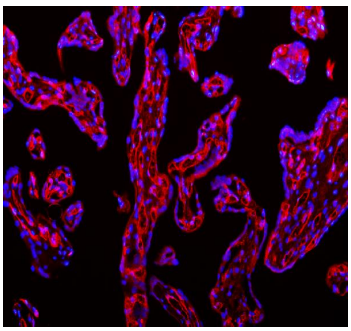

Figure 7. IF analysis of CD31/PECAM1 using anti-CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-CD31/PECAM1 Antibody (PA1950-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 8. IF analysis of CD31/PECAM1 using anti-

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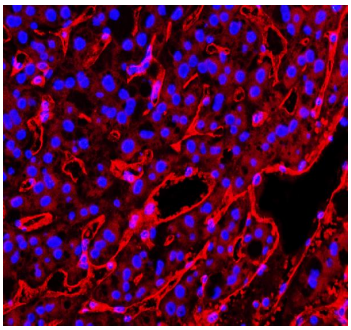

CD31/PECAM1 antibody (PA1950-1).
CD31/PECAM1 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-CD31/PECAM1 Antibody (PA1950-1) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

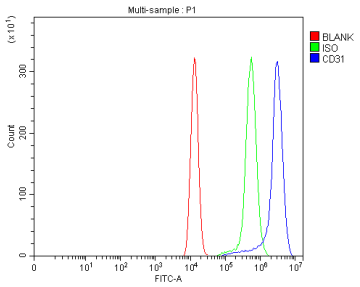

Figure 9. Flow Cytometry analysis of HEL cells using anti-CD31/PECAM1 antibody (PA1950-1).
Overlay histogram showing HEL cells stained with PA1950-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-CD31/PECAM1 Antibody (PA1950-1, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

40 Publications Citing This Product

1. PubMed ID: 10.1095/biolreprod.116.140939, EPHB4 Regulates Human Trophoblast Cell Line HTR-8/SVneo Function: Implications for the Role of EPHB4 in Preeclampsia

2. PubMed ID: -, Jianying Tan,Li Li,Huanran Wang,Lai Wei,Xiali Gao,Zheng Zeng,Sainan Liu,Yonghong Fan,Tao Liu,Junying Chen,Biofunctionalized fibrin gel co-embedded with BMSCs and VEGF for accelerating skin injury repair, Materials Science and Engineering: C, 2020, 111749,

3. PubMed ID: 31734410, Wang B,Lv X,Li Z,Zhang M,Yao J,Sheng N,Lu M,Wang H,Chen S.Urethra-inspired biomimetic scaffold: A therapeutic strategy to promote angiogenesis for urethral regeneration in a rabbit model.Acta Biomater.2020 Jan 15;102:247-258.doi:10.1016/j.actbio.2019.11.0

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