

Datasheet for ABIN6700220

LIF Protein**1** Image[Go to Product page](#)

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 (Animal Free)
Purification:	Human Leukemia Inhibitory Factor is produced with no animal-derived raw products, animal free equipment and animal free protocols. 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 ≤ 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 (LIF Products)
Background:	Synonyms: Differentiation-stimulating factor (D factor), Leukocyte Inhibitory Factor, Melanoma-derived LPL inhibitor (MLPLI)

Target Details

Background: Human Leukemia Inhibitory Factor (LIF) is member of the IL-6 family and is made 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: [P15018](#)

Pathways: [JAK-STAT Signaling](#), [Positive Regulation of Peptide Hormone Secretion](#), [Negative Regulation of Hormone Secretion](#), [Stem Cell Maintenance](#), [Growth Factor Binding](#)

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)

Concentration: 0.1 mg/mL

Buffer: Buffer: 0.1 % Trifluoroacetic acid
Stabilizer: None

Preservative: Without preservative

Storage: 4 °C, -20 °C

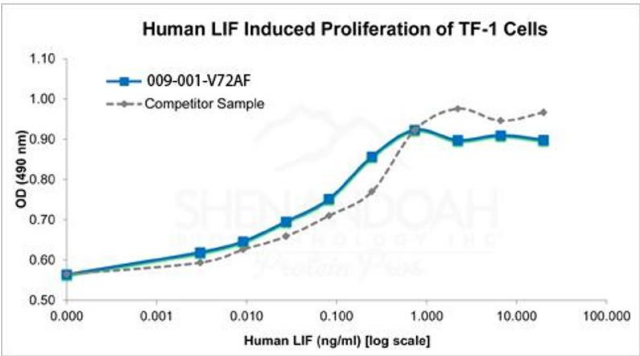
Storage Comment: Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and

Handling

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

Images



SDS-PAGE

Image 1. SDS-PAGE of Human Leukemia Inhibitory Factor Recombinant Protein (Animal Free) Bioactivity of Human Leukemia Inhibitory Factor Recombinant Protein. Serial dilutions of Human AF 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 us used to calculate the ED50. The ED50 of Human AF LIF is between 0.05-0.07 ng/mL.