Mouse LIFR / CD118 Protein (His Tag)

Catalog Number: **50423-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

A230075M04Rik; AW061234; LIF

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse LIFR (NP_038612.1) (Met 1-Ser 828) was expressed, with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its ability to bind mouse LIF-Fc (Cat:50755-M02H) in a functional ELISA.
2. Measured by its ability to inhibit the Recombinant Human LIF mediated inhibition in the M1 mouse myeloid leukemia cells. The ED50 for this effect is typically 10-60ng/mL in the presence of 2 ng/mL recombinant human LIF.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Leu 44

Molecular Mass:

The recombinant mouse LIFR consists of 796 amino acids and has a predicted molecular mass of 90 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm LIFR is approximately 110-120 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

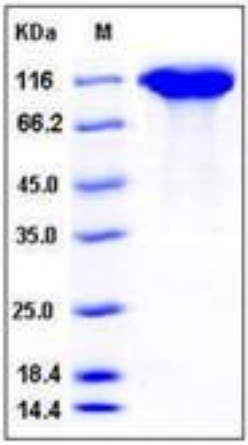
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

LIFR (leukemia inhibitory factor receptor) belongs to the family of cytokine receptors. LIFR forms a high-affinity receptor complex with gp130, which mediates the activity of LIF (leukemia inhibitory factor) and thus affects the differentiation, proliferation, and survival of a wide variety of cells in the adult and the embryo. Besides LIF, LIFR can also bind to and activate CNTF (ciliary neurotrophic factor) and CLC (cardiotrophin like cytokine). Evidence showed that in the retina, LIFR activating LIF, CT-1 and cardiotrophin like cytokine (CLC) are strongly upregulated in response to preconditioning with bright cyclic light leading to robust activation of signal transducer and activator of transcription-3 (STAT3) in a time-dependent manner. Further, blocking LIFR activation during preconditioning using a LIFR antagonist (LIF05) attenuated the induced STAT3 activation and also resulted in reduced preconditioning-induced protection of the retinal photoreceptors. These data demonstrate that LIFR and its ligands play an essential role in endogenous neuroprotective mechanisms triggered by preconditioning-induced stress. LIFR was newly found to be a suppressor of hepatocellular carcinoma (HCC), one of the world's top five causes of cancer-related deaths.

References

1.Gearing, D.P. et al.,1991, EMBO J. 10 (10): 2839-2848. 2.Gearing, D.P. et al.,1992, New Biol. 4 (1): 61-65. 3.Mosley, B. et al.,1996, J. Biol. Chem. 271 (51): 32635-32643.