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Product datasheet for AM33406PU-N

VEGFA (Isoform 189) Mouse Monoclonal Antibody [Clone ID: 339/H2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	339/H2
Applications:	ELISA, WB
Recommended Dilution:	**ELISA:** 1-5 µg/ml. **Western blot:** 1-5 µg/ml.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human $VEGF_{189}$ protein (45 kDa) derived from *E.coli* (*Cat.-No* AR31182PU).
Specificity:	In Western Blot, this antibody recognizes the *unreduced and reduced* protein. There is a weak cross reactivity with Mouse VEGF-A visible.
Formulation:	PBS State: Purified State: Lyophilized purified Ig fraction Stabilizer: None Preservative: None
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	vascular endothelial growth factor A
Database Link:	Entrez Gene 7422 Human P15692

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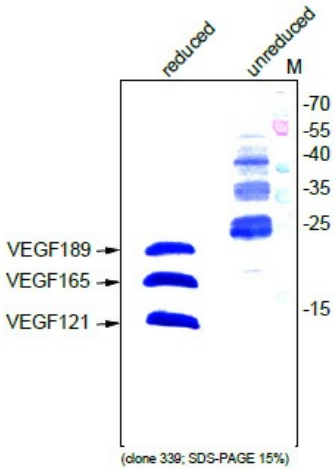
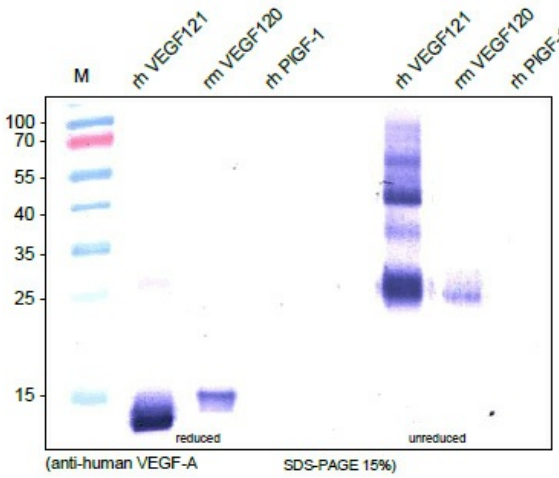
Background: Vascular endothelial growth factor (VEGF or VEGF-A), also known as vascular permeability factor (VPF) or vasculotropin, is a homodimeric 34 - 42 kDa, heparin-binding glycoprotein with potent angiogenic, mitogenic and vascular permeability-enhancing activities specific for endothelial cells. Different isoforms can be generated by differential splicing (e.g. VEGF165). All eight cysteine residues involved in intra- and inter-chain disulfide bonds are conserved among these growth factors. A cDNA encoding a protein having a 53% amino acid sequence homology in the PDGF-like region of VEGF has been isolated from a human placental cDNA library. This protein, named placenta growth factor (PlGF), is now recognized to be a member of the VEGF family of growth factors. Two receptor tyrosine kinases have been described as putative VEGF receptors. Flt-1 (fms-like tyrosine kinase), and KDR (kinase-insert-domain-containing receptor) proteins have been shown to bind VEGF-A with high affinity. In vitro, VEGF is a potent endothelial cell mitogen. In cultured endothelial cells, VEGF can activate phospholipase C and induce rapid increases of free cytosolic Ca2+. VEGF has also been shown to be chemotactic for monocytes and osteoblasts. In vivo, VEGF can induce angiogenesis as well as increase microvascular permeability. As a vascular permeability factor, VEGF acts directly on the endothelium and does not degranulate mast cells. Based on its in vitro and in vivo properties, VEGF is expected to play important roles in inflammation and during normal and pathological angiogenesis, a process that is associated with wound healing, embryonic development, and growth and metastasis of solid tumors.

Synonyms: VEGFA, VEGF, VPF, Vascular endothelial growth factor A, Vascular permeability factor

Product images:



Western blot analysis of human VEGF-A isoforms 121, 165 and 189 (all produced in E. coli) under reducing (left panel) and non-reducing conditions (right panel).



Western analysis of recombinant Human and Mouse VEGF-A and PlGF-1 using a monoclonal antibody directed against Human VEGF189 produced in E. coli. The antibody recognizes the unreduced and reduced protein. There is a weak cross reactivity with Mouse VEGF-A visible.