

Recombinant Rat Interleukin-3 beta

#R00301

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Interleukin-3 (IL-3) is a type of biological signal (cytokine) which is encoded by the IL-3 gene located on chromosome 5 and produced primarily by activated T cells beside human thymic epithelial cells, activated murine mast cells, murine keratinocytes and neurons/astrocytes. It exerts its biological activities through binding to Interleukin-3 receptors included α and β subunits, but sequence analysis revealed a number of features indicative of the presence of only one β-subunit in the rat. Interleukin-3 acts in hematopoiesis by controlling the production, differentiation, and function of 2 related white cell populations of the blood, the granulocytes and the monocytes-macrophages. Furthermore, rat and human IL-3 share low homology and have not cross species activity.

AA Sequence

MISDRGSDAHLLRLTDCRTIALEILVKLPYPQVSGLN
NSDDKANLRNSTLRRVNLDEFLKSQEEFDSQDTTDIK
SKLQKLKCCIPAAASDSVLPGVYNKDLDDFKKKLRFY
VIHLKDLQPVSVSRPPQPTSSSDNFRPMTVEC

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Hematopoietic Growth Factor, MCGF, Multipotential Colony-stimulating Factor, P-cell-stimulating Factor.
Accession	P97688
GeneID	24495
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 16.3 kDa, a single non-glycosylated polypeptide chain containing 144 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine

	MC-9 cells is less than 10 ng/ml, corresponding to a specific activity of $> 1.0 \times 10^5$ IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/ μ g of rRtIL-3 β as determined by LAL method.