

## IL-3 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P78313
Synonyms:	IL3; IL-3; IL-3MGC79398; interleukin-3; MULTI-CSF; MCGF
Species:	Mouse
Source:	HEK293
Accession:	P01586 (A27-C166)
Gene ID:	16187
Molecular Weight:	55-65 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O.
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>The cytokine IL-3, predominantly secreted by activated T-lymphocytes, mast cells, and osteoblastic cells, plays a crucial role in controlling the production and differentiation of hematopoietic progenitor cells into lineage-restricted cells. Moreover, IL-3 stimulates mature basophils, eosinophils, and monocytes, promoting their functional activation. Beyond its hematopoietic functions, IL-3 contributes to neural cell proliferation and survival and participates in bone homeostasis by inhibiting osteoclast differentiation through the prevention of NF-kappa-B nuclear translocation and activation. Mechanistically, IL-3 exerts its biological effects through a receptor composed of the IL3RA subunit and a signal transducing subunit IL3RB, leading to the rapid activation of JAK2 kinase activity and subsequent STAT5-mediated transcriptional programming. Additionally, IL-3, as a monomer, contributes to cell survival under oxidative stress in non-hematopoietic systems by activating pathways mediated by PI3K/AKT and ERK.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA