



Product Data Sheet

**Human Recombinant Fibroblast Growth Factor Basic (FGF-2) Protein**

Catalog Number: ORF.GF.FGF2

Product Details	
<b>Product Name</b>	Human Recombinant Brain-Derived Neurotrophic Factor (BDNF) Protein
<b>Catalog Numbers</b>	ORF.GF.FGF2-10, ORF.GF.FGF2-50, ORF.GF.FGF2-100, ORF.GF.FGF2-500, ORF.GF.FGF2-1000
<b>Sizes</b>	10 µg, 50 µg, 100 µg, 500 µg, 1000 µg
<b>Species</b>	Human
<b>UniProt ID</b>	NP_001997
<b>Product Form</b>	Lyophilized

Product Description	Product Image
<p>Fibroblast Growth Factor 2 (FGF-2), also known as basic FGF, is a potent mitogenic and angiogenic cytokine that plays a crucial role in cell proliferation, survival, and differentiation across various tissue types. It exerts its biological effects by binding to FGF receptors (FGFRs) in the presence of heparan sulfate proteoglycans, activating downstream signaling pathways such as MAPK, PI3K/AKT, and PLCγ. These pathways regulate diverse cellular processes including stem cell self-renewal, neurogenesis, and vascular development.</p> <p>FGF-2 is expressed in a wide range of tissues and is essential during embryogenesis for mesoderm induction, neural patterning, and organogenesis. In adult tissues, it supports wound healing, angiogenesis, and tissue regeneration. Due to its broad bioactivity, recombinant FGF-2 is widely used in vitro to maintain pluripotent stem cells, promote proliferation of mesenchymal and neural progenitors, and support endothelial cell expansion. It is also a critical component in tissue engineering, cancer biology, and regenerative medicine research.</p>	<p>The image shows an SDS-PAGE gel with two lanes. Lane M contains a molecular weight marker with bands at 130, 95, 65, 55, 43, 33, 25, 17, and 8 kDa. Lane R shows a single prominent band at approximately 17 kDa, corresponding to the expected size of FGF-2.</p>

*For research applications only. Not for diagnostic or therapeutic use.*



Product Specifications		
<b>Protein Description</b>	154-amino acid mature FGF-2 protein consisting of residues Ala135 to Ser288	
<b>Expression System</b>	Available Upon Request	
<b>Amino Acid Sequence</b>	AAGSITTLPA LPEDGGSGAF PPGHFKDKPKR LYCKNGGFFL RIHPDGRVDG VREKSDPHIK LQLQAEERGV VSIKGVCANR YLAMKEDGRL LASKCVTDEC FFFERLESNN YNTYRSRKYT SWYVALKRTG QYKLGSKTGP GQKAILFLPM SAKS	
<b>Molecular Weight</b>	SDS-PAGE	17.1 kDa (Expected)
<b>Purity</b>	SDS-PAGE	> 95%
<b>Endotoxin</b>	LAL	< 1 EU/microgram
<b>Bioactivity</b>	Determined by a cell proliferation assay using Balb/c 3T3 cells.	Biologically Active

Product Preparation	
<b>Shipping Temperature</b>	Ambient
<b>Form</b>	Lyophilized
<b>Reconstitution Instructions</b>	Reconstitute with sterile deionized water or sterile PBS + 0.1% BSA.

Storage and Stability		
	Temperature	Storage Time
<b>Lyophilized Form</b>	-20°C to -80°C	12 months
<b>Reconstituted Form</b>	2°C to 8°C	1 month
<b>Reconstituted Form</b>	-20°C to -80°C	3 months

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