

# Recombinant Human Fms-related Tyrosine Kinase 3 Ligand (rHuFlt3-Ligand)

## PrimeGene Technical Data Sheet

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<b>Catalog Number:</b>	103-05
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 17.6 kDa, a single non-glycosylated polypeptide chain containing 155 amino acids.
<b>Quantity:</b>	2µg/10µg/1000µg
<b>AA Sequence:</b>	TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVASNLQD EELCGGLWRL VLAQRWMERL KTVAGSKMQG LLERVNTEIH FVTKCAFQPP PSLCRFVQTN ISRLQETSE QLVALKPWIT RQNFSRCLEL QCQPDSSTLP PPWSPRPLEA TAPTA
<b>Purity:</b>	> 97 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human AML5 cells is less than 1.0 ng/ml, corresponding to a specific activity of > 1.0 × 10 <sup>6</sup> IU/mg.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.0.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuFlt3-Ligand as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>

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### ***Human Fms-related Tyrosine Kinase 3 Ligand***

Flt3-ligand (FL) is a recently identified hematopoietic cytokine whose activities are mediated by binding to the transmembrane glycoprotein Flt3. Flt3 was first discovered as a member of the class III subfamily of receptor tyrosine kinases (RTK) whose expression among hematopoietic cells was found to be restricted to highly enriched stem/progenitor cell populations. Additionally, class III RTKs include the receptors from SCF, M-CSF and PDGF. Not surprisingly, Flt3-ligand is also structurally related to M-CSF and SCF. All three cytokines have been shown to exist both as type I transmembrane proteins and as soluble proteins. The predominant human FL isoform is a transmembrane protein that can undergo proteolytic cleavage to generate a soluble form of the protein. An alternatively-spliced FL mRNA, encoding a soluble form of the human FL, has also been identified. FL is widely expressed in various human and mouse tissues. FL has been shown to synergize with a wide variety of hematopoietic cytokines to stimulate the growth and differentiation of early hematopoietic progenitors.