

Active Recombinant Mouse Fgf1 Protein (140 aa)

Cat. No. Fgf1-403F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Fibroblast Growth Factor- acidic (rmFGF-acidic) produced in E. coli is a single non-glycosylated polypeptide chain containing 140 amino acids. A fully biologically active molecule, rmFGF-acidic has a molecular mass of 15.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Mouse
Source	E.coli
ProteinLength	140
Description	Fibroblast Growth Factor- acidic (FGF-acidic) is a mitogen targeting at the endothelial cells, and belongs to the heparin binding FGF family, which contains 22 members. FGF-acidic binds to the receptor family FGFR1-4 in vivo with the assistance of heparin. However, along with FGF -basic, FGF-acidic lacks the signal peptide segment, and thus is not secreted via endoplasmic reticulum (ER) and Golgi bodies. Studies have shown that FGF-acidic is highly regulated, and it is a direct angiogenesis factor. If unregulated, angiogenesis could contribute to several diseases including arthritis, diabetes, ocular neovascularization, and especially tumors. Therefore, FGF-acidic is treated as a potential oncogene, and its overexpression is correlated tightly with several cancers.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.

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Bio-activity	ED50 < 0.4 ng/mL, measured by a cell proliferation assay using 3T3 cells in the presence of 10 µg/mL heparin, corresponding to a specific activity of > 2.5 × 10 ⁶ units/mg.
Molecular Mass	15.8 kDa, observed by reducing SDS-PAGE.
AA Sequence	FNLPLGNYKKPKLLYCSNGGHFLRILPDGTVDGTRDRSDQHIQLQLSAESAGEVYIK GTETGQYLAMDTEGLLYGSQTPNEECLFLERLEENHYNTYTSKKHAEKNWVGLKK NGSCKRGPRTHYGQKAILFLPLPVSSD
Endotoxin	< 0.2 EU/µg, determined by LAL method.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Storage	Lyophilized recombinant mouse Fibroblast Growth Factor- acidic (rmFGF-acidic) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rmFGF-acidic should be stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.

GENE INFORMATION

Gene Name	Fgf1 fibroblast growth factor 1 [Mus musculus (house mouse)]
Official Symbol	Fgf1
Synonyms	FGF1; fibroblast growth factor 1; AFGF; ECGF; FGFA; ECGFA; ECGFB; FGF-1; HBGF1; HBGF-1; GLIO703; ECGF-beta; FGF-alpha; fibroblast growth factor 1; beta-

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endothelial cell growth factor; endothelial cell growth factor, alpha; endothelial cell growth factor, beta; fibroblast growth factor 1 (acidic); heparin-binding growth factor 1

Gene ID	14164
mRNA Refseq	www.ncbi.nlm.nih.gov/nuccore/NM_010197
Protein Refseq	www.ncbi.nlm.nih.gov/protein/NP_034327
UniProt ID	P10935

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