

PRODUCT DATA SHEET

Bioworld Technology,Inc.

VEGFR1 Rabbit monoclonal antibody

Catalog: MB66400 Host: Rabbit Reactivity: Human, Mouse, Rat

BackGround:

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 PTK2/FAK1.

Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl,

50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

Molecular Weight:

~ 180 kDa

Swiss-Prot:

P17948

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100), IP (1/10 - 1/50)

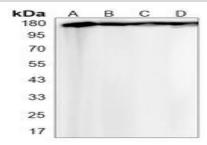
Storage&Stability:

Store at $4 \, \mathbb{C}$ short term. Aliquot and store at $-20 \, \mathbb{C}$ long term. Avoid freeze-thaw cycles.

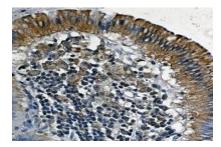
Specificity:

Recognizes endogenous levels of VEGFR1 protein.

DATA:



Western blot analysis of VEGFR1 expression in K562 (A), C6 (B), NIH3T3 (C), Hela (D) whole cell lysates.



Immunohistochemical analysis of VEGFR1 staining in human colon cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.63). The section was then incubated with the antibody at

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room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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