

VEGFR-3 (a.a.1285-1298)

Cat. # VP2941

Host Rabbit Polyclonal

Size 100 µl

Background:

Vascular endothelial growth factor receptor-2 (VEGFR-2/Flk-1/KDR) is the primary receptor for VEGF in endothelial cells. Other VEGFR family members, VEGFR-1 (Flt-1) and VEGFR-3 (Flt-4), can also transduce the intracellular signals of VEGF. However, the role of VEGFR-1 is observed mainly during embryonic angiogenesis and VEGFR-3 signaling may be restricted to specific types of endothelial cells. Major autophosphorylation sites of VEGFR-2 are located in the kinase insert domain (Tyr-951/996) and in the tyrosine kinase catalytic domain (Tyr-1054/1059). Other sites, Tyr-1175 and Tyr-1212 provide docking sites for downstream signaling molecules. Activation of VEGFR-2 also phosphorylates Tyr-801, leading to PI3-kinase-Akt activation and increases in endothelial nitric oxide synthase activity. Phosphorylation of multiple sites in VEGFR-2 is required for downstream activation of several signaling pathways that control proliferation, chemotaxis, and sprouting during angiogenesis.

References

- Dougher-Vermazen, M. et al. (1994) Biochem. Biophys. Res. Commun. 205:728.
Meyer, M. et al. (1999) EMBO J. 18:363.
Robinson, C.J. & Stringer, S.E. (2001) J. Cell Sci.114:853.
Garcia Blanes, M. et al. (2007) J Biol. Chem. 282(14):10660.
Kiselyov, A. et al. (2007) Expert Opin. Investig. Drugs 16(1):83.

Immunogen:

A synthetic peptide (coupled to carrier protein) corresponding to amino acids 1285 to 1298 in human VEGFR-3. This sequence has two amino acid differences from rat VEGFR-3, and five amino acid differences from mouse VEGFR-3.

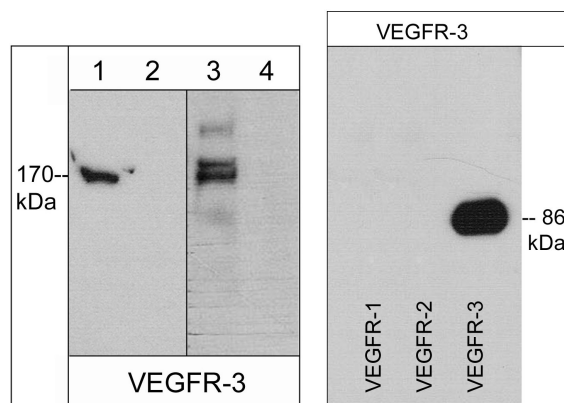
Applications:

WB 1:1000
ELISA 1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- VP2871 VEGFR-2 (a.a.1304-1317) Rabbit Polyclonal
VP2921 VEGFR-2 (Tyr-801), phospho-specific [Conserved site] Rabbit Polyclonal
EM1991 EGFR (Tyr-1101), phospho-specific Mouse Monoclonal
EP1871 EGFR (a.a. 961-972) Rabbit Polyclonal
EP1911 EGFR (Ser-967), phospho-specific Rabbit Polyclonal
EP1931 EGFR (Ser-1142), phospho-specific Rabbit Polyclonal



Left: Western blot image of human K-562 cells (lanes 1 & 2) and HUVEC (lanes 3 & 4). The blots were probed with rabbit polyclonal anti-VEGFR-3 (a.a. 1285-1298) in the absence (lanes 1 & 3) or presence of blocking peptide (VX2945) (lanes 2 & 4). **Right:** Western blot image of GST-recombinant human VEGFR-1 (89 kDa), VEGFR-2 (110 kDa), and VEGFR-3 (86 kDa) C-terminal regions. The blot was probed with anti-VEGFR-3 (a.a. 1285-1298).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was affinity purified with VEGFR-3 (a.a. 1285-1298) peptide. The purified antibody detects a 170 kDa* band corresponding to VEGFR-3 in western blots of human endothelial and K-562 cells, and shows strong reactivity to recombinant human VEGFR-3, but not VEGFR-1 or VEGFR-2.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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