

# Recombinant Human FLT3-Ligand

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-331
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### ➤ **Background:**

This ligand binds to Fms-Like Tyrosine Kinase-3 (FLT-3). Human FLT3 ligand also stimulates the proliferation of cells expressing murine FLT-3 receptors. The effects of FLT-3 ligand are synergized by coexpression of G-CSF , GM-CSF , M-CSF , IL3 and SCF . FLT-3 ligand promotes long-term expansion and differentiation of human pro-B-cells in the presence of IL7 or in combination of IL7 and IL3 .

### ➤ **Description :**

Recombinant Human Flt3-Ligand produced in E.Coli is non-glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17605 Dalton. Recombinant FLT3 Ligand is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

FLT-3 was lyophilized with no additives.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized FLT-3 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized FLT3 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution FLT3 should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

### ➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

### ➤ **Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Thr-Gln-Asp-Cys-Ser.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This rHuFlt3-Ligand is fully biologically active when compared to standard. The ED50, calculated by the dose-dependant stimulation of the proliferation of human AML5 cells is less than 1.0 ng/ml, corresponding to a specific activity greater than  $1 \times 10^6$  units/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of FLT-3.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 .
2. Analysis by RP-HPLC, using a standard solution of FLT3 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.