

# VE-Cadherin (a.a.770-781) Peptide

Cat. # CX2235

Size 50 µg

## **Background:**

Cadherins are transmembrane glycoproteins vital in calcium-dependent cell-cell adhesion during tissue differentiation. Cadherins cluster to form foci of homophilic binding units. A key determinant to the strength of the cadherin-mediated adhesion may be by the juxtamembrane region in cadherins. VE-cadherin (Cadherin 5) is the major cadherin found in endothelial cells and has important roles during angiogenesis and maintenance of barrier permeability. The cytoplasmic domain of VE-cadherin comprises the juxtamembrane domain that binds to the p120 catenin, and the carboxylterminal domain that interacts with  $\beta$ - or  $\gamma$ -catenins. Modulation of tyrosine phosphorylation on one or more of the nine tyrosine sites in the cytoplasmic domain may be important for regulating both angiogenesis and permeability. Phosphorylation of Tyr-658 and Tyr-731 alters catenin binding, restores cell migration, and decreases barrier permeability. While VEGF-induced phosphorylation of Tyr-685 occurs through c-Src, and regulates endothelial cell migration, but not permeability.

## **References**

- Potter M.D. et al. (2005) J Biol. Chem. 280(36):31906  
Baumeister U. et al. (2005) EMBOJ 24:1686  
Wallez Y. et al. (2007) Oncogene 26:1067

## **Peptide Sequence:**

VE-Cadherin synthetic peptide corresponds to amino acids 770 to 781 in human VE-cadherin. This sequence has significant homology to the conserved site in rat and mouse, and has less than 50% homology with other cadherins.

## **Applications:**

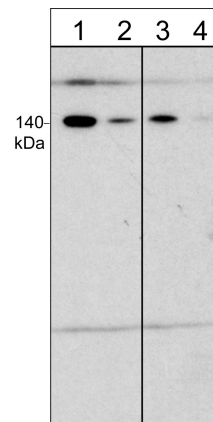
Blocking 1:1000

ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody.  
Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.  
ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

## **Related Products:**

- CP2231 VE-Cadherin (a.a.770-781) Rabbit Polyclonal  
CP1981 VE-Cadherin (Tyr-685), phospho-specific Rabbit Polyclonal  
CP1801 N-Cadherin (Tyr-820), phospho-specific Rabbit Polyclonal  
CP1951 N-Cadherin (Tyr-860), phospho-specific  
CP1921 E-Cadherin (a.a. 774-786) Rabbit Polyclonal



Western blot image of human umbilical vein endothelial cells. The blots were probed with rabbit polyclonal anti-VE-cadherin (a.a. 770-781) at 1:1000 (lane 1) and 1:4000 (lane 2). In addition, the antibody was used in the presence (lane 4) or absence (lane 3) of blocking peptide.

## **Buffer and Storage:**

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.

Store at -20°C. Stable for 1 year.

## **Specificity:**

This peptide is specifically recognized by VE-cadherin (a.a. 770-781) antibody (CP2231) in ELISA, and has been shown to block the reactivity of CP2231 in Western blot and is recommended for blocking in immunocytochemistry.

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