

Mouse Flt3-Ligand

research grade

Contents

- 1. Description
 - 1.1 Background information
 - 1.2 Applications

1. Description

Products Mouse Flt3-Ligand, research grade.

Recombinant mouse fms-related tyrosine

kinase 3 ligand.

| Content in µg | Order no. |
|---------------|-------------|
| 10 | 130-094-038 |
| 100 | 130-097-372 |

Biological activity

The ED₅₀ is \leq 10 ng/mL corresponding to an

activity of $\geq 1 \times 10^5$ U/mg.

 \blacktriangle Note: The ED₅₀ is determined by proliferation assay

using mouse AML5 cells.

Primary structure

Single, non-glycosylated polypeptide chain (163 amino acid residues including an

N-terminal methionine).

Molecular mass 18.6 kDa.

Source Produced in *E. coli*.

Product format Lyophilized from a filtered (0.2 μm) buffer

solution.

Stabilizer None.

Purity >95% as determined by SDS-PAGE analysis.

Endotoxin level Low endotoxin (<1.0 EU/μg cytokine) as

determined by Limulus Amebocyte Lysate

(LAL) assay.

Storage Lyophilized Mouse Flt3-Ligand, research

grade 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.

Reconstitution It is recommended to reconstitute lyophilized

Mouse Flt3-Ligand, research grade 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.

1.1 Background information

Fms-related tyrosine kinase 3 ligand (Flt3-ligand) is a growth factor that regulates early hematopoiesis. Flt3-ligand belongs to a small family of α -helical cytokines. In synergy with other growth

factors like G-CSF, GM-CSF, SCF, and IL-3 Flt3-ligand stimulates 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. Mouse Flt3-Ligand is also active on human cells.

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.

Refer to www.miltenyibiotec.com for all data sheets and protocols. Miltenyi Biotec provides technical support worldwide. Visit www. miltenyibiotec.com for local Miltenyi Biotec Technical Support contact information.

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