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<b>Components</b>	<b>Mouse Flt3-Ligand:</b> Purified recombinant mouse Flt3-ligand.
<b>Sizes</b>	10 µg, 100 µg.
<b>Biological activity</b>	The ED <sub>50</sub> is <10.0 ng/mL* corresponding to a specific activity of >1×10 <sup>5</sup> U/mg.
<b>Primary structure</b>	Single, non-glycosylated polypeptide chain (163 amino acid residues).
<b>Molecular mass</b>	18.6 kDa
<b>Source</b>	Produced in <i>E. coli</i> .
<b>Product format</b>	Lyophilized from a 0.2 µm filtered buffer solution.
<b>Stabilizer</b>	None.
<b>Purity</b>	>97% as determined by SDS-PAGE analysis.
<b>Endotoxin level</b>	Low endotoxin (<1.0 EU/µg cytokine) as determined by Limulus Amebocyte Lysate (LAL) assay.
<b>Storage</b>	Lyophilized Mouse Flt3-Ligand should be stored at -20 °C. The expiration date is indicated on the vial label. Upon reconstitution aliquots should be stored at -20 °C or below. Avoid repeated freeze-thaw cycles.
<b>Reconstitution</b>	It is recommended to reconstitute lyophilized Mouse Flt3-Ligand with deionized sterile-filtered water to a final concentration of 0.1–1.0 mg/mL in a minimal volume of 100 µL. Further dilutions should be prepared with 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) in phosphate-buffered saline.

\* The ED<sub>50</sub> is determined by proliferation assay using mouse AML5 cells.

### 1.1 Background information

Flt3-ligand is a growth factor that regulates early hematopoiesis. Flt3-ligand belongs to a small family of α-helical cytokines and promotes in synergy with other growth factors like G-CSF, GM-CSF, SCF, and IL-3 the proliferation and differentiation of primitive hematopoietic stem cells. Early B cell lineage differentiation as well as expansion of monocytes and immature dendritic cells is stimulated. Flt3-ligand is expressed by T lymphocytes and bone marrow stromal fibroblasts as a membrane-bound and a soluble isoform. Both isoforms signal through the tyrosine kinase receptor Flt3/Flk-2, which is restricted to cells of hematopoietic origin.

### 1.2 Applications

Mouse Flt3-Ligand can be used for a variety of applications, including:

- Inducing of maturation and expansion of dendritic cells (DCs) *in vivo* and for the *in vitro* generation of bone marrow-derived DCs.
- Generation of eosinophils from bone marrow progenitor cells.
- Studies on allergic airway inflammation in mouse models.

Optimal concentration for a specific application should be determined by a dose-response experiment.

All protocols and data sheets are available at [www.miltenyibiotec.com](http://www.miltenyibiotec.com).

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