

**Synonym**

FLT3LG,FL,FLT3L,Flt3 ligand

**Source**

Human Flt-3 Ligand, His Tag(FLL-H5223) is expressed from human 293 cells (HEK293). It contains AA Thr 27 - Pro 185 (Accession # [P49771-1](#)).

Predicted N-terminus: Thr 27

**Molecular Characterization**

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

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 19.9 kDa. The protein migrates as 28-30 kDa and 31-33 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per  $\mu\text{g}$  by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22  $\mu\text{m}$  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.*

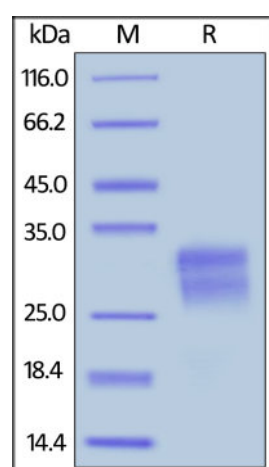
**Storage**

For long term storage, the product should be stored at lyophilized state at  $-20^{\circ}\text{C}$  or lower.

*Please avoid repeated freeze-thaw cycles.*

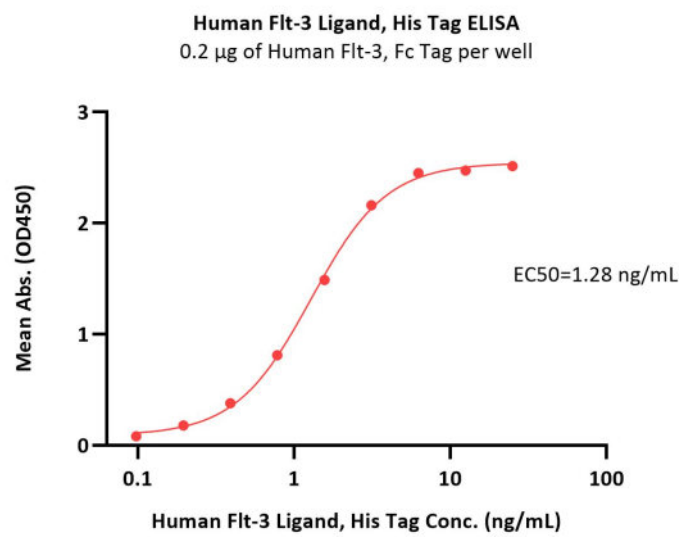
This product is stable after storage at:

- $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  for 12 months in lyophilized state;
- $-70^{\circ}\text{C}$  for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Human Flt-3 Ligand, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**



Immobilized Human Flt-3, Fc Tag (Cat. No. FL3-H5258) at 2 µg/mL (100 µL/well) can bind Human Flt-3 Ligand, His Tag (Cat. No. FLL-H5223) with a linear range of 0.1-3 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 noncovalentlylinked 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.