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Recombinant human FGF-2 (145 aa) protein (Qk025-CTG)

Type: Cell Therapy Grade

Available for purchase: Unit Size (µg): 25, 50, 100, 500, 1000

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Product Information

Human fibroblast growth factor 2 (FGF-2/bFGF) protein (145 aa) is our gold-standard and recommended FGF-2 / bFGF protein for induced pluripotent stem cell (iPSC) and embryonic stem cell (ESC) maintenance, and iPSC and mesenchymal stem cell (MSC) proliferation and differentiation.

Our highly pure and bioactive cell therapy grade 17 kDa FGF-2 protein animal origin-free (AOF) and carrier protein-free (CF) comprising the core structured region (145 aa) sufficient for full biological activity.

Qkine cell therapy grade high purity animal origin-free proteins are manufactured as GMP grade equivalents in an ISO 9001:2015-certified facility, under ISO 20399:2022 standards with GMP compliance, defined quality criteria and documentation.

This product is available to order now and will be in stock soon, please contact us for the estimated lead time ryan.weber@matriqx.com

Alternative protein names

Basic fibroblast growth factor, bFGF, FGF-β, FGF2, Fibroblast growth factor-basic, HBGF-2, betaFGF, beta FGF, FGF 2, Qk25 GMP

Molecular weight

17 kDa

Protein Uniprot number

High purity human FGF-2 / basic FGF, 145 aa form comprising residues 144-288 (Uniprot: P09038)

Species reactivity

- human
- species similarity:
- mouse - 97%
- rat - 97%
- bovine - 99%
- porcine - 99%

Product Information

- Certified animal origin-free (AOF)
- Cell and gene therapy grade
- Manufactured in our ISO 9001:2015 facility in Cambridge, UK
- Lot-to-lot consistency in bioactivity
- Full traceability and documentation
- Carrier protein-free, tag free
- Expressed in *E. coli*
- Lyophilized from Tris, NaCl, CyS, mannitol

Reconstitution instructions

- Resuspend in sterile-filtered water at >50 µg/ml

Featured applications

- Neural stem cell (NSC) therapy
- Regenerative stem cell therapy
- Pluripotent stem cell therapy

Further quality assays

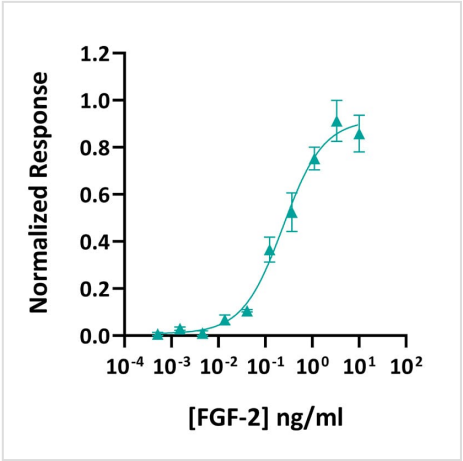
- Mass spectrometry: single species with expected mass
- Purity >98%, by SDS-PAGE quantitative densitometry
- Recovery from stock vial: >95%
- Sterility tested and mycoplasma negative
- Endotoxin: <0.05 EU/µg protein
- Residual host cell protein <10 ng/µg

- Residual host cell DNA <10 ng/μg
- N-terminal sequence analysis

Scientific Information

Bioactivity

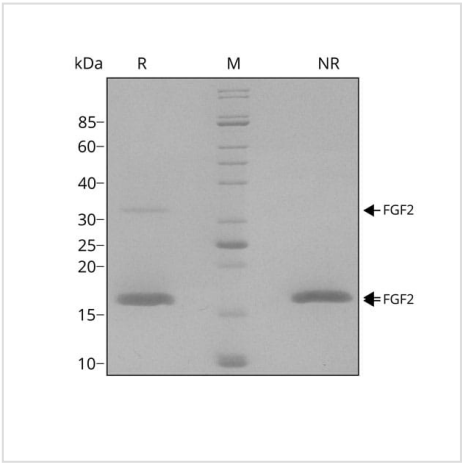
FGF-2 activity was determined using the Promega serum response element luciferase reporter assay in transfected HEK293T cells. Cells were treated in triplicate with a serial dilution of FGF-2 for 6 hours. Firefly luciferase activity is measured and normalized to the control Renilla luciferase activity. Data from Qk025 lot #204706. EC50 = 0.24 ng/ml (14 pM).



The specific activity of recombinant cell therapy grade human FGF-2 (145 aa) GMP is >8.0 x 10^5 units/mg, which is calibrated against the human FGF-2 WHO standard (NIBSC code: 90/712).

Purity

FGF-2 migrates as major band at 17 kDa in non-reducing (-βME) conditions and upon reduction (+βME). The higher molecular mass band at 35 kDa is a dimer that we always see in our highly purified human FGF-2, the presence of this does not affect biological activity. Purified recombinant protein (7 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptothanol, R) and non-reduced conditions (NR) and stained with Coomassie Brilliant Blue R250. Data from Qk025 lot #014



Original product page: https://ryan.calliope-alpha.ts.net/product/recombinant-human-fgf-2-145-aa-protein-qk025-ctg/

PDF generated: 12 May 2026