VEGFA Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	VEGFA, Polyclonal Antibody
Full Product Name	VEGFA Antibody
Product Gene Name	anti-VEGFA antibody
Product Synonym Names	vascular endothelial growth factor A; VPF; VEGF; MVCD1
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol.
Specificity	The antibody detects endogenous level of total VEGFA protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	27,042 Da
OMIM	192240
3D Structure	ModBase 3D Structure for P15692
Immunogen	Synthetic peptide corresponding to a region derived from 130-143 amino acids of human vascular endothelial growth factor A
Product Categories/Family for anti-VEGFA antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-VEGFA antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-VEGFA antibody	ELISA: 1:2000-1:5000 WB: 1:500-1:2000 IHC: 1:25-1:100
Related Product Information for anti-VEGFA antibody	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. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized. There is also evidence for the use of non-AUG (CUG) translation initiation sites upstream of, and in-frame with the first AUG, leading to additional isoforms
Other Notes	Small volumes of anti-VEGFA 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 VEGFA purchase	MBS8586694 is an antibody targeting VEGFA. Also known as VEGFA Antibody. Reactive in Human. Host: Rabbit.

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_001191313.1
UniProt Primary Accession #	P15692
UniProt Secondary Accession #	O60720; O75875; Q074Z4; Q16889; B5BU86; H0Y2S8; H0Y407; H0Y414; H0Y462; H0Y8N2; H3BLW7
UniProt Related Accession #	P15692
GenBank Nucleotide #	NM_001204384.1
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; vascular permeability factor
NCBI Summary for VEGFA	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. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized. There is also evidence for the use of non-AUG (CUG) translation initiation sites upstream of, and in-frame with the first AUG, leading to additional isoforms. [provided by RefSeq, Jul 2008]

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.** siRNA cocktail, and co-downregulation of VEGF and HER2 result in significant inhibition of gastric cancer growth and migration in vitro
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