Catalog Number: HZ-1151-GMP

Data Sheet

GMP HumanKine® FLT3 Ligand (Recombinant Human)

Animal Component-Free	Human cell expressed	Tag-Free	Endotoxin Free

Product Description

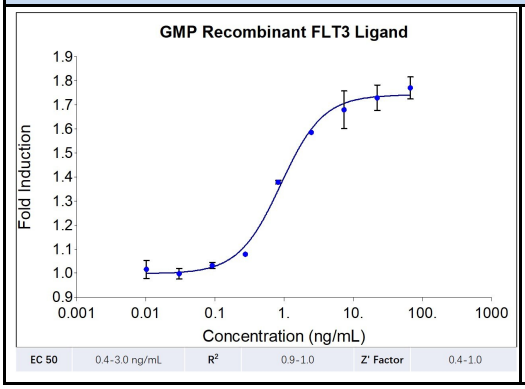
Animal-free Recombinant Human FLT3 Ligand is expressed from human 293 cells as a monomeric glycoprotein with an apparent molecular mass of 24 to 30 kDa. This cytokine is produced in a serum-free, chemically defined media. The molecular mass is a narrower range than reported when this cytokine is expressed in insect Sf21 cells (17 to 30 kDa), emphasizing the difference in glycosylation in different expression systems. FLT3 Ligand is a growth factor that regulates proliferation of early hematopoietic cells. FLT3 Ligand binds to cells expressing the tyrosine kinase receptor FLT3. FLT3 Ligand by itself does not stimulate proliferation of early hematopoietic cells, but synergizes with other CSFs and interleukins to induce growth and differentiation.

Alternative Names	FL, Flt3 ligand, Flt3L, FLT3LG, SL cytokine
Accession Number	P49771
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived FLT3 Ligand protein
Species Reactivity	human,mouse
Adventitious Virus	Master Cell Bank tested Negative for Adventitious Viruses

Specifications

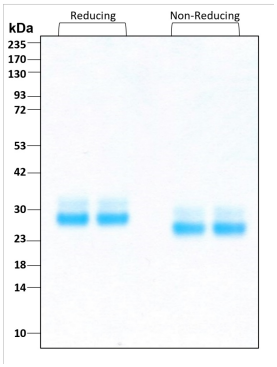
Test	Method	Specification
Activity	Dose-dependent proliferation of the human acute myeloid leukemia cell line (OCI-AML5).	0.4-3.0 ng/mL EC50
Molecular Mass	SDS-PAGE	27 to 34 kDa reduced, 23 to 30 kDa non-reduced, monomer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<0.1 EU/μg
Mycoplasma	PCR	Not Detected

Activity Data



GMP-grade recombinant human FLT3 Ligand (HZ-1151-GMP) stimulates dose-dependent proliferation of the human acute myeloid leukemia cell line (OCI-AML5). Viable cell number was quantitiatively assessed by PrestoBlue Cell Viability Reagent. OCI-AML5 cells were treated with increasing concentrations of recombinant human FLT3 Ligand for 72 hours.The EC50 was determined using a 4- parameter non-linear regression model. Activity

SDS-PAGE



Purity of GMP-grade recombinant human FLT3 Ligand was determined by SDS- polyacrylamide gel electrophoresis. The protein was resolved in an SDS- polyacrylamide gel in reducing and non-reducing conditions and stained using Coomassie blue.

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Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS, See Certificate of Analysis for details
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile water containing 0.1% endotoxin-free recombinant human serum albumin (HSA)

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
Stability and Storage	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
	Avoid repeated freeze-thaw cycles.		

Proteintech GMP Quality Policy
HumanKine® GMP Proteins

Invitro recombinant protein production can be prone to variability due to various reasons ranging from quality of raw materials to inconsistency in the process. Therefore, HumanKine®, a proteintech brand's GMP proteins are produced and tested under an ISO 13485 certified quality management system in a clean room facility. Proteintech manufactures the GMP HumanKine® products according to the applicable sections in the following documents: USP Chapter 1043 (Ancillary Materials for Cell, Gene, and Tissue-Engineered Products, USP Chapter 92 (Growth Factors and Cytokines Used in Cell Therapy Manufacturing), WHO TRS, No. 822, 1992 Annex 1 (Good Manufacturing Practices for Biological Products), Ph. Eur. General Chapter 5.2.12, and EudraLex – Volume 4 – Part IV (Guidelines on GMP specific to ATMPs). Proteintech strives to achieve the utmost quality GMP raw material ensuring all applicable guidelines are taken into consideration.

The QMS is built to provide our customers with consistent and pure product delivered by documented processes, qualified personnel, validated processes, qualified equipment, qualified vendors, and a stringent final product release process. Although the final product release process is important, Proteintech performs in-process QC steps after each major manufacturing stage. Production records and facilities may be available for an inspection by approved personnel.

Our GMP policy covers all the aspects of production; from raw materials, facility, equipment, and Instruments to training and personal hygiene of staff. It also guarantees that the process is explicit, validated and well documented for transparency and traceability.

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