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Anti-CD309-AcalephFluor647-labled

Catalog # AP101432

Product Information

Application	FC, IF/IC
Primary Accession	P35918
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	150462

Additional Information

Gene ID	16542
Other Names	FLK1; 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; CD309
Target/Specificity	Recognizes mouse CD309
Dilution	FC~~1:10~50 IF/IC~~N/A
Format	Rat IgG1 kappa. Liquid in PBS, pH 7.3, 0.2% BSA, and 0.02% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	Kdr {ECO:0000312|MGI:MGI:96683}
Synonyms	Flk-1, Flk1
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, may function as decoy receptors for VEGFA, VEGFC and/or VEGFD. Isoform 2 plays an important role as a negative regulator of VEGFA- and VEGFC-mediated lymphangiogenesis by limiting the amount of free VEGFA and/or VEGFC and by 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.
Cellular Location	Cell junction. Endoplasmic reticulum {ECO:0000250|UniProtKB:P35968}. Cell membrane {ECO:0000250|UniProtKB:P35968}. Note=Colocalizes with ERN1 and XBP1 in the endoplasmic reticulum in endothelial cells in a vascular endothelial growth factor (VEGF)-dependent manner (By similarity) Localized with RAP1A at cell-cell junctions {ECO:0000250|UniProtKB:P35968} [Isoform 2]: Secreted.
Tissue Location	Expressed in endothelial cells (at protein level). Detected in embryonic endothelial cells, as well as hematopoietic stem and progenitor cells. Detected in vascular endothelium. Expressed at high levels in adult heart, lung, kidney, brain and skeletal muscle, but is also expressed at lower levels in most other adult tissues

Background

AcalephFluor647-labled rat monoclonal antibody to CD309

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.