ARG20581
anti-FLT4 / VEGFR3 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes FLT4 / VEGFR3
Tested Reactivity	Hu
Predict Reactivity	Rat
Tested Application	WB
Specificity	This antibody detects a ~170 kDa band corresponding to VEGFR-3 in western blots of human endothelial and K-562 cells, and shows strong reactivity to recombinant human VEGFR-3, but not VEGFR-1 or VEGFR-2.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	FLT4 / VEGFR3
Species	Human
Immunogen	Synthetic peptide (coupled to carrier protein) around aa. 1285-1298 of Human VEGFR-3. This sequence has two aa. differences of Rat VEGFR-3, and five aa. differences of Mouse VEGFR-3.
Conjugation	Un-conjugated
Alternate Names	FLT-4; FLT41; Vascular endothelial growth factor receptor 3; VEGFR3; VEGFR-3; PCL; Tyrosine-protein kinase receptor FLT4; LMPH1A; EC 2.7.10.1; Fms-like tyrosine kinase 4

Application Instructions

Application table

Application	Dilution
WB	1:1000

Application Note: WB: Antibody is suggested to be diluted in 5% skimmed milk/Tris buffer with 0.04% Tween20 and incubated for 1 hour at room temperature.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

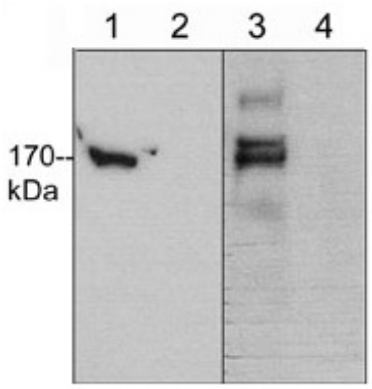
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	100 µl PBS, 0.05% Sodium azide, 50% Glycerol and 1 mg/ml BSA
Preservative	0.05% Sodium azide
Stabilizer	50% Glycerol, 1 mg/ml BSA
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term 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

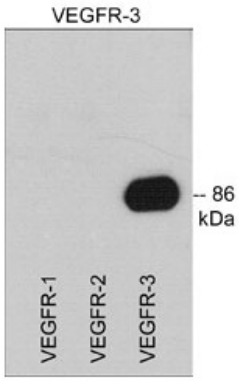
Database links	GeneID: 2324 Human Swiss-port # P35916 Human
Gene Symbol	FLT4
Gene Full Name	fms-related tyrosine kinase 4
Background	This gene encodes a tyrosine kinase receptor for vascular endothelial growth factors C and D. The protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. Mutations in this gene cause hereditary lymphedema type IA. [provided by RefSeq, Jul 2008]
Function	Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFC and VEGFD, and plays an essential role in adult lymphangiogenesis and in the development of the vascular network and the cardiovascular system during embryonic development. Promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated FLT4 leads to enhanced production of VEGFC, and to a lesser degree VEGFA, thereby creating a positive feedback loop that enhances FLT4 signaling. Modulates KDR signaling by forming heterodimers. The secreted isoform 3 may function as a decoy receptor for VEGFC and/or VEGFD and play an important role as a negative regulator of VEGFC-mediated lymphangiogenesis and angiogenesis. Binding of vascular growth factors to isoform 1 or isoform 2 leads to the activation of several signaling cascades; isoform 2 seems to be less efficient in signal transduction, because it has a truncated C-terminus and therefore lacks several phosphorylation sites. Mediates activation of the MAPK1/ERK2, MAPK3/ERK1 signaling pathway, of MAPK8 and the JUN signaling pathway, and of the AKT1 signaling pathway. Phosphorylates SHC1. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Promotes phosphorylation of MAPK8 at 'Thr-183' and 'Tyr-185', and of AKT1 at 'Ser-473'. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Gene Regulation antibody; Signaling Transduction antibody
Calculated Mw	153 kDa
PTM	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 in response to H(2)O(2) is mediated by a process that requires SRC and PRKCD activity. Phosphorylation at Tyr-1068 is required for autophosphorylation at additional tyrosine residues. Phosphorylation at Tyr-1063 and Tyr-1337 is important for interaction with CRK and subsequent activation of MAPK8. Phosphorylation at Tyr-1230, Tyr-1231 and Tyr-1337 is important for interaction with GRB2 and subsequent activation of the AKT1 and MAPK1/ERK2 and/or MAPK3/ERK1 signaling pathways. In response to endothelial cell adhesion onto collagen, can also be phosphorylated in the absence of FLT4 kinase activity by SRC at Tyr-830, Tyr-833, Tyr-853, Tyr-1063, Tyr-1333, and Tyr-1337.

Images



ARG20581 anti-FLT4 / VEGFR3 antibody WB image

Western blot: K-562 cells (lanes 1, 2) and HUVEC (lanes 3, 4) stained with ARG20581 anti-FLT4 / VEGFR3 antibody in the absence (lanes 1, 3) or presence of blocking peptide (lanes 2, 4).



ARG20581 anti-FLT4 / VEGFR3 antibody WB image

Western blot: GST-recombinant Human VEGFR-1 (89 kDa), VEGFR-2 (110 kDa), and VEGFR-3 (86 kDa) C-terminal regions. The blot was stained with ARG20581 anti-FLT4 / VEGFR3 antibody.