

DATASHEET

Version 20181206

FGF-9, Mouse

Cat. No.: Z03145-1

Size: 1.0 mg

Synonyms: Growth Factor-9, GAF (Glia-activating factor), HBGF-9

Description:

Fibroblast Growth Factor-9 (FGF-9) is a pleiotropic cytokine and belongs to the heparin-binding FGF family. Like other members in the family, FGF-9 resembles a β -trefoil structure. FGF-9 undergoes reversible dimerization, a common characteristic shared by its subfamily members, FGF-16 and FGF-20. The mutations involved in the homodimerization also affect the affinity for heparin, binding to FGF receptors, and biological activity. In vivo, FGF-9 is expressed in limb buds, the developing skeleton, and in the intestines during late stage embryogenesis. FGF-9 is essential for the development of heart, lung, kidney, cecum, and testes; and the reduction of FGF-9 level leads to premature differentiation. FGF-9 also works along with Bone Morphogenetic Protein-7 (BMP-7) to promote the survival of nephron progenitors.

Recombinant mouse Fibroblast Growth Factor (rmFGF-9) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 207 amino acids. A fully biologically active molecule, rmFGF-9 has a molecular mass of 23.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MPLGEVGSYF GVQDAVPFGN VPVLPVDSVP LLNDHLGQSE
00041 AGGLPRGPAV TDLHLKGIL RRRQLYCRGT FHLEIFPNGT
00081 IQGTRKDHSR FGILEFISIA VGLVSIRGVD SGLYLG MNEK
00121 GELYGSEKLT QECVFREQFE ENWYNTYSSN LYKHVD TGRR
00161 YYVALNKDGT PREGTRTKRH QKFTHFLPRP VDPDKVPELY
00201 KDILSQS
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Source: *E. coli*

Species: Mouse

Biological Activity: ED₅₀ < 5 ng/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 2×10⁵ units/mg.

Molecular Weight: 23.4 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant mouse Fibroblast Growth Factor (rmFGF-9) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmFGF-9 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.