VEGFA Peptide - C-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	VEGFA, Blocking Peptide
Full Product Name	VEGFA Peptide - C-terminal region
Product Gene Name	VEGFA blocking peptide
Product Synonym Gene Name	MGC70609; MVCD1; VEGF; VPF
Sequence	SFLQHNKCEC RPKKDRARQE KKSVRGKGKG QKRKRKKSRY KSWSVCDKPR
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	VEGFA peptide (MBS3239955) is used for blocking the activity of VEGFA antibody (MBS3215038)
Molecular Weight	40kDa
OMIM	192240
Product Categories/Family for VEGFA blocking peptide	Peptide
Applications Tested/Suitable for VEGFA blocking peptide	Immunohistochemistry (IHC), Western Blot (WB)
Related Product Information for VEGFA blocking peptide	This is a synthetic peptide designed for use in combination with anti-VEGFA Antibody, made Target Description: This gene is a member of the PDGF/VEGF growth factor family and encodes a protein that is often found as a disulfide linked homodimer. This protein is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. Elevated levels of this protein is linked to POEMS syndrome, also known as Crow-Fukase syndrome.
Other Notes	Small volumes of VEGFA 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 VEGFA purchase	MBS3239955 is a blocking peptide targeting VEGFA. Also known as VEGFA Peptide - C-terminal region. Reactive in Human.

ADDITIONAL DETAILS

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

NCBI GI #	324120930
NCBI GeneID	7422
NCBI Accession #	NP_001191314
UniProt Primary Accession #	P15692
UniProt Related Accession #	P15692
GenBank Nucleotide #	NM_001204385

NCBI Official Full Name	vascular endothelial growth factor A isoform q
NCBI Official Synonym Full Names	vascular endothelial growth factor A
NCBI Official Symbol	VEGFA
NCBI Official Synonym Symbols	VPF; VEGF; MVCD1
UniProt Protein Name	Vascular endothelial growth factor A
UniProt Synonym Protein Names	Vascular permeability factor
UniProt Gene Name	VEGFA
UniProt Synonym Gene Names	VEGF; VEGF-A; VPF
UniProt Entry Name	VEGFA_HUMAN
NCBI Protein Information	vascular endothelial growth factor A
NCBI Summary for VEGFA	This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site. [provided by RefSeq, Nov 2015]

UniProt Comments for VEGFA	Function: Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth. Ref.27 Ref.30 Ref.33 Subunit structure: Homodimer; disulfide-linked. Also found as heterodimer with PGF By similarity. Subcellular location: Secreted. Note: VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a signicant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin. Ref.26 Ref.28 Ref.32 Tissue specificity: Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed. Induction: Regulated by growth factors, cytokines, gonadotropins, nitric oxide, hypoxia, hypoglycemia and oncogenic mutations. Involvement in disease: Microvascular complications of diabetes 1 (MVCD1) [MIM:603933]: Pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.Note: Disease susceptibility is associated with variations affecting the gene represented in this entry. Sequence similarities: Belongs to the PDGF/VEGF growth factor family. Sequence caution: The sequence AAC63102.1 differs from that shown. Reason: Erroneous initiation. The sequence AAC63143.1 differs from that shown. Reason: Unusual initiator. The initiator methionine is coded by a non-canonical CTG leucine codon.The sequence CAC19512.2 differs from that shown. Reason: Unusual initiator. The initiator methionine is coded by a non-canonical CTG leucine codon.The sequence CAC19516.2 differs from that shown. Reason: Unusual initiator. The initiator methionine is coded by a non-canonical CTG leucine codon.
Research Articles on VEGFA	**1.** apparent diffusion coefficient was correlated with PSA, Gleason score, and Ki-67, HIF-1alpha and VEGF expression in patients with Prostate cancer.
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