

Human FGF-9 research grade

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1. Description

Products Human FGF-9, research grade.

Recombinant human fibroblast growth factor

Content in µg	Order no.
5	130-103-446
20	130-110-920

Biological activity

The ED₅₀ is \leq 5 ng/mL corresponding to an activity of $\geq 2 \times 10^5$ U/mg.

▲ Note: The ED₅₀ is determined by stimulation of thymidine uptake by BaF3 cells expressing FGF receptors or by a proliferation assay using mouse balb/c 3T3 cells.

Primary structure

Source

Single non-glycosylated polypeptide chain without N-terminal methionine (206 amino

acid residues).

Molecular mass

Produced in E. coli.

Product format

Lyophilized from a filtered (0.2 µm) buffer

solution.

23.2 kDa.

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 Human FGF-9, 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 Human FGF-9, research grade with deionized sterile-filtered water to a final concentration of 0.1-1.0 mg/mL in a minimal volume of $50~\mu L$. 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 9 (FGF-9), also known as heparin-binding growth factor 9 (HBGF-9), belongs to the FGF family. FGF-9 binds several FGF receptors, FGFR 1c, 2c, 3b, 3c, and 4, and similarly to all FGF members, plays a crucial a role as cell mitogen and regulator of cell differentiation. In the nervous system, FGF-9 is secreted by neurons and induces survival signals for glial cells and astrocytes. During embryogenesis FGF-9 is a key factor for gonad development and determination of sexual phenotype, as well as skeletal development. FGF-9 is also expressed by prostatic and brain cancer.

1.2 Applications

Human FGF-9 can be used for a variety of applications, including:

- Developmental studies of tissue differentiation.
- Differentiation of mesenchymal cell culture.
- Maintenance culture of neuronal and glial cells.

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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