## Recombinant Human LIF protein (His Tag)

Catalog Number: PDMH100390



Description **Species** Human Source HEK293 Cells-derived Human LIF protein Met1-Phe202, with an C-terminal His Mol Mass 19.8 kDa P15018 Accession **Bio-activity** Not validated for activity **Properties** Purity >95% as determined by reducing SDS-PAGE. < 1.0 EU/mg of the protein as determined by the LAL method Endotoxin Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 Storage °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at  $< -20^{\circ}$ C for 3 months. Shipping This product is provided as lyophilized powder which is shipped with ice packs. Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Formulation Mannitol. Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

## Note: Centrifuge before opening to ensure complete recovery of vial contents.

## Background

Leukemia inhibitory factor (LIF) is a pleiotropic glycoprotein belonging to the IL-6 family of cytokines. It&rsquo,s involved in growth promotion and cell differentiation of different types of target cells, influence on bone metabolism, cachexia, neural development, embryogenesis and inflammation. LIF has potent proinflammatory property, being the inducer of the acute phase protein synthesis and affecting the cell recruitment into the area of damage or inflammation. LIF is also one of the cytokines that are capable to regulate the differentiation of embryonic stem cells, hematopoietic and neuronal cells. LIF binds to the specific LIF receptor (LIFR-&alpha,) which forms a heterodimer with a specific subunit common to all members of that family of receptors, the GP130 signal transducing subunit. This leads to activation of the JAK/STAT and MAPK cascades. Due to its polyfunctional activities, LIF is involved in the pathogenic events and development of many diseases of various origin.