

# 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

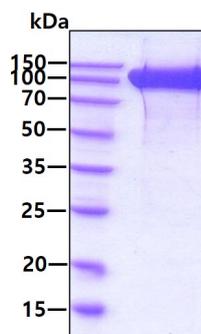
<ADP>LKRGVQD LKCTTNMRV WDCTWPAPLG VSPGTVKDIC IKDRFHSCHP LETTNVKIPA LSPGDHEVTI NYLNGFQSKF  
 TLNEKDVS LI PETPEILDLS ADFFTSSLLL KWNDRGSALP HPSNATWEIK VLQNPRTPEV ALVLLNTMLS GKDTVQHWNW  
 TSDLPLQCAT HVSIRWHID SPHFSGYKEW SDWSPLKNIS WIRNTETNVF PQDKVVLGAS NMTICCMSPT KVLSGQIGNT  
 LRPLIHLYGQ TVAIHILNIP VSENSGTNII FITDDDVG YGT VVFAGYPPDV PQLKSCETHD LKEIICSWNP GRITGLVGPR  
 NTEYTLFESI SGKSAVFHRI EGLTNETYRL GVQMHPGQEI HNFTLTGRNP LGQAQSAVVI NVTERVAPHD PTSLKVKDIN  
 STVVTFSWYL PGNFTKINLL CQIEICKANS KKEVRNATIR GAEDSTYHVA VDKLNPYTAY TFRVRCSSKT FWKWSRWSDE  
 KRHLTTEATP SKGPDTWREW SSDGKNLIVY WKPLPINEAN GKILSYNVSC SLNEETQSVL EIFDPQHRAE IQLSKNDYII  
 SVVARN SAGS SPPSKIASME IPNDDITVEQ AVGLGNRIFL TWRHDPNMT C DYVIKWCNSS RSEPCLLDWR KVPSNSTETV  
 IESDQFQPGV RYNFYLYGCT NQGYQLLRSI IGYVEELAPI VAPNFTVEDT SADSILVKWD DIPVEELRGF LRGYLFYFQK  
 GERDTPKTRS LEPHHS DIKL 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

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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.

