Product Data Sheet - Recombinant Human FGF2

Product details	
Product Name : Recombinant Human FGF2 **Product Part Number : FGF2-121**	
Product Details	FGF2 is a member of the FGF family (one of 23).[1] Human FGF2 is a single, non-glycosylated, polypeptide chain containing 155 amino acids with molecular mass of 17.3 kDa. The FGF family of proteins drive broad mitogenic and cell survival activities including cell proliferation, differentiation, survival, and apoptosis.[2] FGF2 binds to the FGF receptor (FGFR) members, and activates downstream signaling proteins, like ERK1/2.[345]
Synonyms	Fibroblast growth factor basic; Heparin-binding growth factor 2 (HBGF2); Prostatropin
Sequence (monomer)	**Human FGF2 (Met 1 - Ser 155) P09038** Total Amino acids: 155 aa. Calculated MW: 17.3 kDa
Formulation	Lyophilized protein from 0.22 µm filtered solution in PBS, pH 7.4
Purity & Identity	≥95% pure, verified by SDS PAGE. Identity has been verified during characterization. Data available upon request.
Safety	Endotoxin: <1 EU/µg, Mycoplasma: Negative
Protein Content	Concentration verified by total protein assay
Biological Activity	Determined by a cell proliferation assay using NIH-3T3 cell line and binding to the receptor via SPR. Effective concentration 50 (EC_{50}) < 3 ng/ml.
Application	Research Use Only. Not for diagnostic or therapeutic applications.

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Storage & Handling	
Products are lyophilized and shipped at ambient temperature. Please follow the storage and handling instructions below after receiving the product.	
Storage	Upon arrival, store the lyophilized protein at -20°C.
Stability	Stable as supplied for 3 months from retest date. For continued use beyond the retest date, contact the manufacturer.
Reconstitution	Gently tap down the vial to ensure that all lyophilisate is collected at the bottom of the vial. Reconstitute the product in PBS to at least 100 µg/mL by gently pipetting the solution down the sides of the vial. Avoid vigorous shaking that can cause foaming and protein denaturation. Keep on ice. Aliquot and store at < -70°C for up to 3 months under sterile conditions. Avoid repeated freeze-thaw cycles by aliquoting reconstituted products.
Recommendation	As an additional precaution, after adding reconstituted products to media, filter-sterilize before use in cell culture.

Frequently Asked Questions

- **Are there any cross-species activity with this growth factor?**
  Yes, human FGF2 shares 99% sequence homology with bovine FGF2; expected cross reactivity against bovine, rat, porcine, mouse, chicken, horse and other mammalian systems.
- **Why can't I see a pellet in the vial?**
  Lyophilized powder may not be visible for many reasons including, but not limited to, dislodged powder being stuck on the cap or lack of carrier proteins that make the product difficult to see. Please tap or centrifuge the vial to bring all the material down to the bottom and reconstitute the product as outlined above.
- **Are there any stability concerns with freeze thawing?**
  Repeated freeze thawing is not recommended, as this may damage the protein products resulting in reduced functionality. After reconstitution, please aliquot into suitable sizes for one time use and freeze.
- **Can I add BSA as a carrier?**
  Yes. Adding a carrier protein like Bovine Serum Albumin (BSA 0.1%) enhances protein stability, increases shelf-life, and allows the recombinant protein to be stored at a more dilute concentration.
- **Is this protein bioactive?**
  Yes, this protein was tested for activity on its cognate receptor via SPR, as well as proliferation of NIH3T3 cells.

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References

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End of Product Data sheet

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