

Recombinant Mouse Fibroblast Growth Factor-basic

Mouse, Recombinant (FGF2)

Expressed in *E. coli*

Cat. No. CRP0829

Lot. No. (See product label)

PRODUCT INFORMATION

Description: FGF basic (FGF-2, HBGF-2) is one of at least 22 mitogenic proteins of the FGF family, which show 35–60% amino acid conservation. Unlike other FGFs, FGF acidic and basic lack signal peptides and are secreted by an alternate pathway. Storage pools within the cell or on cell surface heparin sulfate proteoglycans (HSPG) are likely. The predicted 17 kDa FGF basic isoform can be located in both the cytoplasm and the nucleus and is presumed to be the form secreted. Transcription from alternate start sites produces 21–24 kDa forms found only in the nucleus. High and low molecular weight human FGF basic targets the expression of different genes when expressed in NIH-3T3 cells.

Amino-Acid Sequence: 146 aa, non-glycosylated

M. W. : 16,200 Da

Recombinant: Expressed in *E. coli*

Purity: >98% as determined by SDS-PAGE and HPLC.

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

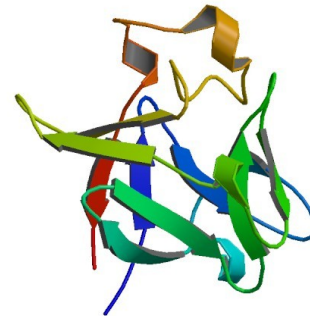
Specific Activity: Fully biologically active when compared to standard. The ED50, as determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing FGF receptors is <0.1ng/ml, corresponding to a specific activity of > 1×10⁷ units/mg.

Endotoxin: Less than 1EU/mg of rMubFGF as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1–1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2–8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2–8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1bas.

GENE INFORMATION

Gene Name: [Fgf2](#)

Synonyms: DN-452A22.6; Fgf-2; Fgfb; bFGF; Prostatropin; HBGH-2; BFGF; FGF-b; Heparin-binding growth factor 2; Basic fibroblast growth factor; Heparin-binding growth factor 2 Precursor; Fgf2; fibroblast growth factor 2

mRNA Refseq: [NM_008006](#)

Protein Refseq: [NP_032032](#)

MIM: [134920](#)

GeneID: [14173](#)

UniProt ID: [Q541T2](#); P15655

Chromosome Location: 3 A2-B; 3 19.3 cM

Pathway: MAPK signaling pathway; Melanoma; Prostate cancer; Regulation of actin cytoskeleton

Function: growth factor activity; heparin binding; protein binding

REFERENCES

1. Marie PJ, Debais F, HayE (2003). "Regulation of human cranial osteoblast phenotype by FGF-2, FGFR-2 and BMP-2 signaling.". *Histol. Histopathol.* **17** (3): 877–85.
2. Vincent T, Saklatvala J (2006). "Basic fibroblast growth factor: an extracellular mechanotransducer in articular cartilage?". *Biochem. Soc. Trans.* **34** (Pt 3): 456–7.
3. Ribatti D, Vacca A, Rusnati M, Presta M (2007). "The discovery of basic fibroblast growth factor/fibroblast growth factor-2 and its role in haematological malignancies.". *Cytokine Growth Factor Rev.* **18** (3–4): 327–34.

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