

PRODUCT DESCRIPTION

Flt-3/Flk-2 ligand (FL) is a hematopoietic cytokine; its activities are mediated by binding to the transmembrane glycoprotein Flt-3/Flk-2 (CD135). FL synergizes with other hematopoietic cytokines such as IL-3, IL-6, TPO and SCF to stimulate growth and differentiation of early hematopoietic progenitors. FL has also been shown to promote the development of lymphoid cells, including dendritic cells.

Recombinant human FL contains 159 amino acid residues and has a predicted molecular mass of approximately 18 kDa after removal of the signal peptide, which contains 26 amino acid residues. Due to heterogenous glycosylation, recombinant human FL migrates as multiple bands ranging from 24-28 kDa in SDS-PAGE.

SOURCE

A DNA sequence encoding amino acid residues 1 (met) to 185 (pro) polypeptide of Flt-3/Flk-2 ligand (clone S86)¹ was expressed in a mouse myeloma cell line, NS0.

PURITY

Purity is greater than 97%, as determined by SDS-PAGE and visualized by silver stain. Endotoxin level is <1.0 EU per 1 µg cytokine, as determined by the LAL method.

ACTIVITY

The biological activity of recombinant human Flt-3/Flk-2 ligand is measured by its ability to stimulate the proliferation of a mouse Flt-3-transfected BaF/3 cell line. The ED₅₀ for this effect is typically 0.2 - 1 ng/mL.

FORMULATION

Recombinant human Flt-3/Flk-2 ligand is lyophilized from a 0.2 µm filtered solution in 40% acetonitrile and 0.1% trifluoroacetic acid, containing 50 µg bovine serum albumin per 1 µg cytokine.

RECONSTITUTION

Reconstitute human Flt-3/Flk-2 ligand at a concentration greater than 10 µg/mL with sterile phosphate buffered saline (PBS) containing at least 0.1% human or bovine serum albumin.

STABILITY AND STORAGE

Lyophilized human Flt-3/Flk-2 ligand is stable for up to twelve months from date of receipt at -20°C to -70°C.

Reconstituted human Flt-3/Flk-2 ligand can be stored under sterile conditions at 2°C - 8°C for one month, or at -20°C to -70°C (in a manual defrost freezer) for three months without detectable loss of activity.

Avoid repeated freezing and thawing.

PRODUCT INFORMATION SHEET	Cytokines	Recombinant Human Flt-3/Flk-2 Ligand
	STEMCELL TECHNOLOGIES VERSION 1.1.0	CATALOG #02640 5 µg/vial CATALOG #02840 25 µg/vial

REFERENCES

1. Hannum C, Culpepper J, Campbell D, McClanahan T, Zurawski S, Bazan JF, Kastelein R, Hudak S, Wagner J, Mattson J, *et al.*: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoietic stem cells and is encoded by variant RNAs. *Nature* 368: 643-648, 1994

