Anti-human VEGFR-1/Flt-1 (#EWF)

20161213BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**101-M28**
Size:	100 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Monoclonal antibodies were produced with the help of BALB/c mice using recombinant human soluble extracellular Flt-1 (D5) as the immunizing antigen

Target Background

Synonyms:	Fms-like tyrosine kinase 1, Vascular permeability factor receptor

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 VEGF receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Flk-1), and 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 split tyrosine kinase domain. VEGFR-1 thus leads not to proliferation of endothelial cells, but mediates signals for differentiation. Interestingly, a naturally occurring soluble variant of VEGFR-1 (sVEGFR-1) was found in HUVEC 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.

References

1. Barleon et al., 1997, J Biol Chem 272:10382-8
2. Röckl et al., 1998, Exp Cell Res, 241: 161-170].

Database References Antigen

Protein RefSeq:	NP_001153392
Uniprot ID:	P17948-2
mRNA RefSeq:	NM_0001159920

Product Specifications

Species reactivity	human
Clone/Ab feature	IgG_1; #EWF
Cross reactivity	mouse
Host	mouse
Clonality	monoclonal
Purification	Protein G purified
Immunogen	recombinant human soluble Flt-1 (D5) (RT# S01-012)
Formulation	lyophilized
Buffer	PBS

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.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Specificity: The antibody will detect native human VEGFR-1/Flt-1 in ELISA experiments, WB, IF and IP.

Applications

Western Blot:	Use at 1-10 µg/ml
ELISA:	Use at 1-10 µg/ml
Others	For IP use at 1-5 µg/ml
FACS	Use at 2-10 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

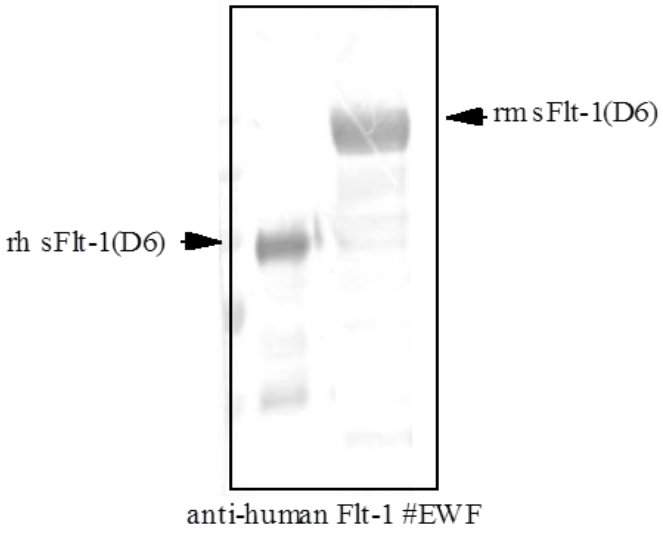

Figure 1: Western analysis of recombinant human and mouse soluble VEGFR-1/Flt-1.

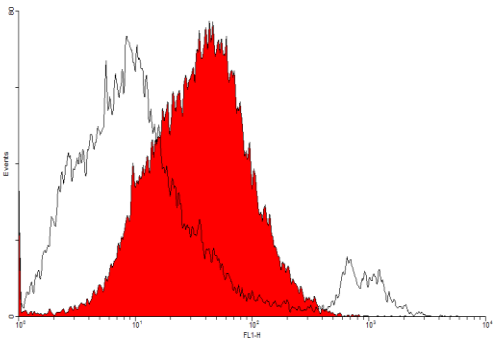

Figure 2. FACS analysis with porcine aortic endothelial cells (PAE/Flt1) expressing human VEGFR-1/Flt-1.