

Recombinant Human Leukemia Inhibitory Factor (LIF)








Publication Number MAN0004541







Rev. 1.00

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|--------------------------------------|--|---------|---------|
| Catalog Number | PHC9484 | PHC9481 | PHC9483 |
| Quantity | 10 µg | 100 µg | 1 mg |
| Lot Number | See product label | | |
| Molecular Weight | ~21 kDa | | |
| Purity | ≥95% as determined by SDS-PAGE analysis. | | |
| Amino Acid Sequence | PLPITPVNAT CAIRHPCHNN LMNQIRSQLA QLNGSANALF ILYYTAQGEP FPNNLDKLCG PNVTDFFPPFH ANGTEKAKLV ELYRIVVYLG TSLGNITRDQ KILNPSALS L HSKLNATADI LRGLLSNVLC RLCCKYHVGH VDVTYGPDTS GKDVVFQKKKL GCQLLGKYKQ IIAVLAQAF | | |
| Biological Activity | ED50 range ≤0.5 ng/mL (Specific Activity: 1.0 × 10 ⁷ to 2.0 × 10 ⁶ units/mg). The biological activity is measured by LIF dose dependent proliferation of Human TF-1 cells. The optimal concentration for each specific application should be determined by an initial dose response assay. | | |
| Formulation | Lyophilized, carrier-free. | | |
| Sterility | Filtered prior to lyophilization through a 0.22-micron filter. | | |
| Endotoxin | <0.1 ng/µg | | |
| Production | Recombinant human LIF is produced in <i>E. coli</i> and purified via sequential chromatography. | | |
| Reconstitution Recommendation | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant human LIF in sterile, distilled water or appropriate buffered solution containing 0.1% BSA to regain full activity. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in buffered solution containing a carrier protein such as PBS + 0.1% BSA. | | |
| Suggested Working Dilutions | The optimal concentration should be determined for each specific application. | | |
| Storage | Store this lyophilized preparation at 2°C to 8°C, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ -20°C. Avoid repeated freeze-thaw cycles. | | |
| Expiration Date | Expires one year from date of receipt when stored as instructed. | | |
| References | Williams, R.L., D.J. Hilton, S. Pease, T.A. Willson, C.L. Stewart, D.P. Gearing, E.F. Wagner, D. Metcalf, N.A. Nicola, and N.M. Gough (1988) Myeloid leukaemia inhibitory factor maintains the developmental potential of embryonic stem cells. <i>Nature</i> 336: 684–687. Gough, N. M. D.P. Gearing, J.A. King, T.A. Willson, D.J. Hilton, N.A. Nicola, and D. Metcalf (1988) Molecular cloning and expression of the human homologue of the murine gene encoding myeloid leukemia-inhibitory factor. <i>Proc. Nat. Acad. Sci.</i> 85: 2623–2627. | | |

Explanation of Symbols

The symbols present on the product label are explained below:

| Symbol | Description |
|---|---|
|  | Catalog Number |
|  | Research Use Only |
|  | Use by |
|  | Manufacturer |
|  | Without, does not contain |
|  | Protect from light |
|  | Directs the user to consult instructions for use (IFU), accompanying the product. |

| Symbol | Description |
|---|--|
|  | Batch code |
|  | In vitro diagnostic medical device |
|  | Temperature limitation |
|  | European Community authorized representative |
|  | With, contains |
|  | Consult accompanying documents |

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Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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