Technical Data Sheet

Recombinant mouse LIF 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:	**RP043**
Protein Identity:	Confirmed identity with expected mass, determined by mass spectrometry
Reported Applications:	Propagation of mouse embryonic stem cells
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 mouse LIF protein (leukemia inhibitory factor) is a pleiotropic cytokine of the IL-6 superfamily that signals through a heterodimeric receptor composed of LIFR (gp190) and gp130, activating a number of intracellular pathways including the JAK/STAT, PI3K and MAPK signaling cascades. LIF signaling is essential for the maintenance of murine pluripotency, and recombinant LIF is therefore a core supplement for the culture and self-renewal of mouse embryonic stem cells. Although human LIF can also be used to maintain mouse embryonic stem cells, mouse LIF cannot bind the human LIF receptor and is consequently inactive on human cells, so mouse LIF offers a species-matched choice for murine systems, making recombinant mouse LIF a key reagent for mouse pluripotent stem cell culture and 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. Species similarity: human - 97%.

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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