

## Active Recombinant Rat Lif protein, His-tagged

**Cat. No.** Lif-1739R    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Active Recombinant Rat Lif protein(P17777)(25~202 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>    | 25-202 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Form</b>             | Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Bio-activity</b>     | Leukemia inhibitory factor (LIF), is an interleukin 6 class cytokine that affects cell growth by inhibiting differentiation. LIF as a cytokine also has another function including: the growth promotion and cell differentiation of different types of target cells, influence on bone metabolism, cachexia, neural development, embryogenesis and inflammation. To evaluate the activity of recombinant rat LIF, the K562 cells were seeded into triplicate wells of 96-well plates at a density of 5,000 cells/well with 5% serum standard 1640 which contains various concentrations of recombinant rat LIF. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 $\mu$ l of CCK-8 solution was added to each well of the plate, then the absorbance at 450 nm was measured using a microplate reader after incubating the plate for 2-4 hours at 37°C. After incubation with LIF for 72h, proliferative inhibition of K562 cells observed by |

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inverted microscope was shown. Cell viability was assessed by CCK-8(Cell Counting Kit-8 ) assay after incubation with recombinant LIF for 72h. It was obvious that LIF significantly inhibit cell viability of K562 cells. The ED50 is 1.44µg/ml.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 23.3kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1µg (determined by the LAL method).                                                             |
| <b>Purity</b>         | > 90% as determined by SDS-PAGE.                                                                           |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                       |

## GENE INFORMATION

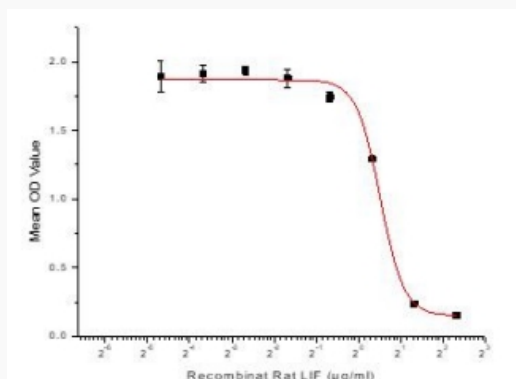
|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | Lif leukemia inhibitory factor [ Rattus norvegicus ]                                                                                           |
| <b>Official Symbol</b> | Lif                                                                                                                                            |
| <b>Synonyms</b>        | LIF; leukemia inhibitory factor; cholinergic neuronal differentiation factor; leukemia inhibitory factor (cholinergic differentiation factor); |
| <b>Gene ID</b>         | 60584                                                                                                                                          |
| <b>mRNA Refseq</b>     | NM_022196                                                                                                                                      |
| <b>Protein Refseq</b>  | NP_071532                                                                                                                                      |

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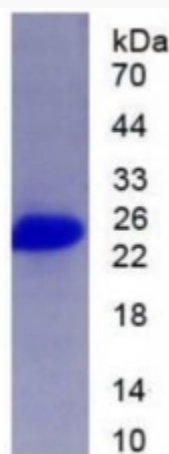
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## Activity



## SDS-PAGE



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