

# **VEGF165** monoclonal antibody

Catalog: MB66241

Host:

Mouse

Reactivity: Human

# **BackGround:**

Vascular endothelial growth factor-A (VEGF-A; formerly VEGF) belongs to the VEGF/PDGF family of growth factors that play a critical role in promoting vascular development. VEGF-A is primarily known for its function in promoting angiogenesis, the process by which new blood vessels are sprouted from pre-existing blood vessels. VEGF-A has eight isoforms, derived from differentially spliced mRNA variants encoded by the VEGF-A gene. All isoforms contain a conserved receptor binding domain, but differ in their C-terminal domains that regulate binding to components in the extracellular matrix. VEGF-A is secreted by multiple cell types, including fibroblasts, macrophages, and some tumor cells. Binding of VEGF-A to its cognate receptors (VEGFR2 and to a lesser extent VEGFR1) on the endothelial cell surface activates the receptor and initiates downstream signaling, resulting in endothelial cell proliferation, survival, migration, and changes to vascular permeability, all crucial processes for angiogenesis. Tumor cells have been shown to respond to hypoxia by increasing VEGF-A mRNA expression. Increased secretion of VEGF-A in the tumor microenvironment stimulates angiogenesis to further promote tumor progression. In addition to promoting tumor angiogenesis, VEGF-A has also been shown to play an important role in normal tissue development, tissue regeneration, tumor cell proliferation, neovascular eye diseases, and cancer immunity. For this reason, targeting

angiogenesis via the VEGF-A pathway has been a major focus in cancer therapeutics research.

#### **Product:**

1 mg/ml. IgG1. Liquid in 0.01M Phosphate Buffered Saline, pH 7.4, and 0.01% sodium azide.

**Molecular Weight:** 

~ 22 kDa

**Swiss-Prot:** 

P15692-4

**Purification&Purity:** 

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

**Applications:** 

ELISA: Use at an assay dependent dilution.

Storage&Stability:

Store at  $4 \,^{\circ}{\rm C}$  short term. Aliquot and store at -20  $^{\circ}{\rm C}$  long term. Avoid freeze-thaw cycles.

## **Specificity:**

Recognizes endogenous levels of VEGF165 protein.

**DATA:** 

## Note:

For research use only, not for use in diagnostic procedure.

### Bioworld Technology, Inc. Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416,USA. Email: <u>info@bioworlde.com</u> Tel: 6123263284 Fax: 6122933841

#### Bioworld technology, co. Ltd. Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China. Email: info@biogot.com Tel: 0086-025-68037686 Fax: 0086-025-68035151