

# **Rabbit Anti-VEGF antibody**

### SL1313R

<b>Product Name:</b>	VEGF
Chinese Name:	血管内皮生长因子抗体
Alias:	Vascuoar endothelial growth factor A; VEGF A; vascular endothelial growth factor A isoform 2 precursor; Vegf; VEGFA; MGC70609; MVCD1; VEGF; VPF; VEGFA_HUMAN; Vascular endothelial growth factor A; VEGF-A; Vascular permeability factor; VPF; VEGF A Precursor.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	23kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human VEGF:102-213/213
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	<u>PubMed</u>
Product Detail:	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 inframe with the first AUG, leading to additional isoforms.

#### **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.

#### **Subunit:**

Homodimer; disulfide-linked. Also found as heterodimer with PGF.

#### **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.

#### Tissue Specificity:

Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.

#### **DISEASE:**

Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. 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.

#### Similarity:

Belongs to the PDGF/VEGF growth factor family.

#### SWISS:

P15692

Gene ID:

7422

Database links:

Entrez Gene: 403802Dog

Entrez Gene: 7422Human

Entrez Gene: 22339Mouse

Entrez Gene: 83785Rat

Omim: 192240Human

SwissProt: Q9MYV3Dog

SwissProt: P15692Human

SwissProt: Q00731Mouse

SwissProt: P16612Rat

Unigene: 73793Human

Unigene: 282184Mouse

Unigene: 1923Rat

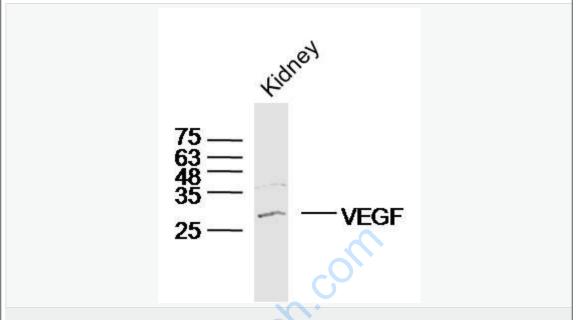
#### **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

vascular endothelial cell生长因子(VEGF)是一种特异作用于vascular endothelial cell的多功能cell factor,它能引起血管通透性增加,引起Extracellular matrix成分改变,诱导血管形成.在炎症、创伤愈合、心脏缺血、动脉粥样硬化、Diabet es性视网膜病变及Tumour形成等与血管生成和病变有关的诸多病理过程中起重要作用.

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VEGF与血管生成有关,因而与Tumour生长有很大关系,近年来受到很多关注。



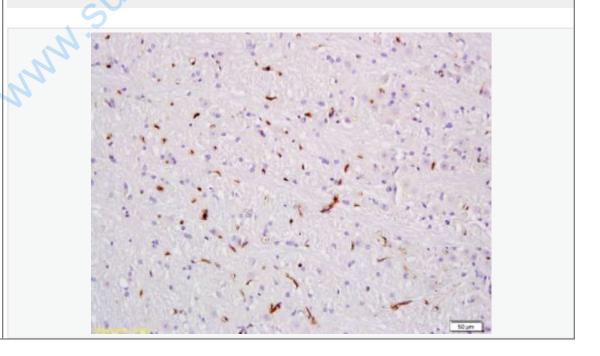
Sample:Kidney(Mouse) Lysate at 30 ug

Primary: Anti-VEGF (SL1313R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution

Predicted band size: 23 kD

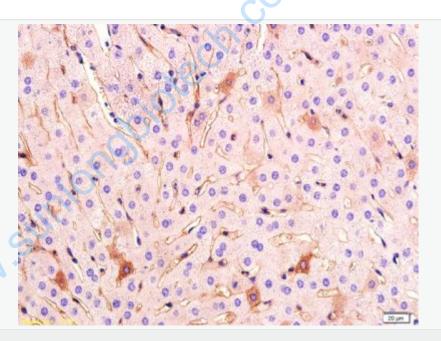
Observed band size: 27 kD



Picture:

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37∩ for 20 min;

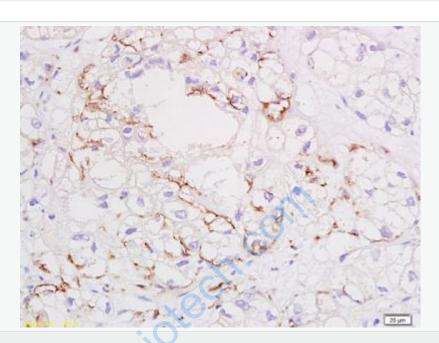
Incubation: Anti-VEGF Polyclonal Antibody, Unconjugated(SL1313R) 1:300, overnight at  $4\Sigma$ C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rabbit liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37∩ for 20 min;

Incubation: Anti-VEGF Polyclonal Antibody, Unconjugated(SL1313R) 1:400, overnight at  $4\Sigma$ C, followed by conjugation to the secondary antibody(SP-0023) and

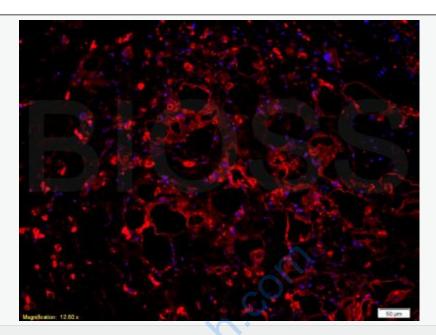
## DAB(C-0010) staining



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37∩ for 20 min;

Incubation: Anti-VEGF Polyclonal Antibody, Unconjugated(SL1313R) 1:200, overnight at  $4\Sigma$ C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rabbit meniscus tissue;4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at  $37 \cap$  for 20 min;

Incubation: Anti-VEGF Polyclonal Antibody, Unconjugated(SL1313R) 1:300, overnight at  $4\Sigma$ C; The secondary antibody was Goat Anti-Rabbit IgG, PE conjugated(SL1313R)used at 1:200 dilution for 40 minutes at  $37\Sigma$ C.

DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei