

### **VE-Cadherin Polyclonal Antibody**

Catalog # AP73794

## **Specification**

## **VE-Cadherin Polyclonal Antibody - Product Information**

Application Primary Accession Reactivity Host Clonality WB, IHC-P, IF
P33151
Human, Mouse, Rat
Rabbit
Polyclonal

## **VE-Cadherin Polyclonal Antibody - Additional Information**

**Gene ID** 1003

**Other Names** 

CDH5; Cadherin-5; 7B4 antigen; Vascular endothelial cadherin; VE-cadherin; CD144

**Dilution** 

WB~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300

IHC-P~~N/A

IF~~IF: 1:50-200 WB 1:500-2000, ELISA 1:10000-20000 IHC 1:50-300

#### **Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions** 

-20°C

#### **VE-Cadherin Polyclonal Antibody - Protein Information**

Name CDH5 (HGNC:1764)

## **Function**

Cadherins are calcium-dependent cell adhesion proteins (By similarity). They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types (PubMed:<a href="http://www.uniprot.org/citations/21269602" target="\_blank">21269602</a>). This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions (By similarity). It associates with alpha-catenin forming a link to the cytoskeleton (PubMed:<a href="http://www.uniprot.org/citations/10861224" target="\_blank">10861224" target="\_blank">10861224</a>). Plays a role in coupling actin fibers to cell junctions in endothelial cells, via acting as a cell junctional complex anchor for AMOTL2 and MAGI1 (By similarity). Acts in concert with KRIT1 and PALS1 to establish and maintain correct endothelial cell polarity and vascular lumen (By similarity). These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B (PubMed:<a href="http://www.uniprot.org/citations/20332120" target="\_blank">20332120</a>). Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to



the cell junction (PubMed:<a href="http://www.uniprot.org/citations/20332120" target="\_blank">20332120</a>). Associates with CTNND1/p120-catenin to control CADH5 endocytosis (By similarity).

#### **Cellular Location**

Cell junction, adherens junction. Cell membrane; Single-pass type I membrane protein. Cytoplasm {ECO:0000250|UniProtKB:P55284}. Note=Found at cell-cell boundaries and probably at cell-matrix boundaries. KRIT1 and CDH5 reciprocally regulate their localization to endothelial cell-cell junctions

#### **Tissue Location**

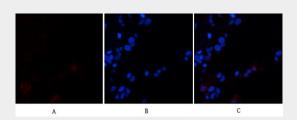
Expressed in endothelial cells (at protein level) (PubMed:27338829). Expressed in the brain (PubMed:2059658)

### **VE-Cadherin Polyclonal Antibody - Protocols**

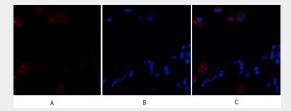
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### VE-Cadherin Polyclonal Antibody - Images

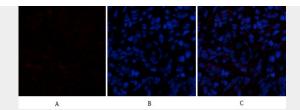


Immunofluorescence analysis of human-lung tissue. 1,VE-Cadherin Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

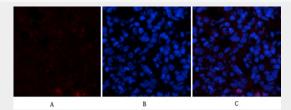


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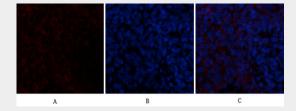




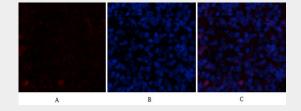
Immunofluorescence analysis of rat-lung tissue. 1,VE-Cadherin Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



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Immunofluorescence analysis of rat-spleen tissue. 1,VE-Cadherin Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

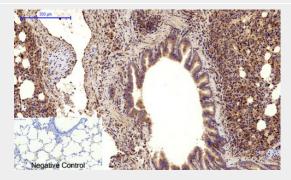


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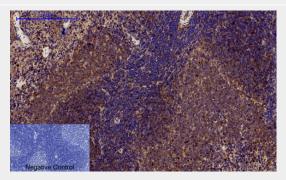




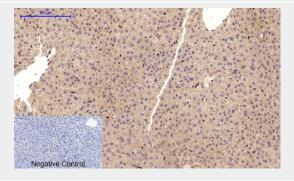
Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,VE-Cadherin Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,VE-Cadherin Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

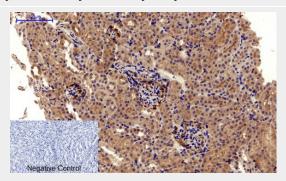


Immunohistochemical analysis of paraffin-embedded Rat-spleen tissue. 1,VE-Cadherin Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

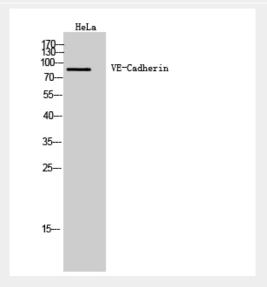




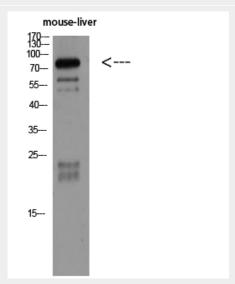
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1,VE-Cadherin Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-kidney tissue. 1,VE-Cadherin Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

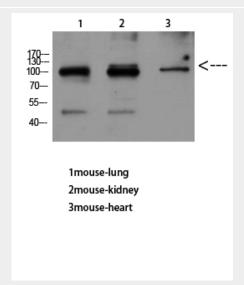


Western Blot analysis of Hela cells using VE-Cadherin Polyclonal Antibody. Antibody was diluted at 1:500. Secondary antibody was diluted at 1:20000

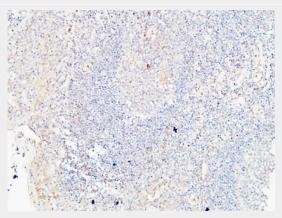




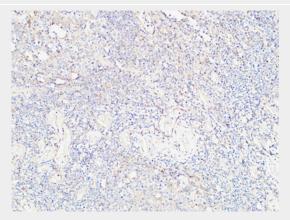
Western Blot analysis of mouse-liver using VE-Cadherin Polyclonal Antibody diluted at 1:500. Secondary antibody was diluted at 1:20000



Western Blot analysis of mouse-lung mouse-kidney mouse-heart using VE-Cadherin Polyclonal Antibody diluted at 1:500. Secondary antibody was diluted at 1:20000

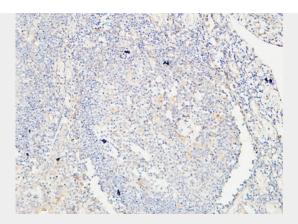


Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).





Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:200(4°,overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).

# VE-Cadherin Polyclonal Antibody - Background

Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. Acts in concert with KRIT1 to establish and maintain correct endothelial cell polarity and vascular lumen. These effects are mediated by recruitment and activation of the Par polarity complex and RAP1B. Required for activation of PRKCZ and for the localization of phosphorylated PRKCZ, PARD3, TIAM1 and RAP1B to the cell junction. **VE-Cadherin Polyclonal Antibody - Citations** 

• SARS-CoV-2 spike spurs intestinal inflammation via VEGF production in enterocytes