

Product Description

Alternate Names: Leukocyte Inhibitory Factor

Accession/Uniprot Number: P09056

Description: Leukemia inhibitory factor (LIF) is a member of the interleukin 6 (IL-6) family that is made by a variety of adult and embryonic tissues. LIF signals through the glycoprotein 130 (gp130)/LIF receptor (LIFR) heterodimer to activate STAT3 and MAPK signaling. LIF functions during hematopoietic differentiation, neuronal cell differentiation, kidney development, and inflammatory processes. Mouse LIF promotes mouse embryonic stem (ES) cell self-renewal and pluripotency in long-term cell culture systems, similar to the functional activity of FGF-basic in human ES cell culture systems.

Source: Genetically modified *E.coli*. **This product is produced with no animal-derived raw products. All processing and handling employs animal-free equipment and animal-free protocols.**

Predicted MW: Monomer, 20.0 kDa (181 amino acids)

AA Sequence: MSPLPITPVN ATCAIRHPCH GNLMNQIKNQ LAQLNGSANA LFISSYYTAQG EPPFNNVEKL CAPNMTDFPS FHGNGTEKTK LVELYRMVAY LSASLTNITR DQKVLNPTAV SLQVKLNATI DVMRGLLSNV LCRLCNKYRV GHVDVPPVPD HSDKEAFQRK KLG CQLLGT Y KQVISVVVQA F

Formulation: Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)

Product Specifications

Specification	Method of Determination	Acceptance Criteria	Result
Purity	Reducing and Non-reducing SDS-PAGE	≥95%	>95%
Endotoxin	Kinetic LAL (50% confidence)	≤ 1 EUs/ug	<0.05 EUs/ug
Biological Activity	IL-6 production by M1 cells	ED50 ≤1 ng/mL (≥1.0 x 10 ⁶ units/mg)	ED50 = 0.191 ng/mL (5.2 x 10 ⁶ units/mg)

Product Preparation and Storage

Country of Origin: USA

Shipping: Room temperature

Storage Prior to Reconstitution: -20°C

Reconstitution: Sterile 10 mM acetic acid at 0.1 mg/mL

Date of Recon.: _____ **Initials:** _____

Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80°C and avoid repeat freeze thaws.

Expiration Date:

Date Received: _____

12 months from date of receipt when stored at -20°C to -80°C as supplied.

1 month when stored at 4°C after reconstituting as directed.

3 months when stored at -20°C to -80°C after reconstituting as directed.

THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!

X Olivia Schnsider, PhD 5-2-17

Quality Assurance