# Active Recombinant Human Fms-related Tyrosine Kinase 3, Fc Chimera

**Cat. No.** FLT3-140H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human fms-related tyrosine kinase 3 encoding the signal peptide and extracellular domain of human Flt-3 (aa 1-540) was fused to the Fc region of human IgG1 (aa 93-330). The chimeric protein was expressed in modified human 293 cells. |
| **Species** | Human |
| **Source** | HEK293 |
| **ProteinLength** | 1-540 a.a. |
| **Description** | Fms-like tyrosine kinase 3 (Flt-3) and its cognate ligand, Flt-3 Ligand (Flt-3L), are essential growth factors involved in the survival and differentiation of hematopoietic progenitor and stem cells, specifically the development of NK cells, pre-B and pre-T cells, monocytes/macrophages and dendritic cells. |
| **Amino Acid Sequence** | NQDLPVIKCVLINHKNNDSSVGKSSSYPMVSESPEDLGCALRPQSSGTVYEAAAVE VDVSASITLQVLVDAPGNISCLWVFKHSSLNCQPHFDLQNRGVVSMVILKMTETQAG EYLLFIQSEATNYTILFTVSIRNTLLYTLRRPYFRKMENQDALVCISESVPEPIVEWVLC DSQGESCKEESPAVVKKEEKVLHELFGTDIRCCARNELGRECTRLFTIDLNQTPQTT LPQLFLKVGEPLWIRCKAVHVNHGFGLTWELENKALEEGNYFEMSTYSTNRTMIRIL FAFVSSVARNDTGYYTCSSSKHPSQSALVTIVEKGFINATNSSEDYEIDQYEEFCFSV RFKAYPQIRCTWTFSRKSFPCEQKGLDNGYSISKFCNHKHQPGEYIFHAENDDAQF TKMFTLNIRRKPQVLAEASASQASCFSDGYPLPSWTWKKCSDKSPNCTEEITEGVW |

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| | NRKANRKVFGQWVSSSTLNMSEAIKGFLVKCCAYNSLGTSCETILLNSPGPFPFIQD RIPKVDKKVEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVV DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEY KCRVSNKALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDI AVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEAL HNHYTQKSLSLSPGK. |
| **Molecular Mass** | Flt-3-Fc Chimera migrates as a broad band between 100 and 130 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. |
| **pI** | Flt-3-Fc Chimera separates into a number of isoforms with a pI between 5.1 and 6.8 in 2D PAGE due to post-translational modifications, in particular glycosylation. |
| **% Carbohydrate** | Purified Flt-3-Fc Chimera consists of 15-35% carbohydrate by weight. |
| **Glycosylation** | Flt-3-Fc Chimera has N-linked and O-linked oligosaccharides. |
| **Purity** | >95%, as determined by SDS-PAGE and visualized by silver stain. |
| **Formulation** | When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose. |
| **Reconstitution** | It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. |
| **Storage** | Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended. |
| **Activity** | The ED50 of Flt-3-Fc Chimera is typically 1.0 -2.0 ng/ml as measured by its ability to |

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| | neutralize Flt-3 mediated proliferation of the OCI/AML5 human leukemia cell line. |

## GENE INFORMATION

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| **Gene Name** | FLT3 fms-related tyrosine kinase 3 [ Homo sapiens ] |
| **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 kinase 2 |
| **Gene ID** | 2322 |
| **mRNA Refseq** | NM_004119 |
| **Protein Refseq** | NP_004110 |
| **UniProt ID** | P36888 |
| **Chromosome Location** | 13q12 |
| **MIM** | 136351 |
| **Pathway** | ute 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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