abcam

Product datasheet

Anti-VEGF Receptor 1 antibody [Flt-1/EWC] ab9540

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Overview

Product name	Anti-VEGF Receptor 1 antibody [Flt-1/EWC]
Description	Mouse monoclonal [Flt-1/EWC] to VEGF Receptor 1
Host species	Mouse
Specificity	Detects native and denaturated VEGFR-1/ Flt-1
Tested applications	**Suitable for:** ELISA, WB, ICC/IF, IHC-P, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Dog, Human
Immunogen	Recombinant human soluble extracellular Flt-1 Ig-like loop 1 to 5 (sFlt-1(D5)).
Positive control	recombinant soluble VEGFR 1, soluble human VEGFR-1 from human follicular fluids (see Neulen et al), mouse placenta tissue
General notes	VEGF and its high-affinity binding receptors, the tyrosine kinases FLK1 and FLT1, are thought to be important for the development of embryonic vasculature. It has been shown that an alternately spliced form of FLT1 produces a soluble protein, termed sFLT1, which binds vascular endothelial growth factor with high affinity. Because sFLT1 has a higher affinity for VEGF than does FLK1, it may function as an inhibitor of VEGF response.

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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Constituent: PBS
Purity	Ascites
Purification notes	Purified from ascites.
Primary antibody notes	VEGF and its high-affinity binding receptors, the tyrosine kinases FLK1 and FLT1, are thought to be important for the development of embryonic vasculature. It has been shown that an alternately spliced form of FLT1 produces a soluble protein, termed sFLT1, which binds vascular endothelial growth factor with high affinity. Because sFLT1 has a higher affinity for VEGF than does FLK1, it may function as an inhibitor of VEGF response.
Clonality	Monoclonal

Clone number	Flt-1/EWC
Isotype	IgG1

Applications

Our Abpromise guarantee covers the use of **ab9540** in the following tested applications.

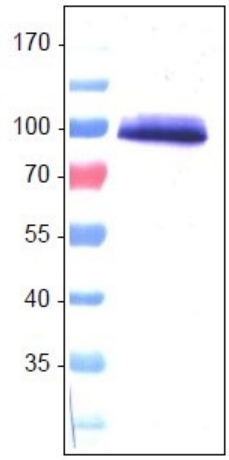
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use a concentration of 1 - 10 µg/ml.
WB		Use a concentration of 2 - 5 µg/ml.
ICC/IF	★★★☆☆	1/50.
IHC-P	★★★★★	Use at an assay dependent concentration. PubMed: 17823277
Flow Cyt		Use at an assay dependent concentration. PubMed: 25223735

Target

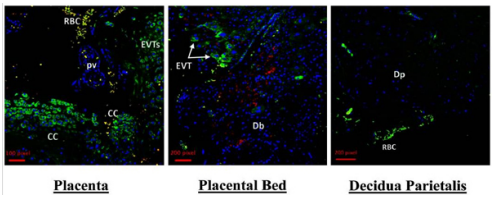
Function	Receptor for VEGF, VEGFB and PGF. Has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability. Isoform SFlt1 may have an inhibitory role in angiogenesis.
Tissue specificity	Mostly in normal lung, but also in placenta, liver, kidney, heart and brain tissues. Specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. Isoform sFlt1 is strongly expressed in placenta.
Sequence similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily. Contains 7 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 protein kinase domain.
Cellular localization	Secreted and Cell membrane.

Images



Western blot - Anti-VEGF Receptor 1 antibody [Flt-1/EWC] (ab9540)

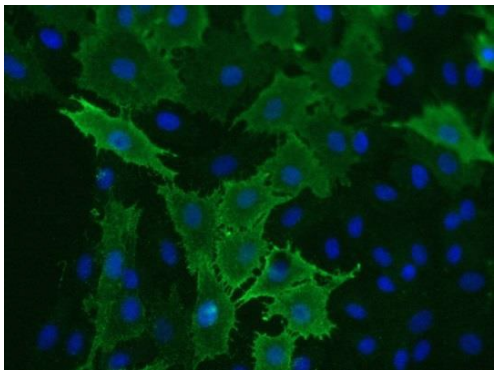
Anti-VEGF Receptor 1 antibody [Flt-1/EWC] (ab9540) + conditioned media from insect cells expressing recombinant mouse soluble VEGF Receptor 1



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VEGF Receptor 1 antibody [Flt-1/EWC] (ab9540)

Image from Matjila M et al., PLoS One. 2013;8(5):e63574. Fig 5.; doi: 10.1371/journal.pone.0063574.

Immunohistochemistry analysis (Formalin/PFA-fixed paraffin-embedded sections) of Human Placenta, Placental Bed and Decidua Parietalis. VEGF Receptor 1 (geen) was labelled with ab9540 and VEGF Receptor 2 (red) was labelled with ab2349. Yellow - where both VEGF Receptor 1 and VEGF Receptor 2 are expressed. DAPI was used for nuclei staining (blue).



Immunocytochemistry/ Immunofluorescence - Anti-VEGF Receptor 1 antibody [Flt-1/EWC] (ab9540)

Immunofluorecent staining of human VEGF Receptor 1 in a co-culture of PAE-VEGF Receptor 1, PAE-KDR, and PAE-FLT-4 using ab9540. Goat anti-mouse ALEXA Flour at 1/6000 dilution was used as the secondary antibody.

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