

Anti-VEGF Antibody

Catalog # ABO10012

Product Information

Application	WB
Primary Accession	Q00731
Host	Rabbit
Reactivity	Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Vascular endothelial growth factor A(VEGFA) detection. Tested with WB in Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	22339
Other Names	Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, Vegfa, Vegf
Calculated MW	43131
Application Details	Western blot, 0.1-0.5 µg/ml, Rat, Mouse
Subcellular Localization	Isoform VEGF-1: Secreted.
Tissue Specificity	In developing embryos, expressed mainly in the choroid plexus, paraventricular neuroepithelium, placenta and kidney glomeruli. Also found in bronchial epithelium, adrenal gland and in seminiferous tubules of testis. High expression of VEGF continues in kidney glomeruli and choroid plexus in adults.
Source	Eukaryota
Protein Name	Vascular endothelial growth factor A
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived mouse VEGF recombinant protein (Position: A27-R214). Mouse VEGF shares 89.4% and 98.4% amino acid (aa) sequence identity with human and rat VEGF, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.

Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
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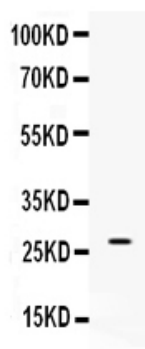
Protein Information

Name	Vegfa
Synonyms	Vegf
Function	[N-VEGF]: Participates in the induction of key genes involved in the response to hypoxia and in the induction of angiogenesis such as HIF1A (PubMed: 35455969). Involved in protecting cells from hypoxia-mediated cell death (PubMed: 35455969).
Cellular Location	[N-VEGF]: Cytoplasm {ECO:0000250 UniProtKB:P15692}. Nucleus {ECO:0000250 UniProtKB:P15692} Note=Cytoplasmic in normoxic conditions and localizes to the nucleus under hypoxic conditions. {ECO:0000250 UniProtKB:P15692} [Isoform L-VEGF-2]: Endoplasmic reticulum {ECO:0000250 UniProtKB:P15692}. Golgi apparatus {ECO:0000250 UniProtKB:P15692}. Secreted, extracellular space, extracellular matrix {ECO:0000250 UniProtKB:P15692} [Isoform VEGF-2]: Secreted.
Tissue Location	In developing embryos, expressed mainly in the choroid plexus, paraventricular neuroepithelium, placenta and kidney glomeruli. Also found in bronchial epithelium, adrenal gland and in seminiferous tubules of testis. High expression continues in kidney glomeruli and choroid plexus in adults

Background

VEGF, a homodimeric glycoprotein of relative molecular mass 45,000, is the only mitogen that specifically acts on endothelial cells. It may be a major regulator of tumor angiogenesis in vivo. It is, however, structurally related to platelet-derived growth factor. VEGF shares homology with the PDGF A chain and B chain, including conservation of all 8 cysteines found in PDGFA and PDGFB. VEGF gene contains 8 exons. And VEGF induces remodeling and enhances TH2-mediated sensitization and inflammation in the lung. This gene can also regulate haematopoietic stem cell survival by an internal autocrine loop mechanism. What is more, it also stimulates neurogenesis in vitro and in vivo.

Images



Western blot analysis of VEGF expression in rat kidney extract (lane 1). VEGF at 27KD was detected using rabbit anti-VEGF Antigen Affinity purified polyclonal antibody (Catalog # ABO10012) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method.