



Rabbit Anti-VEGFR1 antibody

SL0170R

Product Name:	VEGFR1
Chinese Name:	血管内皮生长因子受体1抗体
Alias:	VEGF-R1; VEGFR-1; VEGF Receptor 1; FLT-1; vascular permeability factor receptor; vascular endothelial growth factor receptor; vascular endothelial growth factor receptor-1; fms-related tyrosine kinase 1; vascular endothelial growth factor/vascular permeability factor receptor; AI323757; FLT; FLT1; sFlt1; VGFR1_HUMAN; VGFR1_MOUSE.
文献引用 PubMed :	<p>Specific References(3) SL0170R has been referenced in 3 publications.</p> <p>[IF=2.38]Cheng, Gangwei, et al. "Direct Effects of Bevacizumab on Rat Conjunctival Fibroblast." Cell Biochemistry and Biophysics: 1-6.Rat. PubMed:25656769</p> <p>[IF=2.83]Liu, Huayan, et al. "Paeoniflorin attenuates Aβ 1-42-induced inflammation and chemotaxis of microglia in vitro and inhibits NF-κB-and VEGF/Flt-1 signaling pathways." Brain Research (2015).WB;Rat. PubMed:26049130</p> <p>[IF=2.35]Liu, Yanhua, et al. "RUNX3 modulates hypoxia-induced endothelial-to-mesenchymal transition of human cardiac microvascular endothelial cells." International Journal of Molecular Medicine (2017).WB;Human. PubMed:28534977</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1 μ g/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair)

	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	147kDa
Cellular localization:	cytoplasmicThe cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from mouse VEGFR1:1162-1260/1333<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>VEGF Receptor 1 (also known as FLT) belongs to the src gene family and shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation. The protein acts as a receptor for VEGF, VEGFB and PGF. An alternatively spliced form of the gene produces a soluble protein (sFlt1) which binds vascular endothelial growth factor (VEGF) with high affinity. sFlt1 has a higher affinity for VEGF indicating that it may function as an inhibitor in the VEGF response. VEGF Receptor 1 is specifically expressed in most vascular endothelial cells and peripheral blood monocytes.</p> <p>Function: Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. May play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. Can promote endothelial cell proliferation, survival and angiogenesis in adulthood. Its function in promoting cell proliferation seems to be cell-type specific. Promotes PGF-mediated proliferation of endothelial cells, and proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts. Has very high affinity for VEGFA and relatively low protein kinase activity; may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to KDR. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to the activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Phosphorylates PLCG1. Promotes phosphorylation of AKT1, PTK2/FAK1; YES1 and CBL.</p>

Subunit:

Interacts with VEGFA, VEGFB and PGF. Monomer in the absence of bound VEGFA, VEGFB or PGF. Homodimer in the presence of bound VEGFA, VEGFB and PGF. Can also form a heterodimer with KDR. Interacts (when tyrosine phosphorylated) with CBL, CRK, GRB2, NCK1, PIK3R1, PLCG1 and PTPN11. Interacts with GNB2L1/RACK1. Identified in a complex with CBL and CD2AP.

Subcellular Location:

Isoform 1: Cell membrane; Single-pass type I membrane protein. Endosome.
Note=Autophosphorylation promotes ubiquitination and endocytosis; Isoform 2: Secreted; Isoform 3: Secreted; Isoform 4: Secreted; Isoform 5: Cytoplasm (Potential); Isoform 6: Cytoplasm (Potential); Isoform 7: Cytoplasm (Potential).

Tissue Specificity:

Detected in normal lung, but also in placenta, liver, kidney, heart and brain tissues. Specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. Isoform 2 is strongly expressed in placenta. Isoform 3 is expressed in corneal epithelial cells (at protein level). Isoform 3 is expressed in vascular smooth muscle cells (VSMC).

Post-translational modifications:

N-glycosylated.

Ubiquitinated after VEGFA-mediated autophosphorylation, leading to proteolytic degradation.

Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-1169 is important for interaction with PLCG1. Phosphorylation at Tyr-1213 is important for interaction with PIK3R1, PTPN11, GRB2, and PLCG1. Phosphorylation at Tyr-1331 is important for endocytosis and for interaction with CBL, NCK1 and CRK.

Similarity:

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.

SWISS:

P53767

Gene ID:

14254

Database links:

[Entrez Gene: 2321](#) Human

[Entrez Gene: 14254](#) Mouse

[Entrez Gene: 54251](#) Rat

[Oimim: 165070](#) Human

[SwissProt: P17948](#) Human

[SwissProt: P35969](#) Mouse

[SwissProt: P53767](#) Rat

[Unigene: 594454](#) Human

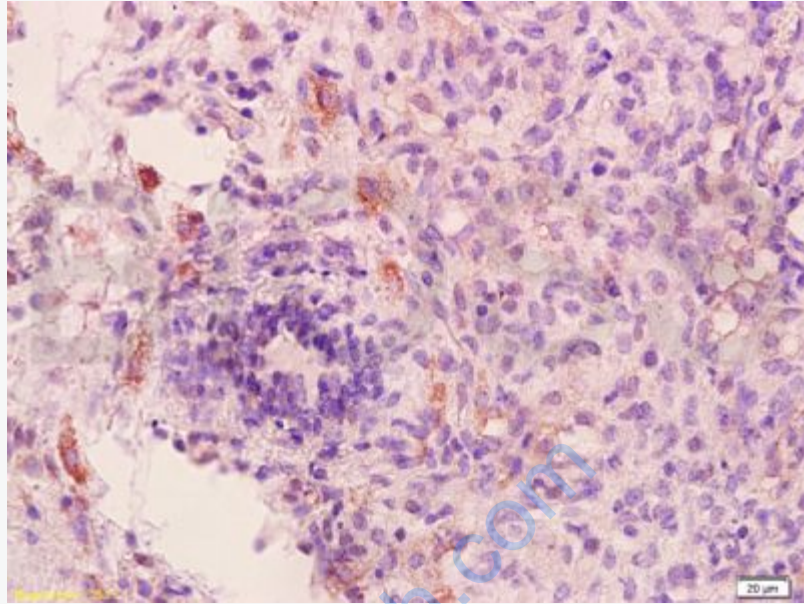
[Unigene: 389712](#) Mouse

[Unigene: 10239](#) Rat

Important Note:

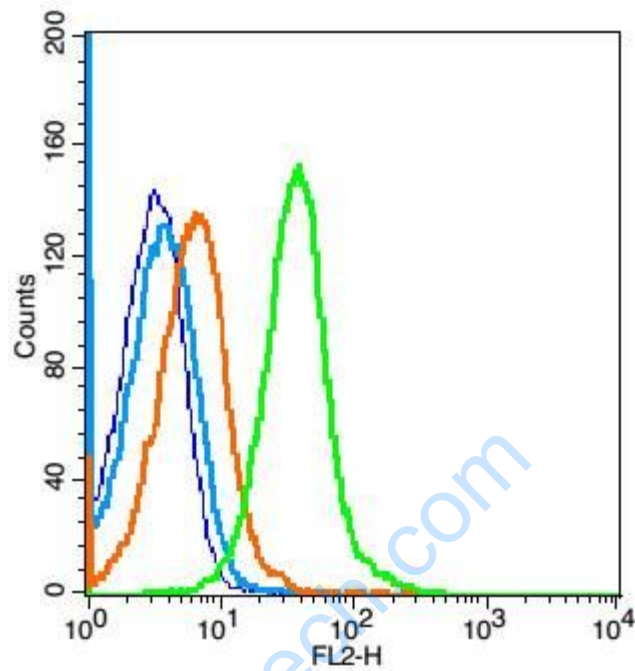
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VEGFR1/Flt1是一种The cell membrane受体激酶, 对血管内皮生长因子有高度的亲和性, 主要功能是参与vascular endothelial cell生长和血管生成的调控。用于各种恶性Tumour的研究。



Picture:

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-VEGFR1/FLT1 Polyclonal Antibody, Unconjugated(SL0170R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: mouse spleen cells(blue), the cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice.

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA ;

Primary Antibody Dilution: 1 μ g in 100 μ L1X PBS containing 0.5% BSA(green).