VEGFR3 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	VEGFR3, Blocking Peptide
Full Product Name	VEGFR3 Blocking Peptide
Product Gene Name	VEGFR3 blocking peptide
Product Synonym Names	EC 2.7.10.1; flt 4; FLT-4; FLT4; FLT41; Fms related tyrosine kinase 4; Fms-like tyrosine kinase 4; LMPH1A; PCL; Soluble VEGFR3 variant 1; Soluble VEGFR3 variant 2; Soluble VEGFR3 variant 3; Tyrosine protein kinase receptor FLT4; Tyrosine-protein kinase receptor FLT4; Vascular endothelial growth factor receptor 3; Vascular endothelial growth factor receptor 3 precursor; VEGF R3; VEGFR 3; VEGFR-3; VEGFR3; VGFR3_HUMAN
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Molecular Weight	1298
Chromosome Location	Chromosome: 5; NC_000005.9 (180028506..180076624, complement). Location: 5q35.3
OMIM	136352
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for VEGFR3 blocking peptide	Blocking/Control
Related Product Information for VEGFR3 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of VEGFR3 blocking peptide 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 VEGFR3 purchase	MBS9620160 is a blocking peptide targeting VEGFR3.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for VEGFR3. It may not necessarily be applicable to this product.

NCBI GI #	103472027
NCBI GeneID	2324
NCBI Accession #	NP_002011.2
UniProt Primary Accession #	P35916

UniProt Secondary Accession #	Q16067; Q86W07; Q86W08; A8K6L4; B5A926
UniProt Related Accession #	P35916
GenBank Nucleotide #	NM_002020.4
NCBI Official Full Name	vascular endothelial growth factor receptor 3 isoform 2
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
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 VEGFR3	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
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