

## Recombinant Human FGF2, His-tagged

**Cat. No.** FGF2-27258TH    **Lot. No.** (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b>    | Recombinant full length mature human FGF basic with His tag produced in the endosperm tissue of barley grain ; amino acids 134-288 , 19.5 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>       | 134-288 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>         | The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. This protein has been implicated in diverse biological processes, such as limb and nervous system development, wound healing, and tumor growth. The mRNA for this gene contains multiple polyadenylation sites, and is alternatively translated from non-AUG (CUG) and AUG initiation codons, resulting in five different isoforms with distinct properties. The CUG-initiated isoforms are localized in the nucleus and are responsible for the intracrine effect, whereas, the AUG-initiated form is mostly cytosolic and is responsible for the paracrine and autocrine effects of this FGF. |
| <b>Conjugation</b>         | HIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Tissue specificity</b>  | Expressed in granulosa and cumulus cells. Expressed in hepatocellular carcinoma cells, but not in non-cancerous liver tissue.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Biological activity</b> | Bioactivity: The bioactivity is determined by dose-dependent effect of human FGF basic on proliferation of BaF3 cells transfected with FGF receptor. We recommend that the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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|                              | optimal concentration for each specific application be determined by an initial dose-r                                                                                                                                   |
| <b>Form</b>                  | Lyophilised:It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). |
| <b>Purity</b>                | >95% by SDS-PAGE                                                                                                                                                                                                         |
| <b>Storage buffer</b>        | Preservative: NoneConstituents: 50mM Sodium chloride, 20mM Tris, pH 7.5                                                                                                                                                  |
| <b>Storage</b>               | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.                                                                                                                           |
| <b>Sequence Similarities</b> | Belongs to the heparin-binding growth factors family.                                                                                                                                                                    |
| <b>Full Length</b>           | Full L.                                                                                                                                                                                                                  |

## GENE INFORMATION

|                        |                                                                                  |
|------------------------|----------------------------------------------------------------------------------|
| <b>Gene Name</b>       | FGF2 fibroblast growth factor 2 (basic) [ Homo sapiens ]                         |
| <b>Official Symbol</b> | FGF2                                                                             |
| <b>Synonyms</b>        | FGF2; fibroblast growth factor 2 (basic); FGFB; heparin-binding growth factor 2; |
| <b>Gene ID</b>         | 2247                                                                             |
| <b>mRNA Refseq</b>     | NM_002006                                                                        |
| <b>Protein Refseq</b>  | NP_001997                                                                        |

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| <b>MIM</b>                 | 134920                                                                                                                                                                                                                                                                                                                                            |
| <b>Uniprot ID</b>          | P09038                                                                                                                                                                                                                                                                                                                                            |
| <b>Chromosome Location</b> | 4q26                                                                                                                                                                                                                                                                                                                                              |
| <b>Pathway</b>             | Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem;<br>Downstream signaling of activated FGFR, organism-specific biosystem;<br>Endochondral Ossification, organism-specific biosystem; FGFR ligand binding and activation, organism-specific biosystem; FGFR1 ligand binding and activation, organism-specific biosystem; |
| <b>Function</b>            | chemoattractant activity; cytokine activity; fibroblast growth factor binding; fibroblast growth factor receptor binding; growth factor activity;                                                                                                                                                                                                 |

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