



# Anti-Human VEGF-A (#2B66)

20230310DS



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

<b>Cat.-no.:</b>	<b>101-M855</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse immunized with human VEGF165 recombinant protein). The IgG2 fraction of culture supernatant was purified by Protein G affinity chromatography.

## Target Background

<b>Synonyms (Target):</b>	Vegfa; Vpf; Vegf; Vegf120; Vegf164; Vegf188
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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 Ca<sup>2+</sup>. 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.

## Database References Target

<b>Protein RefSeq:</b>	NP_001165097
<b>Uniprot ID:</b>	P15692
<b>mRNA RefSeq:</b>	NM_001171626

## Product Specifications

<b>Host</b>	Mouse
<b>Reactivity against</b>	Human
<b>Clonality</b>	Monoclonal Antibody
<b>Clone</b>	(#2B66)
<b>Isotype</b>	IgG2
<b>Purification</b>	Protein G chromatography
<b>Antigen</b>	recombinant human VEGF165
<b>Formulation</b>	lyophilized
<b>Reconstitution buffer</b>	PBS

## Application/Handling

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute the antibody with 500 µl sterile PBS and the final concentration is 200 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20°C for at least for six months without detectable loss of activity.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

FC

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**