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## Product Data Sheet

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Product Name: FLT1 Human, His  
Cat. No.: GP22514  
Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	FLT-1; FLT1; Tyrosine-protein kinase receptor FLT; Flt-1; Tyrosine-protein kinase FRT; Fms-like tyrosine kinase 1; VEGFR-1.		
Formulation	FLT1 His-Tag protein is supplied in 1x PBS and 50% glycerol.		

### 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), 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.

### 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.

### Background

FLT1 Human Recombinant produced in E.Coli is single, a non-glycosylated, Polypeptide

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

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chain containing 298 amino acids fragment (31-328) corresponding to the IgG like domains 1-3 from the mature soluble FLT1 protein, having a total molecular mass of 43kDa and fused with a 4.5kDa amino-terminal hexahistidine tag. The FLT1 His is purified by proprietary chromatographic techniques.

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