

IL-3 β , Rat

Cat. No.: Z03165-1

Size: 1.0 mg

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

Description:

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.

Recombinant rat Interleukin-3 beta (rrIL-3 beta) produced in *E. coli* 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 at GenScript.

Amino Acid Sequence:

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00001 MISDRGSDAH HLLRTLDCRT IALEILVKLP YPQVSGLNNS
00041 DDKANLRNST LRRVNLDEFL KSQEFDSDQ TTDIKSKLQK
00081 LKCCIPAAAS DSVLPGVYNK DLDDFKKKLR FYVIHLKDLQ
00121 PVSRSRPPQP TSSSDNFRPM TVEC
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Source: *E. coli*

Species: Rat

Biological Activity: ED₅₀ < 5 ng/mL, measured by a cell proliferation assay using NFS-60 cells, corresponding to a specific activity of > 2 × 10⁵ units/mg.

Molecular Weight: 16.3 kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 μ g/mL.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/ μ g, 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.