

41990 Recombinant Human Fibroblast Growth Factor 1 (hFGF-1)

Source:	Expressed in <i>E.coli</i>
Tag:	N-terminal 6xHis
Size:	100µg
Purity:	>95%, determined by SDS-PAGE
Endotoxin Level:	<0.2EU/µg, determined by LAL Test
Other Names:	AFGF, ECGF

Introduction to the Molecule

Fibroblast Growth Factor 1 (FGF-1), also known as FGF acidic, ECGF, and HBGF1, is a non-glycosylated member of the FGF family of mitogenic peptides. Produced by multiple cell types, FGF1 stimulates the proliferation of all cells of mesodermal origin and many cells of neuroectodermal, ectodermal, and endodermal origin. It plays roles in development, regeneration, and angiogenesis. The ability of heparin sulfate to bind FGF acidic is determined by its pattern of sulfation, and alterations in this pattern during embryogenesis thereby regulate FGF acidic bioactivity. The association of FGF acidic with heparin sulfate is a prerequisite for its subsequent interaction with FGF receptors. Intracellular FGF acidic functions as a survival factor by inhibiting p53 activity and proapoptotic signaling.

Amino Acid Sequence

MRGSHHHHHHGMASMTGGQQMGRDLY
DDDDKDRWGSELEENLYFQFNLPPGNYKK
PKLLYCSNGGHFLRILPDGTVDGTRDRSDQHI
QLQLSAESVGEVYIKSTETGQYLAMDTDGLLY
GSQTPNEECLFLERLEENHYNTYISKKHAEN
WFGVGLKKNKNGSCKRGPRTHYGQKAILFLPLPVS
SD

Note: **6xhis tag** are **EK cleavage site** are highlighted

Formulation, Reconstitution and Storage

- Lyophilized at 1 mg/mL in Na₂HPO₄ 20mM, NaCl 500mM, heparin 0.01mM, pH 8.0.
- Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.
- Store lyophilized protein at -20°C. Aliquot reconstituted protein and store at -80°C. Avoid repeated freezing /thawing cycles.

SDS-PAGE Gel

