Technical Data Sheet

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

bioxcell.com

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:	**RP083**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Bovine and porcine stem cell expansion and maintenance Cellular agriculture and cultivated meat cell culture media optimization
Formulation:	Lyophilized, white powder
Endotoxin:	≤1.2 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:	17.2 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant bovine/porcine FGF2-G3 (154 aa) protein, a form of fibroblast growth factor 2 also known as basic FGF (bFGF), is an essential growth factor for maintaining the pluripotency of embryonic stem cells (ESCs) and induced pluripotent stem cells (iPSCs) in feeder-free, chemically defined media and is a core component of widely adopted formulations including mTeSR, StemPro and E8. Native FGF-2 is inherently unstable and prone to proteolytic degradation and aggregation, and its short half-life in culture media (<10 h) contributes to the need for frequent media changes and to challenges in maintaining homogeneity during stem cell proliferation and differentiation. Bovine/porcine FGF2-G3 can serve as a core ingredient of Beefy-9 medium, in which the addition of recombinant albumin to B8 medium enabled the growth of bovine satellite cells and created the first medium to meet the fundamental criteria for a foundational cultured meat medium, notably the complete absence of animal-derived components, making it a key reagent for animal-component-free cell culture and cultivated meat 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

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com

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