VEGFR-3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	VEGFR-3, Polyclonal Antibody
Full Product Name	VEGFR-3, CT (Tyrosine-protein kinase receptor FLT4, VEGFR-3) (MaxLight 490)
Product Gene Name	anti-VEGFR-3 antibody
Product Synonym Gene Name	FLT4
Product Synonym Names	Tyrosine-protein kinase receptor FLT4; VEGFR-3
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein G Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	152,757 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (180028506..180076624, complement). Location: 5q35.3
OMIM	136352
3D Structure	ModBase 3D Structure for P35916
Immunogen	VEGFR-3 (FLT4) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1122~1152 amino acids from the C-terminal region of human FLT4.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-VEGFR-3 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-VEGFR-3 antibody	Immunohistochemistry (IHC), FLISA
Application Notes for anti-VEGFR-3 antibody	IHC: 1:50-100 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-VEGFR-3 antibody	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.
Product References and Citations for anti-VEGFR-3 antibody	Walter, J.W., et al., Genes Chromosomes Cancer 33(3):295-303 (2002). Karkkainen, M.J., et al., Nat. Genet. 25(2):153-159 (2000). Irrthum, A., et al., Am. J. Hum. Genet. 67(2):295-301 (2000). Ferrell, R.E., et al., Hum. Mol. Genet. 7(13):2073-2078 (1998). Galland, F., et al., Oncogene 8(5):1233-1240 (1993).

Other Notes	Small volumes of anti-VEGFR-3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for VEGFR-3 purchase	MBS6362472 is an antibody targeting VEGFR-3. Also known as VEGFR-3, CT (Tyrosine-protein kinase receptor FLT4, VEGFR-3) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for VEGFR-3. It may not necessarily be applicable to this product.

NCBI GI #	104294888
NCBI GeneID	2324
NCBI Accession #	NP_891555.2
UniProt Primary Accession #	P35916
UniProt Secondary Accession #	Q16067; Q86W07; Q86W08; A8K6L4; B5A926
UniProt Related Accession #	P35916; AAB23636
GenBank Nucleotide #	NM_182925.4
NCBI Official Full Name	vascular endothelial growth factor receptor 3 isoform 1
NCBI Official Synonym Full Names	fms-related tyrosine kinase 4
NCBI Official Symbol	FLT4
NCBI Official Synonym Symbols	PCL; FLT41; LMPH1A; VEGFR3
UniProt Protein Name	Vascular endothelial growth factor receptor 3
UniProt Synonym Protein Names	Fms-like tyrosine kinase 4; FLT-4; Tyrosine-protein kinase receptor FLT4
Protein Family	Vascular endothelial growth factor receptor
UniProt Gene Name	FLT4
UniProt Synonym Gene Names	VEGFR3; VEGFR-3; FLT-4
UniProt Entry Name	VGFR3_HUMAN
NCBI Protein Information	vascular endothelial growth factor receptor 3; FLT-4; VEGFR-3; soluble VEGFR3 variant 1; soluble VEGFR3 variant 2; soluble VEGFR3 variant 3; fms-like tyrosine kinase 4; tyrosine-protein kinase receptor FLT4

UniProt Comments for VEGFR-3	VEGFR3: 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'. Interacts with VEGFC and VEGFD. Monomer in the absence of bound VEGFC or VEGFD. Homodimer in the presence of bound VEGFC or VEGFD. Can also form a heterodimer with KDR. Interacts with PTPN14; the interaction is enhanced by stimulation with VEGFC. Interacts with CRK, GRB2, PTK2/FAK1, SHC1, PIK3R1 and PTPN11/SHP- 2. Identified in a complex with SRC and ITGB1. Detected in endothelial cells. Widely expressed. Detected in fetal spleen, lung and brain. Detected in adult liver, muscle, thymus, placenta, lung, testis, ovary, prostate, heart, and kidney. Present in an inactive conformation in the absence of bound ligand. Binding of VEGFC or VEGFD leads to dimerization and activation by autophosphorylation on tyrosine residues. Inhibited by MAZ51. Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Protein kinase, TK; Protein kinase, tyrosine (receptor); Membrane protein, integral; Kinase, protein; EC 2.7.10.1; TK group; VEGFR family Chromosomal Location of Human Ortholog: 5q35.3 Cellular Component: integral to plasma membrane; cytoplasm; extracellular region; plasma membrane; nucleus; receptor complex Molecular Function: vascular endothelial growth factor receptor activity; protein binding; growth factor binding; transmembrane receptor protein tyrosine kinase activity; protein phosphatase binding; ATP binding Biological Process: peptidyl-tyrosine phosphorylation; protein amino acid autophosphorylation; positive regulation of JNK cascade; vasculature development; positive regulation of MAPKKK cascade; lymphangiogenesis; positive regulation of cell proliferation; blood vessel morphogenesis; positive regulation of endothelial cell proliferation; sprouting angiogenesis; positive regulation of protein amino acid phosphorylation; vascular endothelial growth factor receptor signaling pathway; lymph vessel development; transmembrane receptor protein tyrosine kinase signaling pathway; negative regulation of apoptosis Disease: Hemangioma, Capillary Infantile; Lymphedema, Hereditary, Ia
Research Articles on VEGFR-3	**1.** Studies indicate that variants in the VEGFR3 (FLT4) gene, encoding vascular endothelial growth factor receptor 3 (VEGFR3), were identified as being responsible for the majority of Milroy disease (MD).
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