

## Overview

<b>Synonyms</b>	MCGF (Mast cell growth factor), Multi-CSF, HCGF, P-cell stimulation factor
<b>Description</b>	<p><b>Interleukin-3 (IL-3)</b> is a pleiotropic cytokine belonging to the interleukin family. IL-3 shares similarities with Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) and IL-5: they all have a four-helix bundle structure, are located on the same chromosomes in both human and mouse, are produced by activated T cells, and share receptors. The IL-3/IL-5/GM-CSF receptor family members are all heterodimeric, composed of a receptor-specific <math>\alpha</math> chain and a common <math>\beta</math> chain. IL-3 is also called multi-colony stimulating factor since it stimulates the development and colony formation of multiple lineages of hematopoietic cells by activating intracellular pathways such as Ras-Raf-ERK and JAK/STAT. IL-3 inhibits apoptosis and promotes cell survival by targeting the anti-apoptotic bcl-2 gene family.</p> <p>Recombinant <b>human Interleukin-3 (rhIL-3)</b> produced in <i>E. coli</i> is a single non-glycosylated polypeptide chain containing of 134 amino acids. A fully biologically active molecule, rhIL-3 has a molecular mass of 15.2 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.</p>
<b>Accession No</b>	P08700
<b>Species</b>	Human
<b>Source</b>	<i>E. coli</i>
<b>Biological Activity</b>	ED <sub>50</sub> < 0.5 ng/mL, measured by a cell proliferation assay using TF-1 cells, corresponding to a specific activity of > 2 × 10 <sup>7</sup> units/mg.
<b>Sequence</b>	<p>MAPMTQTTPL KTSWVNCNM IDEIITHLKQ PPLPLLDFFN  LNGEDQDILM ENNLRRPNLE AFNRAVKSLO NASAIESILK  NLLPCLPLAT AAPTRHPIHI KDGDWNEFRR KLTFYLKTLE  NAQAQQTTLS LAIF</p>

## Properties

<b>Measured Molecular Weight</b>	15.2 kDa, observed by non-reducing SDS-PAGE.
<b>Purity</b>	> 95% as analyzed by SDS-PAGE and HPLC.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	Reconstituted in ddH <sub>2</sub> O at 100 µg/mL.
<b>Endotoxin Level</b>	< 0.2 EU/µg, determined by LAL method.
<b>Storage</b>	Lyophilized recombinant <b>human Interleukin-3 (rhIL-3)</b> remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhIL-3 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.
<b>Note</b>	For research use only

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