Product datasheet

Anti-VEGFA antibody ab183100

Overview

Product name: Anti-VEGFA antibody
Description: Rabbit polyclonal to VEGFA
Host species: Rabbit
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Human
Immunogen: Synthetic peptide within Human VEGFA aa 130-143. The exact sequence is proprietary. Sequence: CRPKKDRARQEKKS

Database link: P15692


Properties

Form: Liquid
Storage buffer: pH: 7.30
Preservative: 0.05% Sodium azide
 Constituents: 50% Glycerol, 49% PBS without Mg²⁺ and Ca²⁺

Purity: Immunogen affinity purified
Clonality: Polyclonal
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab183100 in the following tested applications.
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.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VEGFA antibody (ab183100)

Immunohistochemical analysis of paraffin embedded Human liver cancer tissue labeling VEGFA with ab183100 at 1/25. Image on the right is treated with the synthetic peptide.

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Western blot - Anti-VEGFA antibody (ab183100)

**All lanes**: Anti-VEGFA antibody (ab183100) at 1/450 dilution

**Lane 1**: Hela cell lysate
**Lane 2**: Jurkat cell lysate
**Lane 3**: 293T cell lysate
**Lane 4**: 231 cell lysate

Lysates/proteins at 40 µg per lane.

**Secondary**

**All lanes**: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution

**Predicted band size**: 27 kDa

**Exposure time**: 2 minutes

Western blot - Anti-VEGFA antibody (ab183100)

**All lanes**: Anti-VEGFA antibody (ab183100) at 1/1000 dilution

**Lane 1**: HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate
**Lane 2**: HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cell lysate
**Lane 3**: HepG2 (human liver hepatocellular carcinoma cell line) cell lysate
**Lane 4**: HT29 cell lysate
**Lane 5**: MDA-MB-231 (human breast adenocarcinoma cell line) cell lysate
**Lane 6**: A549 (human lung carcinoma cell line) cell lysate
**Lane 7**: SK-OV-3 (human ovarian cancer cell line) cell lysate

Lysates/proteins at 30 µg per lane.

**Secondary**

**All lanes**: Goat anti Rabbit IgG - H&L (HRP) at 1/100 dilution

Developed using the ECL technique.

**Predicted band size**: 27 kDa

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