

# Recombinant human Flt3 ligand/FLT3LG protein

Catalog Number: ATGP4161

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

27-184aa

### UniProt No.

P49771

### NCBI Accession No.

NP\_001450

### Alternative Names

Fms-related tyrosine kinase 3 ligand isoform 1, Fms-related tyrosine kinase 3 ligand, FLT3LG, FL, FLG3L, FLT3L, IMD125, Flt3 ligand, SL cytokine

### Additional Information

ATGP3272 has been replaced with a catalog number ATGP4161.

## PRODUCT SPECIFICATION

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### Molecular Weight

19kDa (166aa)

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using OCI-AML5 acute myeloid leukemia cells. The ED50 range  $\leq$  5 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

FLT3LG, also known as fms-related tyrosine kinase 3 ligand, is an alpha-cytokine that promotes the differentiation of multiple hematopoietic cell lineages. This protein acts as a growth factor that increases the number of immune cells by activating the hematopoietic progenitors. It is crucial for steady-state pDC and cDC development. It controls the development of DCs and is particularly important for plasmacytoid DCs and CD8-positive classical DCs and their CD103-positive tissue counterparts. Additionally, FLT3LG synergizes with IL-3, GM-CSF, and SCF to promote the mobilization and myeloid differentiation of hematopoietic stem cells. It cooperates with IL-2, IL-6, IL-7, and IL-15 to induce NK cell development and with IL-3, IL-7, and IL-11 to induce terminal B cell maturation. Animal studies show that it reduces the severity of experimentally induced allergic inflammation. Recombinant human FLT3LG, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVASNLQD EELCGGLWRL VLAQRWMERL KTVAGSKMQG LLERVNTEIH FVTKCAFQPP PSCLRFVQTN ISRLLQETSE QLVALKPWIT RQNFRCLEL QCQPDSSTLP PPWSPRPLEA TAPTAPQP<LE HHHHHH>

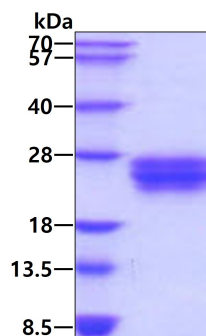
### General References

Klein O., et al. (2013) Eur. J. Immunol. 43(2):533-539.

Nakamori Y., et al. (2012) Br. J. Haematol. 157(6):674-686.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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Human Flt3 ligand stimulates cell proliferation of the OCI-AML5 acute myeloid leukemia cells. The ED50 range  $\leq 5$  ng/ml.

