



VEGF Receptor 1 (ANT0056R) Rabbit mAb

CatalogNo: ANT8028 **Recombinant** 

Formulation: PBS,50%glycerol,0.05%Proclin 300,0.05%BSA
Quantity : 100 ug/vial

Host Species

- Rabbit

MW

- 151kD (Calculated)
180kD (Observed)

Reactivity

- Human,Mouse,Rat,

Isotype

- IgG,Kappa

Applications

- WB,IHC,IF,IP,ELISA

Recommended Dilution Ratios

IHC 1:200-1:1000

WB 1:1000-1:5000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200,

Storage

Storage* -15°C to -25°C/1 year(Do not lower than -25°C)

Basic Information

Clonality Monoclonal

Clone Number ANT0056R

Immunogen Information Specificity

Endogenous

Gene name FLT1 FLT FRT VEGFR1

Target Information

Protein Name 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)

Organism	Gene ID	UniProt ID
Human	2321 ;	P17948 ;
Mouse	14254 ;	P35969 ;
Rat	54251 ;	P53767 ;

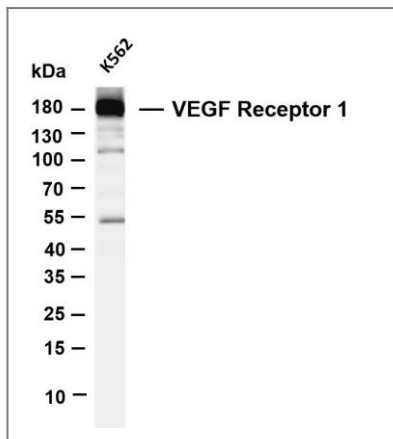
Cellular Localization Membranous

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).

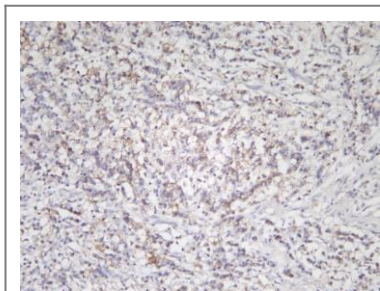
Function

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 (Ref.11). 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 ANTK2/FAK1 . ; [Isoform 1]: Phosphorylates PLCG. ; [Isoform 2]: May function as decoy receptor for VEGFA. ; [Isoform 3]: May function as decoy receptor for VEGFA. ; [Isoform 4]: May function as decoy receptor for VEGFA. ; [Isoform 7]: Has a truncated kinase domain; it increases phosphorylation of SRC at 'Tyr-418' by unknown means and promotes tumor cell invasion.

Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-VEGF Receptor 1 (ANT0056R) antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: K562 Predicted band size: 151kDa Observed band size: 180kDa



Human stomach carcinoma was stained with anti-VEGF Receptor 1 (ANT0056R) rabbit antibody

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Contact Antagene Inc Tel 1-866-964-2589 Email: info@antageneinc.com
