Technical Data Sheet

Recombinant bovine HGF NK1 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:	**RP070**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Cellular agriculture process development Differentiation of iPSCs to hepatocyte-like cells Cellular agriculture and cultivated meat cell culture media optimization iPSC and primary cell differentiation to muscle
Formulation:	Lyophilized, white powder
Endotoxin:	≤0.5 EU/mg, LAL assay
Purity:	≥95%; SDS-PAGE
Reconstitution:	Resuspend in 10 mM HCl (Reconstitution Buffer A) 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:	20 kDa
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant bovine HGF NK1 protein (hepatocyte growth factor NK1 isoform) is the smallest naturally occurring splice variant of HGF, comprising the N-terminus and first kringle domain of a growth factor that regulates cell growth, motility and morphogenesis and plays a central role in angiogenesis, tumorigenesis and tissue regeneration. HGF binds and activates the receptor tyrosine kinase c-Met to trigger PI3K/AKT, FAK, JNK and ERK1/2 signaling, and bovine HGF shows higher solubility, stability and receptor binding affinity than human HGF. In muscle, bovine HGF drives satellite cell proliferation, enhances myoblast formation and fusion, increases myofibrillar protein synthesis and helps restore damaged muscle structure, with further activity in liver, brain and kidney. In cell culture, HGF improves proliferation, differentiation, attachment and survival of skeletal muscle cells and cardiomyocytes and supports serum-free media optimization, and this HGF NK1 is produced in an animal-free microbial system compatible with production at scale, making it a key growth factor 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.

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

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

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