

Datasheet for ABIN6700216

## LIF Protein



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### 1 Image

#### Overview

Quantity:	5 µg
Target:	LIF
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant

#### Product Details

Purpose:	Human Leukemia Inhibitory Factor Recombinant Protein
Purification:	Leukemia Inhibitory Factor purity was determined to be greater than 98% as determined by reducing and non-reducing SDS-PAGE.
Purity:	98,00%
Endotoxin Level:	Measured by LAL is typically $\leq 1$ EU/µg protein.
Biological Activity Comment:	The activity is determined by its ability to induce proliferation of TF-1 cells and is typically less than 0.07 ng/mL.

#### Target Details

Target:	LIF
Alternative Name:	LIF ( <a href="#">LIF Products</a> )
Background:	<p>Synonyms: Differentiation-stimulating factor (D factor), Leukocyte Inhibitory Factor, Melanoma-derived LPL inhibitor (MLPLI)</p> <p>Background: Human Leukemia Inhibitory Factor (LIF) is member of the IL-6 family and is made</p>

## Target Details

by a variety of tissues. Human LIF signals through gp130 to activate STAT3 in human ESCs . In mouse ESCs, LIF promotes self-renewal and pluripotency, but in human cells there is no indication that LIF has the same function. Instead, FGF-basic (FGF-2) and Activin A are used to promote self-renewal and pluripotent potential. Recombinant human LIF is a non-glycosylated protein, containing 181 amino acids, with a molecular weight of 19.9 kDa.

UniProt:	<a href="#">P15018</a>
Pathways:	<a href="#">JAK-STAT Signaling</a> , <a href="#">Positive Regulation of Peptide Hormone Secretion</a> , <a href="#">Negative Regulation of Hormone Secretion</a> , <a href="#">Stem Cell Maintenance</a> , <a href="#">Growth Factor Binding</a>

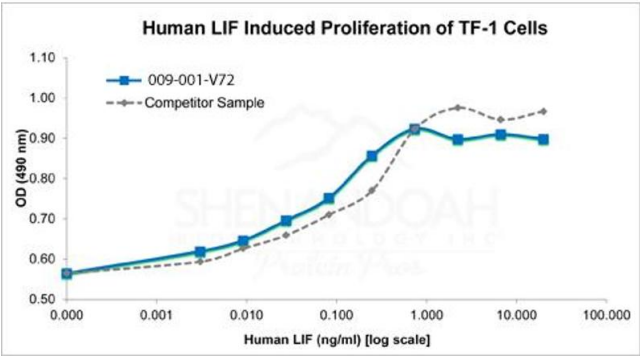
## Application Details

Application Notes:	Other: User Optimized  Application_Note: Leukemia Inhibitory Factor Recombinant Protein has been tested by biological activity and is suitable as a control for polyclonal or monoclonal anti-Leukemia Inhibitory Factor in immunological assays.
Comment:	Suggested_Applications: Cellular Assay  Other_Performance_Data:
Restrictions:	For Research Use only

## Handling

Format:	Lyophilized
Reconstitution:	Reconstitution_Buffer: Restore with deionized water (or equivalent) Reconstitution_Volume: 5 µL (5-50 µL)
Buffer:	Buffer: 0.1 % Trifluoroacetic acid Stabilizer: None
Preservative:	Without preservative
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.

Expiry Date: 6 months



SDS-PAGE

**Image 1.** SDS-PAGE of Human Leukemia Inhibitory Factor Recombinant Protein Bioactivity of Human Leukemia Inhibitory Factor Recombinant Protein. Serial dilutions of Human LIF (starting at 20 ng/mL) were added to TF1 cells. After 66 hours, cell proliferation was measured and the linear portion of the curve was used to calculate the ED50. The ED50 of Human LIF is between 0.05-0.07 ng/mL.