

Anti-VE Cadherin Antibody [PSH03-15]

HA721943



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC
Molecular Wt:	Predicted band size: 88 kDa
Clone number:	PSH03-15

Description: Cadherins are a superfamily of transmembrane glycoproteins that contain cadherin repeats of approximately 100 residues in their extracellular domain. Cadherins mediate calcium-dependent cell-cell adhesion and play critical roles in normal tissue development. The classic cadherin subfamily includes N-, P-, R-, B-, and E-cadherins, as well as about ten other members that are found in adherens junctions, a cellular structure near the apical surface of polarized epithelial cells. The cytoplasmic domain of classical cadherins interacts with β -catenin, γ -catenin (also called plakoglobin), and p120 catenin. β -catenin and γ -catenin associate with α -catenin, which links the cadherin-catenin complex to the actin cytoskeleton. While β - and γ -catenin play structural roles in the junctional complex, p120 regulates cadherin adhesive activity and trafficking. Investigators consider E-cadherin an active suppressor of invasion and growth of many epithelial cancers. Research studies indicate that cancer cells have upregulated N-cadherin in addition to loss of E-cadherin. This change in cadherin expression is called the "cadherin switch." N-cadherin cooperates with the FGF receptor, leading to overexpression of MMP-9 and cellular invasion. Research studies have shown that in endothelial cells, VE-cadherin signaling, expression, and localization correlate with vascular permeability and tumor angiogenesis. Investigators have also demonstrated that expression of P-cadherin, which is normally present in epithelial cells, is also altered in ovarian and other human cancers.

Immunogen:	Synthetic peptide within human VECadherin aa 1-650 / 784.
Positive control:	EA.hy926 cell lysates, human lung tissue lysate, human kidney tissue lysate, EA.hy926.
Subcellular location:	Cell junction. Cell membrane.
Database links:	SwissProt: P33151 Human
Recommended Dilutions:	
WB	1:2,000
IF-Cell	1:100
FC	1:1,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
Purity:	Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

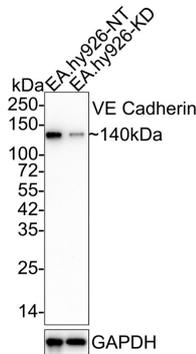


Fig1: Western blot analysis of VE Cadherin on different lysates with Rabbit anti-VE Cadherin antibody (HA721943) at 1/2,000 dilution.

Lane 1: EA.hy926-si NT cell lysate

Lane 2: EA.hy926-si VE Cadherin cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 88 kDa

Observed band size: 140 kDa

Exposure time: 1 minute 2 seconds;

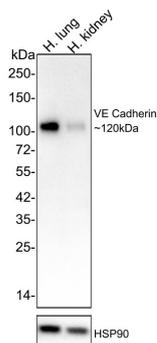
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA721943) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of VE Cadherin on different lysates with Rabbit anti-VE Cadherin antibody (HA721943) at 1/2,000 dilution.

Lane 1: Human lung tissue lysate

Lane 2: Human kidney tissue lysate



Lysates/proteins at 30 µg/Lane.

Predicted band size: 88 kDa

Observed band size: 120-140 kDa

Exposure time: 1 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (HA721943) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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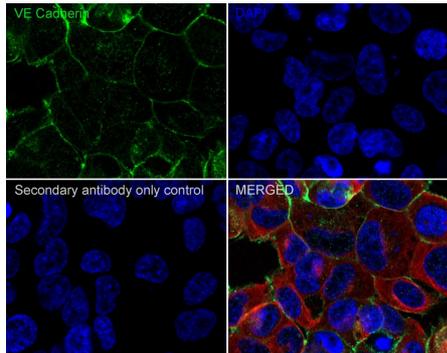
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Fig3: Immunocytochemistry analysis of EA.hy926 cells labeling VE Cadherin with Rabbit anti-VE Cadherin antibody (HA721943) at 1/100 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-VE Cadherin antibody (HA721943) at 1/100 dilution in 1% BSA in PBST overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

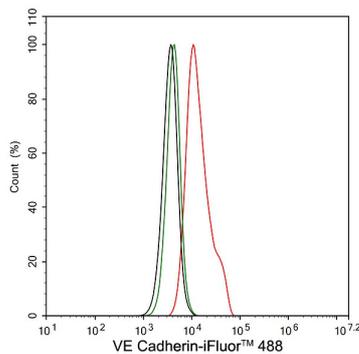


Fig4: Flow cytometric analysis of EA.hy926 cells labeling VE Cadherin.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA721943, 1µg/mL) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4 °C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4 °C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Patel IS, Madan P, Getsios S, Bertrand MA, MacCalman CD. Cadherin switching in ovarian cancer progression. *Int J Cancer*. 2003 Aug 20;106(2):172-7.
2. Rabascio C, Muratori E, Mancuso P, Calleri A, Raia V, Foutz T, Cinieri S, Veronesi G, Pruneri G, Lampertico P, Iavarone M, Martinelli G, Goldhirsch A, Bertolini F. Assessing tumor angiogenesis: increased circulating VE-cadherin RNA in patients with cancer indicates viability of circulating endothelial cells. *Cancer Res*. 2004 Jun 15;64(12):4373-7.

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