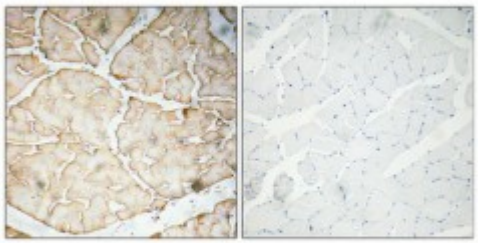
Anti-VEGFA antibody



Description	VEGFA is a protein encoded by the VEGFA gene which is approximately 27,1 kDa. VEGFA is freely secreted. It is involved in the response to elevated platelet cytosolic Ca2+, development VEGF signalling, CDK-mediated phosphorylation and removal of Cdc6 and RET signalling. It is 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. Isoform VEGF189, VEGF165 and VEGF121 are widely expressed in human tissues. Mutations in the VEGFA gene may result in microvascular complications of diabetes. This gene is also upregulated in many known tumors. STJ96235 was affinity purified. This polyclonal antibody binds to VEGFA.

Model	STJ96235
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF
Immunogen	Synthesized peptide derived from human VEGF-A.
Immunogen Region	Internal
Gene ID	7422
Gene Symbol	VEGFA
Dilution range	IHC 1:100-1:300ELISA 1:10000
Specificity	VEGF-A Polyclonal Antibody detects endogenous levels of VEGF-A protein.
Tissue Specificity	Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely

	expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed. A higher level expression seen in pituitary tumors as compared to the pituitary gland.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Vascular endothelial growth factor A VEGF-A Vascular permeability factor VPF
Molecular Weight	27 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:12680OMIM:192240
Alternative Names	Vascular endothelial growth factor A VEGF-A Vascular permeability factor VPF
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. Binding to NRP1 receptor initiates a signaling pathway needed for motor neuron axon guidance and cell body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic development .
Cellular Localization	Secreted. 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.