**Product datasheet**

**Anti-VEGFA antibody ab51745**

★★★★★ 2 Abreviews 34 References 2 Images

**Overview**

**Product name**
Anti-VEGFA antibody

**Description**
Rabbit polyclonal to VEGFA

**Host species**
Rabbit

**Tested applications**
Suitable for: WB, ELISA, IHC-P

**Species reactivity**
Reacts with: Mouse, Human

**Immunogen**
Recombinant full length protein corresponding to Mouse VEGFA. Recombinant mouse VEGF164
Database link: Q00731

**Positive control**
SaOS2 cells. Human pancreas tissue.

**Properties**

**Form**
Lyophilised: The lyophilized IgG is stable at 4°C for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile water to a concentration of >0.5 mg/ml the antibody is stable for at least six weeks at 2-4°C.

**Storage instructions**
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

**Storage buffer**
Preservative: None
Constituents: PBS, pH 7.4

**Purity**
Protein A purified

**Clonality**
Polyclonal

**Isotype**
IgG

**Applications**

Our Abpromise guarantee covers the use of ab51745 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>★★★★★</td>
<td>Use a concentration of 0.1-1 µg/ml. Predicted molecular weight: 27 kDa. The detection limit for recombinant murine VEGF-A is 1.5-3.0 ng/lane, under either reducing or non-reducing conditions.</td>
</tr>
</tbody>
</table>
### Target

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>Use a concentration of 1 - 10 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★☆</td>
<td>Use a concentration of 2 - 10 µg/ml.</td>
</tr>
</tbody>
</table>

**Function**
Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.

**Tissue specificity**
Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.

**Involvement in disease**
Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.

**Sequence similarities**
Belongs to the PDGF/VEGF growth factor family.

**Cellular localization**
Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

**Images**
Staining of VEGF-A in paraffin-embedded mouse ventricular zone of the CNS (E17) and a perinecrotic area of a human glioblastom.

Top panel: Mouse E17: ventricular zone of the CNS.

Bottom panel: Human glioblastoma: perinecrotic area.

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

All lanes: Anti-VEGFA antibody (ab51745)

Lane 1: recombinant mouse VEGF164
Lane 2: Recombinant human VEGF165
Lane 3: Recombinant human PlGF-1
Lane 4: Recombinant rat VEGF-C

Predicted band size: 27 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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