Technical Data Sheet

Recombinant bovine/porcine FGF-2 (145 aa) protein

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Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

Lot Specific Information

Lot Number: **Lot Specific***

Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Shelf Life

This product has a guaranteed shelf-life of one year from the date of customer receipt when stored as recommended.

Product Information

Catalog Number:	**RP057**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Bovine and porcine primary cell culture Bovine and porcine stem cell expansion and maintenance Cellular agriculture process development
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in sterile-filtered water at >50 µg/ml. Once reconstituted, store in single-use aliquots to avoid freeze-thaw cycles. Store reconstituted protein at -20 °C to -80 °C for a maximum of 12 months or until the expiry date if sooner.
Sterility:	Sterile
Production:	Microbial. Expressed in E. coli
Molecular Weight:	16 kDa
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant bovine/porcine FGF-2 (145 aa) protein, also known as basic fibroblast growth factor (bFGF), is a member of the fibroblast growth factor (FGF) family that regulates cell growth, survival, proliferation, migration and differentiation, with critical roles in embryonic development and in adult tissue maintenance, wound healing and angiogenesis. FGF-2 is one of the FGFs that binds and signals through all four tyrosine kinase FGF receptors (FGFR1–4), which recruit SH2- and PTB-domain signaling proteins to activate the RAS/MAP kinase, PI3K/Akt and PLCγ pathways. It is an essential growth factor for maintaining pluripotency in human embryonic stem cells (ESCs), induced pluripotent stem cells (iPSCs) and mesenchymal stem cells (MSCs), preserving stemness through PI3K/Akt, ERK1/2, JAK/STAT and PLCγ signaling and activin A activation, and in feeder culture systems it stimulates the production of essential growth factors and cytokines from the feeder layer, making recombinant FGF-2 a key reagent for stem cell culture and pluripotency research. This protein is optimized for in vivo and functional applications: low-endotoxin, tag-free, and carrier-free, supporting reproducible performance in demanding preclinical and bioactivity studies. Species reactivity: bovine, porcine.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**

It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Store lyophilized protein between -20 °C and -80 °C until the date of expiry. Avoid freeze-thaw cycles

Conditions: For research use only. Not for use in diagnostic or therapeutic

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