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DATA SHEET

Version: 01
Revision date: 23/05/2025

1. Identification

Product name	**Recombinant Human FGF-2 (145 aa)** 100 µg
Cat. No	CR001

2. Description

Canvax Recombinant Human FGF-2 (145 aa) is a highly pure, animal-origin-free recombinant protein produced in *E. coli*. This 17 kDa core active form corresponds to the structured region of human fibroblast growth factor 2 and provides robust activity in pluripotent and mesenchymal stem-cell applications. It supports iPSC/ESC maintenance, MSC proliferation, and a broad range of cell-culture and signal-transduction studies requiring controlled activation of FGFR pathways.

Delivered as a stable lyophilized powder, this protein ensures excellent batch-to-batch consistency, low endotoxin levels and reliable performance in demanding cell-culture workflows.

A GMP-grade version suitable for therapeutic and regulated manufacturing environments is available upon request

3. Product information

Expression system	*E. coli* recombinant production.
Sequence	Human FGF-2 (145 aa), corresponding to residues 144–288 (UniProt P09038).
Molecular Weight	17 kDa (monomer). A non-covalent ~35 kDa dimer may appear in non-reducing SDS-PAGE but does not affect biological activity.
Structure	Monomeric fibroblast growth factor.
Purity	≥ 98% (SDS-PAGE).
Identity	Confirmed by mass spectrometry.
Endotoxin	<0.05 EU/µg protein.
Bioactivity	Validated in HEK293 cells using a luciferase reporter assay.
Form	Lyophilized powder.
Formulation	Lyophilized from Tris, NaCl, Cys and mannitol.
Reconstitution	Sterile water (>50 µg/mL); aliquot and store at –80 °C.
Recovery	>95% after reconstitution.
Lot-to-lot consistency	Ensured through controlled manufacturing and analytical release testing.

4. Storage specifications

Store the lyophilized protein at –20 °C for general use. Avoid repeated freeze–thaw cycles. Once reconstituted, aliquot and store at –80 °C.

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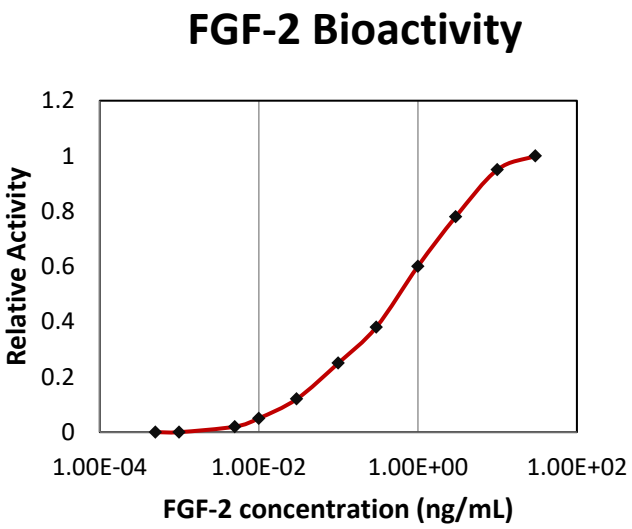
5. Applications

- Expansion of iPSCs and ESCs
- MSC proliferation and differentiation models
- Stem-cell media supplementation
- Growth-factor pathway and FGFR1–4 signaling studies
- Cell-proliferation and survival assays
- Regenerative biology, angiogenesis and wound-healing models

A GMP-grade variant is also available for cell-therapy, regenerative-medicine and advanced therapeutic manufacturing workflows.

6. Bioactivity assay

FGF-2 activity was evaluated using a serum response element (SRE) luciferase reporter assay in HEK293T cells. A clear dose-dependent increase in normalized firefly luciferase activity was observed, with an EC50 of ~0.24 ng/mL. Data were generated using triplicate measurements across a serial dilution range.



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7. Further information

RUO This product is sold as RUO (Research Use Only), not for diagnostic or therapeutic use in humans or animals. GMP-grade production can be provided on request. Full regulatory documentation is available for GMP-manufactured batches. Contact us (info@canvaxbiotech.com).

Disclaimer The information provided in this Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide and should not be taken as a warranty or quality specification. Canvax Reagents S.L.U. shall not be held liable for any damage resulting from handling or from contact with the above product.