



## Product Datasheet

<b>Product Name</b>	Vascular Endothelial Growth Factor Receptor-1 D3 Human Recombinant, His Tag
<b>Cata No</b>	CB500893
<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), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes, dendritic cells and on trophoblast cells. The *flt-1* gene was first described in 1990. The receptor contains seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. Compared to VEGFR-2 the Flt-1 receptor has a higher affinity for VEGF but a weaker signaling activity. VEGFR-1 thus leads not to proliferation of endothelial cells, but mediates signals for differentiation. Interestingly a naturally occurring soluble variant of VEGFR-1 (sVEGFR-1) was found in HUVE supernatants in 1996, which is generated by alternative splicing of the *flt-1* mRNA. The biological functions of sVEGFR-1 still are not clear, but it seems to be an endogenous regulator of angiogenesis, binding VEGF with the same affinity as the full-length receptor.

FLT1 D1-3 Human Recombinant produced in baculovirus is monomeric, glycosylated, polypeptide containing 298 amino acids fragment (31-328) and having a molecular mass of 43 kDa. The receptor protein contains only the first 3 extracellular domains, which contain all the information necessary for binding of VEGF.

The FLT1 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered clear solution.

### Purity

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE

### Formulation

FLT1 His is supplied in 1x PBS and 50% glycerol.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

**Please avoid freeze thaw cycles.**