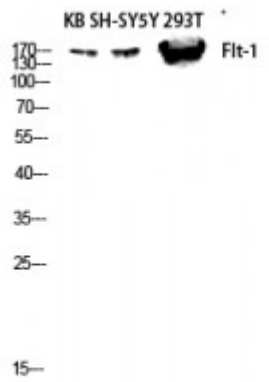
# Anti-Flt-1 antibody

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| **Description** | Rabbit polyclonal to Flt-1. |

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| **Model** | STJ93093 |
| **Host** | Rabbit |
| **Reactivity** | Human, Mouse, Rat |
| **Applications** | ELISA, IHC |
| **Immunogen** | Synthesized peptide derived from human Flt-1 around the non-phosphorylation site of Y1048. |
| **Immunogen Region** | 980-1060 aa |
| **Gene ID** | 2321 |
| **Gene Symbol** | FLT1 |
| **Dilution range** | IHC 1:100-1:300ELISA 1:10000 |
| **Specificity** | Flt-1 Polyclonal Antibody detects endogenous levels of Flt-1 protein. |
| **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 |

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| | 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: |

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| | 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. |