

## IL-3, Mouse

**Cat. No.:** Z03111-50

**Size:** 50.0 ug

**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  $\alpha$  chain and a common  $\beta$  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 mouse Interleukin-3 (rmIL-3) produced in *E. coli* is a single non-glycosylated polypeptide chain containing of 135 amino acids. A fully biologically active molecule, rmIL-3 has a molecular mass of 15.2 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Amino Acid Sequence:

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00001 MDTHRLRTRL NCSSIVKEII GKLPEPELKT DDEGPSLRNK
00041 SFRRVNLSKF VESQGEVDPE DRYVIKSNLQ KLNCCCLPTSA
00081 NDSALPGVFI RDLDLDFRKKL RFYMVHLNDL ETVLTSRPPQ
00121 PASGSVSPNR GTVEC
```

**Source:** *E. coli*

**Species:** Mouse

**Biological Activity:** ED<sub>50</sub> < 0.05 ng/mL, measured by a cell proliferation assay using M-NFS-60 cells, corresponding to a specific activity of > 2 × 10<sup>7</sup> units/mg.

**Molecular Weight:** 15.2 kDa, observed by non-reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O at 100 µg/mL.

**Purity:** > 95% by SDS-PAGE analysis.

**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant mouse Interleukin-3 (rmIL-3) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmIL-3 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.