

Recombinant Human FLT3

Cat. No. FLT3-28342TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 571-993 of Human Flt3 / CD135 with an N terminal enzyme tag, and expressed by baculovirus in Sf9 insect cells.
Species	Human
ProteinLength	571-993 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.
Tissue specificity	Bone marrow cells.
Biological activity	Specific Activity: 70 nmol/min/mg
Form	Liquid

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Storage buffer	Preservative: None Constituents: 25% Glycerol, 50mM Tris HCl, 150mM Sodium chloride, 0.25mM DTT, 0.1mM EGTA, 0.1mM EDTA, 0.1mM PMSF, pH 7.5
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid 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
MIM	136351
Uniprot ID	P36888
Chromosome Location	13q12

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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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