

VE-Cadherin Phospho-Regulation

Antibody Sampler Kit

Cat. # CK6740

Size Kit

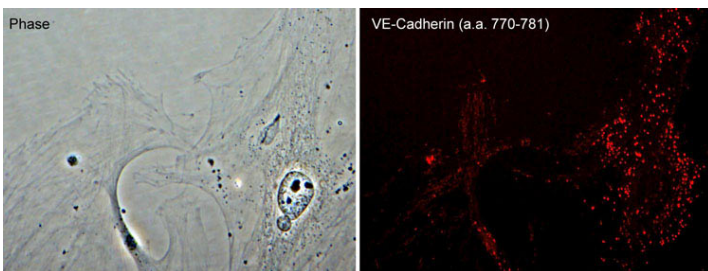
Kit Summary

The VE-cadherin phospho-regulation antibody sampler kit can be used to detect the phosphorylation of Tyr-685 relative to total expression of VE-cadherin. The kit includes a phospho-specific antibody to detect VE-cadherin Tyr-685, and mouse monoclonal and rabbit polyclonal antibodies to examine total VE-cadherin expression. The kit also includes secondary reagents for detection of primary antibodies in various applications.

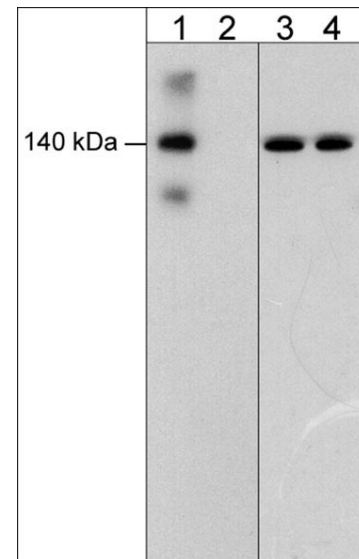
Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
CP2231	VE-Cadherin (a.a.770-781)	Rabbit pAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
CM0351	VE-Cadherin (Extracellular region)	Mouse mAb	50 µl	WB, E, ICC, FB	Hu	1:250
CP1981	VE-Cadherin (Tyr-685), phospho-specific	Rabbit pAb	50 µl	WB, E	Hu, Rt, Ms	1:1000
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 µl	WB, E	Ms	1:5000
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E, ICC, IHC	Rb	1:5000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, Ms = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit



Immunocytochemical labeling of VE-Cadherin in paraformaldehyde-fixed and NP-40-permeabilized human umbilical vein endothelial cells. The cells were labeled with rabbit polyclonal VE-Cadherin (a.a. 770-781), then the antibody was detected using appropriate secondary antibody conjugated to Cy3. Phase image (left) and fluorescent image (right).



Western blot image of human umbilical vein endothelial cells stimulated with pervanadate (1 mM) for 30 min. then the blots were untreated (lanes 1 & 3) or treated with alkaline phosphatase (lanes 2 & 4). The blots were probed with rabbit polyclonal anti-VE-cadherin (Tyr-685) (lanes 1 & 2) or mouse monoclonal anti-VE-cadherin (lanes 3 & 4).

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

VE-Cadherin Phospho-Regulation

Antibody Sampler Kit

Cat. # CK6740

Size Kit

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 β - or γ -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.

Background References

Baumeister U. et al. (2005) EMBOJ 24:1686.

Potter M.D. et al. (2005) J Biol. Chem. 280(36):31906.

Buffer and Storage

Primary antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. The secondary reagents are supplied in the same buffer without azide. Store all at -20°C . Stable for 1 year.

Product Citations

Cat. # Citation & Application

CP2231	Bowers, S.L. et al. (2010) 1188:143. (FB: negative control in Cell-Cell contact assay)
CP1981	Adam, A.P. et al. (2010) J Biol Chem. 285(10):7045. (WB: HDMECs)
CP1981	Cain, R. J. et al. (2010) J Cell Biol. 188(6):863. (WB: HUVECs)
CP1981	Lo, CW et al. (2010) Cancer Res. 71(2):424. (WB: HUVECs)
MS3001	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western Blot)
RS3251	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western Blot)
RS3251	Kawasaki, H. et al. (2013) World J Gastroenter. 19(17):2629. (WB, ICC: mouse intestinal myofibroblasts)

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.