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### FLT4

### Recombinant Human VEGFR-3 His-Tag, soluble

Catalog No. CRF113-005 Quantity: 5 µg

CRF113A 10 μg CRF113B 50 μg

Alternate Names: Vascular endothelial growth factor receptor 3, VEGFR-3, Fms-Like Tyrosine Kinase 4,

FLT-4, Tyrosine-protein kinase receptor FLT4

**Description:** Recombinant human soluble VEGFR3 was fused with a C-terminal 6X histidine-tag. The

recombinant mature sVEGFR3 is a glycosylated monomeric protein, consisting of all 7

extracellular domains (Met1-Glu774).

All three VEGF receptors belong to the class III subfamily of receptor tyrosine kinases (RTKs) characterized 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 VEGFR3 cDNA encodes a 1298 amino acid (aa) residue precursor protein with a 23 aa residue signal peptide. Mature VEGFR3 is composed of a 751 aa residue extracellular domain, a 22 aa transmembrane domain and a 482 aa residue cytoplasmic domain. Both VEGF family members VEGFC and VEGFD have been shown to bind and activate VEGFR3. The VEGFR3 gene is widely expressed in the early embryo but becomes restricted to the lymphatic endothelial at later stages of

development. It is important for lymphangiogenesis.

**UniProt ID:** P35916 **Gene ID:** 2324

Source: Insect cells

Molecular Weight:110 kDa (761 aa)Formulation:Lyophilized from PBSPurity:> 90% by SDS-PAGE

Endotoxin Level: < 1 EU/µg

**Biological Activity:** Measured by its ability to bind recombinant rat VEGF-C in a functional solid phase

binding assay. Immobilized recombinant human sVEGFR-3/FLT-4 at 5µg/ml can bind

recombinant rat VEGF-C in a linear range of 8-500ng/ml.

N-terminal Sequence: DPSGYSMTPPTLNITEESHV

**Reconstitution:** Centrifuge vial briefly prior to opening. Add PBS or medium to the vial to fully

solubilize the protein to a concentration ≥ 100 µg/ml.

**Storage & Stability:** Lyophilized protein is stable for 1 year at -20°C to -80°C. Store reconstituted stock

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solution in working aliquots at -20°C to -80°C. Avoid repeated freeze-thaw cycles.

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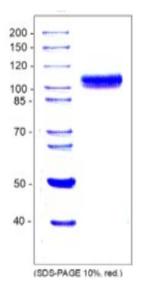
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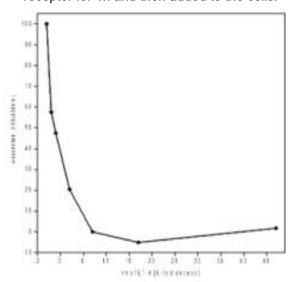
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#### **Amino Acid Sequence:**

DPSGYSMTPPTLNITEESHVIDTGDSLSISCRGQHPLEWAWPGAQEAPATGDKDSEDT GVVRDCEGTDARPYCKVLLLHEVHANDTGSYVCYYKYIKARIEGTTAASSYVFVRDFEQ PFINKPDTLLVNRKDAMWVPCLVSIPGLNVTLRSQSSVLWPDGQEVVWDDRRGMLVST PLLHDALYLQCETTWGDQDFLSNPFLVHITGNELYDIQLLPRKSLELLVGEKLVLNCTVW AEFNSGVTFDWDYPGKQAERGKWVPERRSQQTHTELSSILTIHNVSQHDLGSYVCKAN NGIQRFRESTEVIVHENPFISVEWLKGPILEATAGDELVKLPVKLAAYPPPEFQWYKDGK ALSGRHSPHALVLKEVTEASTGTYTLALWNSAAGLRRNISLELVVNVPPQIHEKEASSPS IYSRHSRQALTCTAYGVPLPLSIQWHWRPWTPCKMFAQRSLRRRQQQDLMPQCRDW RAVTTQDAVNPIESLDTWTEFVEGKNKTVSKLVIQNANVSAMYKCVVSNKVGQDERLIY FYVTTIPDGFTIESKPSEELLEGQPVLLSCQADSYKYEHLRWYRLNLSTLHDAHGNPLLL DCKNVHLFATPLAASLEEVAPGARHATLSLSIPRVAPEHEGHYVCEVQDRRSHDKHCH KKYLSVQALEAPRLTQNLTDLLVNVSDSLEMQCLVAGAHAPSIVWYKDERLLEEKSGVD LADSNQKLSIQRVREEDAGRYLCSVCNAKGCVNSSASVAVEGSEDKGSMEHHHHHH

Inhibition of VEGF-C-induced proliferation of primary human dermal lymphatic endothelial cells (HDLEC) by recombinant human soluble FLT-4. VEGF-C (50ng/ml) was preincubated with increasing amounts of soluble receptor for 1h and then added to the cells.





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