

ARG57720
anti-FLT1 / VEGFR1 antibodyPackage: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes FLT1 / VEGFR1
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, IP, WB
Specificity	This antibody detects endogenous levels of total VEGFR1.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	FLT1 / VEGFR1
Species	Human
Immunogen	Synthetic peptide from Human FLT-1 / VEGFR1.
Conjugation	Un-conjugated
Alternate Names	FLT-1; Vascular permeability factor receptor; Tyrosine-protein kinase receptor FLT; FLT; Vascular endothelial growth factor receptor 1; VEGFR1; VEGFR-1; Fms-like tyrosine kinase 1; EC 2.7.10.1; Tyrosine-protein kinase FRT

Application Instructions

Application table	Application	Dilution
	IHC-P	1:50 - 1:200
	IP	1:50
	WB	1:500 - 1:2000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

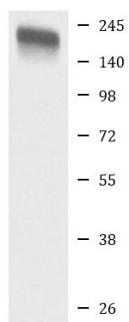
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	FLT1
Gene Full Name	fms-related tyrosine kinase 1
Background	<p>This gene encodes a member of the vascular endothelial growth factor receptor (VEGFR) family. VEGFR family members are receptor tyrosine kinases (RTKs) which contain an extracellular ligand-binding region with seven immunoglobulin (Ig)-like domains, a transmembrane segment, and a tyrosine kinase (TK) domain within the cytoplasmic domain. This protein binds to VEGFR-A, VEGFR-B and placental growth factor and plays an important role in angiogenesis and vasculogenesis. Expression of this receptor is found in vascular endothelial cells, placental trophoblast cells and peripheral blood monocytes. Multiple transcript variants encoding different isoforms have been found for this gene. Isoforms include a full-length transmembrane receptor isoform and shortened, soluble isoforms. The soluble isoforms are associated with the onset of pre-eclampsia.[provided by RefSeq, May 2009]</p>
Function	<p>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. [UniProt]</p>
Calculated Mw	151 kDa
PTM	<p>N-glycosylated.</p> <p>Ubiquitinated after VEGFA-mediated autophosphorylation, leading to proteolytic degradation.</p> <p>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 PLCG. Phosphorylation at Tyr-1213 is important for interaction with PIK3R1, PTPN11, GRB2, and PLCG. Phosphorylation at Tyr-1333 is important for endocytosis and for interaction with CBL, NCK1 and CRK. Is probably dephosphorylated by PTPRB. [UniProt]</p>



A431

ARG57720 anti-FLT1 / VEGFR1 antibody WB image

Western blot: A431 cell lysate stained with ARG57720 anti-FLT1 / VEGFR1 antibody.