



# Anti-human VEGFR-1/Flt-1-Biotin (#EWC)

20220502BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>101-MBi24</b>
Size:	50 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 as the immunizing antigen.

## Target Background

<b>Synonyms:</b>	Vascular endothelial growth factor receptor 1
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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

<b>Protein RefSeq:</b>	NP_001153392
<b>Uniprot ID:</b>	P17948-2
<b>mRNA RefSeq:</b>	NM_0001159920

## Product Specifications

<b>Species reactivity</b>	human
<b>Clone/Ab feature</b>	IgG1; #EWC
<b>Host</b>	mouse
<b>Clonality</b>	monoclonal
<b>Purification</b>	Protein G purified
<b>Immunogen</b>	recombinant human soluble Flt-1 (RT# S01-012)
<b>Formulation</b>	lyophilized
<b>Buffer/Stabilizer</b>	PBS; 50X BSA
<b>Preservative</b>	0,02% sodium azide
<b>Conjugation</b>	Biotin

**Warnings:** Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, this is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid deposits in plumbing where explosive condition may develop.

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

## Applications

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