

DM3504**Monoclonal Antibody to VEGFR-1 / Flt-1 - Purified**

Alternate names:	FLT, FLT1, FRT, Fms-like tyrosine kinase 1, Tyrosine-protein kinase FRT, Tyrosine-protein kinase receptor FLT, VEGF Receptor 1, VEGFR1, Vascular endothelial growth factor receptor 1, Vascular permeability factor receptor
Quantity:	0.1 mg
Background:	<p>VEGF Receptor 1 (also known as FLT) belongs to the src gene family and shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation. The protein acts as a receptor for VEGF, VEGFB and PGF. An alternatively spliced form of the gene produces a soluble protein (sFlt1) which binds vascular endothelial growth factor (VEGF) with high affinity. sFlt1 has a higher affinity for VEGF indicating that it may function as an inhibitor in the VEGF response. VEGF Receptor 1 is specifically expressed in most vascular endothelial cells and peripheral blood monocytes.</p> <p>VEGF and its high-affinity binding receptors, the tyrosine kinases FLK1 and FLT1, are thought to be important for the development of embryonic vasculature. It has been shown that an alternately spliced form of FLT1 produces a soluble protein, termed sFLT1, which binds vascular endothelial growth factor with high affinity. Because sFLT1 has a higher affinity for VEGF than does FLK1, it may function as an inhibitor of VEGF response.</p>
Uniprot ID:	P17948
NCBI:	NP_001153392.1
GeneID:	2321
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), AM03095PU-N
Clone:	FLTEWC
Immunogen:	Recombinant Human soluble extracellular Flt-1 protein (D5) (<i>Cat.-No</i> DA3539X)
Format:	State: Lyophilized purified IgG fraction from cell culture supernatant Purification: Protein G Chromatography Buffer System: PBS, pH 6.0 without preservatives or stabilizers Reconstitution: Restore with distilled sterile water to a concentration of 0.1-1.0 mg/ml.
Applications:	ELISA: 1-10 µg/ml IgG1. Western Blot: 2-5 µg/ml IgG1. Immunofluorescence: 2-10 µg/ml. Immunoprecipitation: 1-5 µg/ml IgG1 lysate or reaction volume. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The monoclonal antibody will detect native and denaturated VEGFR-1/Flt-1 in ELISA experiments and on the surface of different Human cell types.
The antibody will also detect Mouse Flt-1.

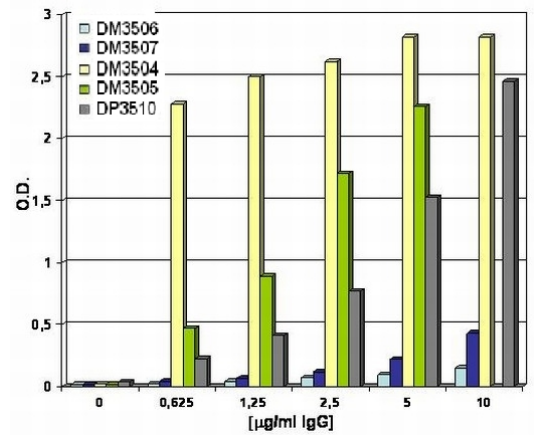
Species Reactivity: **Tested:** Human and Mouse.

Storage: Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

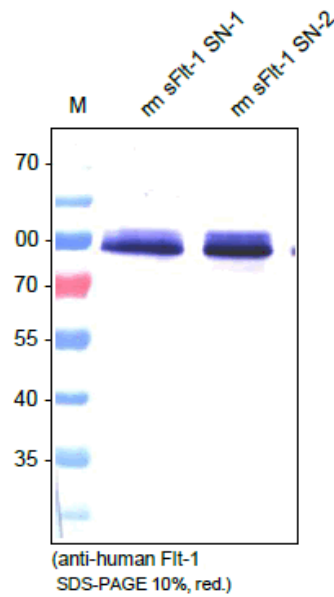
General Readings:

1. Barleon B, Totzke F, Herzog C, Blanke S, Kremmer E, Siemeister G, et al. Mapping of the sites for ligand binding and receptor dimerization at the extracellular domain of the vascular endothelial growth factor receptor FLT-1. *J Biol Chem.* 1997 Apr 18;272(16):10382-8. PubMed PMID: 9099677.
2. Roeckl W, Hecht D, Sztajer H, Waltenberger J, Yayon A, Weich HA. Differential binding characteristics and cellular inhibition by soluble VEGF receptors 1 and 2. *Exp Cell Res.* 1998 May 25;241(1):161-70. PubMed PMID: 9633524.

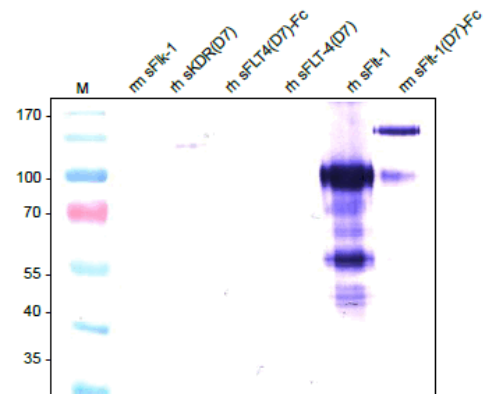
Pictures: Standard ELISA assay with coating of 2.5 µg/ml Mouse sFlt-1-Fc using anti Human Flt-1 antibodies



Western analysis of recombinant mouse soluble VEGFR-1 conditioned supernatant using a monoclonal antibody directed against human recombinant sFlt-1(D5). There is a strong cross reactivity with the mouse sFlt-1 visible.



Western analysis of recombinant human and mouse soluble VEGF receptors using a monoclonal antibody directed against human recombinant sFlt-1(D5). There is a cross reactivity with mouse sFlt-1(D7)-Fc but no with human and mouse sKDR and human sFLT-4 visible.



IF staining of human Flt-1 in a co-culture of PAE-Flt-1, PAE-KDR and PAE-FLT-4 with a mouse anti-human Flt-1 antibody DM3504. Conjugated secondary antibody: Goat anti-mouse ALEXA Flour (1:600).

