

## GMP® IL-3 (Interleukin-3), Human

v. 250301

Catalog number	C01005-GMP-1000
Package	1 mg
Description	Interleukin-3 (IL-3) is an interleukin, a type of biological signal (cytokine) that can improve the body's natural response to disease as part of the immune system. It acts by binding to the IL-3 receptor. IL-3 stimulates the differentiation of multipotent hematopoietic stem cells into myeloid progenitor cells or, with the addition of IL-7, into lymphoid progenitor cells. In addition, IL-3 stimulates proliferation of all cells in the myeloid lineage (granulocytes, monocytes, and dendritic cells), in conjunction with other cytokines, e.g., Erythropoietin (EPO), Granulocyte macrophage colony-stimulating factor (GM-CSF), and IL-6. It is secreted by basophils and activated T cells to support growth and differentiation of T cells from the bone marrow in an immune response.
Expression System	Escherichia coli
Species of Origin	Human
Affinity Tag	His Tag (C-term)
Sequence	Ala20-Phe152
Endotoxin level	<0.05 EU per 1 $\mu$ g of the protein by the LAL method.
Activity	Measure by its ability to induce TF-1 cells proliferation. The ED <sub>50</sub> for this effect is <0.15 ng/mL. The specific activity of recombinant human IL-3 is approximately >1.2 x $10^6$ IU/mg.
Purity	>98% as determined by SDS-PAGE analysis.
Mycoplasma	Not detected
Form	Lyophilized
Storage Buffer	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 8.0.
Reconstitution	It is recommended to reconstitute the lyophilized protein in sterile $H_2O$ to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved .
Stability & Storage	<ul><li>This product is stable after storage at:</li><li>-20°C for 12 months in lyophilized state from date of receipt.</li></ul>

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	<ul> <li>-20°C or -80°C for 1 month under sterile conditions after reconstitution.</li> <li>Avoid repeated freeze/thaw cycles.</li> </ul>
Specification	<ul> <li>Croyez GMP<sup>®</sup> recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:</li> <li>Animal-free reagent and laboratory</li> <li>Manufactured and tested under GMP guideline</li> <li>Testing and traceability of raw material</li> <li>Records of the maintenance and equipment calibration</li> <li>Personnel training records</li> <li>Batch-to-batch consistency</li> <li>Documentation of QA control and process changes</li> <li>Manufactured and tested under an ISO 13485:2016 certified quality management system</li> <li>Stability monitor of product shelf-life</li> </ul>
Reference	<ol> <li>Wagemaker G et al. (1990) <i>Biotherapy</i>. 2,4: 337-45.</li> <li>Guthridge MA. et al. (1998) <i>Stem Cells</i>. 16,5: 301-13.</li> <li>Ihle JN. (1992) <i>Chem Immunol</i>. 51: 65-106.</li> <li>Dougan M. et al. (2019) <i>Immunity</i>. 50,4: 796-811.</li> </ol>
	kDa 75- 60- 45- 35- 25- 17- 11-

SDS-PAGE analysis of GMP® IL-3, Human

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