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**Product Data Sheet**


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Product Name: FLT1 D7 Mouse

Cat. No.: GP22513

Batch No.: 1

**Product Data**

Purity &gt;98%

Source Insect Cells.

Physical Appearance solid

Shipping Condition Shipped at Room temp.

Synonyms

FLT-1; FLT1; Tyrosine-protein kinase receptor FLT; Flt-1; Tyrosine-protein kinase FRT; Fms-like tyrosine kinase 1; VEGFR-1.

Amino Acid Sequence

YGS GSKLKVP ELSLKG TQHV MQAGQTLFLK CRGEEAHSWS LPTTVSQEDK  
 RLSITPPSAC GRDNRQFCST LLDTAQANH TGLYTCRYLP TSTS KKKKAE  
 SSIYIFVSDA GSPFIEMHTD IPKLVHMTEG RQLIIPCRVT SPNVTVTLKK  
 PFDLTPDG QRITWDSRRG FIINANATYKE IGLLNCEATV NGHLYQTNYL  
 THRQNTILD VQIRPPSPVR LLHGQTLVLN CTATTELNTR VQMSWNYPGK  
 ATKRASIRQR IDRSHSHNNV FHSV LKINNV ESRDKGLYTC RVKSGSSFQS  
 FNTSVHVY EK GFISVKHRKQ PVQETTAGRR SYRLSMKVKA FPSPEIVWLK  
 DGSPATLKSA RYLVHGYSLI IKDVTTEDAG DYTILLGIKQ SRLFKNL TAT  
 LIVNVK PQIY EKSVSSLPSP PLYPLGSRQV LTCTVYGIPR PTITWLWHP C  
 HHNHSKERYD FCTENEESFI LDPSSNLG NR IESISQRMTV IEGTNKTVST  
 LVVADSQTPG IYSCRAF NKI GTVERN IKFY VTDVPNGFHV SLEKMPAEGE  
 DLKLSCVVNK FLYRDITWIL LRTVNNRTMH HSISKQKMAT TQDYSITLNL  
 VIKNVSLEDS GTYACRARNI YTGEDILRKT EVLVRDSEAP HLLQNLSDYE  
 VSISGSTTLD CQARGVPAPQ ITWFKNNHKI QQEPGIILGP GNSTLFIERV  
 TEEDEGVYRC RATNQKGAVE SAAYLTVQGT SDKSNAASDK THTCP PCPAP  
 ELLGGPSVFL FPPKPKDTLM ISRTPEVTCV VVDVSHEDPE VKFNWYVDGV  
 EVHNAKTKPR EEQYNSTYRV VSVLTVLHQD WLNGKEYKCK VSNKALPAPI  
 EKTISKAKGQ PREPQVY TLP PSREEMTKNQ VSLTCLVKGF YPSDIAVEWE  
 SNGQPENNYK TTPPMLDS DG SFFLYSKLTV DKSRWQQGNV FSCSVMHEAL  
 HNHYTQKSLS LSPGK

Solubility

It is recommended to reconstitute the lyophilized FLT1 Fc/Chimera in PBS not less than 50µg/ml, which can then be further diluted to other aqueous solutions.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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**Formulation** FLT1 D1-7 was lyophilized from a concentrated (1 mg/ml) sterile solution containing PBS Buffer.

### Introduction

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 signalling 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<sub>165</sub> to VEGFR-2 is dependent on heparin.

### 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.

### Stability

Lyophilized FLT-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18C. Upon reconstitution FLT1 should be stored at 4C between 2-7 days and for future use below -18C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

Soluble FLT1 Mouse Recombinant fused with the Fc part of human IgG1 produced in baculovirus is disulfide-linked homodimeric, polypeptide containing 965 amino acids. The monomers have a molecular mass of 130 kDa. The soluble receptor protein contains all 7 extracellular domains (Tyr23-Asn757), which contain all the information necessary for high affinity ligand binding.

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