abcam

Product datasheet

Anti-VEGFA antibody [EPR20705] ab214424

Recombinant RabMAb

39 References 2 Images

Overview

Product name	Anti-VEGFA antibody [EPR20705]
Description	Rabbit monoclonal [EPR20705] to VEGFA
Host species	Rabbit
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	**This product was produced with the following immunogens:** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human fetal vessel lysate; HeLa, HUVEC, SH-SY5Y, Neuro-2a, bEND.3, C6 and RAW 264.7 whole cell lysates.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR20705
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab214424 in the following tested applications.

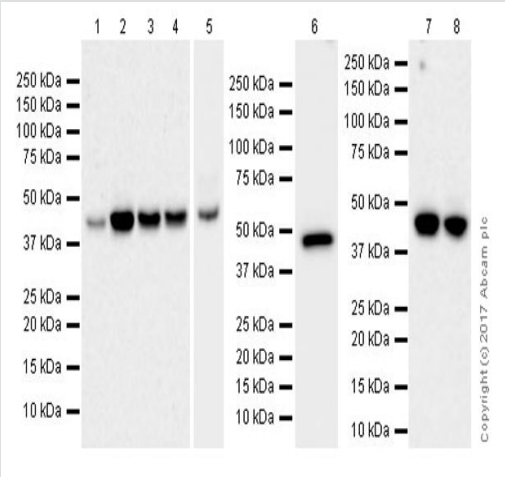
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 40 kDa (predicted molecular weight: 27 kDa).

Target

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 signicant 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



Western blot - Anti-VEGFA antibody [EPR20705] (ab214424)

All lanes : Anti-VEGFA antibody [EPR20705] (ab214424) at 1/1000 dilution

Lane 1 : Human fetal vessel lysate
Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 3 : HUVEC (human umbilical vein endothelial cell line) whole cell lysate
Lane 4 : SH-SY5Y (human neuroblastoma cell line from bone marrow) whole cell lysate
Lane 5 : Neuro-2a (mouse neuroblastoma cell line) whole cell lysate
Lane 6 : bEND.3 (mouse brain endothelioma cell line) whole cell lysate
Lane 7 : C6 (rat glial tumor cell line) whole cell lysate
Lane 8 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

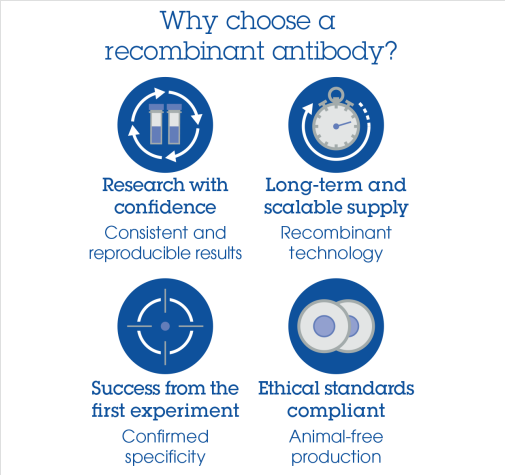
Developed using the ECL technique.

Predicted band size: 27 kDa
Observed band size: 40 kDa

Blocking/Dilution: 5% NFDM/TBST

Exposure time : Lanes 1-4/7-8: 3 minutes; Lane 5: 41 seconds; Lane 6: 15 seconds.

The blot was developed on a BIO-RAD® ChemiDoc™ MP instrument.



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