

Anti-VE-Cadherin CDH5-Antibody Picoband™

Catalog Number: A02632-1

About CDH5

CDH5 (Cadherin 5), also known as VE-cadherin, is a type of cadherin. It is encoded by the human gene CDH5. This gene is mapped to 16q22.1 using somatic cell hybrid panels. Functioning as a classic cadherin by imparting to cells the ability to adhere in a homophilic manner, the protein may play an important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. Therefore it was concluded that VE-cadherin serves the purpose of maintaining newly formed vessels.

Overview

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| Product Name | Anti-VE-Cadherin CDH5-Antibody Picoband™ |
| Reactive Species | Human |
| Description | Boster Bio Anti-VE-Cadherin CDH5-Antibody Picoband™ catalog # A02632-1. Tested in ELISA, Flow Cytometry, IF, IHC, WB applications. This antibody reacts with Human. |
| Application | ELISA, Flow Cytometry, IF, IHC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ . |
| 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 | P33151 |

Technical Details

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| Immunogen | E. coli-derived human VE Cadherin recombinant protein (Position: D48-R272). |
| 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 | 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

Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml

Immunofluorescence, 5ug/ml

Flow Cytometry(Fixed) 1-3ug/1x10⁶ cells

Direct ELISA, 0.1-0.5ug/ml

Anti-VE-Cadherin CDH5-Antibody Picoband™ (A02632-1) Images

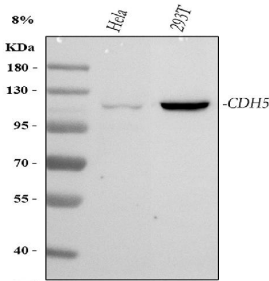


Figure 1. Western blot analysis of VE Cadherin using anti-VE Cadherin antibody (A02632-1).

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 Hela whole cell lysates,

Lane 2: human 293T 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-VE Cadherin antigen affinity purified polyclonal antibody (Catalog # A02632-1) 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 VE Cadherin at approximately 120 kDa. The expected band size for VE Cadherin is at 88 kDa.

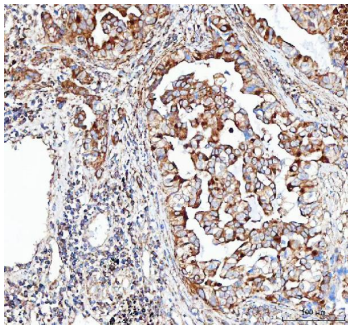


Figure 2. IHC analysis of VE Cadherin using anti-VE Cadherin antibody (A02632-1).

VE Cadherin was detected in a paraffin-embedded section of human lung 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-VE Cadherin Antibody (A02632-1) 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.

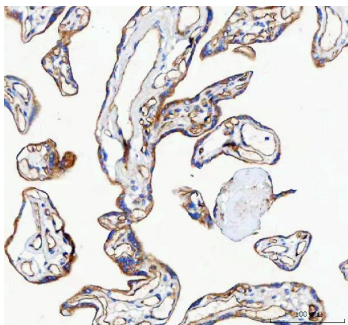
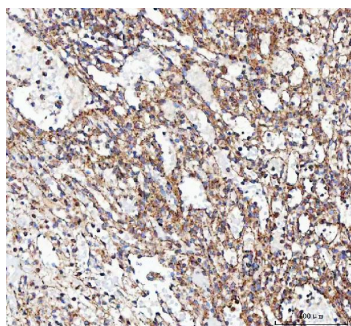


Figure 3. IHC analysis of VE Cadherin using anti-VE Cadherin antibody (A02632-1).

VE Cadherin 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-VE Cadherin Antibody (A02632-1) 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 VE Cadherin using anti-VE Cadherin



antibody (A02632-1).

VE Cadherin was detected in a paraffin-embedded section of human spleen 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-VE Cadherin Antibody (A02632-1) 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.

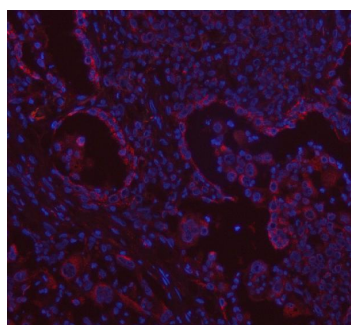


Figure 5. IF analysis of VE Cadherin using anti-VE Cadherin antibody (A02632-1).

VE Cadherin 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 5 ug/ml rabbit anti-VE Cadherin Antibody (A02632-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) 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.

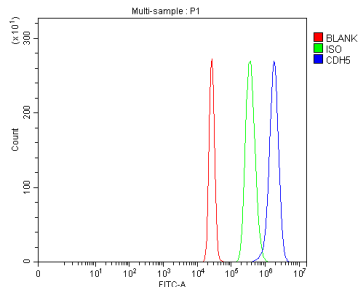


Figure 6. Flow Cytometry analysis of HepG2 cells using anti-VE Cadherin antibody (A02632-1).

Overlay histogram showing HepG2 cells stained with A02632-1 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-VE Cadherin Antibody (A02632-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

5 Publications Citing This Product

1. PubMed ID: 10.1089/scd.2019.0198, The Regulatory Effect of VEGF-Ax on Rat Bone Marrow Mesenchymal Stem Cells Angioblastic Differentiation and Its Proangiogenic Ability
2. PubMed ID: 33505583, Chen H, Chen B, Li B, Luo X, Wu H, Zhang C, Liu J, Jiang J, Zhao B. Gastrudin Promotes the Survival of Random-Pattern Skin Flaps via Autophagy Flux Stimulation. Oxid Med Cell Longev. 2021 Jan 9;2021:6611668.doi:10.1155/2021/6611668.PMID:33505583;PMCID:PMC7811417.
3. PubMed ID: 33044023, Li J, Chen H, Lou J, Bao G, Wu C, Lou Z, Wang X, Ding J, Li Z, Xiao J, Xu H, Gao W, Zhou K. Exenatide improves random-pattern skin flap survival via TFE3 mediated autophagy augment. J Cell Physiol. 2020 Oct 12;doi:10.1002/jcp.30102.Epub ahead of print. PMID:33044023.

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