

## Flk-1/Flt-4 (phospho Tyr1054/Y1063) Polyclonal Antibody

YP0996 Catalog No:

Reactivity: Human; Mouse; Rat

IHC;IF;ELISA **Applications:** 

Target: VEGFR2/VEGFR3

Fields: >>EGFR tyrosine kinase inhibitor resistance;>>MAPK signaling pathway;>>Ras

signaling pathway;>>Rap1 signaling pathway;>>Calcium signaling

pathway;>>PI3K-Akt signaling pathway;>>VEGF signaling pathway;>>Focal adhesion;>>Proteoglycans in cancer;>>Fluid shear stress and atherosclerosis

Gene Name: KDR/FLT4

**Protein Name:** Vascular endothelial growth factor receptor 2/3

P35968/P35916

**Human Gene Id:** 3791/2324

**Human Swiss Prot** 

No:

Mouse Gene Id: 14257

Rat Gene Id: 25589/114110

Rat Swiss Prot No: 008775/Q91ZT1

The antiserum was produced against synthesized peptide derived from human Immunogen:

VEGFR2 around the phosphorylation site of Tyr1054. AA range:1020-1069

Phospho-Flk-1/Flt-4 (Y1054/Y1063) Polyclonal Antibody detects endogenous **Specificity:** 

levels of Flk-1/Flt-4 protein only when phosphorylated at Y1054/Y1063.

Formulation: Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Polyclonal, Rabbit, IgG Source:

**Dilution:** IHC 1:100 - 1:300. ELISA: 1:40000.. IF 1:50-200



**Purification:** The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 152kD

**Cell Pathway :** Cytokine-cytokine receptor interaction; Endocytosis; VEGF; Focal adhesion;

**Background:** Vascular endothelial growth factor (VEGF) is a major growth factor for

endothelial cells. This gene encodes one of the two receptors of the VEGF. This receptor, known as kinase insert domain receptor, is a type III receptor tyrosine kinase. It functions as the main mediator of VEGF-induced endothelial proliferation, survival, migration, tubular morphogenesis and sprouting. The

signalling and trafficking of this receptor are regulated by multiple factors, including Rab GTPase, P2Y purine nucleotide receptor, integrin alphaVbeta3, T-cell protein tyrosine phosphatase, etc.. Mutations of this gene are implicated in

infantile capillary hemangiomas. [provided by RefSeq, May 2009],

Function: catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine

phosphate.,function:Receptor for VEGF or VEGFC. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Belongs to the protein kinase

superfamily. Tyr protein kinase family. CSF-1/PDGF receptor

subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 7 Iglike C2-type (immunoglobulin-like) domains.,subunit:Interacts with MYOF (By similarity). Interacts with SHB; upon VEGF activation. Interacts with HIV-1 Tat.,

Subcellular Location:

Cell junction . Endoplasmic reticulum . Cell membrane . Localized with RAP1A at

cell-cell junctions (By similarity). Colocalizes with ERN1 and XBP1 in the endoplasmic reticulum in endothelial cells in a vascular endothelial growth factor

(VEGF)-dependent manner (PubMed:23529610). .; [Isoform 1]: Cell membrane; Single-pass type I membrane protein. Cytoplasm. Nucleus. Cytoplasmic vesicle. Early endosome. Detected on caveolae-enriched lipid rafts at the cell surface. Is

recycled from the plasma membrane to endosomes and back again.

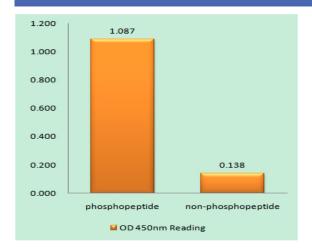
Phosphorylation triggered by VEGFA binding promotes internalization and subsequent degradation. VEGFA binding triggers internalization and translocation

to the nucleus.; [Isoform 2]: Secreted .; [Isoform 3]: Secreted.

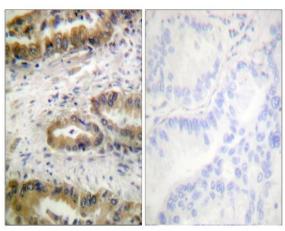
**Expression :** Detected in cornea (at protein level). Widely expressed.



## **Products Images**



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using VEGFR2 (Phospho-Tyr1054) Antibody



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using VEGFR2 (Phospho-Tyr1054) Antibody. The picture on the right is blocked with the phospho peptide.