

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	143-07
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 180 amino acids.
Quantity:	5µg/25µg/1000µg
AA Sequence:	SPLPITPVNA TCAIRHPCHG NLMNQIKSQL AQLNGSANAL FISYYTAQGE PFPNNVDKLC APNMTDFPPF HANGTEKTKL VELYRMVTYL GASLTNITWD QKNLNPTAVS LQIKLNATTD VMRGLLSSVL CRLCNKYHVG HVDVPCVPDN SSKEAFQRKK LGCQLLGTYK QVISVLAQAF
Purity:	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Test in process.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in 1 × PBS, pH 7.4.
Endotoxin:	Less than 0.1 EU/µg of rRtLIF as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Rat Leukemia Inhibitory Factor

Leukemia inhibitory factor (LIF) is a member of Interleukin 6 family. This protein is mainly expressed in the trophectoderm of the developing embryo, with its receptor LIFR expressed throughout the inner cell mass. LIF has the capacity to induce terminal differentiation in leukemic cells. Its activities include the induction of hematopoietic differentiation in normal and myeloid leukemia cells, the induction of neuronal cell differentiation, and the stimulation of acute-phase protein synthesis in hepatocytes. LIF is used in mouse embryonic stem cell culture, because that removal of LIF pushes stem cells toward differentiation, but they retain their proliferative potential or pluripotency. It is also used in phase II clinical trial, which can assist embryo implantation in women who have failed to become pregnant despite assisted reproductive technologies (ART). Mature rat LIF shares 91 % and 82 % a.a. sequence identity with murine and human LIF, respectively.