## **PrimeGene** a biotechne brand

## Recombinant Rhesus Macaque Fms-related Tyrosine Kinase 3 Ligand (rRhFlt-3L)

**PrimeGene Technical Data Sheet** 

| <b>Catalog Number:</b>      | 113-05  |
|-----------------------------|---|
| Source:                     | Escherichia coli.   |
| Molecular Weight:           | Approximately 18.0 kDa, a single non-glycosylated polypeptide chain containing 159 amino acids.                 |
| Quantity:                   | 2µg/10µg/1000µg   |
| AA Sequence:                | TQDCSFQHSP ISSDFAVKIR ELSDYLLQDY PVTVPSNLQD EELCGALWRL VLAQRWMERL   |
|                             | KTVAGSKMQG LLERVNTEIH FVTKCAFQHP PSCLRFVQTN ISRLLQETSE QLVALKPWIT   |
|                             | RQNFSRCLEL QCQPDSSTLP PPRSPGALEA TALTAPQRP  |
| Purity:                     | > 97 % by SDS-PAGE and HPLC analyses.   |
| <b>Biological Activity:</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> 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 $\times$     |
|                             | 10 <sup>6</sup> IU/mg.  |
| Physical Appearance:        | Sterile Filtered White lyophilized (freeze-dried) powder.   |
| Formulation:                | Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.   |
| Endotoxin:                  | Less than 1 EU/µg of rRhFlt-3L as determined by LAL method.   |
| <b>Reconstitution:</b>      | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the                |
| ,                           | bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a                     |
|                             | concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and                 |
|                             | stored at $\leq$ -20 °C. Further dilutions should be made in appropriate buffered solutions.                    |
| Shipping:                   | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature            |
|                             | recommended below.  |
| Stability & Storage:        | Use a manual defrost freezer and avoid repeated freeze-thaw cycles.   |
|                             | • 12 months from date of receipt, -20 to -70 °C as supplied.  |
|                             | • 1 month, 2 to 8 °C under sterile conditions after reconstitution.   |
|                             | • 3 months, -20 to -70 °C under sterile conditions after reconstitution.  |
| Usage:                      | This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further                     |
|                             | evaluation purposes. NOT FOR HUMAN USE.   |

## Rhesus Macaque Fms-related Tyrosine Kinase 3 Ligand

Flt-3 ligand (FL) is a recently identified hematopoietic cytokine whose activities are mediated by binding to the transmembrane glycoprotein Flt-3. Flt-3 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, M-CSF and PDGF. Not surprisingly, Flt-3 ligand is also structurally related to M-CSF and SCF. All three cytokines have been shown to exist both as type I transmembrane proteins and as soluble proteins. The predominant human FL isoform is a transmembrane protein that can undergo proteolytic cleavage to generate a soluble form of the protein. FL has been shown to synergize with a wide variety of hematopoietic cytokines to stimulate the growth and differentiation of early hematopoietic progenitors.

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