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Recombinant Human sVEGFR-3/FLT-4

Description: Recombinant human soluble Vascular Endothelial Growth Factor Receptor-3 (sVEGFR-3/FLT-4) was fused with a carboxy-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 120 kDa. 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 482 aa 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 a latter stages of development. It is important for lymphangiogenesis.

Source:	Insect cells
Molecular Weight:	120 kDa
Subunit:	monomeric glycoprotein
Purity:	> 90%, by SDS-PAGE and visualised by silver stain
Endotoxin level:	< 0.1 ng per µg of sVEGFR-3
Stabilizer:	none
Buffer:	PBS
Formulation:	lyophilised

Specific Activity: Measured by its ability to bind recombinant rat VEGF-C in a functional solid phase binding assay. Immobilised recombinant human sVEGFR-3/FLT-4 at 5 µg/ml can bind recombinant rat VEGF-C in a linear range of 8-500 ng/ml.

Reconstitution: The lyophilised sVEGFR-3/FLT-4 is soluble in water and most aqueous buffers. The lyophilised sVEGFR-3/FLT-4 should be reconstituted in PBS or medium to a concentration not lower than 100 µg/ml.

Stability: Lyophilised samples are stable for greater than six months at -20°C to -70°C. Reconstituted sVEGFR-3/FLT-4 should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles!**

Usage: sVEGFR-3/FLT-4 is offered for research use. Not for drug use. **Not for human use.**

Catalogue number: S01-017

Size: 10 µg

Range: 50-200 ng/ml

Literature: [Joukov et al., EMBO J 15 :290, 1996; Kukk et al., Development 122 :3829, 1996]