abcam

Product datasheet

Anti-VEGF Receptor 1 antibody [Y103] ab32152

Recombinant   RabMAb

★★★★★ 19 Abreviews   160 References   6 Images

Overview

Product name	Anti-VEGF Receptor 1 antibody [Y103]
Description	*Ref. 2* Rabbit monoclonal [Y103] to VEGF Receptor 1
Host species	Rabbit
Specificity	Based on the antibody's immunogen sequence, it recognises 151 kDa VEGF receptor 1/Flt1, splice isoforms sFlt1 (77 kDa) and sFlt1-14 (82 kDa), and isoform 4 (61 kDa). The sequence is not present in isoforms 5-8 based on Uniprot ID P17948.
Tested applications	**Suitable for:** WB, IHC-P, IP **Unsuitable for:** Flow Cyt or ICC/IF
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat, Chinese hamster ⚠
Immunogen	Synthetic peptide within Human VEGF Receptor 1 aa 1-100 (N terminal). The exact sequence is proprietary. (Peptide available as ab182457) *Ref.3*
Positive control	WB: Human and mouse brain tissue; IHC-P: Human gastric carcinoma tissue; IHC-Fr: Mouse brain tissue; IP: Mouse brain lysate.
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. Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough. Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility. We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™

guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y103
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab32152** 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 - 1/5000. Predicted molecular weight: 151 kDa. Can be blocked with Human VEGF Receptor 1 peptide (ab182457).
IHC-P	★★★★★	1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		1/30 - 1/100.
Application notes		Is unsuitable for Flow Cyt or ICC/IF.

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.

2

Ref. 2

|	
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 [Y103] (ab32152)
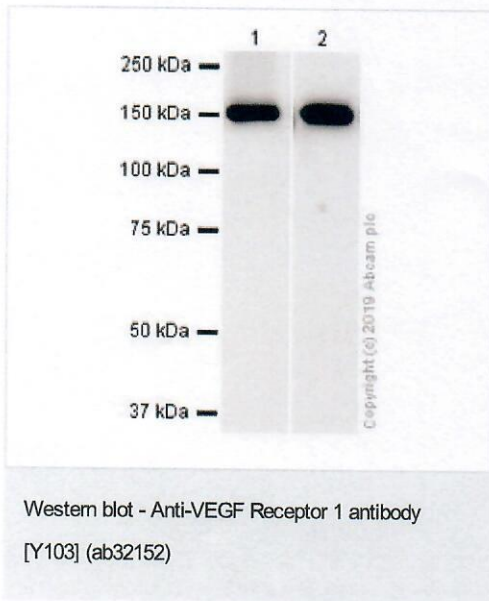
All lanes : Anti-VEGF Receptor 1 antibody [Y103] (ab32152) at 1/1000 dilution

Lane 1 : Mouse brain lysates
Lane 2 : Human brain lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution
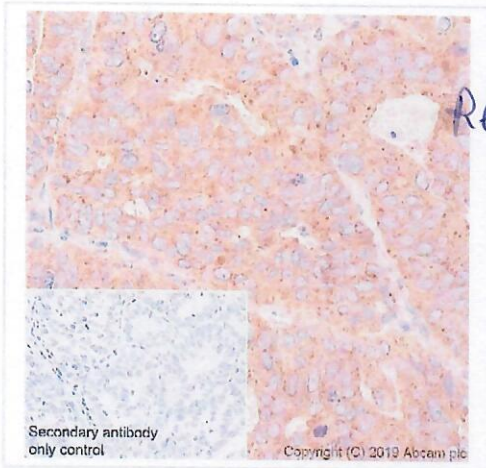
Predicted band size: 151 kDa
Observed band size: 180 kDa
why is the actual band size different from the predicted?

Exposure time: 40 seconds
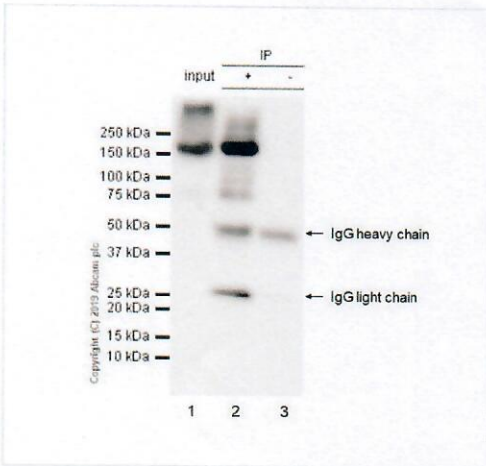
Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

Immunohistochemical analysis of paraffin-embedded Human gastric carcinoma tissue labeling VEGF with ab32152, followed by *Ref. 4* a ready to use Goat Anti-Rabbit IgG H&L (HRP). Cytoplasmic staining on human gastric carcinoma. Counterstained with Hematoxylin. Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

VEGF Receptor 1 was immunoprecipitated from 0.35 mg mouse brain lysate 10µg with ab32152 at 1:30 dilution (2µg in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab32152 1:1000 dilution (2 µg/ml). VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1:1000 dilution.
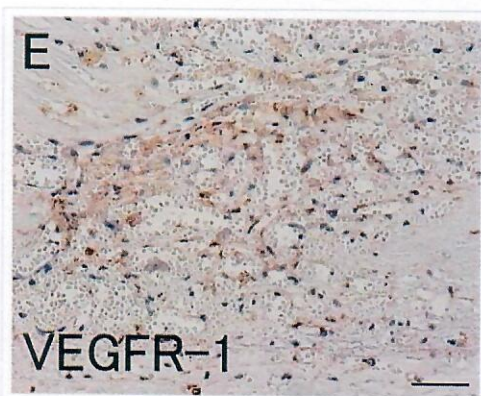
Lane 1: Mouse brain lysate 10µg.

Lane 2: ab32152 IP in mouse brain lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab32152 in mouse brain lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second.

Immunoprecipitation - Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

4

E

VEGFR-1

Ref. 6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

Image from Sano, M et al., PLoS ONE. 2014 Mar 20; 9(3). Fig 2E. DOI 10.1371/journal.pone.0089830. Lymphangiogenesis and Angiogenesis in Abdominal Aortic Aneurysm., e89830.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human abdominal aortic aneurysm (AAA) wall tissue sections labeling VEGF Receptor 1 with ab32152 at 1/100 dilution.

Resected aortic tissues were immersed in 10% neutral buffered formalin for at least 24 h for immunohistochemical staining. Tissue sample was embedded in paraffin; 4 µm sections were cut and mounted onto MAS-coated slides. The sections were deparaffinized, dehydrated, and boiled in a pressure cooker in 0.01 M citric acid buffer (pH 6.0) for 20 min. The sections were washed with phosphate-buffered saline and incubated with 3% H_2O_2 in absolute methanol for 5 min to inhibit any endogenous peroxidase activity. Sections were preincubated with 3% normal goat serum for 20 min to minimize nonspecific binding to VEGF Receptor 1, and incubated with ab32152 at 4°C overnight in a moist chamber. The section was washed with phosphate-buffered saline and then

Ref. 5 incubated with the appropriate secondary antibody for 30 min at room temperature. Staining was visualized with Vector DAB, and tissue section was then counterstained with hematoxylin.
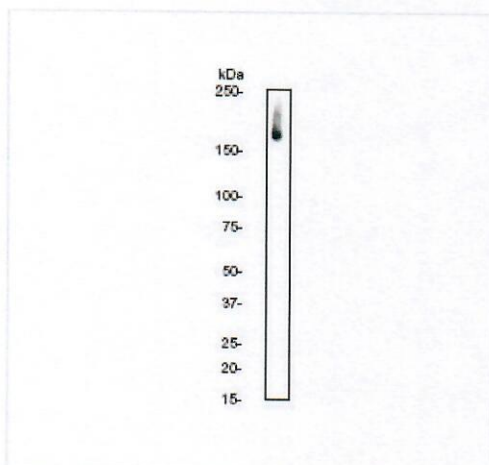
Western blot - Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

Anti-VEGF Receptor 1 antibody [Y103] (ab32152) at 1/10000 dilution + mouse brain tissue

Predicted band size: 151 kDa
Observed band size: 180 kDa why is the actual band size different from the predicted?

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-VEGF Receptor 1 antibody [Y103] (ab32152)

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

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EXPRESSIÓ DE VEGF COM A FACTOR PRONÒSTIC INDEPENDENT DE RECAIGUDA A LA MALALTIA DE HODGKIN

TREBALL DE RECERCA CONVOCATÒRIA DE SETEMBRE DE 2010

Autor: Francesc Jesús Mestre Mestre

Titulació: Llicenciat en Medicina i Cirurgia General

Especialista en Oncologia Radioteràpica

Departament: Servei d'Oncologia Radioteràpica

Centre: Hospital Universitari Son Dureta

Director: Dr. Andrés López Hernández. Professor Titular del Departament de Medicina UAB   i adjunt del Sevei d'Hematologia de l'Hospital de la Vall d'Hebrón.

Codirectors: 1. Dr. Antonio Gutiérrez García. Adjunt del Sevei d'Hematologia de l'Hospital Universitari Son Dureta

2. Dr. José Rodríguez Díaz-Pavón. Adjunt del Sevei de Medicina Interna de l'Hospital Universitari Severo-Ochoa

DEPARTAMENT DE MEDICINA

UNIVERSITAT AUTÒNOMA DE BARCELONA

120-140 cilindres (veure figura 2). Inclòs en cada TMA hi havia una mostra de teixit limfoide reactiu d'amígdala.

- *Immunohistoquímica:* els blocs de TMA eren tallats amb un gruix de 3 μm i s'assecaven durant 16 hores a 56°C abans d'eliminar-los la cera amb xilè, rehidratant amb etanol i rentant amb fosfat salí. La recuperació de l'antigen s'aconseguia mitjançant un tractament de calor en una cuina de pressió durant 2 minuts en 10 mM de citrat (pH 6.5). Abans de tenyir les seccions, es va bloquejar la peroxidasa endògena.

La tinció d'aquestes mostres per VEGF es va fer amb l'anticòs monoclonal *abcam Ab27620* (clon monoclonal de ratolins SP28). Després de la incubació, la detecció es dugué a terme amb l'equipament EnVision FLEX.Ph High (DAKO), emprant com a substrat el cromogen de diaminobenzidina. Les seccions es contrastaven amb hematoxil.lina.

La tinció de les seccions dels TMAs era avaluada per un patòleg de referència en aquest tipus de patologia, utilitzant criteris uniformes. Per garantir la reproducibilitat d'aquest mètode, decidírem emprar criteris clars i definits. El patró de tinció de VEGF s'enregistrava com a positiu (dèbil o intens) o negatiu; el resultat positiu té en compte l'expressió citoplasmàtica/membranosa de l'anticòs en >10% de les cèl·lules de RS: positivitat baixa d'expressió en >10-50% de les cèl·lules de RS i positivitat alta en l'expressió de >50% de les cèl·lules de RS (veure figura 2).