



# Flk-1/VEGFR2 Monoclonal Antibody

<b>Catalog No</b>	YP-Ab-12926
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Fish
<b>Applications</b>	WB;ChIP;IF;FCM;ELISA
<b>Gene Name</b>	KDR
<b>Protein Name</b>	Vascular endothelial growth factor receptor 2
<b>Immunogen</b>	Purified recombinant extracellular fragment of human Flk-1 (aa20-764) fused with hlgGfc tag expressed in HEK293 cells.
<b>Specificity</b>	Flk-1 Monoclonal Antibody detects endogenous levels of Flk-1 protein.
<b>Formulation</b>	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
<b>Source</b>	Monoclonal, Mouse
<b>Purification</b>	Affinity purification
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	KDR; FLK1; VEGFR2; Vascular endothelial growth factor receptor 2; VEGFR-2; Fetal liver kinase 1; FLK-1; Kinase insert domain receptor; KDR; Protein-tyrosine kinase receptor flk-1; CD antigen CD309
<b>Observed Band</b>	
<b>Cell Pathway</b>	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.
<b>Tissue Specificity</b>	Detected in cornea (at protein level). Widely expressed.
<b>Function</b>	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 Ig-like C2-type (immunoglobulin-like) domains.,subunit:Interacts with MYOF (By similarity). Interacts with SHB; upon VEGF activation. Interacts with HIV-1 Tat.,

**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],

**matters needing attention**

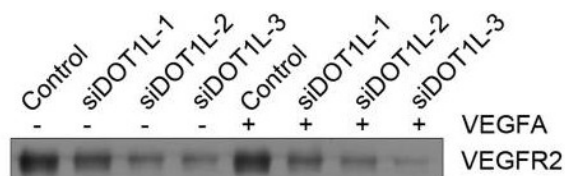
Avoid repeated freezing and thawing!

**Usage suggestions**

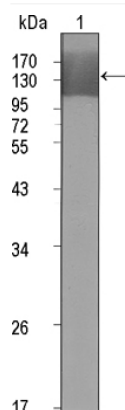
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



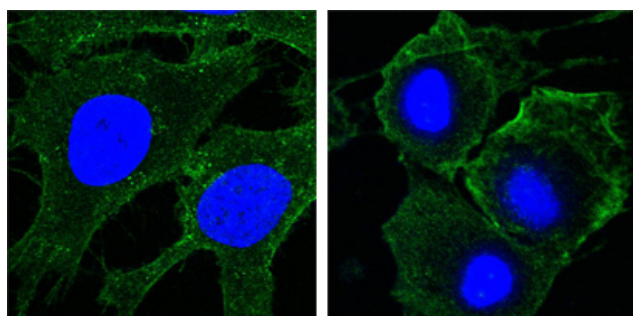
## Products Images



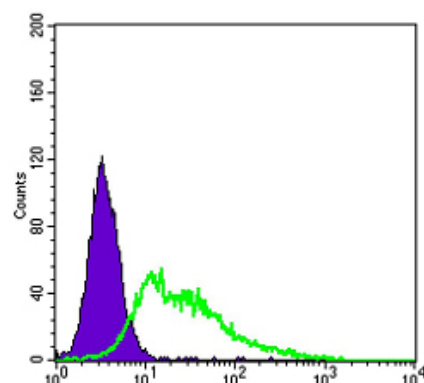
Duan, Yang, et al. "DOT1L promotes angiogenesis through cooperative regulation of VEGFR2 with ETS-1." *Oncotarget* 7.43 (2016): 69674.



Western Blot analysis using Flk-1 Monoclonal Antibody against extracellular domain of human Flk-1 (aa20-764).



Confocal immunofluorescence analysis of Hela (left) and HepG2 (right) cells using Flk-1 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye.



Flow cytometric analysis of HepG2 cells using Flk-1 Monoclonal Antibody (green) and negative control (purple).