Technical Data Sheet

Recombinant bovine/porcine FGF2-G3 (145 aa) protein

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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:	**RP082**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Maintenance and expansion of bovine iPSC, ESC and primary cells Cellular agriculture and cultivated meat cell culture media optimization
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:	16.3 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant bovine/porcine FGF2-G3 (145 aa) protein is a form of FGF-2, also known as basic fibroblast growth factor (bFGF), an essential growth factor for maintaining embryonic stem cell (ESC) and induced pluripotent stem cell (iPSC) pluripotency in feeder-free and chemically defined media and a core component of widely adopted media such as 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 achieving homogeneity during stem cell proliferation and differentiation. Bovine/porcine FGF2-G3 can serve as a core ingredient of Beefy-9, a medium established by Stout et al. in 2023 by adding recombinant albumin to B8 medium for the growth of bovine satellite cells, and the first medium to meet the fundamental criteria of a foundational medium for cultured meat production. Free of animal-derived components, Beefy-9 departs from traditional serum-containing media in support of ethical and sustainable cell culture, making bovine/porcine FGF2-G3 a key reagent for cultivated meat and cellular agriculture 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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