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# Anti-VEGFR-2 Antibody

Catalog # AN2013

## Product Information

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|---|---|
| **Application** | WB, ICC |
| **Primary Accession** | P35968 |
| **Host** | Rabbit |
| **Clonality** | Rabbit Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 151527 |

## Additional Information

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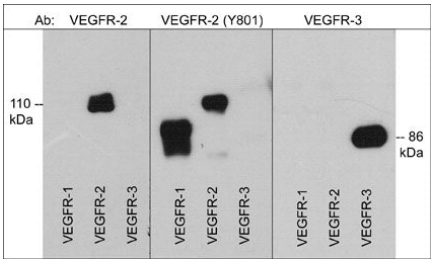
|---|---|
| **Gene ID** | 3791 |
| **Other Names** | KDR, flk-1, Vascular endothelial growth factor receptor 2 |
| **Dilution** | WB~~1:1000 ICC~~N/A |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Anti-VEGFR-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |
| **Shipping** | Blue Ice |

## Background

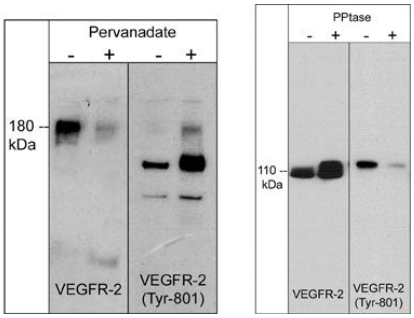
Vascular endothelial growth factor receptor-2 (VEGFR-2/Flk-1/KDR) is the primary receptor for VEGF in endothelial cells. Other VEGFR family members, VEGFR-1 (Flt-1) and VEGFR-3 (Flt-4), can also transduce the intracellular signals of VEGF. However, the role of VEGFR-1 is observed mainly during embryonic 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 mutliple sites in VEGFR-2 is required for downstream activation of several signaling pathways that control proliferation, chemotaxis, and sprouting during angiogenesis.

## Images

Western blot image of GST-recombinant human VEGFR-1 (89 kDa), VEGFR-2 (110 kDa), and VEGFR-3 (86 kDa) C-terminal regions. The blots were probed with rabbit polyclonal anti-VEGFR-2 (a.a. 1304-1317), anti-VEGFR-2 (Tyr-801, conserved site), and anti-VEGFR-3 (a.a.




1285-1298).







Left: Western blot image of HUVEC cells untreated (-) or treated with pervanadate (1 mM) for 30 min. (+). Right: Western blot image of GST-recombinant VEGFR-2 kinase without (-) or with (+) akaline phosphatase treatment. Both sets of blots were probed with rabbit polyclonal anti-VEGFR-2 (a.a. 1304-1317) or anti-VEGFR-2 (Tyr-801).