

VEGF-A Polyclonal Antibody

Catalog No :	YT4870
Reactivity :	Human;Mouse;Rat;Pig;Rabbit
Applications :	WB;IF;IHC;ELISA
Target :	VEGF-A
Fields :	>>EGFR tyrosine kinase inhibitor resistance;>>MAPK signaling pathway;>>Ras signaling pathway;>>Rap1 signaling pathway;>>Calcium signaling pathway;>>HIF-1 signaling pathway;>>PI3K-Akt signaling pathway;>>VEGF signaling pathway;>>Focal adhesion;>>Relaxin signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Human cytomegalovirus infection;>>Human papillomavirus infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Pathways in cancer;>>Proteoglycans in cancer;>>MicroRNAs in cancer;>>Chemical carcinogenesis - receptor activation;>>Chemical carcinogenesis - reactive oxygen species;>>Renal cell carcinoma;>>Pancreatic cancer;>>Bladder cancer;>>Rheumatoid arthritis;>>Fluid shear stress and atherosclerosis
Gene Name :	VEGFA
Protein Name :	Vascular endothelial growth factor A
Human Gene Id :	7422
Human Swiss Prot No :	P15692
Mouse Gene Id :	22339
Mouse Swiss Prot No :	Q00731
Rat Gene Id :	83785
Rat Swiss Prot No :	P16612
Immunogen :	The antiserum was produced against synthesized peptide derived from human VEGF-A. AA range:110-159

Specificity :	<u>VEGF-A Polyclonal Antibody detects endogenous levels of VEGF-A protein.</u>
Formulation :	<u>Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.</u>
Source :	<u>Polyclonal, Rabbit,IgG</u>
Dilution :	<u>WB 1:500 - 1:2000.IF 1:50-200 IHC 1:100 - 1:300. ELISA: 1:10000. Not yet tested in other applications.</u>
Purification :	<u>The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.</u>
Concentration :	<u>1 mg/ml</u>
Storage Stability :	<u>-15°C to -25°C/1 year(Do not lower than -25°C)</u>
Observed Band :	<u>21kD(monomer),42kD(dimer)</u>
Cell Pathway :	<u>Cytokine-cytokine receptor interaction;mTOR;VEGF;Focal adhesion;Pathways in cancer;Renal cell carcinoma;Pancreatic cancer;Bladder cancer;</u>
Background :	<p>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 fro</p>
Function :	<p>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 VEGFR1/Flt-1 and VEGFR2/Kdr receptors, heparan sulfate and heparin. Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to VEGFR2/Kdr but doesn't activate downstream signaling pathways, doesn't activate angiogenesis and inhibits tumor growth.,induction:Regulated by growth factors, cytokines, gonadotropins, nitric oxide, hypoxia, hypoglycemia and oncogenic mutations.,online information:VEGF entry,similarity:Belongs to the PDGF/VEGF growth factor family.,subcellular location:VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is f</p>

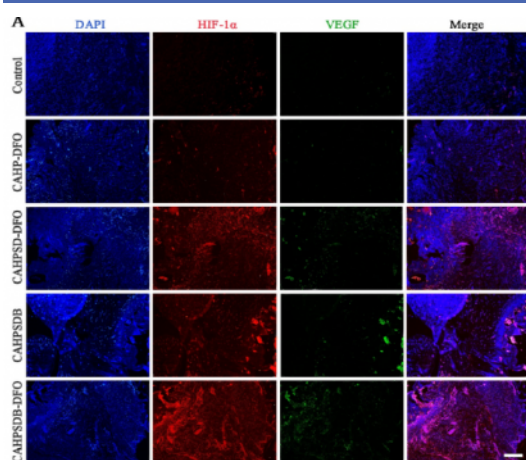
Subcellular Location :

Secreted . VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant 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.

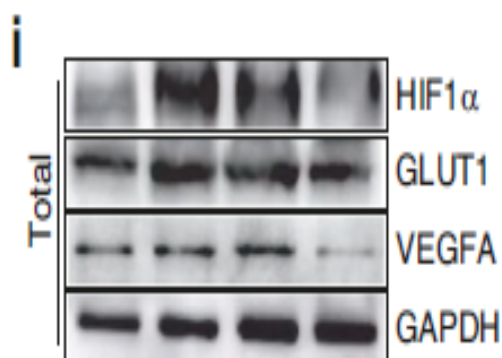
Expression :

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.

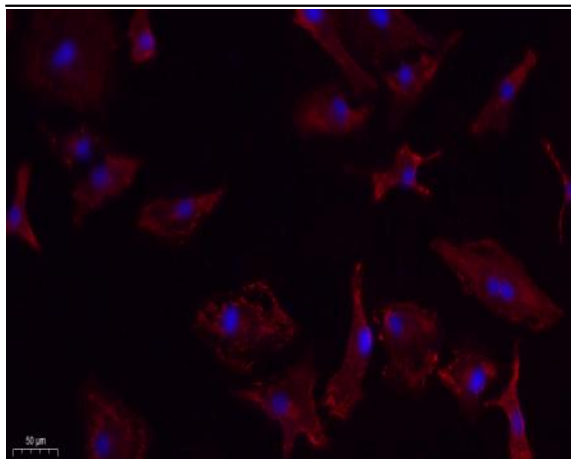
Products Images



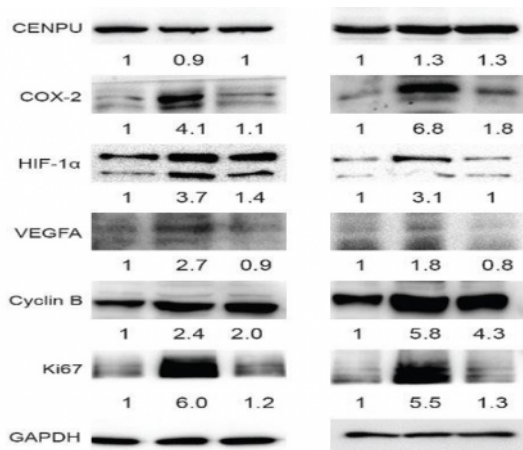
Microenvironment responsive hypoxia-mimetic DFO composite hydrogel for on-demand neovascularization to promote tendon-to-bone healing COMPOSITES PART B-ENGINEERING Honghao Hou IF Rat, Human bone tissue Human umbilical vein endothelial cells (HUVECs)



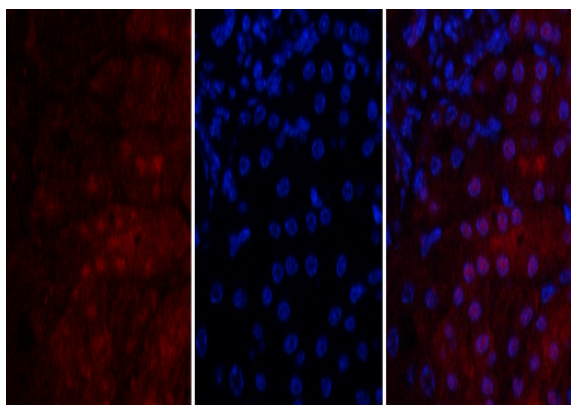
Loss of NDUFS1 promotes gastric cancer progression by activating the mitochondrial ROS-HIF1 α -FBLN5 signaling pathway. BRITISH JOURNAL OF CANCER Jin Zhou WB Human 1:5000 MKN45 cell, N87 cell, GES-1 cell, AGS cell, HGC-27 cell, KATO3 cell, SNU-1 cell



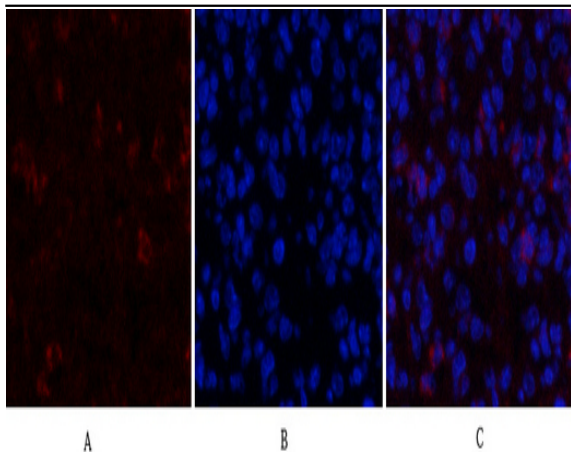
Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4 °C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



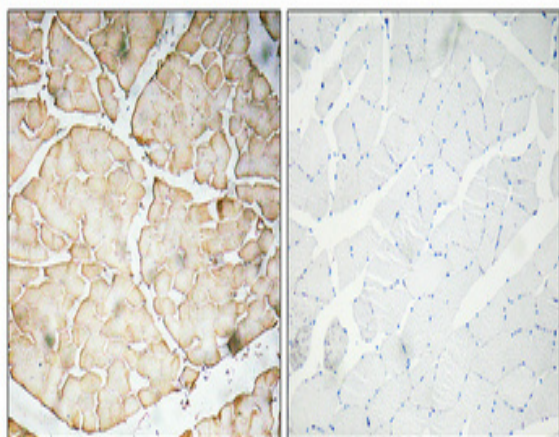
Zhao, Shaorong et al. "Deciphering the performance of polo-like kinase 1 in triple-negative breast cancer progression according to the centromere protein U-phosphorylation pathway." American journal of cancer research vol. 11,5 2142-2158. 15 May. 2021



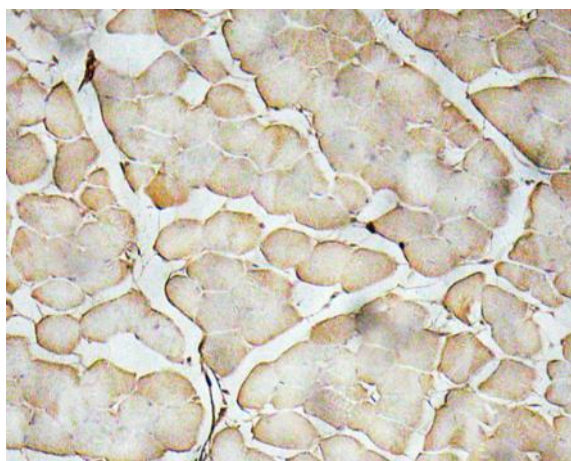
Immunofluorescence analysis of mouse-kidney tissue. 1,VEGF-A Polyclonal Antibody(red) was diluted at 1:200(4 °C,overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of mouse-spleen tissue. 1, VEGF-A Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human skeletal muscle. Antibody was diluted at 1:100 (4 °C overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Immunohistochemistry analysis of VEGF-A antibody in paraffin-embedded human skeletal muscle tissue.