Recombinant Mouse Flt-3 Ligand

20150227BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**M10-062**
Size:	10 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	*14255*
Synonyms:	Flt3; Flk2; Ly72; wmfl; CD135; Flk-2; Flt-3; B230315G04

Flt3 Ligand, also known as FL, is an α-helical cytokine that promotes the differentiation of multiple hematopoietic cell lineages. Mature mouse Flt3 Ligand consists of a 161 amino acid (aa) extracellular domain (ECD) with a cytokinelike domain and a juxtamembrane tether region, a 21 aa transmembrane segment, and a 22 aa cytoplasmic tail. Within the ECD, mouse Flt3 Ligand shares 71% and 81% aa sequence identity with human and rat Flt3 Ligand, respectively. Mouse and human Flt3 Ligand show cross-species activity. Flt3 Ligand is expressed as a non-covalently-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. Alternate splicing and proteolytic cleavage of the transmembrane form can generate a soluble 30 kDa fragment that includes the cytokine domain. Alternate splicing of mouse Flt3 Ligand also generates a membrane-associated isoform with a 57 aa substitution following the cytokine domain. Both transmembrane and soluble Flt3 Ligand signal through the tyrosine kinase receptor Flt3/ Flk2.

Sequence

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MTPDCYFSHS PISSNFKVKF RELTDHLLKD YPVTVAVNLQ
DEKHCKALWS LFLAQRWIEQ LKTVAGSKMQ TLLEDVNTEI
HFVTSCTFQP LPECLRFVQT NISHLLKDTC TQLLALKPCI
GKACQNFSRC LEVQCQPDSS TLLPPRSPIA LEATELPEPR PRQ
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Database References

Protein RefSeq:	NP_038548.3
Uniprot ID:	P49772
mRNA RefSeq:	NM_013520.3

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	163
MW:	18.6 kDa

Biological Activity: Determined by the dose-dependent stimulation of the proliferation of human AML5 cells. The expected ED50 for this effect is 5.0 – 8.0 ng/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!