Miltenyi Biotec

Mouse FGF-8b
research grade

Contents

1. Description
   - 1.1 Background information
   - 1.2 Applications

1. Description

Products

Mouse FGF-8b, research grade.

Recombinant mouse fibroblast growth factor 8b.

Content in µg	Order no.
10	130-096-100
25	130-096-101

Biological activity

The ED_{50} is ≤200 ng/mL corresponding to an activity of $\geq 5 \times 10^3$ U/mg.

▲ **Note:** The ED_{50} is determined by proliferation assay in the presence of sodium heparin using 3T3 cells.

Primary structure

Single non-glycosylated polypeptide chain (194 amino acid residues including an N-terminal methionine).

Molecular mass

22.5 kDa.

Source

Produced in *E. coli*.

Product format

Lyophilized from a filtered (0.2 µm) buffer solution.

Stabilizer

Mannitol and trehalose.

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 FGF-8b, 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 FGF-8b, 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

Fibroblast growth factor 8 (FGF-8) is a heparin-binding protein, which has mitogenic and transforming activity. Eight secreted FGF-8 isoforms (FGF-8a to h) have been identified in mice, whereas four have been described in humans (a, b, e, and f). FGF-8b appears to be the predominant form and has been shown to have the most important oncogenic transforming capacity. FGF-8 exerts a pivotal role in embryogenesis. It is expressed during gastrulation and influences brain, limb, heart, and facial development in the mouse embryo. In addition, FGF-8 was shown to stimulate osteoblast proliferation.The amino acid sequence of mouse FGF8-b shares 100% identity with human FGF-8b.

1.2 Applications

Mouse FGF-8b can be used for a variety of applications, including:

- *In vitro* expansion of embryonic stem cell–derived neural progenitor cells.
- Survival of neural precursor cells and differentiation into astroglial cells.
- Stimulation of osteoblast proliferation.
- Proliferation of endothelial cells.
- Protection of hippocampal cultures from oxidative stress.
- Proliferation of myogenic cells.
- Tumor growth studies of prostate and breast cancer.

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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Technical information

The technical information, data, protocols, and other statements provided by Miltenyi Biotec in this document are based on information, tests, or experience

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Miltenyi Biotec B.V. & Co. KG
Friedrich-Ebert-Straße 68, 51429 Bergisch Gladbach, Germany
Phone +49 2204 8306-0, Fax +49 2204 85197
macsde@miltenyi.com
www.miltenyibiotec.com

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