

# Recombinant Human Interleukin-3 (IL-3)

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|                                       |   |         |         |         |
|---------------------------------------|---|---------|---------|---------|
| <b>Catalog Number:</b>                | PHC0034   | PHC0035 | PHC0031 | PHC0033 |
| <b>Quantity:</b>                      | 10 µg   | 50 µg   | 100 µg  | 1 mg    |
| <b>Lot Number:</b>                    | See product label.  |         |         |         |
| <b>Molecular Weight:</b>              | 15 kDa  |         |         |         |
| <b>Purity:</b>                        | >95% pure, as determined by SDS-PAGE analysis.  |         |         |         |
| <b>Amino Acid Sequence:</b>           | APMTQTTPLK TSWVNCSNMI DEIITHLKQP PLPLDFNNL NGEDQDILME NNLRRPNLEA FNRAVKSLQN ASAIESILKN LLPCLPLATA APTRHPIHIK DGDWNEFRRK LTFYLKTLEN AQAQQTLSL AIF  |         |         |         |
| <b>Biological Activity:</b>           | ED <sub>50</sub> = 0.1–0.25 ng/mL (Specific Activity: 1.0 × 10 <sup>7</sup> –4.0 × 10 <sup>6</sup> units/mg), determined by the dose dependent proliferation of human TF-1 cells. A concentration range of 0.1–1.0 ng/mL is suggested for most <i>in vitro</i> applications. The optimal concentration for each specific application should be determined by an initial dose response assay.  |         |         |         |
| <b>Formulation:</b>                   | Lyophilized, carrier-free.  |         |         |         |
| <b>Sterility:</b>                     | Filtered prior to lyophilization through a 0.22 micron sterile filter.  |         |         |         |
| <b>Endotoxin:</b>                     | <0.1 ng/µg  |         |         |         |
| <b>Production:</b>                    | Produced in <i>E. coli</i> and purified by sequential chromatography.   |         |         |         |
| <b>Reconstitution Recommendation:</b> | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute lyophilized recombinant human IL-3 in sterile, distilled water to a concentration of 0.1–1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilution should be made in medium or buffered solution containing carrier protein, such as PBS with 0.1% BSA.  |         |         |         |
| <b>Suggested Working Dilutions:</b>   | The optimal concentration should be determined for each specific application.   |         |         |         |
| <b>Storage:</b>                       | Lyophilized recombinant human IL-3 should be stored at 2°C to 8°C, preferably desiccated. Store reconstituted recombinant human IL-3 at ≤ -20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.  |         |         |         |
| <b>Expiration Date:</b>               | Expires one year from date of receipt when stored as instructed.  |         |         |         |
| <b>References:</b>                    | <p>Dao, M., N. Taylor, and J. Nolta (1998) Reduction in levels of the cyclin-dependent kinase inhibitor p27<sup>kip-1</sup> coupled with transforming growth factor β-neutralization induces cell-cycle entry and increases retroviral transduction of primitive human hematopoietic cells. <i>Proc. Nat'l. Acad. Sci.</i> 95(22):13006–13011.</p> <p>Dao, M.A., J. Hwa, and J.A. Nolta (2002) Molecular mechanism of transforming growth factor beta-mediated cell-cycle modulation in primary human CD34(+) progenitors. <i>Blood</i> 99(2):499–506.</p> <p>Gubina, E., X. Luo, E. Kwon, K. Sakamoto, Y.F. Shi, and R.A. Mufson (2001) βc cytokine receptor-induced stimulation of cAMP response element binding protein phosphorylation requires protein kinase C in myeloid cells: A novel cytokine signal transduction cascade. <i>J. Immunol.</i> 167(8):4303–4310.</p> <p>Miura, K. and D.W. MacGlashan, Jr. (2000) Dual phase priming by IL-3 for leukotriene C-4 generation in human basophils: Difference in characteristics between acute and late priming effects. <i>J. Immunol.</i> 164 (6):3026–3034.</p> <p>Moore, J.G., C.A. Fuchs, Y.S. Hata, D.J. Hicklin, G. Colucci, M.J. Chrispeels, and M. Feldman (2000) A new lectin in red kidney beans called PvFRIL stimulates proliferation of NIH 3T3 cells expressing the Flt3 receptor. <i>Biochim. Biophys. Acta-General Subjects</i> 1475(3):216–224.</p> |         |         |         |

## 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               |

### Limited Use Label License: Research Use Only

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