

Rabbit VEGFR2 Polyclonal Antibody | anti-VEGFR2 antibody

Phospho-VEGFR2(Tyr1214) Antibody

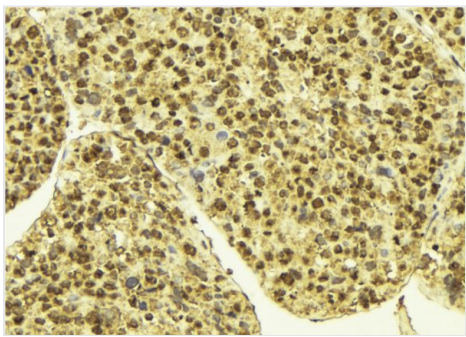
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320723	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

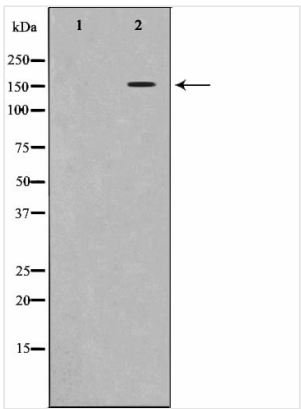
VEGFR2; Polyclonal Antibody; Phospho-VEGFR2(Tyr1214) Antibody; CD309; CD309 antigen; EC 2.7.10.1; Fetal liver kinase 1; FLK-1; FLK1; mouse; homolog of; Kdr; Kinase insert domain receptor (a type III receptor tyrosine kinase); Kinase insert domain receptor; KRD1; Ly73; Protein tyrosine kinase receptor FLK1; Protein-tyrosine kinase receptor flk-1; soluble VEGFR2; Tyrosine kinase growth factor receptor; Vascular endothelial growth factor receptor 2; VEGFR 2; VEGFR; VEGFR-2; VGFR2_HUMAN; anti-VEGFR2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-VEGFR2(Tyr1214) antibody detects endogenous levels of VEGFR2 only when phosphorylated at Tyrosine 1214
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1356
Applicable Applications for anti-VEGFR2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human VEGFR2 around the phosphorylation site of Tyrosine 1214
Subcellular Location	Membrane.
Tissue Specificity	Detected in cornea (at protein level). Widely expressed.
Conjugation	Unconjugated
Epitope	Phospho Tyr1214
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohiostchemistry)
AAA320723 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis on K562 cell lysate using Phospho-VEGFR2(Tyr1214) Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-VEGFR2 antibody	Description: VEGFR-2 is a receptor tyrosine kinase of the VEGFR family. High affinity receptor for VEGF and VEGF-C. Ligand binding induces autophosphorylation and activation. Activated receptor recruits proteins including Shc, GRB2, PI3K, Nck, SHP-1 and SHP-2. Plays a key role in vascular development and regulation of vascular permeability. Function: 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. Subunit Structure: Homodimer in the presence of bound dimeric VEGFA, VEGFC or VEGFD ligands; monomeric in the absence of bound ligands. Can also form heterodimers with FLT1/VEGFR1 and FLT4/VEGFR2. Interacts (tyrosine phosphorylated) with LFYN, NCK1, PLCG1. Interacts (tyrosine-phosphorylated active form preferentially) with DAB2IP (via C2 domain and active form preferentially); the interaction occurs at the late phase of VEGFA response and inhibits KDR/VEGFR2 activity. Interacts with SHBSH2D2A/TSAD, GRB2, MYOF, CBL and PDCD6. Interacts with HIV-1 Tat (PubMed:10102632, PubMed:10590123, PubMed:12649282, PubMed:12881528, PubMed:1417831, PubMed:15026417, PubMed:15215251, PubMed:15837294, PubMed:15962004, PubMed:16966330, PubMed:17253678, PubMed:18529047, PubMed:18593464, PubMed:19033661, PubMed:19668192, PubMed:20080685, PubMed:20145116, PubMed:20224550, PubMed:20705758, PubMed:21827946, PubMed:21893193, PubMed:9160888). Interacts (via C-terminus domain) with ERN1 (via kinase domain); the interaction is facilitated in a XBP1 isoform 1-and vascular endothelial growth factor (VEGF)-dependent manner in endothelial cells (PubMed:23529610). Post-translational Modifications: N-glycosylated. Ubiquitinated. Tyrosine phosphorylation of the receptor promotes its poly-ubiquitination, leading to its degradation via the proteasome or lysosomal proteases. Autophosphorylated on tyrosine residues upon ligand binding. Autophosphorylation occurs in trans, i.e. one subunit of the dimeric receptor phosphorylates tyrosine residues on the other subunit. Phosphorylation at Tyr-951 is important for interaction with SH2D2A/TSAD and VEGFA-mediated reorganization of the actin cytoskeleton. Phosphorylation at Tyr-1175 is important for interaction with PLCG1 and SHB. Phosphorylation at Tyr-1214 is important for interaction with NCK1 and FYN. Dephosphorylated by PTPRB. Dephosphorylated by PTPRJ at Tyr-951, Tyr-996, Tyr-1054, Tyr-1059, Tyr-1175 and Tyr-1214. The inhibitory disulfide bond between Cys-1024 and Cys-1045 may serve as a specific molecular switch for H2S-induced modification that regulates VEGFR2 function. Similarity: The second and third Ig-like C2-type (immunoglobulin-like) domains are sufficient for VEGFC binding. Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	11321597
NCBI GeneID	3791
NCBI Accession #	NP_002244.1
NCBI GenBank Nucleotide #	NM_002253.3
UniProt Accession #	P35968; O60723; Q14178; A2RRS0; B5A925; C5IFA0
Molecular Weight	Observed: 152 kDa Predicted: 152 kDa
NCBI Official Full Name	vascular endothelial growth factor receptor 2
NCBI Official Synonym Full Names	kinase insert domain receptor
NCBI Official Symbol	KDR

NCBI Official Synonym Symbols	FLK1; CD309; VEGFR; VEGFR2
NCBI Protein Information	vascular endothelial growth factor receptor 2
UniProt Protein Name	Vascular endothelial growth factor receptor 2
UniProt Gene Name	KDR
UniProt Synonym Gene Names	FLK1; VEGFR2; VEGFR-2; FLK-1; KDR

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/vegfr2-antibody-immunohistochemistry-western-blot-elisa/320723>