Product Sheet

LIF (Leukemia Inhibitory Factor), mouse recombinant

Catalog # LIF-010; LIF-050; LIF-250; LIF-1000

Description LIF derives its name from its ability to induce the terminal differentiation of myeloid leukaemic cells. Other properties attributed to the cytokine include: the growth promotion and cell differentiation of different types of target cells, influence on bone metabolism, cachexia, neural development, embryogenesis and inflammation.

LIF has been used in mouse embryonic stem cell culture to maintain the stem cells in an undifferentiated state, however, LIF is not required for culture of human embryonic stem cells.

StemRD produces LIF in soluble form from *E. coli* as a single-chain polypeptide containing 181 amino acids with a molecular mass of 20 kDa. This non-tagged protein is purified by a series of chromatography.

Source *Escherichia coli*. Endotoxin level of this product is lower than 0.1 EU/ug.

Formulation Lyophilized from sterile filtered PBS solution, carrier-free.

Reconstitution Before reconstitution, we recommend a brief spin to drive down any material dislodged from the bottom of the tube. It is recommended to reconstitute the lyophilized product in sterile water to no less than 100ug/ml. Further dilutions should be made in sterile buffer or medium containing carrier proteins, such as albumin or serum.

Stability The lyophilized protein is stable for at least 1 year if stored at -80 degree C. Reconstituted protein is stable for at least 2 weeks at 4 degree C, but should be stored in aliquots at -80 degree C for longer term. Avoid repeated freeze/thaw.

Purity Greater than 98% by SDS-PAGE analysis

Biological Activity The activity was determined by a STAT3 reporter gene assay in rodent cells. The EC50 ranges from 0.3 – 3.0 ng/mL.

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