Anti-human VEGFR-3/FLT-4-Biotin

20141128BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PABi22**
Size:	50 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits immunised with highly pure recombinant human soluble VEGFR-3/FLT-4 (D1-7).

Target Background

Synonyms:	Vascular endothelial growth factor receptor 2, Protein-tyrosine kinase receptor flk-1

Recombinant human soluble Vascular Endothelial Growth Factor Receptor-3 (sVEGFR-3/FLT-4) was fused with a C-terminal 6X Histidine-tag. The recombinant mature sVEGFR-3/FLT-4 is a glycosylated monomeric protein. The sVEGFR-3/FLT-4 monomers have a mass of approximately 120kDa. The soluble receptor protein consists of all 7 extracellular domains (Met1-Glu774). All three VEGF receptors belong to the class III subfamily of receptor tyrosine kinases (RTKs) characterised by the seven immunoglobulin-like loops in the extracellular domain. The expression of VEGFR-1 to -3 is almost exclusively restricted to hematopoietic precursor cells, vascular and lymphatic endothelial cells and to the monocyte/macrophage lineage. They play key roles in vasculogenesis, hematopoiesis, angiogenesis and lymphangiogenesis. The FLT-4 cDNA encodes a 1298 amino acid (aa) residue precursor protein with a 23 aa residue signal peptide. Mature VEGFR-3/FLT-4 is composed of a 751 aa residue extracellular domain, a 22 aa transmembrane domain and a 482aa residue cytoplasmic domain. Both VEGF family members VEGF-C and VEGF-D have been shown to bind and activate VEGFR-3/FLT-4. The Flt-4 gene is widely expressed in the early embryo but becomes restricted to the lymphatic endothelial

References

1. Joukov et al., EMBO J 15 :290, 1996
2. Kukk et al., Development 122 :3829, 1996

Database References Antigen

Protein RefSeq:	NP_002011
Uniprot ID:	P35916
mRNA RefSeq:	NM_002020

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	rat (probably also mouse)
Host	rabbit
Clonality	polyclonal
Purification	Antigen affinity purified
Immunogen	Recombinant human sFLT-4 (D1-7)
Formulation	lyophilized
Buffer	PBS; 50X BSA
Preservative	0,02% sodium azide
Conjugation	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!

Applications

ELISA:	Use at 1-5 µg/ml
IF/IHC:	Use a dilution of 1:100 (IHC: frozen sections)

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

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Handling/Applications

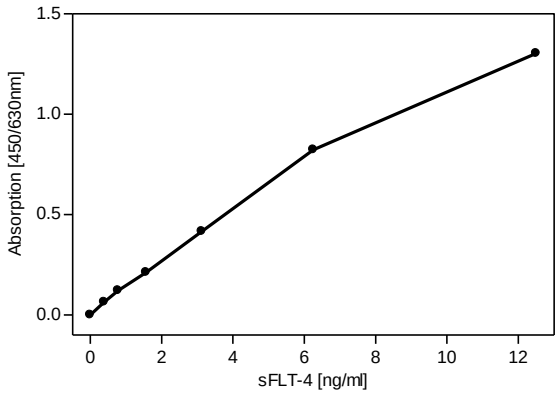

Figure 1: FLT-4 Sandwich-ELISA using recombinant human soluble FLT-4 as standard [Cat# S01-017]. Mouse anti-human FLT-4 #2E11 (Cat# 101-M37) was used as capture antibody, Biotinylated rabbit anti-human FLT-4 (Cat# 102-PABi22) was used for detection.

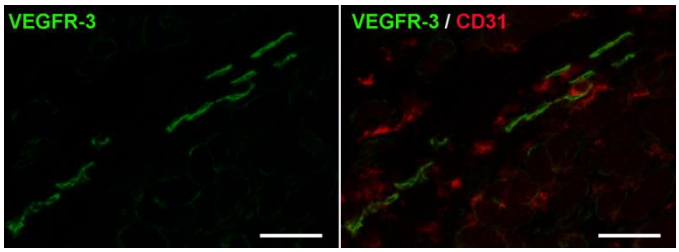

Figure 2: Rat cardiac lymphatic vessels, labeled with antibodies against human VEGFR-3/FLT4 [Cat# 102-PABi22] are revealed in green, and adjacent blood vessels, labeled with antibodies against CD31, are revealed in red. Image was obtained at 20x magnification on a Zeiss fluorescence microscope. Scale bar = 50 µm.
The used protocol in short was: 1. Blockage with NEN TNB solution (NEN TSA kit); 2. Primary abs 1:400; 3. SA-HRP 1:800; 4. BT-FITC 1:400

The experiment was performed by the research group Inserm U1096 in Rouen, France directed by Dr Vincent Richard.