



## Anti-mouse VEGF-A

20140424BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>103-PA03S</b>
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

**Preparation:** Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant mouse VEGF<sub>164</sub> derived from insect cells.

### Target Background

<b>Synonyms:</b>	Vascular endothelial growth factor, Vascular permeability factor, VPF, VEGF-A
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Mouse Vascular Endothelial Growth Factor<sub>164</sub> (VEGF<sub>164</sub>), a 24 kDa protein consisting of 164 amino acid residues, is produced as a homodimer. VEGF<sub>164</sub> is a polypeptide growth factor and a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells and a strong angiogenic factor *in vivo*. Two high-affinity tyrosine kinase receptors for VEGF<sub>164</sub> have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (Flk-1). In addition to its action as a mitogen it is a potent vascular permeability factor (VPF) *in vivo* and is also a chemoattractant for monocytes and endothelial cells. At least three different proteins are generated by differential splicing of the mouse VEGF gene: VEGF<sub>120</sub>, VEGF<sub>164</sub> and VEGF<sub>188</sub>. The most abundant form is VEGF<sub>164</sub>. Whereas VEGF<sub>120</sub> and VEGF<sub>164</sub> are secreted proteins, VEGF<sub>188</sub> is strongly cell-associated. In addition, the isoforms VEGF<sub>164</sub> and VEGF<sub>188</sub> bind to heparin with high affinity. A related protein of VEGF is placenta growth factor (PlGF) with about 53% homology and VEGF-B with similar biological activities.

### References

1. Breier et al., Dev 114:521, 1992
2. Fiebig et al., Eur J Biochem 211:19, 1993
3. Flamme et al., Dev Biol 162:699, 1995
4. Kremer et al., Cancer Res 57:3852, 1997

### Database References Antigen

<b>Protein RefSeq:</b>	NP_001020421
<b>Uniprot ID:</b>	Q00731
<b>mRNA RefSeq:</b>	NM_001025250

### Product Specifications

<b>Species reactivity</b>	mouse
<b>Clone/Ab feature</b>	rabbit IgG
<b>Cross reactivity</b>	ND
<b>Host</b>	rabbit
<b>Clonality</b>	polyclonal
<b>Purification</b>	Protein A purified
<b>Immunogen</b>	Recombinant mouse VEGF <sub>164</sub> (RT #M30-001)
<b>Formulation</b>	lyophilized
<b>Buffer</b>	PBS, pH 7.2

**Stability:** The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

### Applications

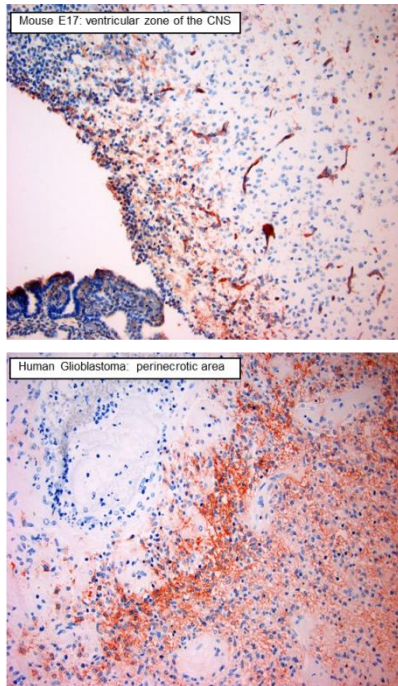
<b>Western Blot:</b>	Use 1-5 µg/ml
<b>ELISA:</b>	Use at 1-10 µg/ml
<b>IF/IHC</b>	Use at 2-10 µg/ml

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



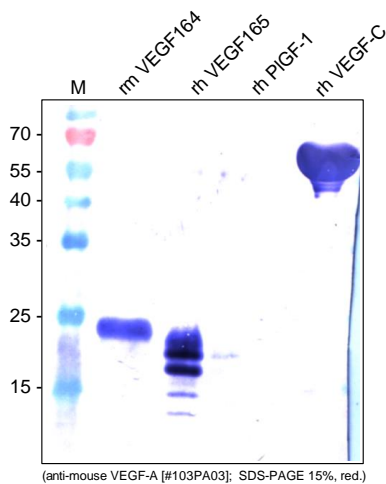
## Anti-mouse VEGF-A

### Handling/Applications



**Figure 1:** Immunohistochemical staining of VEGF-A in paraffin-embedded mouse ventricular zone of the CNS (E17) and a perinecrotic area of a human glioblastoma

The experiments were performed by Dr. Till Acker and Prof. K.H. Plate, Neurological Institute, Neuropathology, Deutschordenstr. 45, 60528 Frankfurt, Germany



**Figure 2:** Western analysis of recombinant mouse VEGF164 [Cat# M30-001], human VEGF165 [Cat# 300-036], human PIGF-1 [Cat# 300-015] and rat VEGF-C [Cat# R20-015] using a polyclonal rabbit anti-mouse VEGF-A antibody [Cat# 103-PA03]. There is a strong cross reactivity with human VEGF165 but not with human PIGF-1 and human VEGF-C.