

IL-3 Protein, Mouse

Cat. No.:	HY-P7062
Synonyms:	rMuL-3; Hematopoietic growth factor; Mast cell growth factor; MCGF; Multipotential colony-stimulating factor; P-cell-stimulating factor
Species:	Mouse
Source:	E. coli
Accession:	P01586 (D33-C166)
Gene ID:	16187
Molecular Weight:	Approximately 15.2 kDa

PROPERTIES

AA Sequence	<p> M D T H R L T R T L N C S S I V K E I I G K L P E P E L K T D D E G P S L R N K S F R R V N L S K F V E S Q G E V D P E D R Y V I K S N L Q K L N C C L P T S A N D S A L P G V F I R D L D D F R K K L R F Y M V H L N D L E T V L T S R P P Q P A S G S V S P N R G T V E C </p>
Biological Activity	The ED ₅₀ is <0.2 ng/mL as measured by M-NFS-60 cells, corresponding to a specific activity of >5.2 × 10 ⁶ units/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized after extensive dialysis against PBS or 50 mM Tris-HCL, 300 mM NaCl, pH 8.0.
Endotoxin Level	<0.2 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>Interleukin-3 (IL-3) is a glycoprotein belonging to the hematopoietic growth factor family that in preclinical in vitro and in vivo studies has exhibited a multilineage activity. Recombinant human interleukin-3 (rhIL-3) enhances the mobilization of peripheral blood progenitor cells by recombinant human granulocyte colony-stimulating factor (rhG-CSF)^[1]. Human interleukin-3 (hIL-3) is a multipotent hematopoietic cytokine produced by mitogen and antigen-activated keratinocytes, T-lymphocytes, mast cells, NK cells, monocytes and endothelial cells. The hematopoietic progenitor cells are proliferated and differentiated with the help of hIL-3 protein into mature erythrocytes, mast cells, megakaryocytes and granulocytes. The</p>
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potential use of hIL-3 protein has been extensively tested in various clinical applications such as bone marrow transplantation, hematological malignancies, cytopenias, aplastic anemia and various types of cancer^[2].

REFERENCES

- [1]. Huhn RD, et al. Recombinant human interleukin-3 (rhIL-3) enhances the mobilization of peripheral blood progenitor cells by recombinant human granulocyte colony-stimulating factor (rhG-CSF) in normal volunteers. *Exp Hematol.* 1996 Jun;24(7):839-47.
- [2]. Dagar VK, et al. Combined effect of gene dosage and process optimization strategies on high-level production of recombinant human interleukin-3 (hIL-3) in *Pichia pastoris* fed-batch culture. *Int J Biol Macromol.* 2018 Mar;108:999-1009.
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Caution: Product has not been fully validated for medical applications. For research use only.

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