

Growth Factor Data Sheet

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FLT3LG is a hematopoietic cytokine whose activities are mediated by binding to the transmembrane glycoprotein Flt3. Flt3 was first discovered as a member of the class III subfamily of receptor tyrosine kinases (RTK) whose expression among hematopoietic cells was found to be restricted to highly enriched stem/progenitor cell populations. Additionally, class III RTKs include the receptors from SCF, CSF3 and PDGF. Not surprisingly, FLT3LG is also structurally related to CSF3 and SCF. All three cytokines have been shown to exist both as type I transmembrane proteins and as soluble proteins. The predominant human FLT3LG isoform is a transmembrane protein that can undergo proteolytic cleavage to generate a soluble form of the protein. An alternatively-spliced FLT3LG mRNA, encoding a soluble form of the human FLT3LG, has also been identified. FLT3LG is widely expressed in various human and mouse tissues. At the amino acid sequence level, human and mouse FLT3LG are approximately 72% identical and the two proteins exhibit cross-species activity. FLT3LG has been shown to synergize with a wide variety of hematopoietic cytokines to stimulate the growth and differentiation of early hematopoietic progenitors.

Catalog Number	1130-05
Product Name	FLT3LG, Human Recombinant human fms related tyrosine kinase 3 ligand FLT3LG FL; FLT3L
Source	<i>Escherichia coli</i>
MW	~17.6 kDa (155 amino acid)
Sequence	TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVASNLQD EELCGGLWRL VLAQRWMERL KTVAGSKMQG LLERVNTEIH FVTKCAFQPP PSCLRFVQTN ISRLQETSE QLVALKPWIT RQNFSRCLEL QCQPDSSTLP PPWSPRPLEA TAPTA
Accession Number	P49771
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human AML5 cells is less than 1.0 ng/ml, corresponding to a specific activity of >1.0 × 10 ⁶ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.