

**KD-Validated Anti-FLT1 Mouse Monoclonal Antibody**  
**Mouse monoclonal antibody**  
**Catalog # AGI1992****Specification****KD-Validated Anti-FLT1 Mouse Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	<a href="#">P17948</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1 kappa
Calculated MW	Predicted, 151 kDa, observed, 53 kDa KDa
Gene Name	FLT1
Aliases	FLT1; Fms Related Receptor Tyrosine Kinase 1; VEGFR1; Vascular Endothelial Growth Factor Receptor 1; Vascular Permeability Factor Receptor; FLT; Fms-Related Tyrosine Kinase 1 (Vascular Endothelial Growth Factor/Vascular Permeability Factor Receptor); Tyrosine-Protein Kinase Receptor FLT; Fms Related Tyrosine Kinase 1; Tyrosine-Protein Kinase FRT; Fms-Like Tyrosine Kinase 1; EC 2.7.10.1; VEGFR-1; FLT-1; Fms-Related Tyrosine Kinase 1; EC 2.7.10; FRT
Immunogen	Recombinant protein of human VEGFR1

**KD-Validated Anti-FLT1 Mouse Monoclonal Antibody - Additional Information**

Gene ID	2321
<b>Other Names</b>	
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	

**KD-Validated Anti-FLT1 Mouse Monoclonal 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:<a href="http://www.uniprot.org/citations/16685275" target="\_blank">16685275</a>).

#### **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**

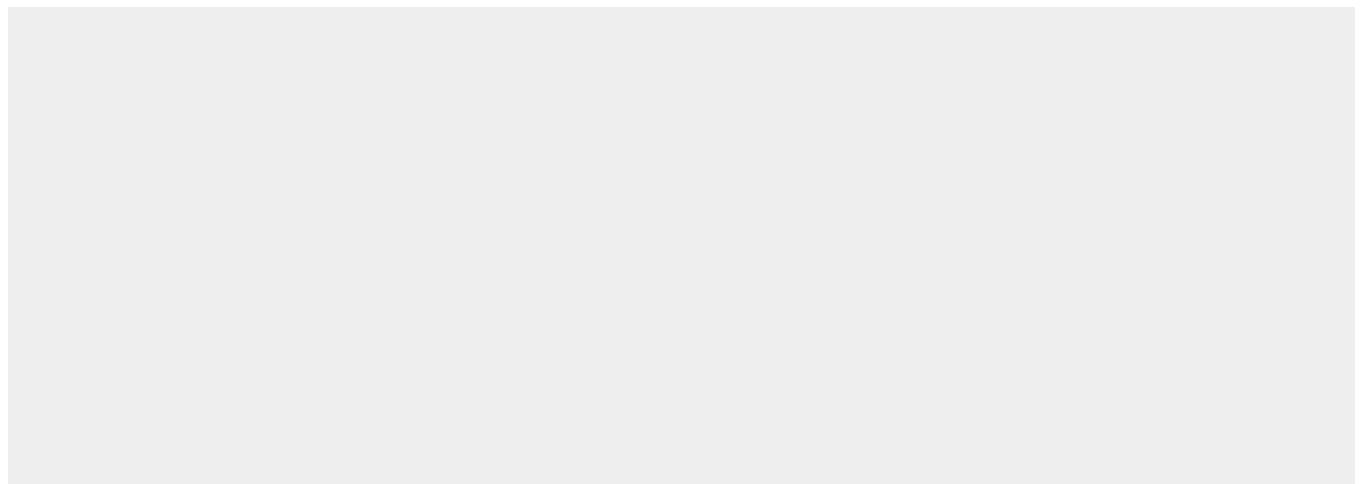
Detected in normal lung, but also in placenta, liver, kidney, heart and brain tissues. Specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. Isoform 2 is strongly expressed in placenta. Isoform 3 is expressed in corneal epithelial cells (at protein level). Isoform 3 is expressed in vascular smooth muscle cells (VSMC)

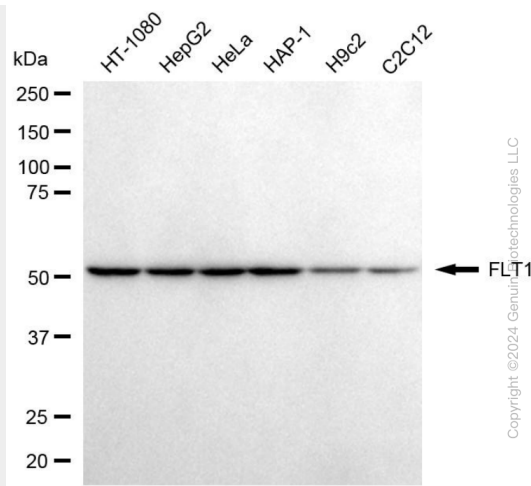
### **KD-Validated Anti-FLT1 Mouse Monoclonal Antibody - Protocols**

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

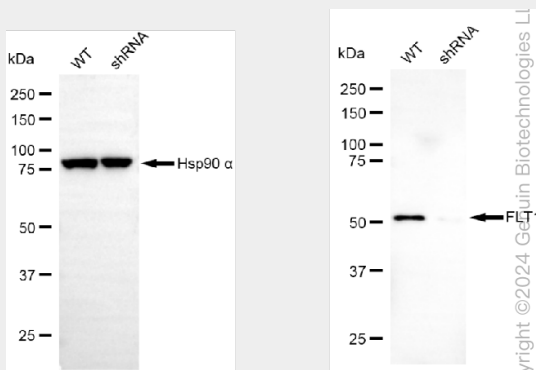
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **KD-Validated Anti-FLT1 Mouse Monoclonal Antibody - Images**

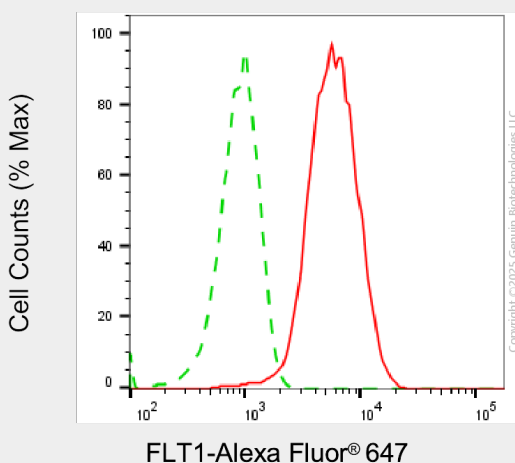




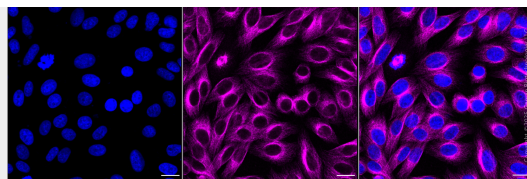
Western blotting analysis using anti-FLT1 antibody (Cat#AGI1992). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-FLT1 antibody (Cat#AGI1992, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-FLT1 antibody (Cat#AGI1992). FLT1 expression in wild-type (WT) and FLT1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-FLT1 antibody (Cat#AGI1992, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Flow cytometric analysis of FLT1 expression in HepG2 cells using anti-FLT1 antibody (Cat#AGI1992, 1:2,000). Green, isotype control; red, FLT1.



Immunocytochemical staining of HepG2 cells with anti-FLT1 antibody(Cat#AGI1992, 1:1,000). Nuclei were stained blue with DAPI; FLT1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar, 20  $\mu$ m.