

# Recombinant mouse LIFR alpha/LIFR Protein

Catalog Number: ATGP3958

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

44-828aa

### UniProt No.

P42703

### NCBI Accession No.

NP\_038612

### Alternative Names

Leukemia inhibitory factor receptor, LIF receptor, LIF-R, LIF receptor subunit alpha, D-factor, CD118

## PRODUCT SPECIFICATION

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### Molecular Weight

89.6kDa (794aa)

### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its ability to inhibit proliferation using TF-1 human erythroleukemic cells. The ED50 range  $\leq$  1ug/ml with Mouse LIF.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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## Description

LIFR alpha, also known as CD118, is a member of the Interleukin-6 receptor family. Members of this family mediate the biological effects of Cardiotrophin-1, CLC, CNTF, IL-6, IL-11, IL-27, and Oncostatin M. The leukemia inhibitory factor is a polyfunctional cytokine that affects the differentiation, survival, and proliferation of a wide variety of cells in the adult and the embryo. LIFR alpha has also been identified as a breast cancer metastasis suppressor that functions through the HIPPO-YAP pathway. LIFR alpha is down regulated in a number of breast carcinomas and may serve a prognostic tool. Recombinant mouse LIFR alpha, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

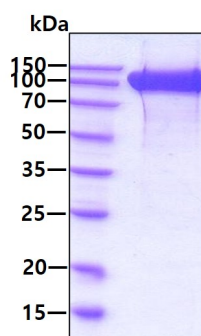
<ADP>LKRGVQD LKCTTNMRV WDCTWPAPLG VSPGTVKDIC IKDRFHSCHP LETTNVKIPA LSPGDHEVTI NYLNGFQSKF TLNEKDVSLI PETPEILDLS ADFFTSSLLL KWNDRGSAIP HPSNATWEIK VLQNPRTEPV ALVLLNTMLS GKDTVQHWNW TSDLPLQCAT HVSIRWHID SPHFSGYKEW SDWSPLKNIS WIRNTETNVF PQDKVVLGAS NMTICCMSPT KVLSGQIGNT LRPLIHLYGQ TVAIHILNIP VSENSGTNII FITDDDVYGT VVFAGYPPDV PQKLSCETHD LKEIICSWNP GRITGLVGPR NTEYTLFESI SGKSAVFHRI EGLTNETYRL GVQMHPGQEI HNFTLTGRNP LGQAQSAVVI NVTERVAPHD PTLKVKDIN STVVTFSWYL PGNFTKINLL CQIEICKANS KKEVRNATIR GAEDSTYHVA VDKLNPYTAY TFRVRCSSKT FWKWSRWSDE KRHLTTEATP SKGPDTWREW SSDGKNLIVY WKPLPINEAN GKILSYNVSC SLNEETQSVL EIFDPQHRAE IQLSKNDYII SVVARNASGS SPPSKIASME IPNDDITVEQ AVGLGNRIFL TWRHDPNMT C DYVIKWCNSS RSEPCLLDWR KVPSNSTETV IESDQFQPGV RYNFYLYGCT NQGYQLLSI IGYVEELAPI VAPNFTVEDT SADSILVKWD DIPVEELRGF LRGYLFYFQK GERDTPKTRS LEPHHSIDIKL KNITDISQKT LRIADLQGKT SYHLVLRAYT HGGLGPEKSM FVVTKENS<HH HHHH>

## General References

Gearing DP., et al (1991) The EMBO Journal. 10: 2839-2848.  
Layton MJ., et al. (1992) Proc. Natl. Acad. Sci. 89:8616.

## DATA

### SDS-PAGE

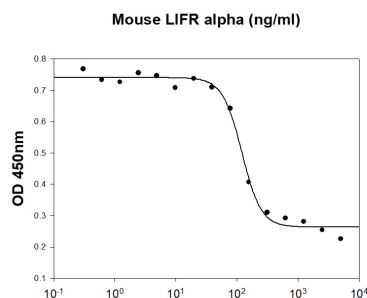


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

## Biological Activity

## Recombinant mouse LIFR alpha/LIFR Protein

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Mouse LIFR alpha inhibits human LIF (Cat# ATGP3533) induced cell proliferation in the TF-1 human erythroleukemic cells. The ED50 range is  $\leq 1$  ug/ml.