

# phospho-VE-Cadherin (Tyr-685) peptide

Cat. # CX1985

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:**

Phospho-VE-Cadherin (Tyr-685) synthetic peptide contains amino acids surrounding tyrosine 685 in human VE-cadherin. This sequence has significant homology to the conserved site in rat and mouse VE-cadherin, but is not conserved in other cadherins.

## **Buffer and Storage:**

Blocking peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide. Store at  $-20^{\circ}\text{C}$ . Stable for 1 year.

## **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.

## **Specificity:**

The peptide is specifically recognized by anti-VE-Cadherin (Tyr-685) antibody (CP1981) in ELISA, and has been shown to block the reactivity of CP1981 during Western blot. In addition, the peptide is recommended for use in blocking CP1981 reactivity in immunocytochemistry.

## **Related Products:**

CP1981 VE-Cadherin (Tyr-685), phospho-specific Rabbit Polyclonal  
CM1681 E-Cadherin (Cytoplasmic) Mouse Monoclonal  
CP1921 E-Cadherin (a.a. 774-786) Rabbit Polyclonal  
CP1751 N-Cadherin (a.a. 811-824) Rabbit Polyclonal  
CP1801 N-Cadherin (Tyr-820), phospho-specific Rabbit Polyclonal

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