

Recombinant Human FLT3

Cat. No. FLT3-04H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FLT3 was expressed in E.Coli.
Species	Human
Source	E.coli
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.
Form	Protein lyophilized in sterile PBS (58 mM Na ₂ HPO ₄ , 17 mM NaH ₂ PO ₄ , 68 mM NaCl, 100 mM GSH, pH 8.0). Trehalose (5-8%) and mannitol (5-8%) protectants were added before lyophilization.
AA Sequence	NQDLPVIKCVLINHKNNDSVVGKSSSYPMVSESPEDLGALRPQSSGTVYEEAAVE VDVSASITLQVLVDAPGNISCLWVFKHSSLNCQPHFDLQNRGVVSMVILKMTETQAG

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EYLLFIQSEATNYTILFTVSIRNTLLYTLRRPYFRKMENQDALVCISESVPEPIVEWVLC
DSQGESCKEESPAVVKKEEKVLHELFGTDIRCCARNELGRECTRLFTIDLNQTPQTT
LPQLFLKVGEPWIRCKAVHVNHGFGLTWELENKALEEGNYFEMSTYSTNRTMIRIL
FAFVSSVARNDTGYYTCSSSKHPSQSALVTIVEKGFINATNSSSEIDQYEEFCFSV
RFKAY(27-376aa encoded by BC036028)

Stability

Store for up to 12 months at -20°C to -80°C as lyophilized powder.

Storage

Short-term storage: Store at 2-8°C for two weeks. Long-term storage: Aliquot and store at -20°C to -80°C for up to 6 months, buffer containing 50% glycerol is recommended for reconstitution. Avoid repeat freeze-thaw cycles.

Reconstitution

Reconstitute at 0.25 µg/µl in 200 µl sterile water for short-term storage. Reconstitution with 200 µl 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.

GENE INFORMATION

Gene Name

FLT3 fms-related tyrosine kinase 3 [Homo sapiens (human)]

Official Symbol

FLT3

Synonyms

FLT3; fms-related tyrosine kinase 3; FLK2; STK1; CD135; CD135 antigen; fetal liver kinase 2; FL cytokine receptor; tal liver kinase 2; stem cell tyrosine kinase 1; FLT3 receptor tyrosine kinase; tyrosine-protein kinase receptor FLT3; growth factor receptor tyrosine kinase type III; C 2.7.10.1; OTTHUMP00000042340; fetal liver

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	kinase 2
Gene ID	2322
mRNA Refseq	NM_004119
Protein Refseq	NP_004110
MIM	136351
UniProt ID	P36888
Chromosome Location	13q12
Pathway	ACute myeloid leukemia; Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Pathways in cancer
Function	ATP binding; nucleotide binding; osphoinositide 3-kinase binding; protein binding; receptor activity; transferase activity; vascular endothelial growth factor receptor activity

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