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Recombinant Human sVEGFR-1/Fc Chimera

Catalog No.	CRF105A CRF105B	**Quantity:**	10 µg 50 µg

Description: Recombinant human soluble Vascular Endothelial Growth Factor Receptor-1 (sVEGFR-1_{D1-7}) was fused with the Fc part of human IgG_1. The recombinant mature sVEGFR-1_{D1-7}/Fc is a disulfide-linked homodimeric protein. The sVEGFR-1_{D1-7}/Fc monomers have a mass of approximately 130 kDa. The soluble receptor protein consists of all 7 extracellular domains (Met1-Thr751), which contain all the information necessary for high affinity ligand binding.
Endothelial cells express three different vascular endothelial growth factor (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. All VEGF-receptors have seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. VEGFR-2 has a lower affinity for VEGF than the Flt -1 receptor, but a higher signaling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation. Differential splicing of the flt-1 gene leads to the formation of a secreted, soluble variant of VEGFR-1 (sVEGFR-1). No naturally occurring, secreted forms of VEGFR-2 have so far been reported. The binding of $VEGF_{165}$ to VEGFR-2 is dependent on heparin.

Protein Accession No: P17948

GeneID: 2321

Source: Insect cells

Formulation: Lyophilized. PBS buffer, pH 7.4.

Purity: > 95%, by SDS-PAGE and visualized by silver stain

Endotoxin Level: < 0.1 ng per µg of sVEGFR-1

Biological Activity: The activity of sVEGFR-1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED_{50} for this effect is typically 10-30 ng/ml.

Reconstitution: **Centrifuge vial prior to opening**. The lyophilized sVEGFR-1/Fc is soluble in water and most aqueous buffers. The lyophilized sVEGFR-1/Fc should be reconstituted in PBS or medium to a concentration not lower than 50 µg/ml.

Storage & Stability: Lyophilized samples are stable for greater than six months at -20°C to -70°C. Reconstituted sVEGFR-1/Fc should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles**.

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