



## RABBIT ANTI-VE CADHERIN PHOSPHO-SPECIFIC [TYR658] POLYCLONAL ANTIBODY

**CATALOG NUMBER:** AB1955      **QUANTITY:** 100 µL  
**LOT NUMBER:**  
**ALTERNATE NAMES:** Cadherin-5      **EPITOPE:** Phosphotyrosine 658

**BACKGROUND:** VE-cadherin is an endothelial specific adhesion molecule that is essential for the maintenance of endothelial barrier function and angiogenesis. It is linked to the actin cytoskeleton through a number of adaptor proteins including alpha, beta, and gamma catenin. Cytoskeletal dynamics and phosphorylation regulate VE-cadherin mediated cell-cell adhesion. The interaction between cytosolic c-terminal Src kinase, SH2 domain and phosphorylated tyrosine 658 site of VE-Cadherin regulates density dependent cell proliferation. Phosphorylation of tyrosine 658 has been shown to lead to uncoupling of p120-catenin from the cytoplasmic tail of VE-cadherin. This phosphorylation event is sufficient to maintain cells in a mesenchymal state during the cell invasion phase of angiogenesis.

**SPECIFICITY:** The antibody detects a 120 kDa protein of VE-cadherin.

**APPLICATIONS:** Western Blot: 1:1000  
*Optimal working dilutions must be determined by the end user.*

**SPECIES REACTIVITY:** Human. Reactivity with other species has not been confirmed. This sequence is 100% homologous in mouse, rat, chicken, chimpanzee, cow, dog and pig VE-cadherin.

**IMMUNOGEN:** Phosphorylated VE-cadherin (Tyr658) synthetic peptide corresponding to human amino acid residues around tyrosine 658. The sequence is conserved in mouse, rat, porcine, bovine, canine, chicken and chimpanzee.

**PRESENTATION:** Antibody is purified from rabbit serum. It is cross-adsorbed to nonphospho-peptide corresponding to the site of phosphorylation then affinity purified using phosphorylated VE-cadherin (Tyr658) peptide. Antibody is supplied in 100 µl phosphate-buffered saline (no Ca<sup>2+</sup>, no Mg<sup>2+</sup>), pH 7.3, 50% glycerol, containing 1 mg/ml BSA, and 0.05% sodium azide.

**STORAGE/HANDLING:** Maintain at -20°C for up to one year or 2°-8°C for short term storage from date of receipt. Avoid repeated freeze/thaw cycles.

**RELATED REFERENCES:** Baumeister, U., et al. (2005) Association of Csk to VE-cadherin and inhibition of cell proliferation. *EMBO J.* **24(9)**:1686-1695.

van Buul, J.D., et al. (2005) Proline-rich tyrosine kinase 2 (Pyk2) mediates vascular endothelial-cadherin-based cell-cell adhesion by regulating β-catenin tyrosine phosphorylation. *J. Biol. Chem.* **280(22)**:21129-21136.

Lambeng, N., et al. (2005) Vascular endothelial-cadherin tyrosine phosphorylation in angiogenic and quiescent adult tissues. *Circ. Res.* **96(3)**:384-391.



Hudry-Clergeon, H., et al.. (2005) Platelet-activating factor increases VE-cadherin tyrosine phosphorylation in mouse endothelial cells and its association with the PtdIns3'-kinase. *FASEB J.* **19(6)**:512-520.

Esser, S., et al. (1998) Vascular endothelial growth factor induces VE-cadherin tyrosine phosphorylation in endothelial cells. *J. Cell Sci.* **111**:1853-1865.

**Important Note:** *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200  $\mu$ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION**

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