

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant IL-3 β , Rat

Catalog Number: BK0105-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

16.3 kDa, observed by non-reducing SDS-PAGE.

Purity:

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

Biological Activity:

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

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MISDRGSDAHLLRRLD-
CRTIALEILVKLPYPQVSGLNNSDDKANLRNSTL
RRVNLDEFKLSQEEFDSQDITDIK-
SKLQKLKCCIPAAASDSVLPGVYN-
KDLDDFKKLRFYVIHLKDLQPVSRSRPPQPTSS
SDNFRPMTVEC

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μ g/mL.

Storage:

Lyophilized recombinant rat Interleukin-3 beta (rrIL-3 beta) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rrIL-3 beta remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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