

VEGFR1

Rabbit Monoclonal antibody(Mab) Catalog # AD80359

Specification

VEGFR1 - Product info

IHC-P P17948 Human Rabbit Monoclonal 150769

VEGFR1 - Additional info

Gene ID Gene Name Other Names 2321 FLT1

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

Dilution IHC-P~~Ready-to-use

Storage Maintain refrigerated at 2-8°C

Precautions

Flt-1/VEGFR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

VEGFR1 - Protein Information

Name FLT1

Synonyms Function **FLT, FRT, VEGFR1**

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. Isoform 1: Cell membrane; Single-pass type I membrane protein. Endosome. Note=Autophosphorylation promotes ubiguitination and endocytosis Isoform 3: Secreted. Isoform 5: Cytoplasm. Isoform 7: Cvtoplasm. 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).

Cellular Location

Tissue Location



VEGFR1 - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

VEGFR1 - Images



Adenocarcinoma.



Immunohistochemical analysis of paraffin-embedded adenocarcinoma tissue using AD80359 performed on the Abcarta® FAIP-30 Fully automated IHC platform.Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(Ready-to-use) for 15 min at room temperature. AmpSeeTM Detection Systems[Abcepta:AR005] was used as the secondary antibody.