Datasheet for ABIN2180045

anti-VEGFR2/CD309 antibody (AA 101-200)

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Overview

Quantity:	100 µL
Target:	VEGFR2/CD309 (VEGFR2)
Binding Specificity:	AA 101-200
Reactivity:	Human, Mouse, Rat, Rabbit
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This VEGFR2/CD309 antibody is un-conjugated
Application:	ELISA, Flow Cytometry (FACS), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human VEGFR2
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rabbit, Rat
Predicted Reactivity:	Dog,Cow,Sheep,Pig,Horse
Purification:	Purified by Protein A.

Target Details

Target:	VEGFR2/CD309 (VEGFR2)

Target Details

Alternative Name:	VEGFR2 (VEGFR2 Products)
Background:	Synonyms: FLK1, CD309, VEGFR, VEGFR2, Vascular endothelial growth factor receptor 2, VEGFR-2, Fetal liver kinase 1, FLK-1, Kinase insert domain receptor, KDR, Protein-tyrosine kinase receptor flk-1 Background: Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFC and VEGFD. Plays an essential role in the regulation of angiogenesis, vascular development, vascular permeability, and embryonic hematopoiesis. Promotes proliferation, survival, migration and differentiation of endothelial cells. Promotes reorganization of the actin cytoskeleton. Isoforms lacking a transmembrane domain, such as isoform 2 and isoform 3, may function as decoy receptors for VEGFA, VEGFC and/or VEGFD. Isoform 2 plays an important role as negative regulator of VEGFA- and VEGFC-mediated lymphangiogenesis by limiting the amount of free VEGFA and/or VEGFC and preventing their binding to FLT4. Modulates FLT1 and FLT4 signaling by forming heterodimers. Binding of vascular growth factors to isoform 1 leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, reorganization of the actin cytoskeleton and activation of PTK2/FAK1. Required for VEGFA-mediated induction of NOS2 and NOS3, leading to the production of the signaling molecule nitric oxide (NO) by endothelial cells. Phosphorylates PLCG1. Promotes phosphorylation of FYN, NCK1, NOS3, PIK3R1, PTK2/FAK1 and SRC.
Gene ID:	3791
UniProt:	P35968
Pathways:	RTK Signaling, Glycosaminoglycan Metabolic Process, Signaling Events mediated by VEGFR1 and VEGFR2, Growth Factor Binding, Regulation of long-term Neuronal Synaptic Plasticity, VEGF Signaling

Application Details

Application Notes:	WB 1:300-5000 ELISA 1:500-1000 FCM 1:20-100 IHC-P 1:200-400 IHC-F 1:100-500

Application Details

	IF(IHC-P) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

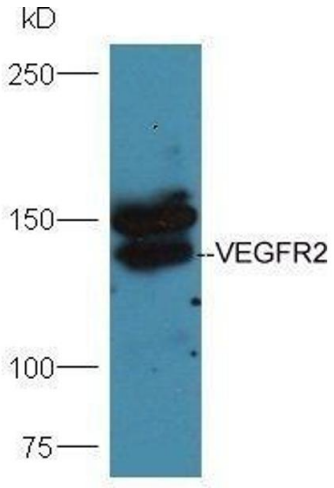
Publications

Product cited in:	Wang, Chen, Ke, Li: "Ghrelin inhibits atherosclerotic plaque angiogenesis and promotes plaque stability in a rabbit atherosclerotic model." in: **Peptides**, Vol. 90, pp. 17-26, (2017) (PubMed). Xiao, Wang, Yan, Lv, Zhao, Zhou, Zhang, Sun, Sun, Li, Lu: "Adipose-derived stem cells-seeded bladder acellular matrix graft-silk fibroin enhances bladder reconstruction in a rat model." in: **Oncotarget**, Vol. 8, Issue 49, pp. 86471-86487, (2017) (PubMed). Tan, Yang, Fu, Cui, Guo, Ma, Yin, Leng, Song: "Single-dose local simvastatin injection improves implant fixation via increased angiogenesis and bone formation in an ovariectomized rat model. " in: **Medical science monitor : international medical journal of experimental and clinical research**, Vol. 21, pp. 1428-39, (2015) (PubMed). García Fernández, Sánchez Pérez, Sánchez Maldonado, García-Palencia, Naranjo Freixa, Palomo Yagüe, Flores: "Iberian pig early pregnancy: vascular endothelial growth factor receptor system expression in the maternofetal interface in healthy and arresting conceptuses." in: **Theriogenology**, Vol. 83, Issue 3, pp. 334-43, (2014) (PubMed).

Publications

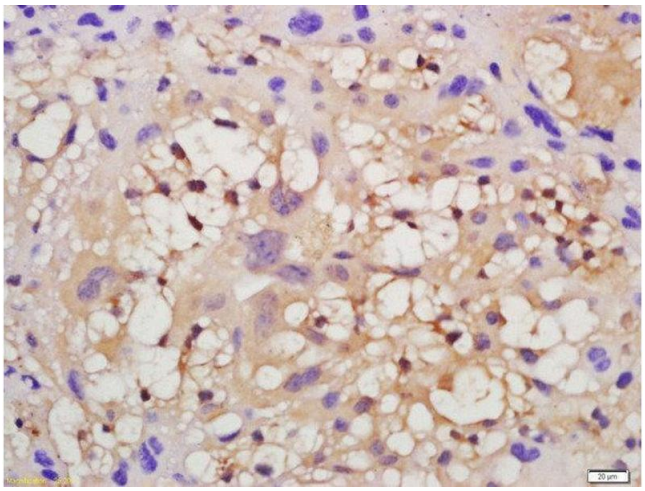
Kuang, Yang, Zhang, Zhang, Wu: "Schlafen 1 inhibits the proliferation and tube formation of endothelial progenitor cells." in: **PLoS ONE**, Vol. 9, Issue 10, pp. e109711, (2014) (PubMed).

Images



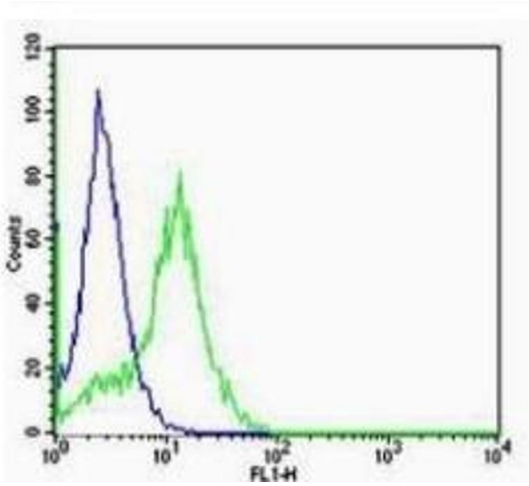
Western Blotting

Image 1. Mouse lung lysates probed with Anti-VEGFR2 Polyclonal Antibody at 1:5000 90min in 37˚C.



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Formalin-fixed and paraffin embedded mouse placenta tissue labeled with Anti-VEGFR2 Polyclonal Antibody, Unconjugated at 1:200 followed by conjugation to the secondary antibody and DAB staining.



Flow Cytometry

Image 3. HeLa cells probed with Rabbit Anti-VEGFR2 Polyclonal Antibody (ABIN2180045) at 1:100 for 60 minutes at room temperature followed by Goat Anti-Rabbit IgG (H+L) Alexa Fluor 488 Conjugated Secondary.