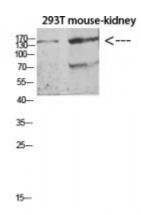


Anti-Flt-4 antibody





Description Rabbit polyclonal to Flt-4.

Model STJ98712

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IHC, WB

Immunogen Synthetic peptide from human Flt-4 protein.

Immunogen Region 640-700 aa

Gene ID <u>2324</u>

Gene Symbol FLT4

Dilution range WB 1:500-2000IHC-P 1:50-300ELISA 1:5000-20000

Specificity The antibody detects endogenous Flt-4.

Tissue Specificity Detected in endothelial cells (at protein level). Widely expressed. Detected in

fetal spleen, lung and brain. Detected in adult liver, muscle, thymus, placenta,

lung, testis, ovary, prostate, heart, and kidney.

Purification The antibody was affinity-purified from rabbit serum by affinity-

chromatography using specific immunogen.

Note For Research Use Only (RUO).

Protein Name Vascular endothelial growth factor receptor 3 VEGFR-3 Fms-like tyrosine

kinase 4 FLT-4 Tyrosine-protein kinase receptor FLT4

Molecular Weight 170kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50%

Glycerol.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links HGNC:37670MIM:136352

Alternative Names Vascular endothelial growth factor receptor 3 VEGFR-3 Fms-like tyrosine

kinase 4 FLT-4 Tyrosine-protein kinase receptor FLT4

Function Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFC and

VEGFD, and plays an essential role in adult lymphangiogenesis and in the development of the vascular network and the cardiovascular system during embryonic development. Promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated FLT4 leads to enhanced production of VEGFC, and to a lesser degree VEGFA, thereby creating a positive feedback loop that enhances FLT4 signaling. Modulates KDR signaling by forming heterodimers. The secreted isoform 3 may function as a decoy receptor for VEGFC and/or VEGFD and play an important role as a negative regulator of VEGFC-mediated.

play an important role as a negative regulator of VEGFC-mediated

lymphangiogenesis and angiogenesis. Binding of vascular growth factors to isoform 1 or isoform 2 leads to the activation of several signaling cascades; isoform 2 seems to be less efficient in signal transduction, because it has a truncated C-terminus and therefore lacks several phosphorylation sites.

Mediates activation of the MAPK1/ERK2, MAPK3/ERK1 signaling pathway, of MAPK8 and the JUN signaling pathway, and of the AKT1 signaling pathway. Phosphorylates SHC1. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Promotes phosphorylation

of MAPK8 at 'Thr-183' and 'Tyr-185', and of AKT1 at 'Ser-473'.

Sequence and Domain Family The first and second Ig-like C2-type (immunoglobulin-like) domains are

sufficient for VEGFC binding.

Cellular Localization Cell membrane. Single-pass type I membrane protein. Cytoplasm. Nucleus.

Ligand-mediated autophosphorylation leads to rapid internalization.. Isoform 1: Cell membrane. Single-pass type I membrane protein. Ligand-mediated autophosphorylation leads to rapid internalization.. Isoform 2: Cell membrane.

Single-pass type I membrane protein.. Isoform 3: Secreted. Cytoplasm.

Post-translational Autophosphorylated on tyrosine residues upon ligand binding. **Modifications** Autophosphorylation occurs in trans, i.e. one subunit of the dir

Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation in response to H(2)O(2) is mediated by a process that requires SRC and PRKCD activity. Phosphorylation at Tyr-1068 is required for autophosphorylation at additional tyrosine residues. Phosphorylation at Tyr-1063 and Tyr-1337 is important for interaction with CRK and subsequent activation of MAPK8. Phosphorylation at Tyr-1230, Tyr-1231 and Tyr-1337 is important for interaction with GRB2 and subsequent activation of the AKT1 and MAPK1/ERK2 and/or MAPK3/ERK1 signaling pathways. In response to

endothelial cell adhesion onto collagen, can also be phosphorylated in the

absence of FLT4 kinase activity by SRC at Tyr-830, Tyr-833, Tyr-853, Tyr-1063, Tyr-1333, and Tyr-1337.

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