

Recombinant Human LIF Protein

(For Research Use Only)

Leukemia Inhibitory Factor (LIF) is a lymphoid factor which promotes long-term maintenance of pluripotent embryonic stem cells by suppressing spontaneous differentiation. Leukemia Inhibitory Factor (LIF) has a number of other functions including cholinergic neuron differentiation, bone and fat metabolism, mitogenesis of certain factor dependent cell lines and promotion of megakaryocyte production *in vivo*. Human LIF has a molecular mass of 20 kDa containing 181 amino acid residues and is active on both human and mouse cells. Mouse LIF is about 1000 fold less active on human cells, than human LIF.

Product Information

Catalog number: 12-0002

Size: 10^6 units/ml, 0.5×10^7 units/ml, 10^7 units/ml

Source: Escherichia Coli.

Purity: Greater than 98%, as determined by SDS-PAGE (see Fig. 1)

Endotoxin: Less than 0.01 ng/ μ g cytokine as determined by the LAL assay

Bioactivity: Human LIF activity is assessed by its ability to induce differentiation of M1 myeloid leukemia cells. The specific activity is 1×10^6 units/ml and 1×10^7 units/ml, where 50 units is defined as the amount of human LIF required to induce differentiation in 50% of the M1 colonies in 1 ml of medium.

Formulation: Human LIF is a 0.22 μ m filtered sterile liquid in phosphate-buffered saline with 0.02% Tween-20 and 1% BSA.

Storage/Stability: This product is shipped at ambient temperature with cold pack. It is stable for up to 6 months from date of receipt when stored at 4 °C. Freeze-thaw should be avoided as it can result in loss of activity.

Suggested Usage: 1 ml of human LIF with the specific activity of 1×10^6 units/ml is sufficient to treat 1 L of embryonic stem cell culture media.
1 ml of human LIF with the specific activity of 1×10^7 units/ml is sufficient to treat 10 L of embryonic stem cell culture media.

SDS Page of hLIF Sample:

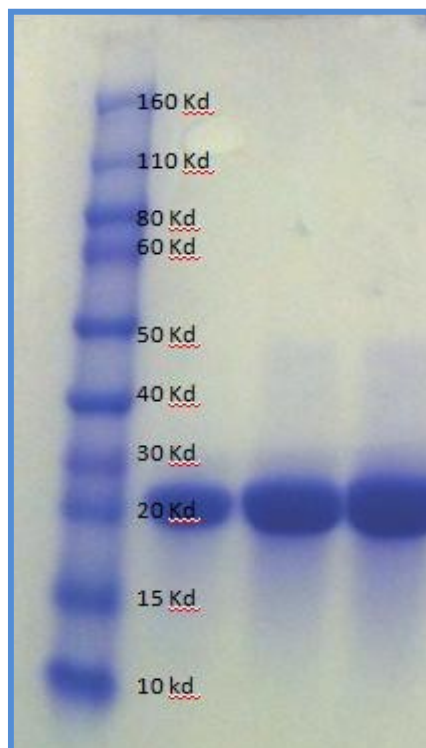


Figure 1