

Recombinant Human FLT1, His-tagged

Cat. No. FLT1-544H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human FLT1 was expressed by baculovirus in <i>Sf9 cells</i> using an N-terminal His tag. MW=67.5kDa.
Species	Human
Source	Sf9 Cells
Description	FLT1, also known as fms-like tyrosine kinase 1, is a member of the VEGFR family and is related to the oncogene ROS. The tyrosine kinase activity of FLT1 has been shown to play a key role in control of cell proliferation and differentiation. FLT1 is a receptor for vascular endothelial growth factor (VEGF) and it has been observed that the ratio of FLT1 mRNA to VEGF mRNA correlates with tumor angiogenesis and prognosis in non-small cell lung cancers. In addition to the full-length receptor, FLT1 gene also encodes a soluble form of receptor due to alternative splicing. Both the full length and soluble form of FLT1 show strong binding affinity for VEGF.
Purity	>70% by SDS-PAGE.
Specific Activity	170 U/mg. One unit is defined as the amount of enzyme that will transfer 1 nmol phosphate to the tyrosine substrate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 3 mM MgCl ₂ , 3 mM MnCl ₂ , 1 mM DTT, 3 uM Na-orthovanadate, 0.1 mM ATP, 30 ug/ml Poly (Glu:Tyr)4:1 substrate, and 2 ug /ml recombinant Flt1.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Stability	>6 months at –80°C.
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 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

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Function

ATP binding; growth factor binding; identical protein binding; nucleotide binding; receptor activity; transferase activity; vascular endothelial growth factor receptor activity

PDB rendering based on 1ft.

