

# Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

FGF2 is a member of the fibroblast growth factor family of proteins. It is often called FGF-basic or bFGF. FGF2 is a single-chain polypeptide growth factor that plays a significant role in wound healing. It is a potent inducer of angiogenesis and is essential for the growth of many stem and progenitor cells. FGF2 shares a 55% amino acid residue identity with FGF1 and interacts with heparin sulfate with nanomolar affinity. It is a potent inducer of DNA synthesis in a variety of cell types. FGF2 activates mesenchymal splice variants of FGF receptors (c splice variants) and also activates FGF Receptor 1b, but has little activity against FGFR2b or FGFR3b. It is most closely associated with FGF1 (aFGF).

|                            |   |
|----------------------------|---|
| <b>Catalog Number</b>      | <b>1140-02</b>  |
| <b>Product Name</b>        | <b>Basic FGF (FGF2), Human</b><br>Recombinant Human Fibroblast Growth Factor 2<br>Fibroblast Growth Factor-basic<br>bFGF, FGF-2<br>Basic FGF  |
| <b>Source</b>              | <i>Escherichia coli</i>   |
| <b>MW</b>                  | ~16.5 kDa (147 amino acids)   |
| <b>Sequence</b>            | MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAEERGVVSIKGVCA NRYLAMKED GRLLASKCVT DECFERLE SNNYNTYRSR KYTSWYVALKRTGQYKLGSK TGPGQKALF LPMSAKS  |
| <b>Accession Number</b>    | <a href="#">P09038</a>  |
| <b>Purity</b>              | >96% by SDS-PAGE and HPLC analyses  |
| <b>Biological Activity</b> | Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine BALB/c 3T3 cells is less than 0.05 ng/ml, corresponding to a specific activity of >2.0×10 <sup>7</sup> IU/mg.  |
| <b>Formulation</b>         | Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.   |
| <b>Storage/Handling</b>    | The lyophilized sample is stable at 2-8°C, but should be kept desiccated at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months for maximal stability. Avoid repeated freeze/thaw cycles.  |
| <b>Reconstitution</b>      | The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum, and 1 µg/ml heparin. |