Recombinant Human FLT3, His-tagged

Cat. No. FLT3-28340TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of human Flt3 (aa 564-end) with an N-terminal His tag. Predicted Mw = 54.2kDa.
Species	Human
ProteinLength	564-end a.a.
Description	This gene encodes a class III receptor tyrosine kinase that regulates hematopoiesis. The receptor consists of an extracellular domain composed of five immunoglobulin-like domains, one transmembrane region, and a cytoplasmic kinase domain split into two parts by a kinase-insert domain. The receptor is activated by binding of the fms-related tyrosine kinase 3 ligand to the extracellular domain, which induces homodimer formation in the plasma membrane leading to autophosphorylation of the receptor. The activated receptor kinase subsequently phosphorylates and activates multiple cytoplasmic effector molecules in pathways involved in apoptosis, proliferation, and differentiation of hematopoietic cells in bone marrow. Mutations that result in the constitutive activation of this receptor result in acute myeloid leukemia and acute lymphoblastic leukemia.
Conjugation	HIS
Molecular Weight	54.200kDa
Tissue specificity	Bone marrow cells.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Biological activity	Activity: 20 U/mg. One unit is defined as the amount of enzyme that willphosphorylate 1 nmol of tyrosine substrate per minute at pH 7.4 and 30 C. Assay buffer: 50 mMHEPES, pH 7.4, 3 mM MgCl2, 3 mM MnCl2, 1 mM DTT, 3 uM Na-orthovanadate, 0.5 mM ATP, 30 ug/
Form	Liquid
Storage buffer	Preservative: NoneConstituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM Tris HCl, 100mM Sodium chloride, pH 8
Storage	Aliquot and store at -80°C. Avoid repeated freeze / thaw cycles.
Sequence Similarities	Belongs to the protein kinase superfamily. Tyr protein kinase family. CSF-1/PDGF receptor subfamily.Contains 1 Ig-like C2-type (immunoglobulin-like) domain.Contains 1 protein kinase domain.

GENE INFORMATION

Gene Name	FLT3 fms-related tyrosine kinase 3 [Homo sapiens]
Official Symbol	FLT3
Synonyms	FLT3; fms-related tyrosine kinase 3; receptor-type tyrosine-protein kinase FLT3; CD135; FLK2; STK1;
Gene ID	2322
mRNA Refseq	NM_004119
Protein Refseq	NP_004110

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MIM	136351
Uniprot ID	P36888
Chromosome Location	13q12
Pathway	Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Hematopoietic cell lineage, organism-specific biosystem;
Function	ATP binding; cytokine receptor activity; nucleotide binding; phosphatidylinositol 3-kinase binding; protein homodimerization activity;

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