Recombinant Human Fms-related Tyrosine Kinase 3 Ligand GMP (rHuFlt-3 Ligand GMP)

PrimeGene Technical DataSheet

Catalog Number:	GMP-103-05
Source:	*Escherichia coli*
Molecular Weight:	Approximately 17.6 kDa, a single non-glycosylated polypeptide chain containing 155 amino acids.
Size:	5 μg/100 μg/1 mg
Sequence:	TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVASNLQD EELCGGLWRL VLAQRWMERL KTVAGSKMQG LLERVNTEIH FVTKCAFQPP PSCLRFVQTN ISRLLQETSE QLVALKPWIT RQNFSRCLEL QCQPDSSTLP PPWSPRPLEA TAPTA
Purity:	> 98% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using AML5 cells is less than 1 ng/mL. The specific activity of recombinant human Flt-3 Ligand GMP is > 1.0×10^6 Units/mg, which is calibrated against the rHuFlt-3 Ligand WHO reference reagent (NIBSC code: 96/532).
Physical Appearance:	Sterile filtered white lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.0.
Endotoxin:	Less than 0.01 EU/μg of rHuFlt-3 Ligand GMP as determined by LAL method.
Sterility:	Negative.
Mycoplasma:	Negative.
Host Cell Protein:	Less than 0.05% when tested by ELISA.
Host Cell DNA:	Less than 20 ng/mg when tested by qPCR.
In Vitro Virus Assay:	Negative.
Reconstitution:	Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. If animal-origin-free condition is expected in your product, then sterile distilled water is recommended. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 ℃. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● A minimum of 12 months from date of receipt, when stored at ≤ -20 ℃ as supplied. ● 1 month, 2 to 8 ℃ under sterile conditions after reconstitution. ● 3 months, -20 to -70 ℃ under sterile conditions after reconstitution. ● Refer to lot-specific CoA for the Expiry Date.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. **NOT FOR HUMAN USE.**
Quality Statement:	**The manufacturing and testing of these products comply with ICH Q7 guidelines.**

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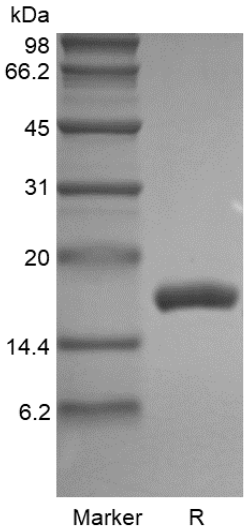
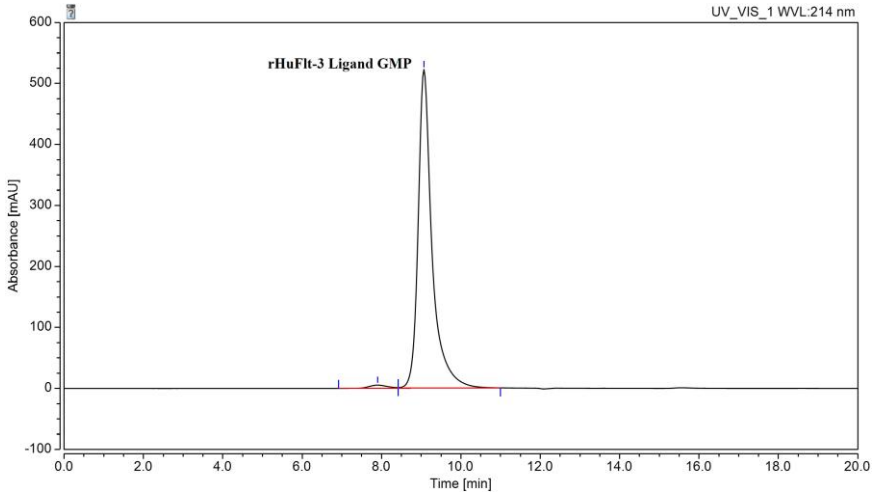
SDS-PAGE



HPLC



Background:

Flt-3 ligand (FL) is a recently identified hematopoietic cytokine whose activities are mediated by binding to the transmembrane glycoprotein Flt-3. Flt-3 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, Flt-3 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. At the amino acid sequence level, human and mouse FL are approximately 72% identical and the two proteins exhibit cross-species activity. FL has been shown to synergize with a wide variety of hematopoietic cytokines to stimulate the growth and differentiation of early hematopoietic progenitors.

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