

Rabbit Anti-CD144/VE Cadherin antibody

SL0878R

Product Name CD144/VE Cadherin

Chinese Name 血管内皮钙粘蛋白抗体

Alias VE-cadherin; 7B4 antigen; VECD; Vascular endothelial cell cadherin; 7B 4; 7B4; 7B4 antigen; Cadherin 5; Cadherin 5 type 2; Cadherin-5; Cadherin5; CD 144; CD144 antigen; CDH 5; CDH5; CDH5 protein; Vascular endothelial cadherin; VE Cad antibody VEC; CADH5_HUMAN.

Research Area Tumour Cardiovascular immunology Signal transduction Cell adhesion molecule vascular endothelial cell epithelial cells endothelial cells Extracellular matrix

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human

Applications WB=1:500-2000,Flow-Cyt=1ug/Test (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 86kDa

Cellular localization The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from mouse Vascular endothelial cell cadherin: 601-700/784 <Cytoplasmic>

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

This gene is a classical cadherin from the cadherin superfamily and is located in a six-cadherin cluster in a region on the long arm of chromosome 16 that is involved in loss of heterozygosity events in breast and prostate cancer. The encoded protein is a calcium-dependent cell-cell adhesion glycoprotein comprised of five extracellular cadherin repeats, a transmembrane region and a highly conserved cytoplasmic tail. 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. An alternative splice variant has been described but its full length sequence has not been determined. [provided by RefSeq, Jul 2008].

Function:

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.

**Product
Detail**

Subunit:

Interacts via cadherin 5 domain with PTPRB. Interacts with TRPC4. Interacts with KRIT1.

Subcellular Location:

Cell junction. Cell membrane. Found at cell-cell boundaries and probably at cell-matrix boundaries.

Tissue Specificity:

Endothelial tissues and brain.

Post-translational modifications:

Phosphorylated on tyrosine residues by KDR/VEGFR-2. Dephosphorylated by PTPRB.

Similarity:

Contains 5 cadherin domains.

SWISS:

P55284

Gene ID:
12562

Database links:

[Entrez Gene: 1003](#) Human

[Entrez Gene: 12562](#) Mouse

[Entrez Gene: 307618](#) Rat

[Omim: 601120](#) Human

[SwissProt: P33151](#) Human

[SwissProt: P55284](#) Mouse

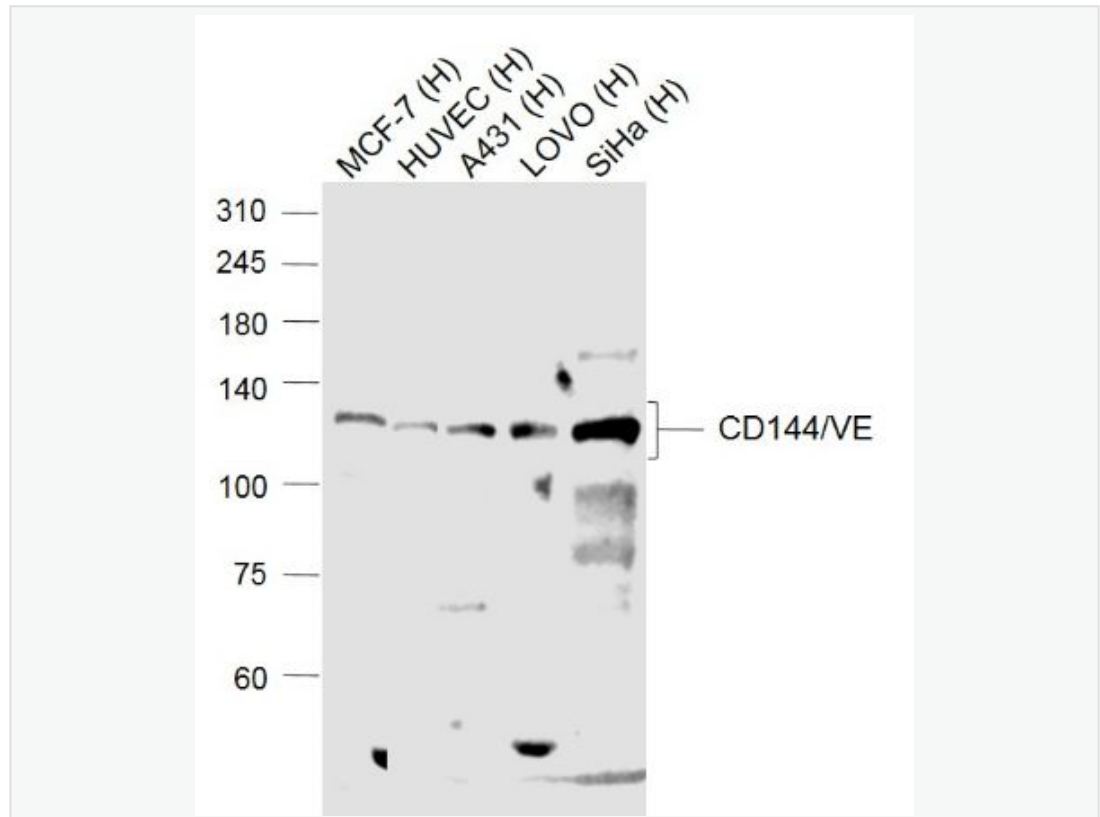
[Unigene: 76206](#) Human

[Unigene: 21767](#) Mouse

[Unigene: 224644](#) Rat

血管内皮钙粘蛋白(Vascularendothelial cell cadherin;VE-cadherin;VECD),又名CD144,Cadherin-5,是 AJ 连接(粘附连接)的主要粘附分子,是维持 vascular endothelial cell 极性和完整性必不可少的 endothelial cells 特异性钙粘蛋白.

**Product
Picture**



Sample:

Lane 1: MCF-7 (Human) Cell Lysate at 30 ug

Lane 2: HUVEC (Human) Cell Lysate at 30 ug

Lane 3: A431 (Human) Cell Lysate at 30 ug

Lane 4: LOVO (Human) Cell Lysate at 30 ug

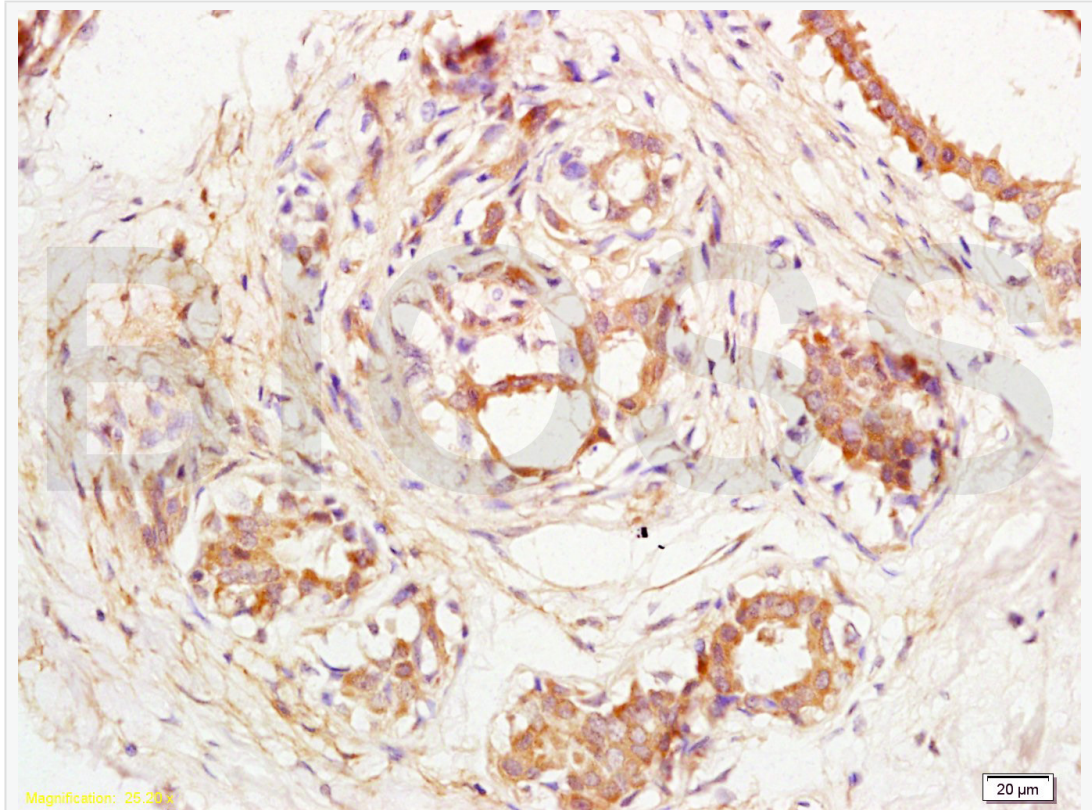
Lane 5: SiHa (Human) Cell Lysate at 30 ug

Primary: Anti-CD144/VE Cadherin (SL0878R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 130 kD

Observed band size: 130 kD

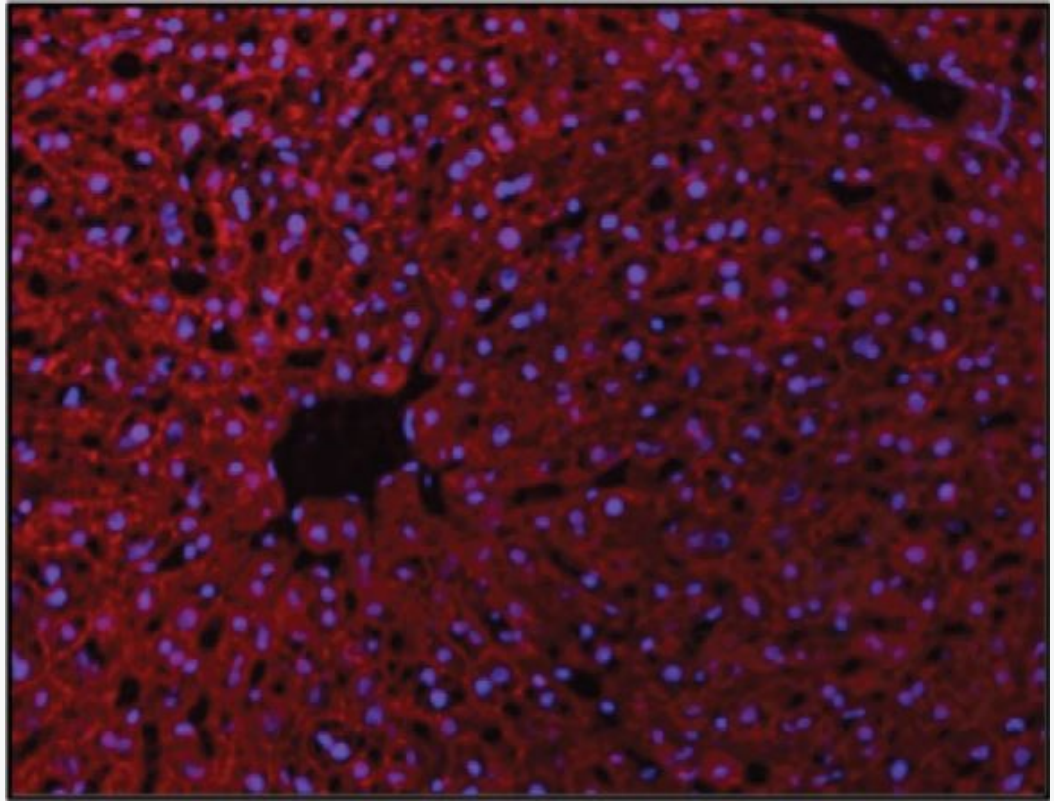


Tissue/cell: human breast carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

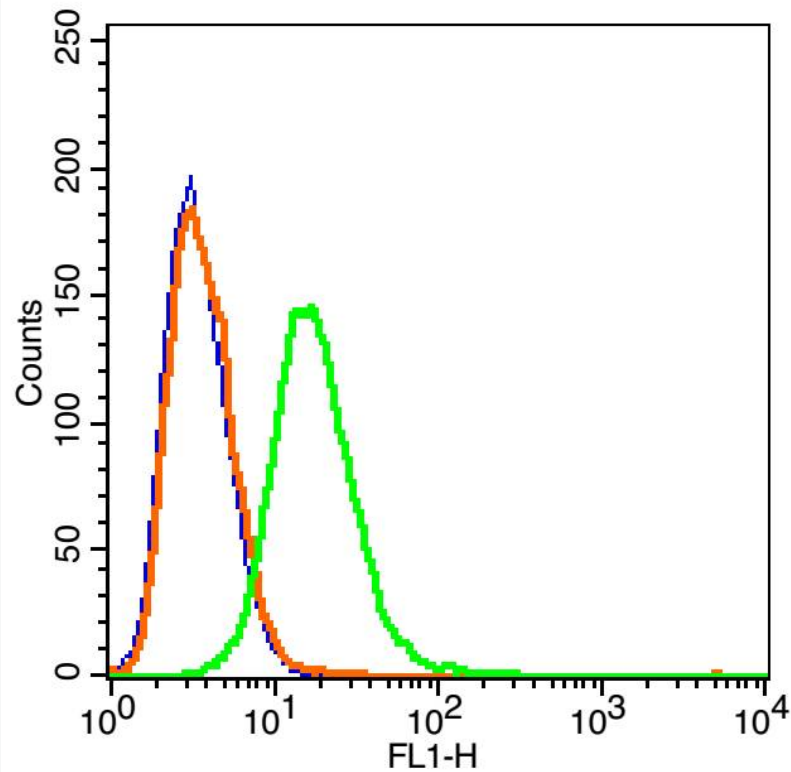
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-CD144/VECD/VE Cadherin Polyclonal Antibody,

Unconjugated(SL0878R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Images provided by the Independent Validation Program, badge number 029590:Formalin-fixed and frozen-OCT embedded mouse liver labeled with Rabbit Anti-VE Cadherin Polyclonal Antibody, Unconjugated(SL0878R) 1:100, overnight at 4°C, The secondary antibody was diluted to 1:100 for 120 minutes at 37°C.



Blank control: RSC96 Cells (blue).

Primary Antibody: Rabbit Anti- CD144/VE Cadherin/AF488 Conjugated antibody (SL0878R-AF488), Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG/FITC(orange) ,used under the same conditions.

Protocol

The cells were washed twice with phosphate-buffered saline (PBS). The cells were incubated in 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions followed by the antibody



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(SL0878R-AF488, 1 μ g /1x10⁶ cells) for 30 min on ice. Acquisition of 20,000 events was performed.