

## 32-3017: FLT1 D7 Recombinant Protein

**Alternative Name :** FLT-1,FLT1,Tyrosine-protein kinase receptor FLT,Flt-1,Tyrosine-protein kinase FRT,Fms-like tyrosine kinase 1,VEGFR-1.

### Description

Source : Insect Cells. Soluble FLT1 Human Recombinant fused with the Fc part of human IgG1 produced in baculovirus is disulfide-linked homodimeric, glycosylated, polypeptide containing 751 amino acids and having a molecular mass of 130 kDa. The soluble receptor protein contains only the first 7 extracellular domains (Met1-Thr751), which contain all the information necessary for high affinity ligand binding. The FLT1 fc/Chimera is purified by proprietary chromatographic techniques. 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 VEGF165 to VEGFR-2 is dependent on heparin.

### Product Info

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| <b>Amount :</b>            | 10 µg  |
| <b>Purification :</b>      | Greater than 95.0% as determined by SDS-PAGE.  |
| <b>Content :</b>           | FLT1 D1-7 was lyophilized from a concentrated (1 mg/ml) sterile solution containing PBS Buffer, pH 7.4.  |
| <b>Storage condition :</b> | 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.  |
| <b>Amino Acid :</b>        | MVSYWDTGVL LCALLSCLLL TGSSSGSKLK DPELSLKGQTQ HIMQAGQTLH LQCRGEEAAHK WSLPEMVSKE SERLSITKSA CGRNGKQFCS TLTLNTAQAN HTGFYSCKYL AVPTSKKKT ESAYIFISD TGRPFVEMYS EIPEIHMTE GRELVIPCRV TSPNITVTLK KFPLDTLIPD GKRIIWDSRK GFIIISNATYK EIGLLTCEAT VNGHLYKTNY LTHRQTNTII DVQISTPRPV KLLRGHTLVL NCTATTPLNT RVQMTWSYPD EKNKRASVRR RIDQNSHAN IFYSVLTIDK MQNKDKGLYT CRVRSGPSFK SVNTSVHIYD KAFITVKHRK QQVLETVAGK RSYRLSMKVK AFPSPEVVWL KDGLPATEKS ARYLTRGYSL IIKDVTEEDA GNYTILLSIK QSNVFKNLTA TLIVNVKQPI YEKAVSSFPD PALYPLGSRQ ILTCTAYGIP OPTIKWFVHP CNHNHSEARC DFCSNNEESF ILDADSNMGN RIESITQRMA IIEGKNKMAS TLVVADSRIS GIYICIASNK VGTVGRNISF YITDVPNGFH VNLEKMPTEG EDLKLSCVTN KFLYRDVTWI LLRTVNNRTM HYSISKQKMA ITKEHSITLN LTIMNVSLQD SGTYACRARN VYTGEEILQK KEITIRDQEA PYLLRNLSDH TVAISSSTTL DCHANGVPEP QITWFKNNHK IQQEPGIIIG PGSSTLFIER VTEEDEGVYH CKATNQKGSV ESSAYLTVQG TAASDKHTHC PPCPAPELLG GPSVFLFPPK PKDTLMISRT PEVTCVVVDV SHEDPEVKFN WYVDGVEVHN AKTKPREEQY NSTYRVVSVL TVLHQDWLNG KEYKCKVSNK ALPAPIEKTI S. |

### Application Note

It is recommended to reconstitute the lyophilized FLT1 Fc/Chimera in PBS not less than 50 µg/ml, which can then be further diluted to other aqueous solutions. The activity of FLT1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED50 for this effect is typically 10-30 ng/ml, corresponding to a specific activity of 33,333.33-100,000 units/mg.

