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## **LIFR**

## Recombinant Human LIF Receptor / CD118 (His Tag)

**Catalog No.** CRH528A-His **Quantity**: 50 μg

CRH528B-His 100 μg

Alternate Names: Leukemia inhibitory factor receptor, LIF receptor, LIF-R, CD118

**Description:** Leukemia inhibitory factor receptor (LIF-R) belongs to the family of cytokine receptors.

LIF-R forms a high-affinity receptor complex with gp13, 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, LIF-R can also bind to and activate CNTF (ciliary neurotrophic factor) and CLC (cardiotrophin like cytokine). Evidence showed that in the retina, LIF-R 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 LIF-R activation during

preconditioning using a LIF-R antagonist (LIF5) attenuated the induced STAT3 activation

and also resulted in reduced preconditioning-induced protection of the retinal

photoreceptors. These data demonstrate that LIF-R and its ligands play an essential role in endogenous neuroprotective mechanisms triggered by preconditioning-induced stress. LIF-R was newly found to be a suppressor of hepatocellular carcinoma (HCC), one of the

world's top five causes of cancer-related deaths.

UniProt ID: P42702

Accession Number: NP 001121143.1

Protein Construction: A DNA sequence encoding the extracellular domain of human LIFR (Met 1-Ser 833) with

a C-terminal polyhistidine tag was expressed.

Source: HEK293 Cells

**Formulation:** Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants

before lyophilization.

Molecular Weight: The secreted recombinant human LIFR comprises 800 amino acids with a predicted

molecular mass of 91 kDa. As a result of glycosylation, rhLIFR migrates as an approximately 125-135 kDa band in SDS-PAGE under reducing conditions.

**Purity:** > 90 % as determined by SDS-PAGE.

**Endotoxin Level:** < 1.0 EU per μg protein as determined by the LAL method.

**Biological Activity:** Measured by its ability to bind human LIF-Fc in a functional ELISA.

Predicted N-terminal: Gln 45

**Reconstitution:** Centrifuge vial prior to opening. Add sterile distilled water to a concentration of 0.1

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mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

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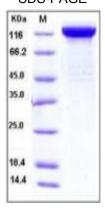
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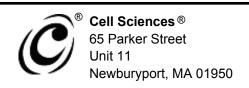
Storage & Stability:

Stable for up to 1 year from date of receipt at -20°C to -80°C After reconstitution, store working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.** 

SDS-PAGE



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