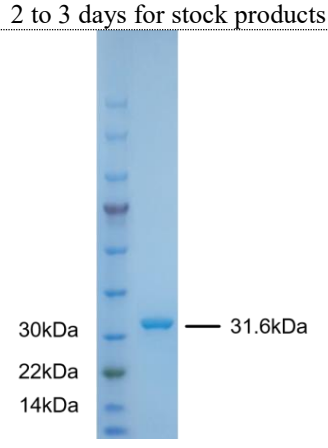
# Human Fibroblast Growth Factor 2 (FGF2) Protein, Recombinant

## 1. For Sale

| Product Name | Catalog # | Size |
|---|---|---|
| Human Fibroblast Growth Factor 2 (FGF2) Protein, Recombinant | P01F0003P-T2 | 10ug |
| | | 50ug |
| | | 500ug |
| | | 1mg |

## 2. Product Description

| | |
|---|---|
| Other Names | BFGF; FGFB; FGF-2; HBGF-2 |
| Protein & NCBI Number | D9ZGF5, NM_001361665.2 |
| Host | E.coli |
| Express Region | Met1-Ser155 |
| Protein Sequence | MAAGSITTLPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLRIH<br>PDGRVDGVREKSDPHIKLQLQAEERGVVSIKGVCANRYLAMKEDGRLLASKC<br>VTDECF<br>FFERLESNNYNTYRSRKYTSWYVALKRTGQYKLGSKTGPGQKAILFLPMSAKS |
| Molecular Weight | The protein consists of 281 amino acids (including the fusion tag), with a predicted molecular weight of 31.6 kDa, which matches the actual molecular weight. |
| Fusion Tag | 6×His-SUMO (N-terminus) |
| Purity | ≥95% SDS-PAGE |
| Physical Property | Liquid |
| components | 0.01M PBS+20% glycerol, sterile solution. |
| Storage & Stability | After aliquoting, the stability of the samples can be maintained for up to 6 months at -20°C to -80°C, avoiding repeated freeze-thaw cycles. |
| Applications | Antibody preparation, immunoassay (ELISA, WB), subcellular localization and interaction protein identification, etc. |
| Lead Time | 5 to 10 business days;<br>2 to 3 days for stock products |
| Figure.<br>SDS-PAGE |  <br>Bis-Tris (MOPS) SDS-PAGE |

## 3. Storage and Transportation

Transport at 2-8℃, product is stable for up to twelve months from date of receipt under sterile conditions at -20℃ to -80℃.

**4. Notes**

This product is for research use only. Please wear laboratory attire and disposable gloves when handling.

**5. Background**

FGF-2, also known as basic fibroblast growth factor (bFGF), is an important member of fibroblast growth factor (FGF) family. FGF-2 is a cationic polypeptide with a molecular weight of 16 ~ 18000 and an isoelectric point of 9.6. FGF2 can be produced by vascular endothelial cells, retinal pigment epithelial cells, photoreceptor cells, m ü ller cells and astrocytes. It widely exists in a variety of tissues in vivo and mainly plays a role through autocrine and paracrine. The signal pathway induced by FGF2 is necessary for normal cell growth and differentiation. It exists in almost all cells. FGF2 binds to FGFR, which makes the receptor dimerize and tyrosine kinase is activated, triggering a series of intracellular phosphorylation cascade reactions to regulate cell growth Differentiation and apoptosis. Under normal conditions, FGF-2 binds to heparin and does not produce biological effects. However, in some pathological cases, the integrity of cells is destroyed, which can release the stored form of FGF-2, promote angiogenesis and participate in the process of tissue repair. FGF-2 and FGFR are almost distributed in various tissues of the whole body. FGF-2 is the strongest known cytokine. It plays an important role in promoting angiogenesis, wound healing, tissue injury repair, neuroprotection, embryonic development and tumor formation. FGF-2 has two main functions, inducing endothelial cell germination and proliferation and increasing vascular permeability. In addition, studies have shown that FGF2 is also closely related to depression.

**6. References**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2) 朱华锋,汪春兰,赵宇.VEGF 和 FGF-2 在血管生成中的协同作用研究进展.中华整形外科杂志,2006(01):72-75.
3) 谷中秀,吴绵绵,郭芳,赵少贞,张琰.FGF2 与新生血管性视网膜病变的研究进展.生命科学仪器,2018,16(03):16-22.
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5) Barrientos S,Brem H,Stojadinovic O et al. Clinical application of growth factors and cytokines in wound healing. Wound Repair and Regeneration, 2014, 22(5) : 569-578.
6) Murakami Shinya. [Periodontal regeneration by FGF2]. Clinical calcium, 2007, 17(2):249-55.