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VEGFR1 Rabbit pAb

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Catalog # AP93953

Specification

VEGFR1 Rabbit pAb - Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	147 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse VEGFR1
Epitope Specificity	1162-1260/1333
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Isoform 1: Cell membrane; Single-pass type I membrane protein. Endosome. Note=Autophosphorylation promotes ubiquitination and endocytosis Isoform 2: Secreted Isoform 3: Secreted Isoform 4: Secreted Isoform 5: Cytoplasm (Potential) Isoform 6: Cytoplasm (Potential) Isoform 7: Cytoplasm (Potential).
SIMILARITY	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.Contains 7 Ig-like C2-type (immunoglobulin-like)domains.Contains 1 protein kinase domain.
SUBUNIT	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, and proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts. 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 PLCG1 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 the activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, Interacts with VEGFA, VEGFB and PGF. Monomer in the absence of bound VEGFA, VEGFB or PGF. Homodimer in the presence of bound VEGFA, VEGFB and PGF. Can also form a heterodimer with KDR.Interacts (when tyrosine phosphorylated) with CBL, CRK, GRB2, NCK1,PIK3R1, PLCG1 and PTPN11. Interacts with GNB2L1/RACK1. Identified in a complex with CBL and CD2AP.
Post-translational modifications	**N-glycosylated.Ubiquitinated after VEGFA-mediated autophosphorylation, leading to proteolytic degradation.Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-1169 is important for interaction with PLCG1. Phosphorylation at Tyr-1213 is important for interaction with PIK3R1, PTPN11, GRB2, and PLCG1. Phosphorylation at Tyr-1331 is important for endocytosis and for interaction with CBL, NCK1 and CRK.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions

VEGF Receptor 1 (also known as FLT) belongs to the src gene family and shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation. The protein acts as a receptor for VEGF, VEGFB and PGF. An alternatively spliced form of the gene produces a soluble protein (sFlt1) which binds vascular endothelial growth factor (VEGF) with high affinity. sFlt1 has a higher affinity for VEGF indicating that it may function as an inhibitor in the VEGF response. VEGF Receptor 1 is specifically expressed in most vascular endothelial cells and

peripheral blood monocytes.

VEGFR1 Rabbit pAb - Additional Information

Target/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).

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

VEGFR1 Rabbit pAb - Protein Information

VEGFR1 Rabbit pAb - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

VEGFR1 Rabbit pAb - Images

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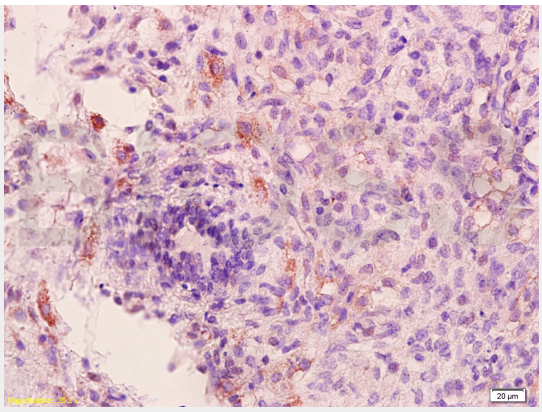
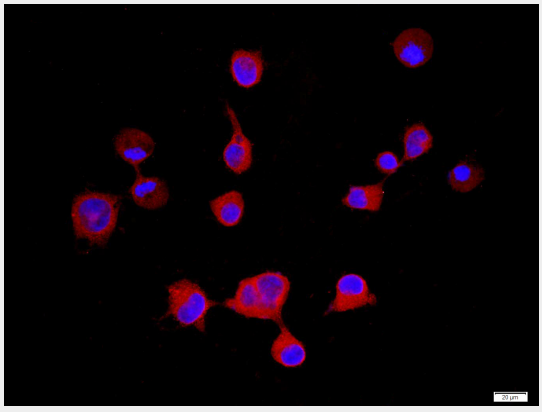
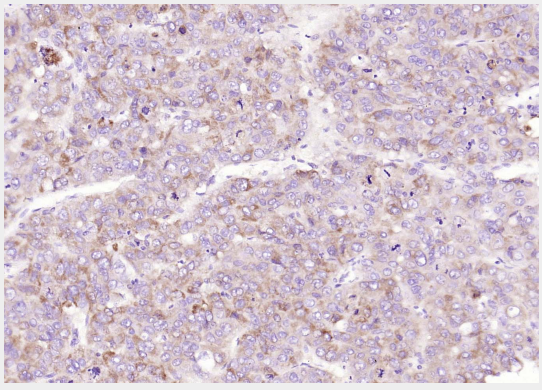


Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-VEGFR1/FLT1 Polyclonal Antibody, Unconjugated(AP93953) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: 293T cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (VEGFR1) polyclonal Antibody, Unconjugated (AP93953) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.



Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (VEGFR1) Polyclonal Antibody, Unconjugated (AP93953) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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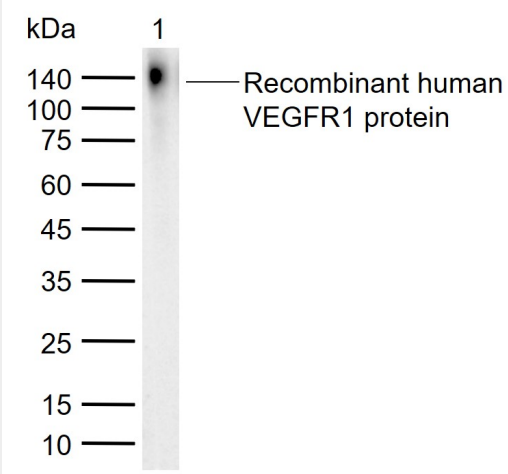

Sample: Lane 1: Recombinant human VEGFR1 protein, C-His (HEK293)(bs-41611P) Primary: Anti-VEGFR1 (AP93953) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 147 kDa Observed band size: 140 kDa

VEGFR1 Rabbit pAb - Background

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