Fgf1
Recombinant Mouse Fibroblast Growth Factor - acidic

Catalog No.	CRF130A	**Quantity:**	10 µg
	CRF130B		50 µg
	CRF130C		1.0 mg

Alternate Names: Fibroblast Growth Factor 1, Fibroblast Growth Factor acidic, FGF acidic, AFGF, ECGF, FGFA, HBGF1

Description: Mouse aFGF, encoded by the FGF1 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Mouse aFGF shares 52 % amino acid sequence identity with bFGF. Mouse aFGF shares 96 % amino acid sequence identity with human aFGF, so it exhibits considerable species crossreactivity between mouse and human aFGF. In mammalian FGF receptor family has 4 members, FGFR1, FGFR2, FGFR3, and FGFR4, and 1, 2, 3 have 2 sub-types “b”, “c”. aFGF can bind and activate all 7 different FGFRs. Affinity between aFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. aFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. aFGF are also involved in a variety of biological processes, including embryonic development , morphogenesis, tissue repair, tumor growth and invasion.

Gene ID: 2246

Source: *E. coli*

Molecular Weight: 15.8 kDa

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

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

Endotoxin Level: Less than 1EU/µg as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED_{50} determined by a cell proliferation assay using mouse balb/c 3T3 cells is less than 0.3 ng/ml.

Specific Activity: > 3.3 x 10^6 units/mg

Amino Acid Sequence: FNLPLGNYKK PKLLYCSNGG HFLRILPDGT VDGTRDRSDQ HIQLQLSAES AGEVYIKGTE TGQYLAMDTE GLLYGSQTPN EECLFLERLE ENHYNTYTSK KHAEKNWFVG LKKNGSCKRG PRTHYGQKAI LFLPLPVSSD

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

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