



Flk-1/VEGFR2 Monoclonal Antibody

Catalog No	YP-Ab-12926
Isotype	IgG
Reactivity	Human;Fish
Applications	WB;ChIP;IF;FCM;ELISA
Gene Name	KDR
Protein Name	Vascular endothelial growth factor receptor 2
Immunogen	Purified recombinant extracellular fragment of human Flk-1 (aa20-764) fused with hlgGfc tag expressed in HEK293 cells.
Specificity	Flk-1 Monoclonal Antibody detects endogenous levels of Flk-1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	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.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	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
Observed Band	
Cell Pathway	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.
Tissue Specificity	Detected in cornea (at protein level). Widely expressed.
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 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

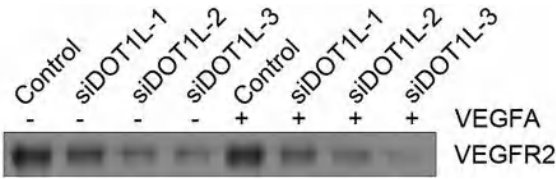
Avoid repeated freezing and thawing!

Usage suggestions

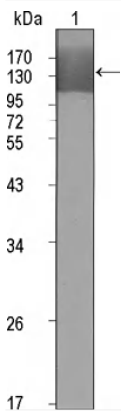
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



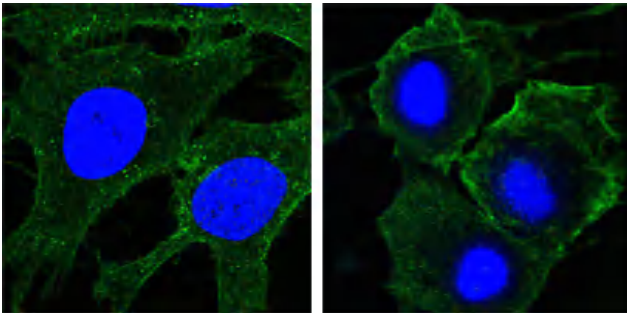
Products Images



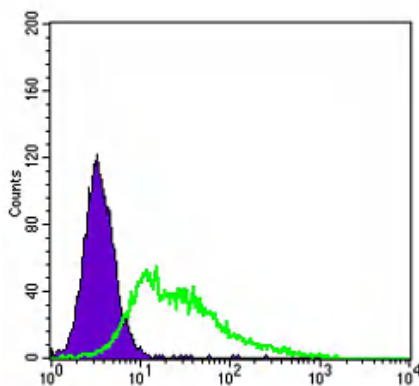
Duan, Yang, et al. "DOT1L promotes angiogenesis through cooperative regulation of VEGFR2 with ETS-1." *Oncotarget* 7.43 (2016): 69674.



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).