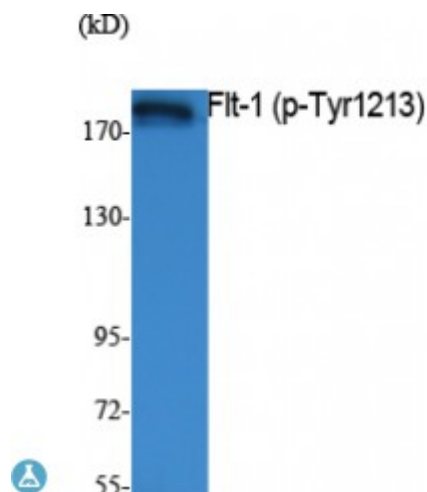


Anti-Phospho-Flt-1 (Y1213) antibody



Description	Rabbit polyclonal to Phospho-Flt-1 (Y1213).
Model	STJ91359
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human Flt-1 around the phosphorylation site of Y1213.
Immunogen Region	1150-1230 aa
Gene ID	2321
Gene Symbol	FLT1
Dilution range	WB 1:500-1:2000ELISA 1:40000
Specificity	Phospho-Flt-1 (Y1213) Polyclonal Antibody detects endogenous levels of Flt-1 protein only when phosphorylated at Y1213.
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).
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).

Protein Name	Vascular endothelial growth factor receptor 1 VEGFR-1 Fms-like tyrosine kinase 1 FLT-1 Tyrosine-protein kinase FRT Tyrosine-protein kinase receptor FLT FLT Vascular permeability factor receptor
Molecular Weight	180 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:3763OMIM:165070
Alternative Names	Vascular endothelial growth factor receptor 1 VEGFR-1 Fms-like tyrosine kinase 1 FLT-1 Tyrosine-protein kinase FRT Tyrosine-protein kinase receptor FLT FLT Vascular permeability factor receptor
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, proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts (in vitro). 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. Likewise, isoforms lacking a transmembrane domain, such as isoform 2, isoform 3 and isoform 4, may function as decoy receptors for VEGFA. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG 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 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 SRC and YES1, and may also phosphorylate CBL. Isoform 1 phosphorylates PLCG. Promotes phosphorylation of AKT1 at 'Ser-473'. Promotes phosphorylation of PTK2/FAK1. Isoform 7 has a truncated kinase domain; it increases phosphorylation of SRC at 'Tyr-418' by unknown means and promotes tumor cell invasion.
Sequence and Domain Family	The second and third Ig-like C2-type (immunoglobulin-like) domains are sufficient for VEGFA binding.
Cellular Localization	Isoform 1: Cell membrane. Single-pass type I membrane protein. Endosome.

Autophosphorylation promotes ubiquitination and endocytosis.. Isoform 2: Secreted Isoform 3: Secreted.. Isoform 4: Secreted.. Isoform 5: Cytoplasm Isoform 6: Cytoplasm Isoform 7: Cytoplasm

**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 PLCG. Phosphorylation at Tyr-1213 is important for interaction with PIK3R1, PTPN11, GRB2, and PLCG. Phosphorylation at Tyr-1333 is important for endocytosis and for interaction with CBL, NCK1 and CRK. Is probably dephosphorylated by PTPRB.

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