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Anti-VEGF Receptor 1 Picoband Antibody

Catalog # ABO10088

Specification

Anti-VEGF Receptor 1 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	P17948
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for VEGF Receptor 1 detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-VEGF Receptor 1 Picoband Antibody - Additional Information

Gene ID 2321

Other Names
Vascular endothelial growth factor receptor 1, VEGFR-1, 2.7.10.1, Fms-like tyrosine kinase 1, FLT-1, Tyrosine-protein kinase FRT, Tyrosine-protein kinase receptor FLT, FLT, Vascular permeability factor receptor, FLT1, FLT, FRT, VEGFR1

Application Details
Western blot, 0.1-0.5 µg/ml

Subcellular Localization
Isoform 1: Cell membrane; Autophosphorylation promotes ubiquitination and endocytosis.

Tissue Specificity
Detected 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 2 is strongly expressed in placenta. Isoform 3 is expressed in corneal epithelial cells (at protein level). Isoform 3 is expressed in vascular smooth muscle cells (VSMC).

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen
A synthetic peptide corresponding to a sequence of human VEGF Receptor 1 (DPELSLKGTQHIMQAGQTLHLQCRGEAAHKWSLPEMVSKE).

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C; for one year. After r˚Constitution, at 4˚C; for one month. It˚Can also be aliquotted and stored frozen at -20˚C; for a longer time. Avoid repeated freezing and thawing.**

Anti-VEGF Receptor 1 Picoband Antibody - Protein Information

Name FLT1

Synonyms FLT, FRT, VEGFR1

Function
Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. Acts as a positive regulator of postnatal retinal hyaloid vessel regression (By similarity). May play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. Can promote endothelial cell proliferation, survival and angiogenesis in adulthood. Its function in promoting cell proliferation seems to be cell-type specific. Promotes PGF-mediated proliferation of endothelial cells, proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts (in vitro). Has very high affinity for VEGFA and relatively low protein kinase activity; may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to KDR. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Phosphorylates SRC and YES1, and may also phosphorylate CBL. Promotes phosphorylation of AKT1 at 'Ser-473'. Promotes phosphorylation of PTK2/FAK1 (PubMed:16685275).

Cellular Location
[Isoform 1]: Cell membrane; Single-pass type I membrane protein. Endosome. Note=Autophosphorylation promotes ubiquitination and endocytosis [Isoform 3]: Secreted. [Isoform 5]: Cytoplasm. [Isoform 7]: Cytoplasm.

Tissue Location
Detected 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 2 is strongly expressed in placenta. Isoform 3 is expressed in corneal epithelial cells (at protein level). Isoform 3 is expressed in vascular smooth muscle cells (VSMC)

Anti-VEGF Receptor 1 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-VEGF Receptor 1 Picoband Antibody - Images

Anti-VEGF Receptor 1 Picoband Antibody - Background

Vascular endothelial growth factor receptor 1 (FLT1) is a protein that in humans is encoded by the FLT1 gene. Oncogene FLT belongs to the src gene family. It is mapped to 13q12. The deduced 1,338-amino acid protein has a calculated molecular mass of 150.6 kD. It has a 758-amino acid extracellular domain, followed by a 22-amino acid transmembrane region and a 558-amino acid cytoplasmic region containing a cluster of basic amino acids and a tyrosine kinase domain. sFLT-1 was identified in placenta, adult lung, kidney, liver and uterus. Like other members of this family, it shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation.