

Anti-VEGFR1/FLT1 Antibody
Catalog # ABO10722**Specification**

Anti-VEGFR1/FLT1 Antibody - Product Information

Application	WB
Primary Accession	P17948
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Vascular endothelial growth factor receptor 1(FLT1) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-VEGFR1/FLT1 Antibody - Additional Information

Gene ID 2321

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

Calculated MW

150769 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Isoform 1: Cell membrane; Single-pass type I membrane protein. Endosome. Autophosphorylation promotes ubiquitination and endocytosis.

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). .

Protein Name

Vascular endothelial growth factor receptor 1(VEGFR-1)

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human FLT1 (1299-1317aa HVSEGKRRFTYDHAELEK).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.

Anti-VEGFR1/FLT1 Antibody - Protein Information**Name** FLT1**Synonyms** FLT, FRT, VEGFR1**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. Acts as a positive regulator of postnatal retinal hyaloid vessel regression (By similarity). 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. 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. Promotes phosphorylation of AKT1 at 'Ser-473'. Promotes phosphorylation of PTK2/FAK1 (PubMed: 16685275).

Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Endosome.

Note=Autophosphorylation promotes ubiquitination and endocytosis [Isoform 3]: Secreted.

[Isoform 5]: Cytoplasm. [Isoform 7]: Cytoplasm.

Tissue Location

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

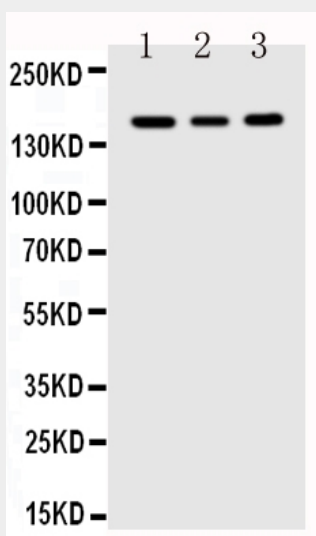
monocytes. Isoform 2 is strongly expressed in placenta. Isoform 3 is expressed in corneal epithelial cells (at protein level). Isoform 3 is expressed in vascular smooth muscle cells (VSMC)

Anti-VEGFR1/FLT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-VEGFR1/FLT1 Antibody - Images



Anti-FLT1 antibody, ABO10722, Western blotting
Lane 1: MCF-7 Cell Lysate
Lane 2: SGC Cell Lysate
Lane 3: MM231 Cell Lysate

Anti-VEGFR1/FLT1 Antibody - Background

Vascular endothelial growth factor receptor 1(FLT1) is a protein that in humans is encoded by the FLT1 gene. Oncogene FLT belongs to the src gene family. It is mapped to 13q12. The deduced 1,338-amino acid protein has a calculated molecular mass of 150.6 kD. It has a 758-amino acid extracellular domain, followed by a 22-amino acid transmembrane region and a 558-amino acid cytoplasmic region containing a cluster of basic amino acids and a tyrosine kinase domain. sFLT-1 was identified in placenta, adult lung, kidney, liver and uterus. Like other members of this family, it shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation.