



## Product Datasheet

<b>Product Name</b>	Vascular Endothelial Growth Factor Receptor-1 D1-7 Human Recombinant
<b>Cata No</b>	CB500847
<b>Source</b>	<i>Insect Cells</i>
<b>Synonyms</b>	FLT-1, FLT1, Tyrosine-protein kinase receptor FLT, Flt-1, Tyrosine-protein kinase FRT, Fms-like tyrosine kinase 1, VEGFR-1.

### Description

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/Fik-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.

Soluble FLT1 Human Recombinant fused with the Fc part of human IgG<sub>1</sub> 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 FLT1 fc/Chimera is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

### Biological Activity

The activity of FLT1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED<sub>50</sub> for this effect is typically 10-30 ng/ml.

### Purity

Greater than 95.0% as determined by:  
(a) Analysis by RP-HPLC.  
(b) Analysis by SDS-PAGE.

### Formulation

FLT1 D1-7 was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives.

### Reconstitution

It is recommended to reconstitute the lyophilized FLT1 Fc/Chimera in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

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).

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Please prevent freeze-thaw cycles.

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