



# Recombinant Protein Technical Manual

**Recombinant Human FLT1 Protein (aa 1-756, His Tag)(Active)**  
RPES1557

## Product Data:

**Product SKU:** RPES1557

**Size:** 50µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** P17948

## Protein Information:

**Molecular Mass:** 83.7 kDa

**AP Molecular Mass:** 11020 kDa

**Tag:** C-His

**Bio-activity:** Measured by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC) (Conn, G. et al. ,1990 , Proc. Natl. Acad. Sci. USA 87:1323. ). The ED50 for this effect is typically 10-40 ng/mL in the presence of 10 ng/mL human VEGF165.

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Vascular endothelial growth factor receptor 1; VEGFR;Fms-like tyrosine kinase 1;FLT;Tyrosine-protein kinase FRT;Tyrosine-protein kinase receptor FLT; Vascular permeability factor receptor;FLT;FLT;VEGFR;VEGFR1

## Immunogen Information:

**Sequence:** Met 1-Asn 756

## Background:

Vascular endothelial growth factor receptor 1, also known as VEGFR, Fms-like tyrosine kinase 1, Tyrosine-protein kinase FRT, Tyrosine-protein kinase receptor FLT, Vascular permeability factor receptor and FLT1, is a single-pass type I membrane protein and secreted protein which belongs to the protein kinase superfamily, Tyr protein kinase family and CSF/PDGF receptor subfamily. VEGFR / FLT1 contains seven Ig-like C2-type (immunoglobulin-like) domains and one protein kinase domain. VEGFR / FLT1 is expressed mostly in normal lung, but also in placenta, liver, kidney, heart and brain tissues. It is specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. VEGFR / FLT1 is not expressed in tumor cell lines. VEGFR / FLT1 is an essential receptor tyrosine kinase that regulates mammalian vascular development and embryogenesis. EGF-induced angiogenesis requires inverse regulation of VEGFR and VEGFR-2 in tumor-associated endothelial cells. VEGFR / FLT1 is a receptor for VEGF, VEGFB and PGF. It has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability.