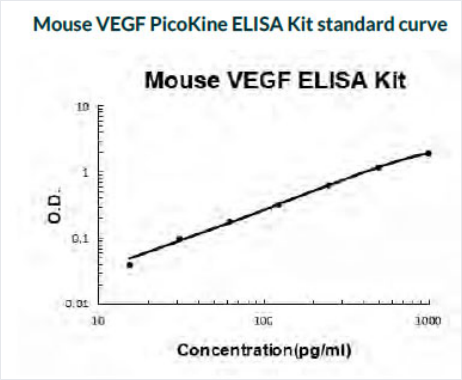
VEGF (VEGFA) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	VEGF (VEGFA), ELISA Kit
Full Product Name	Mouse VEGF PicoKine ELISA Kit
Product Gene Name	VEGFA elisa kit
Product Synonym Names	Vascular endothelial growth factor A; vascular endothelial growth factor A; MGC70609; MVCD1; Vascular endothelial growth factor; Vascular endothelial growth factor A; Vascular permeability factor; VEGF A; VEGFA; VPF
Species Reactivity	Mouse
Samples	Cell culture supernatants, serum and plasma (heparin, EDTA, citrate)
Detection Range	15.6 pg/ml - 1,000 pg/ml
Sensitivity	<2 pg/ml
Specificity	Natural and recombinant Mouse Vegfa
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)
Inter-assay Precision	Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Intra-assay Precision	Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.
Molecular Weight	40,288 Da
3D Structure	ModBase 3D Structure for Q00731
Production Time	Due to severe delay and raw materials shortage, production time may takes between 5-8 weeks.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for VEGFA elisa kit	Background: Vascular permeability factor/vascular endothelial growth factor (VPF/VEGF), a potent cytokine expressed by most malignant tumors, has critical roles in vasculogenesis and both physiological and pathological angiogenesis. VEGF produced by tumor cells potently stimulates endothelial cell proliferation and angiogenesis and plays a key role in the pathophysiology of several neoplasias. VEGF may also play a pivotal role in mediating the development and progression of diabetic retinopathy. VEGF, a major regulator of angiogenesis, binds to two receptor tyrosine kinases, KDR/Flk-1 and Flt-1.The VEGF gene is mapped by fluorescence in situ hybridization to chromosome 6p12. The standard product used in this kit is recombinant mouse VEGF164, a 42KDa dimer. Principle of the Assay: The Picokine™ Mouse Vegfa Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid-phase immunoassay specially designed to measure Mouse Vegfa with a 96-well strip plate that is pre-coated with antibody specific for Vegfa. The detection antibody is a biotinylated antibody specific for Vegfa. The capture antibody is monoclonal antibody from rat and the detection antibody is polyclonal antibody from goat. The kit includes Mouse Vegfa protein as standards. To measure Mouse Vegfa, add standards and samples to the wells, then add the biotinylated detection antibody. Wash the wells with PBS or TBS buffer, and add Avidin-Biotin-Peroxidase Complex (ABC-HRP). Wash away the unbounded ABC-HRP with PBS or TBS buffer and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product at 450nm is linearly proportional to Mouse Vegfa in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Mouse Vegfa in the sample.
Other Notes	Small volumes of VEGFA elisa kit 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	MBS175994 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the VEGF (VEGFA) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing VEGFA. The ELISA analytical biochemical technique of the MBS175994 kit is based on VEGFA antibody-VEGFA antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect VEGFA antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, VEGFA. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of VEGFA elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	1718156
NCBI GeneID	22339
NCBI Accession #	Q00731.2
UniProt Primary Accession #	Q00731
UniProt Secondary Accession #	O70123; Q66S31; Q6GT23; Q6WZL9
UniProt Related Accession #	Q00731
NCBI Official Full Name	Vascular endothelial growth factor A
NCBI Official Synonym Full Names	vascular endothelial growth factor A
NCBI Official Symbol	Vegfa
NCBI Official Synonym Symbols	Vpf; Vegf
UniProt Protein Name	Vascular endothelial growth factor A
UniProt Synonym Protein Names	Vascular permeability factor; VPF
Protein Family	VEGF coregulated chemokine
UniProt Gene Name	Vegfa
UniProt Synonym Gene Names	Vegf; VEGF-A; VPF
UniProt Entry Name	VEGFA_MOUSE
NCBI Protein Information	vascular endothelial growth factor A; vascular permeability factor

NCBI Summary for VEGFA	This gene product is a member of the PDGF/VEGF growth factor family. It is a mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis, endothelial cell growth, promoting cell migration, and inhibiting apoptosis. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. Also, alternative translation initiation from non-AUG (CUG) and AUG start sites in some transcript variants, give rise to additional isoforms. The expression of some isoforms derived from AUG start codon is affected by a small upstream open reading frame, which is located within an internal ribosome entry site. [provided by RefSeq, Nov 2013]
UniProt Comments for VEGFA	VEGF: 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. Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1). These are 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. Belongs to the PDGF/VEGF growth factor family. 13 isoforms of the human protein are produced by alternative promoter. Protein type: Secreted, signal peptide; Cytokine; Motility/polarity/chemotaxis; Secreted Cellular Component: extracellular space; cell surface; membrane; cytoplasm; extracellular region; plasma membrane; basement membrane; secretory granule Molecular Function: heparin binding; identical protein binding; protein homodimerization activity; growth factor activity; extracellular matrix binding; platelet-derived growth factor receptor binding; cytokine activity; vascular endothelial growth factor receptor 1 binding; vascular endothelial growth factor receptor binding; receptor agonist activity; protein binding; vascular endothelial growth factor receptor 2 binding; protein heterodimerization activity; fibronectin binding; receptor binding; chemoattractant activity Biological Process: heart morphogenesis; macrophage differentiation; positive regulation of positive chemotaxis; positive regulation of cell adhesion; multicellular organismal development; cell maturation; positive regulation of receptor internalization; basophil chemotaxis; positive regulation of MAP kinase activity; regulation of cell shape; positive chemotaxis; positive regulation of mesenchymal cell proliferation; mesoderm development; negative regulation of neuron apoptosis; kidney development; nervous system development; positive regulation of neuroblast proliferation; T-helper 1 type immune response; monocyte differentiation; positive regulation of signal transduction; mRNA stabilization; positive regulation of blood vessel endothelial cell migration; activation of CREB transcription factor; positive regulation of protein amino acid autophosphorylation; positive regulation of vascular permeability; regulation of endothelial cell differentiation; regulation of transcription from RNA polymerase II promoter; patterning of blood vessels; eye photoreceptor cell development; positive regulation of angiogenesis; positive regulation of peptidyl-tyrosine phosphorylation; camera-type eye morphogenesis; branching morphogenesis of a tube; cell migration during sprouting angiogenesis; cardiac muscle fiber development; positive regulation of cell division; activation of protein kinase activity; positive regulation of axon extension involved in axon guidance; blood vessel morphogenesis; endothelial cell migration; neuron development; positive regulation of transcription from RNA polymerase II promoter; positive regulation of endothelial cell proliferation; regulation of cGMP metabolic process; alveolus development; surfactant homeostasis; positive regulation of epithelial cell proliferation; negative regulation of apoptosis; lactation; post-embryonic camera-type eye development; positive regulation of smooth muscle cell proliferation; negative regulation of transcription from RNA polymerase II promoter; negative regulation of caspase activity; positive regulation of vascular endothelial growth factor receptor signaling pathway; induction of positive chemotaxis; vasculature development; epithelial cell differentiation; ovarian follicle development; positive regulation of focal adhesion formation; positive regulation of cell proliferation; lymphangiogenesis; negative regulation of programmed cell death; angiogenesis; negative regulation of bone resorption; cell differentiation; blood vessel development; cell migration; in utero embryonic development; lumen formation; positive regulation of cell motility; positive regulation of peptidyl-serine phosphorylation; cell proliferation; positive regulation of protein kinase B signaling cascade; positive regulation of protein complex assembly; response to hypoxia; artery morphogenesis; blood vessel remodeling; negative regulation of cell-cell adhesion; positive regulation of protein amino acid phosphorylation; sprouting angiogenesis; vascular endothelial growth factor receptor signaling pathway; growth; lung development; positive regulation of cell migration
Research Articles on VEGFA	**1.** The expression of VEGF protein and mRNA gradually increase during a 5-day follow-up period in PASCAL-treated mouse eyes, whereas in conventional laser-treated group they reach their peak levels on the second day and decreasing after then.

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