FLT1
Mouse Anti-Human VEGFR1/FLT1 Clone EWF Biotin mAb

Catalog No.	CMV118	**Quantity:**	50 µg

Alternate Names: FLT, fms-like tyrosine kinase 1, fms-related tyrosine kinase 1, Vascular Endothelial Growth Factor Receptor, Vascular Endothelial Growth Factor Receptor 1, VEGFC receptor

Description: Recombinant Human Soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR -1) is the naturally occurring form and was cloned from total RNA of human umbilical vein endothelial cells. The mature rh-sVEGFR-1 is a glycosylated monomeric protein with a mass of approximately 96kDa. The soluble receptor consists of the first 6 extracellular domains containing the unique 31 amino acids residues at the C-terminus.

Endothelial cells express three different vascular endothelial growth factor (VEGF) receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Flk-1), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes, dendritic cells and on trophoblast cells. The flt-1 gene was first described in 1990. The receptor contains seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular splited tyrosine kinase domain. Compared to VEGFR-2 the Flt-1 receptor has a higher affinity for VEGF but a weaker signaling activity. VEGFR-1 thus leads not to proliferation of endothelial cells, but mediates signals for differentiation. Interestingly a naturally occuring soluble variant of VEGFR-1 (sVEGFR-1) was found in HUVE supernatants in 1996, which is generated by alternative splicing of the flt-1 mRNA.

The biological functions of sVEGFR-1 still are not clear, but it seems to be an endogenous regulator of angiogenesis binding VEGF with the same affinity as the full-length receptor.

Gene ID: 2521

Specificity: The unconjugated antibody will detect native human VEGFR-1/Flt-1 in ELISA experiments and on the surface of different human cell types.

Host: Mouse

Immunogen: Recombinant human soluble Flt1 (D5)

Isotype: IgG1

Clone: EWF

Conjugate: Biotin

Formulation: Lyophilized in a buffer of PBS + 50x BSA + 0.02% sodium azide. **Precaution:** Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.

Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com

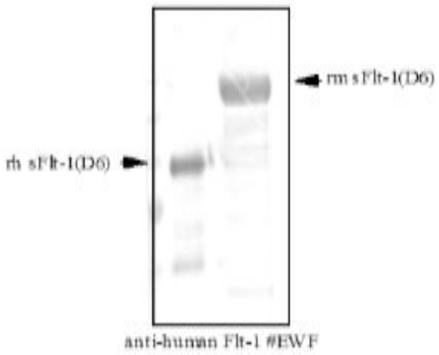
Purification: Protein G chromatography

Reconstitution: **Centrifuge vial prior to opening**. Add sterile distilled water to the vial to fully solubilize the antibody to a concentration of 0.1-1.0 mg/ml.

Applications: Western Blot: Use at 2-5 µg/ml
ELISA: Use at 1-10 µg/ml
Immunoprecipitation: Use at 2-10 µg/ml
The optimal concentration should be determined by the user for each specific application.

Storage & Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C. **Avoid repeated freeze-thaw cycles.**

Figure 1: Western analysis of recombinant human and mouse soluble VEGFR-1/Flt-1.



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Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com