10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# FGF-basic

Catalog # PVGS1322

## Product Information

| | |
|---|---|
| **Primary Accession** | P09038 |
| **Species** | Human |
| **Sequence** | Ala135-Ser288 |
| **Purity** | > 95% as analyzed by SDS-PAGE |
| **Endotoxin Level** | |
| **Expression System** | E. coli |
| **Formulation** | Lyophilized after extensive dialysis against PBS. |
| **Reconstitution** | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in $ddH_2O$ up to 100 □g/ml. |
| **Storage & Stability** | Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles. |

## Additional Information

| | |
|---|---|
| **Gene ID** | 2247 |
| **Other Names** | Fibroblast growth factor 2, FGF-2, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2, FGF2, FGFB |
| **Target Background** | Fibroblast Growth Factor-basic (FGF-basic), also known as FGF-2, is a pleiotropic cytokine and one of the prototypic members of the heparin-binding FGF family. Like other FGF family members, bFGF has the β trefoil structure. In vivo, bFGF is produced by a variety of cells, including cardiomycotes, fibroblasts, and vascular cells. bFGF regulates a variety of processes including cell proliferation, differentiation, survival, adhesion, motility, apoptosis, limb formation and wound healing. bFGF can be tumorigenic due to its role in angiogenesis and blood vessel remodeling. The angiogenic effects of bFGF can produce beneficial cardioprotection during acute heart injury. |

## Protein Information

| | |
|---|---|
| **Name** | FGF2 |

| | |
|---|---|
| **Synonyms** | FGFB |
| **Function** | Acts as a ligand for FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed: 8663044). Also acts as an integrin ligand which is required for FGF2 signaling (PubMed:28302677). Binds to integrin ITGAV:ITGB3 (PubMed:28302677). Plays an important role in the regulation of cell survival, cell division, cell differentiation and cell migration (PubMed:28302677, PubMed:8663044). Functions as a potent mitogen in vitro (PubMed:1721615, PubMed:3732516, PubMed:3964259). Can induce angiogenesis (PubMed:23469107, PubMed:28302677). Mediates phosphorylation of ERK1/2 and thereby promotes retinal lens fiber differentiation (PubMed:29501879). |
| **Cellular Location** | Secreted. Nucleus. Note=Exported from cells by an endoplasmic reticulum (ER)/Golgi-independent mechanism. Unconventional secretion of FGF2 occurs by direct translocation across the plasma membrane (PubMed:20230531). Binding of exogenous FGF2 to FGFR facilitates endocytosis followed by translocation of FGF2 across endosomal membrane into the cytosol (PubMed:22321063). Nuclear import from the cytosol requires the classical nuclear import machinery, involving proteins KPNA1 and KPNB1, as well as CEP57 (PubMed:22321063) |
| **Tissue Location** | Expressed in granulosa and cumulus cells. Expressed in hepatocellular carcinoma cells, but not in non-cancerous liver tissue. |