

Human sVEGFR1,sFLT1 ELISA Kit

Catalog No: #EK5230



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Description

Product Name	Human sVEGFR1,sFLT1 ELISA Kit
Specificity	Human
Crossing Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Immunogen Type	sf21,S27-H687
Other Names	Vascular endothelial growth factor receptor 1; VEGFR-1; 2.7.10.1; Fms-like tyrosine kinase 1; FLT-1; Tyrosine-protein kinase FRT; Tyrosine-protein kinase receptor FLT; FLT; Vascular permeability factor receptor; FLT1; FLT, FRT, VEGFR1;
Accession No.	P17948
Uniprot	P17948
GeneID	2321;
Cell Localization	Isoform 1: Cell membrane; Autophosphorylation promotesubiquitination and endocytosis.

Application Details

sensitivity:30pg mlDetect Range:156pg ml-10 000pg ml
 sample_type:cell culture supernates serum and plasma(EDTA).capture_antibody:monoclonal antibody
 from mousedetection_antibody:polyclonal antibody from goatgene_name:FLT1protein_name:Vascular endothelial growth factor receptor
 1gene_full_name:Vascular endothelial growth factor receptor 1tissue_specificity: Detected in normal lung but also in placenta liver kidney heart and brain
 tissues. Specifically expressed inmost of the vascular endothelial cells and also expressed inperipheral blood monocytes. Isoform 2 is strongly expressed
 inplacenta. Isoform 3 is expressed in corneal epithelial cells (atprotein level). Isoform 3 is expressed in vascular smooth musclecells
 (VSMC)..sequence_similarities:Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1 PDGF receptor
 subfamily.tmb_incubation:15-20minresearch_category:cardiovascular|angiogenesis|growth factors|veg|veg receptors|signal transduction|protein
 phosphorylation|tyrosine kinases|cancer|invasion/microenvironment|angiogenic growth factors|cancer metabolism|response to hypoxia|kits/ lysates/
 other|kits|elisa kits|growth factors and hormones elisa kits|cardiovascular elisa kits|pathways and processes|metabolism processes

Product Description

Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human sVEGFR1,sFLT1

Background

protein_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. sVEGFR1, also known as sFMS-related tyrosine kinase 1 (sFLT1). Oncogene sFLT belongs to the src gene family and is related to oncogene ROS. Like other members of this family, it shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation. sFLT is mapped to 13q12. sVEGF receptor 1 signaling is essential for osteoclast development and bone marrow formation in colony-stimulating factor 1-deficient mice. The standard product used in this kit is recombinant human sVEGFR1, consisting of 905 amino acids with the molecular mass of 100KDa.

Note: This product is for in vitro research use only