Data Sheet (Cat.No.TMPY-06873)

TargetMol

FLT3 Ligand Protein, Human, Recombinant

General Information

Synonyms:	FLT3LG;fms related tyrosine kinase 3 ligand;FLT3L;FL
Protein Construction:	A DNA sequence encoding the human FLT3LG (P49771-1) (Thr27-Ala181) was expressed. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P49771-1
Molecular Weight:	17.75 kDa (predicted)

QC Testing

Biological Activity:	Measured in a cell proliferation assay using BaF3 mouse pro-B cells transfected with mouse Flt-3. The ED50 for this effect is typically 1-6 ng/mL.
Purity:	≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 10 EU/mg of the protein.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

FLT3L, also known as flt3 ligand, is a small molecule that acts as a growth factor that increases the number of immune cells by activating the hematopoietic progenitors. In vivo, FLT3L also induces the mobilization of the hematopoietic progenitors and stem cells. This may help the system to kill cancer cells. Dendritic cells (DCs) provide the key link between innate and adaptive immunity by recognizing pathogens and priming pathogen-specific immune responses. FLT3L controls the development of DCs and is particularly important for plasmacytoid

DCs and CD8 -positive classical DCs and their CD103 -positive tissue counterparts.

Reference

Hannum C, et al. (1994) Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic stem cells and is encoded by variant RNAs. Nature 368 (6472): 643-8.
Lyman SD, et al. (1995) Identification of soluble and membrane-bound isoforms of the murine flt3 ligand generated by alternative splicing of mRNAs. Oncogene 10 (1): 149-57.
Lyman SD, et al. (1994) Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase receptor: a proliferative factor for primitive hematopoietic cells. Cell 75 (6): 1157-67.

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