

Overview

Synonyms	MCGF (Mast cell growth factor), Multi-CSF, HCGF, P-cell stimulation factor
Description	<p>Interleukin-3 (IL-3) 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 α chain and a common β 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 rat Interleukin-3 beta (rrIL-3 beta) produced in <i>E. coli</i> is a single non-glycosylated polypeptide chain containing of 144 amino acids. A fully biologically active molecule, rrIL-3 beta has a molecular mass of 16.3 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.</p>
Accession No	P97688
Species	Rat
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 5 ng/mL, measured by a cell proliferation assay using NFS-60 cells, corresponding to a specific activity of > 2 × 10 ⁵ units/mg.
Sequence	<p>MISDRGSDAH HLLRRTLDCRT IALEILVKLP YPQVSGLNNS DDKANLRNST LRRVNLDEFL KSQEEFDSQD TTDIKSKLQK LKCCIPAAAS DSVLPGVYNK DLDDFKKKLR FYVIHLKDLQ PVSVSRPPQP TSSSDNFRPM TVEC</p>

Properties

Measured Molecular Weight	16.3 kDa, observed by non-reducing SDS-PAGE.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant rat Interleukin-3 beta (rrIL-3 beta) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rrIL-3 beta remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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