

Recombinant Human Fms-related Tyrosine Kinase 1, 5 Domains, Fc-tagged

Cat. No. FLT1-81H Lot. No. (See product label)

SPECIFICATION

Product Overview	<p>Recombinant Human Soluble Fms-related Tyrosine Kinase 1 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, which contain all the information necessary for binding of VEGF. The VEGFR1 fc/Chimera is purified by proprietary chromatographic techniques.</p>
Species	Human
Source	Insect Cells
Description	<p>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.</p>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	VEGFR-1 D1-7 was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives.
Solubility	It is recommended to reconstitute the lyophilized sVEGFR-1 Fc/Chimera in sterile water not less than 100g/ml, which can then be further diluted to other aqueous solutions.
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 ED50 for this effect is typically 10-30 ng/ml.
Storage	Lyophilized FLT-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FLT1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
GENE INFORMATION	
Gene Name	FLT1 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor) [Homo sapiens]
Synonyms	FLT1; fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor); FLT; VEGFR1; vascular endothelial growth factor receptor 1; EC 2.7.10.1; VEGFR-1; Vascular permeability factor receptor; Flt-1; Tyrosine-protein kinase receptor FLT; Tyrosine-protein kinase FRT; Fms-like tyrosine

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

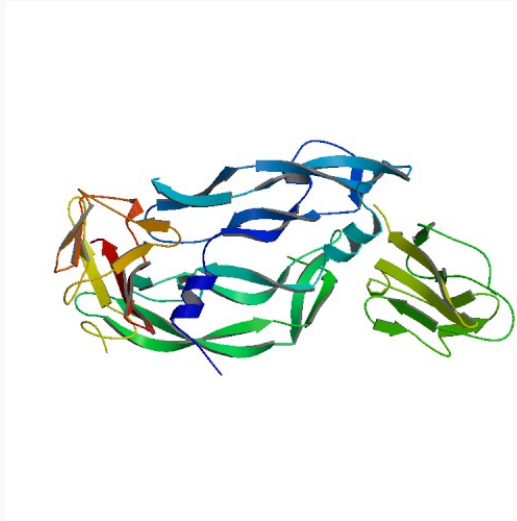
	kinase 1; FRT
Gene ID	2321
mRNA Refseq	NM_001159920
Protein Refseq	NP_001153392
MIM	165070
UniProt ID	P17948
Chromosome Location	13q12
Pathway	Cytokine-cytokine receptor interaction; Endocytosis; Focal adhesion; Signaling by VEGF
Function	ATP binding; growth factor binding; identical protein binding; nucleotide binding; receptor activity; transferase activity; vascular endothelial growth factor receptor activity

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

PDB rendering based
on 1ft.



 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA