

## Human IL-3, cct-premium

Human Interleukin-3, recombinant, cct-premium

Synonyms: IL3, IL-3, MCGF (Mast cell growth factor), Multi-CSF, HCGF, P-cell stimulation factor.

**PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING**

Size	Order #	Lot #	Expiry Date
10 µg	1509.950.010		
50 µg	1509.950.050		
100 µg	1509.950.100		

Please enquire for bulk quantities and other vial sizes

### Description

Recombinant human Interleukin-3 (IL-3) is a 15.0 kDa globular protein containing 134 amino acid residues. It is a hematopoietic growth factor that promotes the survival, differentiation and proliferation of committed progenitor cells of the megakaryocyte, granulocyte-macrophage, erythroid, eosinophil, basophil and mast cell lineages. Produced by T cells, mast cells and eosinophils, IL-3 enhances thrombopoieses, phagocytosis, and antibody-mediated cellular cytotoxicity. Its ability to activate monocytes suggests that IL-3 may have additional immunoregulatory roles. Many of the IL-3 activities depend upon co-stimulation with other cytokines. IL-3 is species-specific, variably glycosylated cytokine.

- **Biological Activity**             $\geq 1 \times 10^7$  IU/mg
- **Source**                            *E. Coli*
- **Purity**                             $\geq 98\%$  (SDS-PAGE, silver stained)
- **Endotoxin level**                 $\leq 0.01\text{ng}/\mu\text{g}$  ( $\leq 0.1\text{EU}/\mu\text{g}$ )
- **Stabilizer**                        None
- **Buffer**                            PBS\*
- **Physical state**                 Sterile filtered (0.2 micron filter), lyophilized

### Biological Activity

The ED<sub>50</sub> of  $\leq 0.1$  ng/ml was determined by the dose dependent stimulation of the proliferation of TF-1 cells. It corresponds to a specific activity of  $\geq 1 \times 10^7$  units/mg.

### Reconstitution

We recommend a quick spin followed by reconstitution in sterile filtered water to a concentration not less than 100 µg/ml. **Do not vortex**. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

### Stability

The lyophilized protein is stable at room temperature for up to 1 month, at 4°C for up to 6 months, and at -20°C to -80°C until expiry date. Working aliquots stored with a carrier protein are stable for at least 12 months at -20°C to -80°C. **Please avoid repeated freeze-thaw cycles.**

### Amino Acid Sequence

MAPMTQTTPPL KTSWVNCNSM IDEIITHLKQ PPLPLLDFFNN LNGEDQDILM ENNLRRPNLE AFNRAVKSLQ  
 NASAIESILK NLLPCLPLAT AAPTRHPIHI KDGDWNEFRR KLTfYlKtLE NAQAQQTTLS LAIF

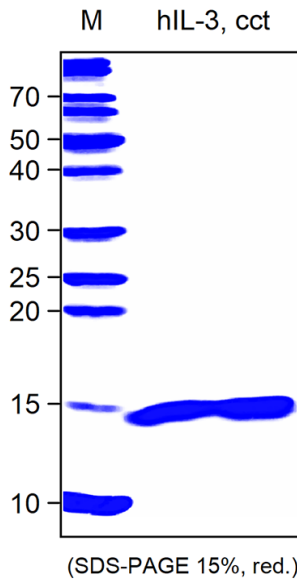
\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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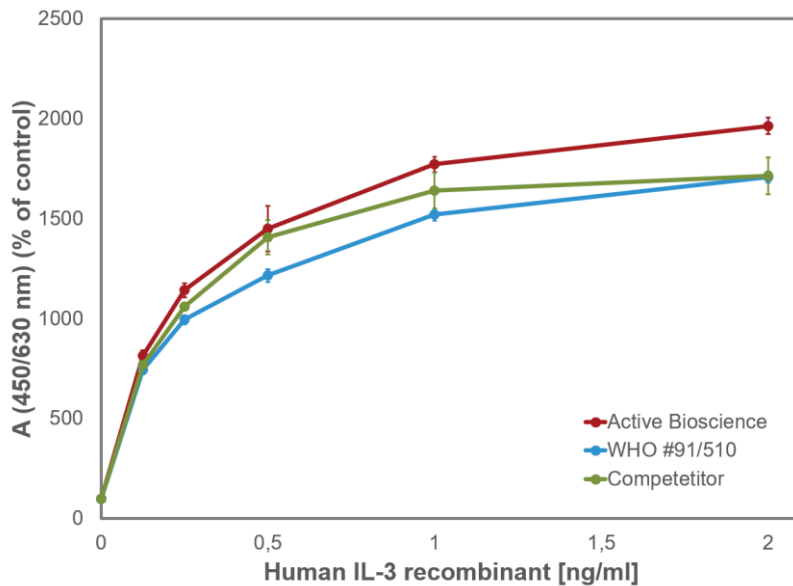
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**Purity and Biological Activity of recombinant human IL-3, cct-premium (*E. coli*)**



**Fig. 1:** SDS-PAGE analysis of recombinant human IL-3, cct-premium. Samples were loaded in 15% SDS-polyacrylamide gel under reducing conditions and visualized with Silver staining.



**Fig. 2:** Proliferation assay with TF1 cells. The cells were stimulated using recombinant human IL-3, cct-premium and the WHO standard 91/510.

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

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