

Recombinant human Flt3 ligand/FLT3LG protein

Catalog Number: ATGP4161

PRODUCT INFORMATION

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

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>

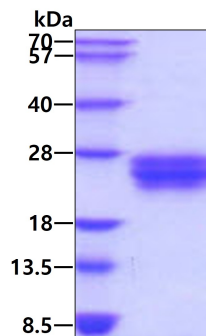
General References

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 ≤ 5 ng/ml.

