Technical Data Sheet

Recombinant mouse EGF 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:	**RP074**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Neural stem cell proliferation and neuronal differentiation Stem cell expansion and maintenance Organoid growth and proliferation Cellular proliferation, migration and survival Wound healing and tissue repair
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:	6.1 kDa (monomer)
Bioactivity Assay:	No significant difference between EC50 of reference and test lots
Mycoplasma:	Negative

Description

Recombinant mouse EGF protein (epidermal growth factor) is a member of the EGF family, which includes TGF-α, amphiregulin and betacellulin, and regulates cell growth, proliferation, differentiation, development and tissue homeostasis. Sharing high sequence homology and structural conservation with human EGF, mouse EGF contains EGF-like domains of 40–50 amino acids with six conserved cysteines forming three disulfide bonds, and its receptor-binding region engages the extracellular domain of the EGF receptor (EGFR) to initiate signaling cascades controlling growth and differentiation. Aberrant EGF expression is implicated in cancer and skin disorders, and EGF-based therapies and EGFR-targeting drugs are being explored therapeutically. In cell culture, mouse EGF sustains cell growth and viability, supports expansion of embryonic and induced pluripotent stem cells, and directs differentiation toward neural, epithelial and mesenchymal lineages, and it is a key component of organoid media for intestine, liver, brain and pancreas organoids, enabling long-term expansion by regulating stem cell self-renewal. It is also used in scaffolds and growth factor cocktails for tissue engineering, making it a key reagent for stem cell, organoid, disease modeling and regenerative medicine 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: mouse.

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

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