Anti-mouse VEGF-A

20140424BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-PA03**
Size:	200 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 VEGF164 derived from insect cells.

Target Background

Synonyms:	Vascular endothelial growth factor, Vascular permeability factor, VPF, VEGF-A

Mouse Vascular Endothelial Growth Factor$_{164}$ (VEGF$_{164}$), a 24 kDa protein consisting of 164 amino acid residues, is produced as a homodimer. VEGF$_{164}$ 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$_{164}$ 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$_{120}$, VEGF$_{164}$ and VEGF$_{188}$. The most abundant form is VEGF$_{164}$. Whereas VEGF$_{120}$ and VEGF$_{164}$ are secreted proteins, VEGF$_{188}$ is strongly cell-associated. In addition, the isoforms VEGF$_{164}$ and VEGF$_{188}$ 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 at al., Cancer Res 57:3852, 1997

Database References Antigen

Protein RefSeq:	NP_001020421
Uniprot ID:	Q00731
mRNA RefSeq:	NM_001025250

Product Specifications

Species reactivity	mouse
Clone/Ab feature	rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant mouse VEGF$_{164}$ (RT #M30-001)
Formulation	lyophilized
Buffer	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

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

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

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Handling/Applications

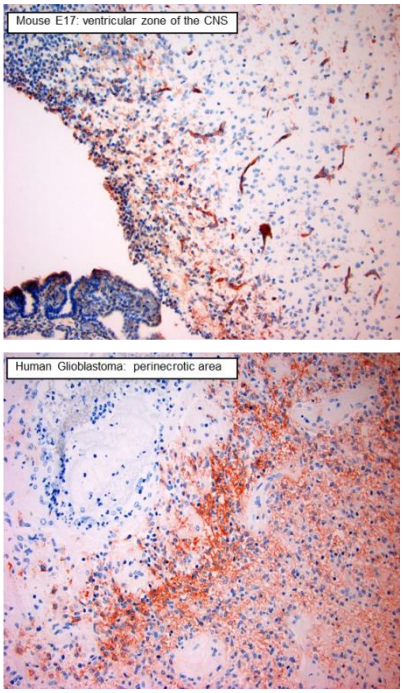

Figure 1: Immunohistochemical staining of VEGF-A in paraffin-embedded mouse ventricular zone of the CNS (E17) and a perinecrotic area of a human glioblastom

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

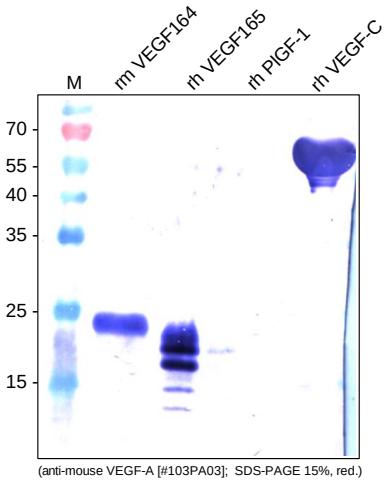

Figure 2:. Western analysis of recombinant mouse VEGF164 [Cat# M30-001], human VEGF165 [Cat# 300-036], human PlGF-1 [Cat# 300-015] and rat VEGF-C [Cat# R20-015] using a polyclonal rabbit anti-mouse VEGF-A antibody [Cat# 103-PA03]. There is a strong cross reactivity with human VEGF165 but not with human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