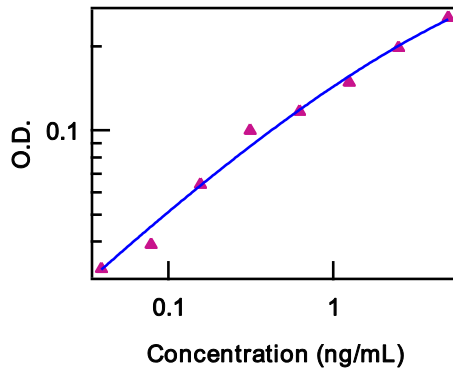


## Human FGF basic (FGF-2) Recombinant Protein Carrier Free

**Catalog Number:** 34-8986

**Also known as:** Fibroblast Growth Factor basic, FGF2

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Proliferation of BALB/c-3T3 cells induced by FGF-b Recombinant Protein

### Product Information

**Contents:** Human FGF basic (FGF-2) Recombinant Protein Carrier Free

**REF** **Catalog Number:** 34-8986

**Concentration:** 0.5 mg/mL

**Handling Conditions:** For best recovery, always quick-spin vial prior to opening. For dilution of current stock, always include carrier protein (1% BSA or 10% FBS) in the buffered saline diluent.

**Source:** E.coli derived amino acids Pro143-Ser288 accession number NM\_002006

**Molecular Mass:** 20 kDa

**Purity:** Greater than or equal to 98%, as determined by SDS-PAGE

**Endotoxin:** Less than 0.01 ng/ug cytokine as determined by the LAL assay

**Bioactivity:** The ED50 of this protein, as measured by balb/c-3T3 cell proliferation, is 0.1-1.25 ng/mL. This corresponds to a specific activity of  $1 \times 10^7 - 8 \times 10^5$  Units/mg.

**Formulation:** Sterile liquid: phosphate buffered saline, 1 mM DTT, pH 7.2. 0.22 um filtered.



**Temperature Limitation:** For greatest stability, keep concentration of primary stock at or above 10 µg/ml. For long term storage, aliquot into polypropylene vials (volumes of 20 µl or greater) and store at or below -80°C. Avoid repeated freeze/thaw cycles.

**LOT**



**Batch Code:** Refer to vial

**Use By:** Refer to vial

### Description

Fibroblast Growth Factor basic (FGF-b, also known as FGF-2) is a member of the FGF family, a highly conserved family of 16-34 kDa heparin-binding proteins. FGF-b exists in several isoforms, and although they are equally active, only the 18 kDa form is secreted while the 23 kDa form localizes to the nucleus. It lacks the signal sequence peptide necessary for the ER/Golgi pathway, indicating that secretion occurs via an alternate pathway. FGF-b shares four common tyrosine kinase receptors, FGFR 1-4, and require the binding of a second surface protein, the ubiquitously expressed heparan sulfate proteoglycan, in order to fully activate these receptors. FGF family members affect the proliferation, differentiation, mobility, and survival of several cell types, including fibroblasts, osteoblasts, smooth muscle cells, and neuroblasts. FGF-b expression has been detected in several cell types, including fibroblasts, macrophages, endothelial cells, epithelial cells, and neurons. FGF-b is particularly important in embryonic development as triggers of neurogenesis, angiogenesis, and neovascularization and has most recently been studied for its ability to maintain the proliferation of embryonic stem cell cultures in an undifferentiated state. Some members of the family, including FGF-b, remain active during adulthood and play a role in bone formation and tissue repair.

Not for further distribution without written consent.

Copyright © 2000-2012 eBioscience, Inc.

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • [www.ebioscience.com](http://www.ebioscience.com) • [info@ebioscience.com](mailto:info@ebioscience.com)

---

## Human FGF basic (FGF-2) Recombinant Protein Carrier Free

**Catalog Number:** 34-8986

**Also known as:** Fibroblast Growth Factor basic, FGF2

**RUO: For Research Use Only. Not for use in diagnostic procedures.**

---

FGF family members are also implicated in many types of cancer and may contribute to tumor vascularization.

### Applications Reported

Human FGF basic recombinant protein is biologically active.

### Applications Tested

The ED<sub>50</sub> of this protein, as measured by balb/c-3T3 cell proliferation, is 0.1-1.25 ng/ml. This corresponds to a specific activity of  $1 \times 10^7$  -  $8 \times 10^5$  Units/mg.

### References

Greber B, Lehrach H, Adjaye J. Fibroblast growth factor 2 modulates transforming growth factor beta signaling in mouse embryonic fibroblasts and human ESCs (hESCs) to support hESC self-renewal. *Stem Cells*, 2007 Feb; 25(2): 455-64.

Dvorak P, Hampl A. Basic fibroblast growth factor and its receptors in human embryonic stem cells. *Folia Histochem Cytobiol.* 2005; 43(4): 203-8.

Ornitz DM, Itoh N. Fibroblast growth factors. *Genome Biol.* 2001; 2(3)

### Related Products

14-8359 Human VEGF 121 Recombinant Protein

14-8982 Mouse FGF basic (FGF-2) Recombinant Protein

14-8987 Human FGF acidic (FGF-1) Recombinant Protein

14-8988 Human EGF Recombinant Protein

---

Not for further distribution without written consent.

Copyright © 2000-2012 eBioscience, Inc.

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • [www.ebioscience.com](http://www.ebioscience.com) •  
[info@ebioscience.com](mailto:info@ebioscience.com)