



## Synonym

FLT3LG,FL,FLT3L,Flt3 ligand

## Source

Human Flt-3 Ligand, premium grade(FLL-H5218) is expressed from human 293 cells (HEK293). It contains AA Thr 27 - Pro 185 (Accession # [P49771-1](#)).

Predicted N-terminus: Thr 27

*It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

## Molecular Characterization

**Flt-3 Ligand(Thr 27 - Pro 185)  
P49771-1**

This protein carries no "tag".

The protein has a calculated MW of 18.0 kDa. The protein migrates as 24 kDa, 27 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 0.01 EU per µg by the LAL method.

## Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

## Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

## Sterility

The sterility testing was performed by membrane filtration method.

## Mycoplasma

Negative.

## Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

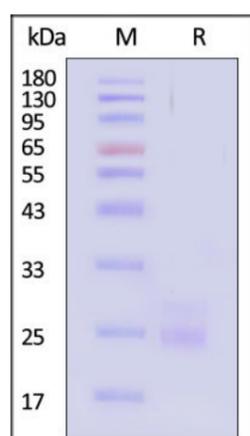
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

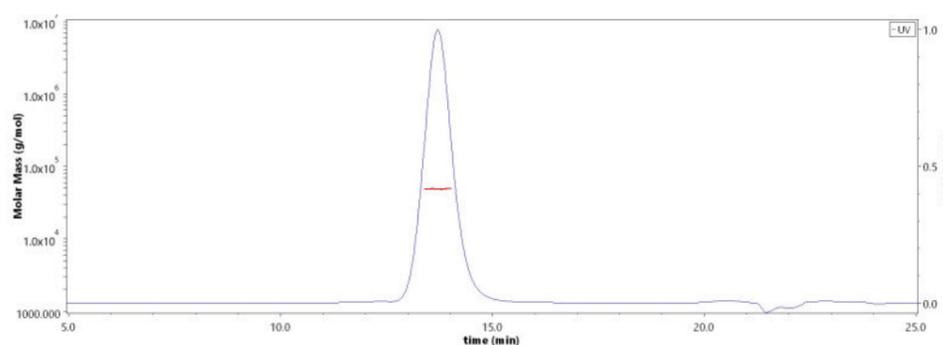
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



## SEC-MALS



Discounts, Gifts,  
and more!



# Human Flt-3 Ligand Protein, premium grade

Catalog # FLL-H5218



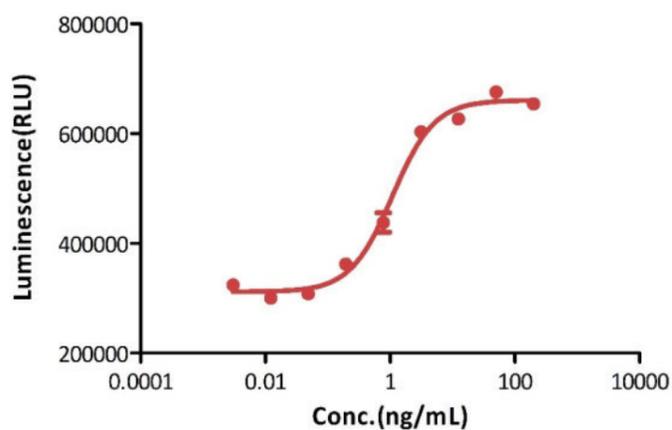
Human Flt-3 Ligand, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

The purity of Human Flt-3 Ligand, premium grade (Cat. No. FLL-H5218) is more than 95% and the molecular weight of this protein is around 42-52 kDa verified by SEC-MALS.

[Report](#)

## Bioactivity-Bioactivity CELL BASE

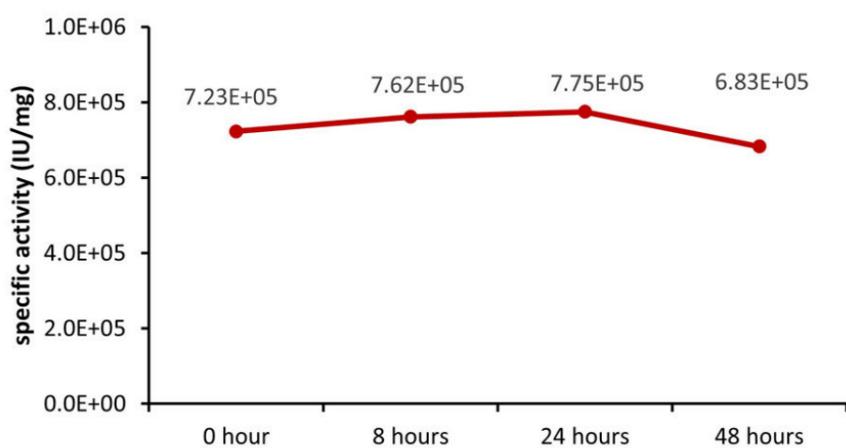
Human Flt-3 Ligand, premium grade stimulates proliferation of OCI-AML5 cells



Human Flt-3 Ligand, premium grade (Cat. No. FLL-H5218) stimulates proliferation of OCI-AML5 cell. The specific activity of Human Flt-3 Ligand, premium grade is  $> 5.00 \times 10^5$  IU/mg, which is calibrated against human WHO-Flt3 Ligand International Standard (NIBSC code: 96/532) (QC tested).

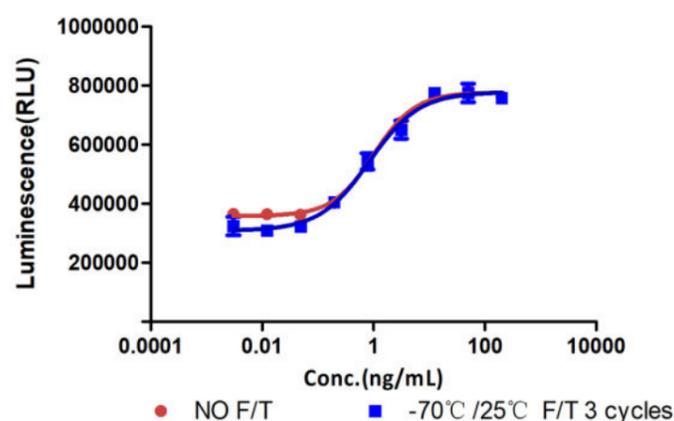
## Bioactivity-Stability

37°C Accelerated Stability (Reconstituted protein)



The Cell based assay shows that Human Flt-3 Ligand, premium grade (Cat. No. FLL-H5218) is stable at 37°C for 48 hours.

Freeze & Thaw stability (Reconstituted protein)

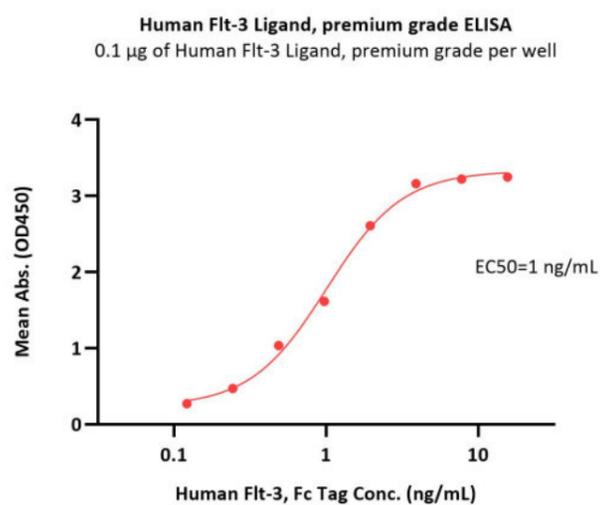


The Cell based assay shows that Human Flt-3 Ligand, premium grade (Cat. No. FLL-H5218) is stable after freezing and thawing 3 times.

## Bioactivity-ELISA

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Immobilized Human Flt-3 Ligand, premium grade (Cat. No. FLL-H5218) at 1 µg/mL (100 µL/well) can bind Human Flt-3, Fc Tag (Cat. No. FL3-H5258) with a linear range of 0.1-2 ng/mL (QC tested).

## Background

FMS-like tyrosine kinase 3 ligand (Flt-3 Ligand) is also known as FL, Flt3L and FLT3LG, is an  $\alpha$ -helical cytokine that promotes the differentiation of multiple hematopoietic cell lineages. FLT3LG is expressed as a noncovalently linked dimer by T cells and bone marrow and thymic fibroblasts. Each 36 kDa chain carries approximately 12 kDa of N- and O- linked carbohydrates. FLT3LG is structurally homologous to stem cell factor (SCF) and colony stimulating factor 1 (CSF-1). FLT3LG acts as a growth factor that increases the number of immune cells by activating the hematopoietic progenitors. It also induces the mobilization of the hematopoietic progenitors and stem cells in vivo which may help the system to kill cancer cells. FLT3LG induces the expansion of monocytes and immature dendritic cells as well as early B cell lineage differentiation. FLT3LG cooperates with IL2, IL6, IL7, and IL15 to induce NK cell development and with IL3, IL7 and IL11 to induce terminal B cell maturation. Animal studies also show FLT3LG to reduce the severity of experimentally induced allergic inflammation. FLT3LG is crucial for steady-state pDC and cDC development. A lack of FLT3L results in low levels of DCs.

## Clinical and Translational Updates

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