

Product datasheet for **TA384238S**

VEGF Receptor 1 (FLT1) Rabbit Monoclonal Antibody [Clone ID: R06-1A4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R06-1A4
Applications:	IHC, IP, WB
Recommended Dilution:	WB: 1/1000 IHC: 1/50 IP: 1/20
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human VEGF Receptor 1
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 151 kDa; Observed MW: 180 kDa
Gene Name:	fms related tyrosine kinase 1
Database Link:	Entrez Gene 2321 Human P17948



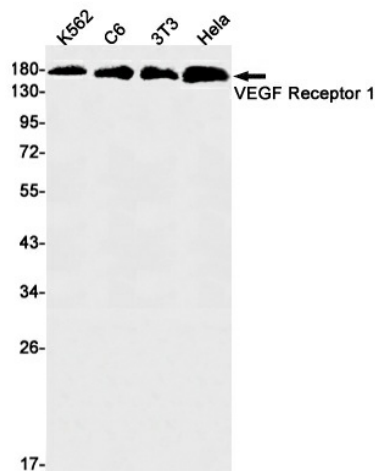
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Background:

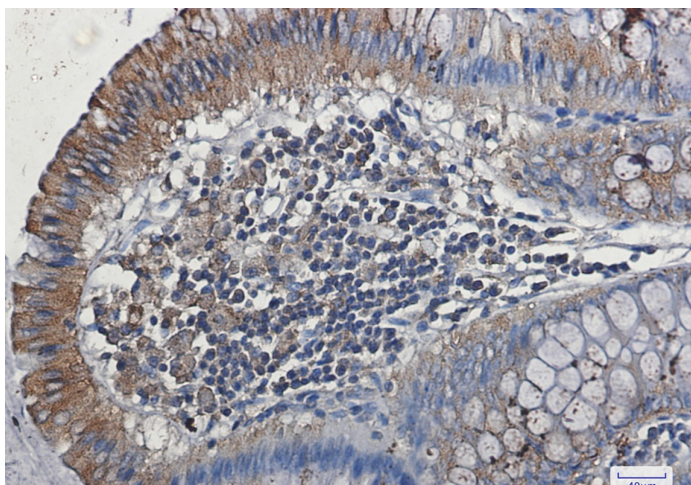
Swiss-Prot Acc.P17948. Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. 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.

Synonyms:

FLT; Flt-1; FRT; VEGFR-1; VEGFR1

Product images:

Western blot analysis of VEGF Receptor 1 in K562, C6, 3T3, HeLa lysates using VEGF Receptor 1 antibody.



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using VEGF Receptor 1 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.