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Recombinant bovine/porcine FGF2-G3 (154 aa) protein (Qk081)



Type: Stem cells

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

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Product Information

Recombinant bovine/porcine FGF2-G3 (154 aa) protein is a thermostable engineered form of FGF-2. Qk081 is the 154 aa mature domain of FGF-2 (Qk056). FGF2-G3 has an increased functional half-life from <10 h (wild-type) to >7 days (FGF2-G3). Bovine FGF2-G3 is used for the development of optimized serum-free culture media for species-specific bovine (cow) cultivated meat and veterinary research applications including the expansion of bovine smooth muscles cells, bovine induced pluripotent, embryonic and mesenchymal stem cells.

Recombinant FGF2-G3 is used in B8 media (Kuo et al. 2020) and Beefy-9 media (Stout et al. 2023) for weekend free, high homogeneity induced pluripotent stem cell culture. FGF2-G3 also has applications in chemically defined stem cell and organoid culture media.

Bovine/porcine thermostable FGF2-G3 (154 aa) has a molecular weight of 17.2 kDa. This protein is carrier-free and tag-free to ensure its purity with exceptional lot-to-lot consistency.

Alternative protein names

Basic fibroblast growth factor, bFGF, FGF-β, FGF2, Fibroblast growth factor-basic, HBGF-2, FGF2-G3, FGF2-STAB, FGF2-STAB3, FGF 2, Qk81

Molecular weight

17.2 kDa (monomer)

Protein Uniprot number

High purity thermostable bovine/porcine FGF2-G3

Species reactivity

- bovine
- porcine

Product Information

- >98%, by SDS-PAGE quantitative densitometry
- Expressed in *E. coli*
- Animal origin-free (AOF) and carrier protein-free
- Manufactured in our Cambridge, UK laboratories
- Lyophilized from Tris, NaCl, CyS, mannitol

Reconstitution instructions

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

Featured applications

- Bovine and porcine stem cell expansion and maintenance
- Cellular agriculture and cultivated meat cell culture media optimization

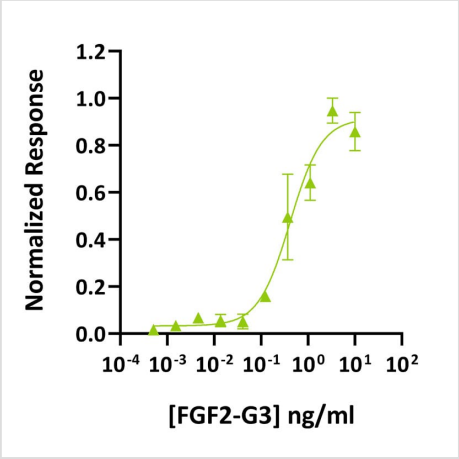
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

Scientific Information

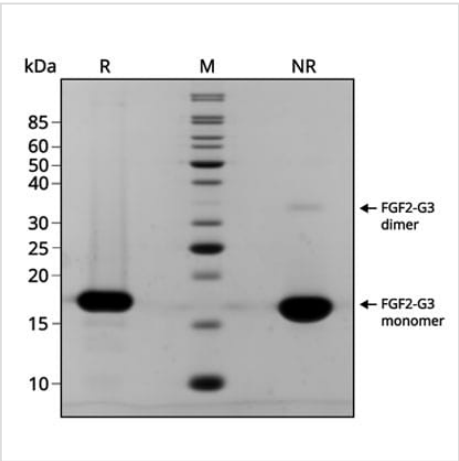
Bioactivity

Recombinant bovine/porcine FGF2-G3 activity was determined using the Promega serum response element luciferase reporter assay in transfected HEK293T cells. EC50 = 415 pg/ml (24 pM). Cells were treated in triplicate with a serial dilution of FGF2-G3 for 3 hours. Firefly luciferase activity was measured and normalized to the control Renilla luciferase activity. Data from Qk081 lot #204612.



Purity

Recombinant bovine/porcine FGF2-G3 154 aa migrates as a major band at approximately 17 kDa (monomer) in reduced (R) and non-reduced (NR) conditions. The dimeric form is also observed at approximately 34 kDa in the non-reduced condition. No contaminating protein bands are present. The purified recombinant protein (7 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250. Data from Qk081 lot #204612.



Original product page: https://qkine.com/product/recombinant-bovine-porcine-fgf2-g3-154-aa-protein-qk081/

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